

Introduction

Enovos Luxembourg S.A. (“Enovos”) welcomes the opportunity to provide its comments to the ILR on the practical and procedural modalities regarding Market Communication (“MACO”) and its integration into the Leneda platform, as set out by the following documents under consultation:

- Leneda Market Rules (LMR) ([here](#)),
- Draft ILR regulation ([here](#)) setting MACO procedural rules,
- Governance schematic document ([here](#)) regarding changes to LMR and relating technical documents,
- Indicative timeline for transition between regulatory frameworks ([here](#)).

Section 1 of this Response comprises a general review on timing, structure, governance and procedural aspects, while Sections 2 and 3, respectively on the LMR and on the Swagger/technical documentation, regroup comments of a more technical nature, focussing on the operational implementation of the LMR.

As a preliminary remark, Enovos underlines the importance of a **collaborative** rule-making **approach** to achieve the objective of MACO integration into the Leneda platform and to ensure its effective implementation and operational feasibility for market participants. In that regard, Enovos thanks all the parties involved in the elaboration of this framework for constructive exchanges.

Enovos remains fully available to engage further on the comments submitted in the context of this consultation and to contribute constructively to the elaboration of the LMR framework.

1. GENERAL REVIEW – Timing, Structure, Governance & Procedure

Given the overarching goal of the MACO integration into the Leneda platform, which is, as set out by articles 27ter (2)b of the electricity law¹ and 33(1)g of the gas law², to “serve as a single data exchange platform ensuring [...] the centralised management of market communications [...], thereby enabling the **harmonisation of all processes relating to market management and the efficient and streamlined exchange of data among all entitled parties, in order to ensure the effective performance of contracts and compliance with legal obligations, and to enable market participants to respond to the evolving flexibility requirements of the market**” (emphasis added), Enovos considers that

¹ Loi modifiée du 1er août 2007 relative à l’organisation du marché de l’électricité

² Loi modifiée du 1er août 2007 relative à l’organisation du marché du gaz naturel

the following elements need to be taken into consideration in the consultation documents in order for the MACO integration to align with these objectives.

1.1 Business and technical specifications needed for implementation

While the LMR provide a comprehensive overview of the future market architecture and processes, **further specification of certain sections would support concrete development and operational implementation by market actors.**

In order to allow operational implementation of the LMR, **additional operational business rules** should be included to ensure consistent interpretation and implementation across all market participants and reduce the risk of divergent behaviours. This could take the form of an **operational market rulebook** covering areas that are currently lacking in the LMR, such as decision logic, process ownership, validations, responsibilities, exception handling, sequencing, etc. These are business rules that should be defined in a harmonized manner, rather than in different sets of technical documentation relating to specific APIs for example.

In addition, some concepts would benefit from a more precise definition in the LMR. For instance, the concept of **energy communities** is referred to as “other entities connected to the MP” under Sharing Group in section 2.2. However, the concept itself lacks a proper definition. Indeed, energy communities are a distinct category of market participants, defined and regulated by law³, with specific criteria. We would recommend that clear and consistent provisions on energy communities’ roles and responsibilities, and operational rules and processing timelines be added to the LMR.

The introduction of the LMR also states that “*a detailed list of the specific electricity and gas processes not yet included is maintained in dedicated documents within the Luxembourg Energy Forum*”, while the corpus of the LMR frequently refers to ancillary documentation to set “*technical details*” (e.g. Swagger/API documentation). However, **no list of upcoming technical and process documentation is currently available** on the Luxembourg Energy Forum. The availability of this documentation is essential to market actors’ organization and operational readiness for MACO integration.

Finally, **clear cross-referencing** between sections of the LMR and relating technical, business and process documents should be made to ensure clarity and structure of applicable rules for market actors. This would improve readability and implementation efficiency. At the moment, this is lacking in certain LMR sections, for example a clear mapping for every scenario step to the respective API documentation message is required (see section 3 of the Response).

³ Loi modifiée du 1er août 2007 relative à l’organisation du marché de l’électricité

1.2 Complete documentation needed at least 6 months in advance

Enovos wishes to underline the complexity of the transformations entailed by the MACO integration into Leneda, which has many dependencies with other strategic areas within its business organization, such as:

- its ERP (enterprise resource planning platform), an integrated software platform that manages and centralizes core business processes in a single database,
- its CRM (customer relationship management) software that helps manage customer interactions,
- other customer channels,
- regulatory mechanisms, such as new network tariffs.

Each step of the MACO integration process requires sufficient time for impact analysis, design, development, testing and deployment. This applies to each dependency area of the business organization.

Thus, the documentation (going beyond the conceptual outline provided in the LMR – see comment 1.1) needs to be made available to market actors well in advance: **market actors need complete and final technical, business and process documentation ideally at least 6 months in advance of a given MACO deployment milestone in order to be able to ensure timely operational implementation.**

1.3 Overall timing and roadmap - clarifications needed on migration strategy

The deadline for MACO integration into Leneda is set on January 1st, 2027 by the energy platform regulation⁴. This mandatory deadline is complemented by indicative milestones set out in the “Transition between regulatory frameworks” document under consultation.

Although the listing of business processes that gradually need to be implemented to reach full MACO integration is welcome, Enovos considers that this transition documentation requires additional clarifications in order to translate into operational reality.

Firstly, regarding the **timing aspect**, **it is important that this document clearly states its indicative nature**. It should be explicit that this high-level roadmap does not create obligations on market actors, the nature and scope of which would be unclear.

In addition, the **elaboration process of the LMR documentation should be considered in the overall planning**, as the final documentation needs to be approved and formally available for market actors to operate the migration.

⁴ Règlement grand-ducal du 24 octobre 2024 relatif à la plateforme informatique de données énergétiques

Then, while the phased implementation approach is welcome, the proposed sequencing of market processes should also be assessed from an operational perspective to ensure that it is both **consistent and practically manageable**. In particular, dependencies between processes should be considered to avoid situations where supporting functionalities are introduced after the business processes that rely on them.

As an example, the roadmap currently foresees **Master Data Change** in Phase 1, while **Message Cancellation** is only introduced in Phase 2. This could leave market participants without the ability to cancel incorrectly generated **Master Data Change** messages during the first implementation phase. Enovos therefore recommends introducing **Message Cancellation** before or together with **Master Data Change**, or clearly defining an alternative correction mechanism. In addition, the planned implementation phase of **Master Data Change** should be confirmed, as our previous understanding was that it would only be introduced in Phase 2.

Secondly, regarding the MACO migration from a **regulatory perspective**, additional clarity is needed to avoid overlaps and confusion. In particular, **the transition documentation should clarify the gradual phase-out of existing market rules in favour of the new LMR**. The LMR indicate that existing rules for electricity (MdMS) and gas (CDD) remain applicable until equivalent Leneda processes are introduced. This high-level principle does not provide enough detail for market actors to have a clear understanding of how to manage the transition from existing to new processes. A structured transition matrix would be highly beneficial, clearly identifying which legacy rules remain applicable and until when, and which are superseded by the LMR at what point in time. This is essential for both frameworks to coexist during the transition period, while reducing interpretation risks and facilitating regulatory compliance.

Finally, as the future MACO relies on all participants interacting through Leneda, migration can only succeed if all market actors are sufficiently prepared and implement the new MACO simultaneously. In other words, full implementation requires everybody to be onboard. To support this, a **formal “test phase”** could be implemented, with the assistance of Leneda, to ensure the readiness and robustness of all market actors before the migration goes live.

1.4 Business continuity in the event of Leneda platform dysfunction

To ensure **business continuity** in the event that the platform’s core functionalities become unavailable, including due to LuxTrust dysfunction, Leneda Operator should establish appropriate safeguards.

- First, a **communication and notification process** should be implemented to ensure that platform users are promptly informed of any major disruption.
- In addition, the **fallback mechanism** (ticketing system) established in the LMR, must be robust enough to still operate in case Leneda functionalities are down.

It is indeed important to ensure that market processes remain operational and that mandates can continue to be executed through alternative channels until normal service is restored.

1.5 Governance framework for future LMR evolution

As the LMR will progressively evolve to include additional market processes, the draft ILR regulation on procedural modalities for modifications to LMR and technical documents, as well as the Governance schematic view are welcome.

Enovos however notes that certain elements could benefit from adaptations:

- It is unclear whether the Comité de pilotage or the ILR has the last say on final documentation approval (articles 4 and 5 of the draft ILR regulation).
- If the Comité de pilotage does not approve a final version – i.e. if there is a dispute between its members, it is not clearly stated whether this triggers another round of modifications, consultations and approvals, or if an instance (the ILR or the Comité de pilotage, for example) can resolve the dispute by deciding what final version applies.
- In general, we would encourage the provision of a **sufficient and balanced consultation period** to allow market participants adequate time to thoroughly assess the proposed amendments and prepare constructive contributions. Enovos recommends to build-on the current procedural rules⁵ that provide a differentiated timing whether minor or major modifications are foreseen.

Overall, a clear governance framework covering document versioning, change management, consultation procedures, implementation timelines and notification periods is essential. This would provide greater predictability for market participants and facilitate long-term planning.

1.6 Legal consistency between the LMR and the overall legal framework

Where appropriate, the LMR should include references to the underlying legal provisions from which specific market rules are derived. This is particularly important where the applicable rules differ between the electricity and natural gas markets due to distinct legal frameworks.

For instance, the current MACO for gas (*CDD*) provides for a 21-day legal deadline for certain supplier switch scenario. However, the LMR proposal sets a generic D+1 to M+3 period for supplier switch within **Section 1.6 – Fundamentals of supply and feed-in**, under “**Sos and SoFi**”. It is essential to clarify whether the gas-specific deadline is still applicable under this framework.

⁵ Règlement ILR/E17/55 du 3 octobre 2017 portant fixation des modalités pratiques et procédurales relatives aux échanges électroniques et automatisés de données et de messages entre acteurs du marché

2. DETAILED REVIEW of the LMR documentation – LMR operational implementation

A PDF containing Enovos' comments on the LMR documentation is attached to this Response. As a detailed review of the LMR documentation, it is intended to be a support working document to serve as a basis for discussion and collaboration with Leneda.

Enovos would like to stress out one particular point as regards the **communication of metering data** (section 1.7 Provision Of Timeseries of the draft LMR). The obligation of DSO, Luxmetering and Leneda to ensure the timely provision of data to suppliers is specified in the *Règlement grand-ducal du 27 août 2014 relatif aux modalités du comptage de l'énergie électrique et du gaz naturel*. According to the regulatory framework, DSO are subject to an **obligation of result**, and not to a best effort obligation. The current MACO for electricity and gas already reflect this obligation of result.

Given the above, Enovos would ask to review section 1.7 Provision Of Timeseries of the draft LMR to:

- **Reflect the obligation of result for the timely provision of data**, embedded in the regulation and the current MACO;
- **Take into account that this obligation of result also includes the processing of data through the Leneda platform**: following the transition to Leneda, the set deadlines should refer to the time by which the data are available to the supplier in Leneda;
- **Specify that all data relevant for invoicing** (i.e. also calculated values from sharing groups or self-consumption) **are included** in the data communicated under this obligation.

Timely access to consumption data is essential for suppliers to ensure accurate billing, provide quality customer service, and meet their regulatory obligations.

3. TECHNICAL REVIEW – Leneda Market Communication API Documentation

Given that many technical specifications of the Market Communication are defined in the [API Documentation](#)⁶, Enovos raises the following comments on this technical documentation:

1. API versioning and change lifecycle

The OpenAPI file has a version, but it is not clear which version of the actual API endpoints it represents or how breaking changes will be introduced. Enovos asks for a clear definition on how API versions are published, how MAs can identify the version they are using, and how migration, parallel support and deprecation will be handled.

⁶ It refers to a version of the API Documentation shared to market actors, that is, to our knowledge, not yet formally available within the Luxembourg Energy Forum.

It should also be clearly specified which API version is deployed and applicable in each environment, in particular Production and Test.

2. Provide a clear mapping for every scenario step

The scenario tags only show that an endpoint is related to a Business Scenario. They do not show which process step it implements, who calls it, whether it is an MCS, Base Service or DSO action, or which response or queue message follows. Enovos recommends to add a simple mapping per scenario showing the actor, process step, endpoint and resulting notification. This is especially important where Supplier or Buyer led scenarios currently include DSO-only endpoints.

3. Start of Supply / Start of Feed-In cannot be called by Supplier or Buyer

Endpoint: POST /api/metering-points/{meteringPointCode}/supply/start
Comment: As currently mapped, this operation cannot implement the LMR SoMS and SoMFi processes initiated by Suppliers and Buyers because it is restricted to DSO INTEGRATION. Enovos asks to either provide Supplier and Buyer callable MCS operations or clearly identify this endpoint as a DSO-only service.

4. End of Supply / End of Feed-In cannot be initiated by Supplier or Buyer

Endpoint: POST /api/metering-points/{meteringPointCode}/supply/end
Comment: The LMR says that the Supplier reports the EoS and the Buyer reports the EoFi, but this endpoint is only available to DSO INTEGRATION. Please provide the Supplier and Buyer facing services or clarify how these processes should be initiated.

5. Supplier Locking request endpoint appears to be missing

Endpoint: POST /api/devices/lock-events
Comment: This appears to be the DSO endpoint for reporting execution status, not the Supplier facing service described in the LMR. Please provide or reference the MCS for requesting and cancelling Locking or Power Reduction and for requesting Unlocking or Power Restoration. The related queue messages and all possible request statuses should also be documented.

6. Align the Process Date representation

Reference:

- startDate in the supply-start requests
- endDate in the supply-end requests
- Supply queue messages

Comment: The LMR defines the Process Date as a timestamp, but the supply requests and messages use date-only fields. Please document the exact time zone and date-to-timestamp conversion for electricity and gas, including daylight-saving-time handling, or expose the Process Date as a date-time value.

7. Add structured validation and rejection responses

Reference: The LMR says the API documentation will contain validation logic and a comprehensive list of success and rejection responses. Comment: Most endpoints only document the successful response. Please add the expected technical and business error responses with stable rejection codes, structured parameters and the action expected from the MA. Free-text errors or undocumented 400 responses are not sufficient for automated Market Communication.

LMR 1.0 – Public Consultation Comments Register

Source: LMR_10_PublicConsultation_cleaned(2).docx | 198 individual comments consolidated into 87 comment groups

ID	Page	Section	Type	Paragraph	comment
1	5	1.1 Purpose and Scope	General comment	Purpose and Scope	The LMR frequently refers to underlying documents for operational details (e.g., obligations, SLAs, message content, codes and alternative flows), but these documents are not yet available. The complete supporting documentation should be published and clearly referenced before implementation.
2	5	1.1 Purpose and Scope	General comment	Please note that the current version of the LMR does not yet fully cover all Market Communication processes . A detailed list of the specific electricity and gas processes not yet included is maintained in dedicated documents within the Luxembourg Energy Forum. Until these processes are incorporated into a future version of the LMR, the existing rules set forth in the MdMS and the CDD remain strictly valid and applicable.	The LMR is incomplete not only because some concepts are still undefined, but also because certain concepts already clarified in the MaCo Forum—such as the rules determining Silver/Gold customer status—are missing. All agreed business rules should be centralized in the LMR or a formally referenced annex.
3	5	1.1 Purpose and Scope	General comment	Please note that the current version of the LMR does not yet fully cover all Market Communication processes. A detailed list of the specific electricity and gas processes not yet included is maintained in dedicated documents within the Luxembourg Energy Forum. Until these processes are incorporated into a future version of the LMR, the existing rules set forth in the MdMS and the CDD remain strictly valid and applicable.	In some cases, it might be useful to provide links to the Luxembourgish energy forum, so that it has references to more detailed content.
4	5	1.1 Purpose and Scope	Comment	Please note that the current version of the LMR does not yet fully cover all Market Communication processes. A detailed list of the specific electricity and gas processes not yet included is maintained in dedicated documents within the Luxembourg Energy Forum. Until these processes are incorporated into a future version of the LMR, the existing rules set forth in the MdMS and the CDD remain strictly valid and applicable.	The LMR should clearly identify which parts of the MdMS and CDD remain applicable, where the authoritative information is located, and when each legacy rule will be replaced. It should also provide traceability between each business process and the corresponding API or message specification, including a roadmap for missing documentation.
5	6	1.1 Purpose and Scope	General comment	To present these aspects comprehensively, the document is structured as follows: Following this Introduction, which covers the fundamental concepts, abbreviations, and glossary, the detailed Leneda Data Model is presented. Building on this foundation, a description of the various Business Scenarios follows, explaining the covered energy industry business processes. The document concludes with a chapter on the services and technical implementation. Instead of listing individual API specifications, this section outlines the fundamental principles of data exchange via Leneda and establishes the binding reference to the external technical API documentation (e.g., Swagger) for concrete service definitions and validation logic .	The current Swagger documentation provides schemas but does not contain the required validation and business logic. These rules should be fully documented in the LMR or a formally governed business annex and made available sufficiently before migration.
6	11	1.2 Abbreviations and Glossary > Relevant Terms in Context > Technical Core Objects and Metering Concepts	Comment	Pre-registered ComRel : A specific status for a ComRel that indicates it is provisional and can be automatically overwritten by a subsequent market process. This status applies exclusively to ComRels generated for Vacancy Supply or to EoS/EoFi notifications that have not yet been billed.	Please define the detailed rules for pre-registered ComRels, including who may create or overwrite them, the applicable validations and safeguards, and how existing relationships are protected from unintended replacement.
7	16	1.2 Abbreviations and Glossary > Relevant Terms in Context > Data Categories, Types and Data Responsibility	Comment	Historized Data: Data whose values or relationships can change over time. In Leneda, such data is not overwritten but is stored in the form of consecutive validity periods, known as time slices. Each time slice is defined by a Process Date that marks its start of validity, ensuring a complete and traceable Contractual Binding : A status or set of parameters stored on the SCR representing the Customer's contractual commitment (e.g., a fixed term or a rolling notice period). An active Contractual Binding defines a blocked period during which a Supplier Switch by a new Supplier will be rejected by Leneda and involved parties will need to clarify the situation.	Please specify the applicable data-retention and storage periods for historized data.
8	16	1.2 Abbreviations and Glossary > Relevant Terms in Context > Energy Processes and Sharing Groups	Comment		The LMR should define the exact rules for Contractual Binding, including the respective rights and limitations of the Customer, incumbent Supplier or Buyer, and new Supplier or Buyer. The Customer's ability to override a binding should be clearly limited and governed.
9	18	1.2 Abbreviations and Glossary > Relevant Terms in Context > Energy Processes and Sharing Groups	Comment	Sharing Group Responsible (SGR): A specific Market Role – synonymously referred to as Sharing Group Manager – responsible for creating, configuring, and managing SGs and their SG Configurations in Leneda. The SGR can delegate their tasks to an SG-Deputy .	The LMR should allow an SGR to appoint multiple SG Deputies and clearly define their permissions, responsibilities and delegation limits.
10	20	1.2 Abbreviations and Glossary > Relevant Terms in Context > Leneda Services and Time Concepts	Question	Correction Ticket: The central instrument in Leneda for managing and tracking Corrections. Any MA who identifies an error can create a Correction Ticket to formally initiate a Correction process, which requires the responsible Data Owners and original MCS initiators to take action.	How will Correction Tickets be coordinated when several Market Actors and Data Owners are involved? Please define the governance, decision-making, conflict-resolution and escalation rules for multi-party corrections.
11	21	1.3 Core Principles of Leneda > Data Management and Quality	Recommendation	Single Source of Truth (SSoT): The data managed in Leneda is considered the binding and sole source of truth for all MAs and for data synchronizations.	Customers should retain controlled flexibility to correct or supplement static master data imported from external sources such as RCS, Peppol or LuxTrust. The process should prevent gaps or inconsistencies, for example where a legal name changes before the corresponding official record is updated.
12	21	1.3 Core Principles of Leneda > Data Management and Quality	Question	Clear Data Responsibility: A Data Owner is assigned to every Data Object. This Data Owner is exclusively responsible for the correctness, timeliness, as well as the creation, modification, or deletion of this data.	Please clarify the ownership and update rules for shared data elements, such as a customer name, that may be used or proposed for update by several Market Actors. The responsible Data Owner and approval process should be explicit.
13	24	1.4 Temporal References and Deadlines > Request Date	Question	Designates the exact point in time (timestamp) at which a request, notification, or process is received or triggered system-side by Leneda. It primarily serves for logging, documenting the date of receipt, and is relevant for technical checks, such as adherence to reporting deadlines. For changes to Static Data , whose values are directly overwritten, the Request Date is used for logging the change: a Process Date is not required here.	Please provide a complete mapping of master-data fields to Static Data and Historized Data or at least identify the authoritative document in which this classification is maintained. This is required for solution design and impact assessment.
14	25	1.4 Temporal References and Deadlines > Notation of Deadlines	Comment	The notation used for deadlines in these market rules defines the permitted period for the Process Date in relation to the Request Date of a MaCo process. The start and end days of a deadline are always included in the	All deadline definitions should be verified against the applicable legal framework and should explicitly state whether they refer to calendar days or working days. Any inconsistency should be corrected in the LMR or the relevant legal text.
15	26	1.5 Market Actors and their Roles > Customer (as Consumer & Producer)	Comment	Vacancy Customer: As a Consumer, the Customer has the option to register as a Vacancy Customer for an MP to avoid potential Lockings in case of a Vacancy. For this scenario, they can also find and register a corresponding Preferred Supplier or Buyer.	The LMR should describe the complete business flow, with the underlying details including validation and control rules, so that we can properly implement this process (as we expect main impacts - e.g. on forecasting). According to us, it should not be on the customer to fulfill this value without any control (there should be limitations)
16	26	1.5 Market Actors and their Roles > Customer (as Consumer & Producer)	Question	Data Ownership: The Customer is the Data Owner of their own Business Partner object and the associated CCR, i.e., their own data such as their contact details. To ensure high data quality within the system, Leneda enables MAs with an active ComRel (e.g., the Supplier) to initiate proposals for updating this data. However, to strictly preserve the Customer's sovereignty as the Data Owner, such modifications are not applied directly but require a confirmation or approval act on by the Customer before becoming effective .	What happens when a Market Actor proposes a customer master-data update but the Customer does not confirm it? Please clarify whether the request expires, is rejected, remains pending or is escalated, and define the applicable deadline.
17	26	1.5 Market Actors and their Roles > Customer (as Consumer & Producer)	Question	Data Ownership: The Customer is the Data Owner of their own Business Partner object and the associated CCR, i.e., their own data such as their contact details. To ensure high data quality within the system, Leneda enables MAs with an active ComRel (e.g., the Supplier) to initiate proposals for updating this data. However, to strictly preserve the Customer's sovereignty as the Data Owner, such modifications are not applied directly but require a confirmation or approval action by the Customer before becoming effective.	Please identify which master-data changes require the creation of a new EID rather than an update to the existing Business Partner—for example, a change of VAT number, legal status or legal entity.
18	27	1.5 Market Actors and their Roles > Distribution System Operator	Question	Grid Usage Billing: The DSO is responsible for the grid usage billing for all MPs in their grid area, based on the data and rules managed in Leneda.	How will the calculation rules used by Leneda be communicated to Market Actors and kept continuously aligned with the applicable legislation? The LMR should identify the authoritative rule set, governance and change-control process.

ID	Page	Section	Type	Paragraph	comment
19	29	1.5 Market Actors and their Roles > Supplier & Buyer	Recommendation	Preferred Supplier or Buyer: A Customer and a Supplier (or Buyer) can conclude a framework agreement. To reflect this contractual relationship in Leneda, the respective party registers as the Preferred Supplier or Buyer. These framework agreements are registered at a granular level per sector (electricity or gas) and per energy direction (supply or feed-in). Consequently, a Customer can have a maximum of one active Preferred Supplier or Buyer per sector and per direction at any given time . This registered status serves two primary purposes: First, if an MP associated with this Customer enters a state of Vacancy, Leneda's automated Vacancy Management will recognize this status and automatically assign the supply or feed-in to the matching Preferred Supplier or Buyer. Second, the registered status acts as a standing authorization, allowing the Preferred Supplier or Buyer to initiate subsequent market processes, such as an SoS or SoFi, for the Customer's MPs without the need to request an additional, specific CM. This significantly simplifies administration, particularly for organizations managing a large portfolio of MPs. The registration is defined by specific validity periods using a start and end date. The Supplier or Buyer actively initiates this registration process, which strictly requires an initial CM to serve as explicit digital confirmation. The termination or expiration is handled according to the registered end date or can be updated directly without requiring an additional CM.	The preferred Supplier may be also limited to 1 per Grid in order to give the opportunity to end customer to decide on the preferred supplier according to the location of their PODs
20	29	1.5 Market Actors and their Roles > Sharing Group Responsible (Sharing Group Manager)	Comment	Sharing Group Responsible (Sharing Group Manager)	The LMR should explicitly describe the process and consequences when a Customer leaves a Sharing Group, including notification, effective date, data access and adjustment of the SG Configuration.
21	29	1.5 Market Actors and their Roles > Sharing Group Responsible (Sharing Group Manager)	Question	The Sharing Group Responsible (SGR) – also referred to synonymously as the Sharing Group Manager – is a Market Role that manages Sharing Groups. The SGR acts under a delegated mandate from the DSO to manage the composition and configuration of the Sharing Group. In the standard process, this self-service capability allows the SGR to independently administer the Sharing Group for all forward-looking processes (with a Process Date of at least D+1). This digital orchestration replaces manual paper-based processes, as the granting of a CM by the participating members serves as the formal digital signature of the Energy Sharing Convention, thereby relieving the DSO of manual administrative tasks. As an exception, any retroactive corrections to the configuration fall under the exclusive authority of the DSO to ensure billing integrity. These historical interventions strictly require a formal Correction Ticket to properly document the change and ensure transparency for all potentially affected MAs.	Isn't it too risky to open up the possibility to act, as a sharing group manager, retroactively (even if it's the DSO who has the last word). This should be detailed/specified business rules
22	30	1.5 Market Actors and their Roles > Sharing Group Responsible (Sharing Group Manager)	Recommendation	Joining an SG : To add an MP to an SG, the SGR requires a valid CM from the respective Customer. By granting this mandate, the Customer also approves the SGR's fundamental access to the protected data of the MP necessary for Sharing Group administration.	Please add a dedicated section describing the removal of an MP from a Sharing Group, or provide a clear cross-reference to the applicable process.
23	30	1.5 Market Actors and their Roles > Sharing Group Responsible (Sharing Group Manager)	Comment	Delegation to a SG Deputy: The SGR can delegate their operational tasks to a SG Deputy. For this, the SGR authorizes another Business Partner, who then assumes the role of the deputy for the specific SG. The SG Deputy has the same rights and obligations as the SGR - for example, they can edit SG Configurations or adjust the repartition key. The only exception is that the SG Deputy cannot, in turn, appoint another deputy. The SGR remains responsible overall and can revoke the delegation and remove the deputy at any time.	The model should permit an SGR to appoint multiple SG Deputies, with clearly defined rights, responsibilities and delegation restrictions.
24	31	1.5 Market Actors and their Roles > Other Market Actors	Comment	Other Market Actors	The roles and responsibilities of the TSO, BC & BRP are not sufficiently defined. Please describe their scope of activities and clarify whether a Supplier may delegate balance responsibility to a third-party.
25	36	1.6 Fundamentals of Supply and Feed-In > Common Concepts > Deadlines > EoS and EoFi	Question	An EoS/EoFi initiated by the Supplier can be reported with a Process Date in the period from the day after the Request Date to 3 months after the Request Date (D+1 ~ M+3).	Is our understanding correct that an EoS/Move-Out request must always be initiated before the effective Process Date? If yes, this seems to conflict with the current B2C process, where customers can notify their supplier up to two weeks after moving out. How is this expected to work?
26	36	1.6 Fundamentals of Supply and Feed-In > Common Concepts > Deadlines > EoS and EoFi	Question	An EoS/EoFi initiated by the Supplier can be reported with a Process Date in the period from the day after the Request Date to 3 months after the Request Date (D+ 1 ~ M+3).	Please clarify whether D+1 includes weekends and public holidays or refers only to working days. The rule should be aligned with customer needs and operational feasibility.
27	40	1.6 Fundamentals of Supply and Feed-In > Supply Variants > Vacancy Supply	Question	The Vacancy Supply is always initiated by Leneda as part of Consumer Vacancy Management. It applies when there is neither a regular SoS nor a Vacancy Customer registered for an active coMP (e.g., after an EoS or with a new installation without a direct SoS). To cover the vacant MP, Leneda then creates the necessary ComRels: the DSO is registered in the role of the Customer (via a CCR). By default, the responsible Basic Supplier is assigned the role of the Supplier (via an SCR), and the applicable Basic Supply tariffs apply to the DSO. However, just like any other Customer, the DSO has the option to designate a Preferred Supplier for their portfolio of vacant MPs based on a framework agreement. If such a status is registered in Leneda, the system will automatically assign the DSO's Preferred Supplier instead of the Basic Supplier to handle the	Please describe how the DSO's Preferred Supplier for Vacancy Supply is designated, validated, applied and communicated.
28	45	1.7 Provision of Timeseries	Comment	Provisional: This specific flag indicates that the provided values (based on estimations) are provisional. These values are used for immediate Grid Usage Billing to ensure timely processing but are subject to being overwritten by actual measurement data in the future, which will automatically trigger a re-billing process.	The LMR should define a fixed period during which provisional estimated data may be corrected or replaced and clarify when the data becomes final.
29	46	1.7 Provision of Timeseries	Comment	Obligation for Timeliness : The DSO, Luxmetering, and Leneda are obligated to ensure the timely provision of data. The primary objective is to make Timeseries and Meter Readings available to authorized MAs as early as possible depending on the data provisioning rate. To support efficient downstream market processes, the DSO must make its best effort to provide this measurement data before 8:00 AM for electricity and before 12:00 PM (noon) for gas on the day following the measurement (D+1). In cases where this target cannot be met due to technical reasons, the data must be provided immediately as soon as it	We'd like to point out that this obligation also applies in cases of complex calculations such as sharing groups. A provision can only be considered timely if it is complete, i.e. contains ALL relevant OBIS codes.
30	46	1.7 Provision of Timeseries	Recommendation	Obligation for Timeliness: The DSO, Luxmetering, and Leneda are obligated to ensure the timely provision of data. The primary objective is to make Timeseries and Meter Readings available to authorized MAs as early as possible depending on the data provisioning rate. To support efficient downstream market processes, the DSO must make its best effort to provide this measurement data before 8:00 AM for electricity and before 12:00 PM (noon) for gas on the day following the measurement (D+1). In cases where this target cannot be met due to technical reasons, the data must be provided immediately as soon as it becomes available.	The data-availability deadline should apply to the point in time when complete and validated data (including calculated values such as sharing groups or self-consumption) are effectively available to the Supplier through Leneda, rather than only to the DSO's submission to Leneda. This obligation should reflect an obligation of result, consistent with the current regulatory framework and existing MaCo, and therefore also cover the processing and publication of data through the Leneda platform. Otherwise, Suppliers face material forecasting, settlement and billing impacts. Any exception should be limited to documented technical incidents, monitored through appropriate KPIs and service levels.
31	46	1.7 Provision of Timeseries	Comment	Exception classical SLP Meters : While the Luxembourgish energy market benefits from a near-nationwide rollout of Smart Meters - enabling automated and highly frequent data provision for the vast majority of MPs - a very small number of classical, non-communicating meters remain. For these exceptional MPs (typically billed via SLP), the automated data provision SLAs described in this chapter cannot technically apply. Instead, traditional fallback mechanisms (such as manual or periodic meter readings and synthetic profile estimations) continue to apply as defined by the DSO.	Please clarify why Customers can apparently access load curves for MPs with non-activated smart meters while Suppliers cannot retrieve the same data and have not received a meter-activation notification. Access and activation rules should be consistent.
32	50	2 Leneda Data Model	General comment	Leneda Data Model	The LMR should establish clear, versioned traceability between business processes (business scenario, process step, etc.) and the API documentation. A version history and audit trail should be maintained.
33	52	2.2 Central Data Objects and their Links > Metering Point – Center of the Model	Comment	Unique Identification : Each MP is identified by a unique Metering Point Code, which makes it unmistakable.	We miss an equivalent to MdMS chapter 4.2.2. AUFBAU DER ZÄHLPUNKTBEZEICHNUNG

ID	Page	Section	Type	Paragraph	comment
34	52	2.2 Central Data Objects and their Links > Metering Point – Center of the Model	Comment	Metering Concept: A fundamental principle of the Luxembourg market model is that every physical meter must be linked to a CoMP to ensure that all energy withdrawal from the grid, including a unit's self-consumption, is accounted for. This principle is applied across all types of installations, from simple connections to more complex sites with multiple meters. The common One-Meter Model and Two-Meter Model for Prosumers are typical applications of this rule: even a meter dedicated solely to a production unit is linked to both a FIMP for measuring its feed-in and its own CoMP for measuring the unit's self-consumption. This consistent structure is essential to separately map and balance all energy flows, regardless of the installation's complexity.	The Two-Meter Model should explicitly reflect the ILR recommendation (ILR20004719) that the same Supplier or Buyer should cover both production and the installation's own consumption, including the low-volume self-consumption of the generation unit.
35	53	2.2 Central Data Objects and their Links > Business Partners – Actors in the Market	Question	However, the specific function of an MA in the market is not derived from the type of Business Partner (natural person or organisation), but from one or more explicitly assigned Market Roles. Every Business Partner, regardless of its role, is identified by a unique Energy ID. This EID is assigned by Leneda during the initial onboarding process of the respective MA and serves for its unique identification within the platform.	Does a Market Actor with several Market Roles receive one EID for the Business Partner or multiple EIDs? Please clarify the relationship between the EID, Market Roles and role-specific MaCo IDs.
36	53	2.2 Central Data Objects and their Links > Commercial Relationships – Connections	Question	Commercial Relationships – Connections to the MP	Please clarify whether Time slices for the ComRel = Contract time slices ?
37	54	2.2 Central Data Objects and their Links > Overview of Other Entities Connected to the MP	Comment	Besides MPs, Business Partners and ComRel, the data model diagram shows other important Data Objects that are directly or indirectly related to the MP and are relevant for specific processes and information. These include, MP Attribute : Technical, historized properties of the MP that describe its physical or grid-technical characteristics (e.g., the voltage level of the measurement or the Z-factor).	Please add an explicit reference to Figure 9 in this paragraph.
38	54	2.2 Central Data Objects and their Links > Overview of Other Entities Connected to the MP	Comment	MP Billing Attribute : Billing-relevant, historized properties of the MP used for grid usage billing (e.g., the reference power or the assigned grid usage tariffs).	Please define the distinction between MP Attributes, Protected Attributes and MP Billing Attributes, and provide a clear list or classification of which attributes are protected.
39	54	2.2 Central Data Objects and their Links > Overview of Other Entities Connected to the MP	Comment	Meter Readings: The cumulative index values received automatically from Luxmetering (for Smart Meters) or collected through conventional reading methods by the DSO or the Customer (for classical, non-communicating meters).	MP Billing Attributes are described in the text but are not represented in Figure 9. Please add them to the diagram or explain where they are modelled.
40	55	2.2 Central Data Objects and their Links > Overview of Other Entities Connected to the MP	Comment	Meter Readings : The cumulative index values received automatically from Luxmetering (for Smart Meters) or collected through conventional reading methods by the DSO or the Customer (for classical, non-communicating meters).	Meters and Meter Readings are described in the text but are not clearly represented in Figure 9. Please update the diagram or clarify their relationship to Devices, Registers and Timeseries.
41	55	2.2 Central Data Objects and their Links > Overview of Other Entities Connected to the MP	Recommendation	Meter Readings : The cumulative index values received automatically from Luxmetering (for Smart Meters) or collected through conventional reading methods by the DSO or the Customer (for classical, non-communicating meters).	Leneda should provide Suppliers with an API to retrieve Meter Readings or indices. This capability is described in the data model but is not currently available.
42	55	2.2 Central Data Objects and their Links > Overview of Other Entities Connected to the MP	Comment	Sharing Group & Configuration: Entities for mapping and managing SGs (e.g., for energy communities).	The Sharing Group and SG Configuration concepts are insufficiently explained. Please provide a clearer definition, data model, responsibilities and relationship to energy communities.
43	55	2.3 Data Organization Over Time	Comment	To adequately represent the different requirements for data management - from stable master data to frequently changing values or time-limited relationships - the Leneda Data Model fundamentally distinguishes between two types of data organization: Static Data and Historized Data. This distinction is fundamental to understanding how information is managed, versioned, and provided for market processes in Leneda.	The LMR should provide an authoritative field-level classification indicating whether every data element is Static or Historized.
44	57	2.4 Data Categories, Visibility and Access	Comment	All data organized around the MP in Leneda can be fundamentally divided into two main categories: Market Data and Customer Data. These categories significantly control the access to and visibility of information for the various MAs. As previously introduced, this distinction is also visualized in the data model diagram through the color coding of the objects (generally green for Market Data, orange for Customer Data).	Please add a legend to Figure 9
45	57	2.4 Data Categories, Visibility and Access > Market Data	Question	Information on the MP's address, the logical voltage level , or references to related MPs. The DSO is typically the Data Owner of these properties.	Please define 'logical voltage level' and explain its contractual impact
46	59	2.4 Data Categories, Visibility and Access > Customer Mandate as Control Instrument	Question	Customer-Controlled: The Customer grants and manages their CMs. They retain full control and have the right to evoke a CM at any time . Furthermore, they have transparency at all times about which CMs are active and for what purposes they were granted.	Can a Customer revoke a CM retroactively after the authorized process has already been completed? Please clarify the legal and operational effect on the completed SoS and the underlying customer contract.
47	59	2.4 Data Categories, Visibility and Access > Customer Mandate as Control Instrument	Question	Time-Limited: Every CM has a defined validity period .	What is the default validity period? Are there meant to issue CMs with differing validity periods? Please be more specific
48	59	2.4 Data Categories, Visibility and Access > Customer Mandate as Control Instrument	Comment	Purpose- and MA-specific: A CM is always issued for a concrete, predefined purpose (e.g., executing a Supplier Switch, viewing data for quote preparation) and for a single, specific MA.	Please provide a complete list of CM purpose types and their business attributes, including default validity periods and the processes or data access each purpose authorizes.
49	60	2.4 Data Categories, Visibility and Access > Customer Mandate as Control Instrument	Question	While this document outlines the fundamental business principles and use cases of the CM, the exact technical specifications regarding its implementation and usage - including the comprehensive list of available mandate purposes, the precise definitions of their validity periods, and the exact data structures required - are maintained in the official API documentation.	Mandate purposes, validity rules and business effects should not be maintained only in technical API documentation. Please confirm the appropriate authoritative source and centralize these business rules in the LMR or a formally referenced annex.
50	60	2.4 Data Categories, Visibility and Access > Customer Mandate as Control Instrument	Comment	While this document outlines the fundamental business principles and use cases of the CM, the exact technical specifications regarding its implementation and usage - including the comprehensive list of available mandate purposes, the precise definitions of their validity periods, and the exact data structures required - are maintained in the official API documentation.	Mandate purposes, validity periods and authorized processes are business rules and should be documented in the LMR or a clearly referenced controlled annex; the API documentation should contain only the corresponding technical payload.
51	61	2.5 Responsibilities and Information Flow > Data Owner	Comment	The Sharing Group Responsible is the Data Owner of their own Business Partner object. Regarding the Sharing Group and the associated SG Configuration, the SGR holds a restricted Data Ownership defined by a temporal scope. This authorizes the SGR to independently manage and update the configuration for all future periods (D+1). Conversely, the DSO retains the exclusive authority for all historical periods to safeguard the integrity of already The Sharing Group Responsible is the Data Owner of their own Business Partner object. Regarding the Sharing Group and the associated SG Configuration, the SGR holds a restricted Data Ownership defined by a temporal scope. This authorizes the SGR to independently manage and update the configuration for all future periods (D+1). Conversely, the DSO retains the exclusive authority for all historical periods to safeguard the integrity of already calculated or billed	The description of Data Ownership for Sharing Groups should also explicitly include the SG Deputy and clarify whether the deputy exercises delegated or independent rights.
52	61	2.5 Responsibilities and Information Flow > Data Owner	Question	Exceptions for data changes via MCS: In certain, clearly defined cases, individual data fields can also be changed by MAs who are not the primary Data Owner of the entire object. Such changes are typically made via specific MCS and are subject to strict market rules and checks by Leneda. An example of this is the process for a meter Locking due to payment arrears: The Supplier can request the Locking via a specific MCS, but it is the DSO, as the Data Owner, who ultimately executes the change on the status field of the A. If Business Scenario are based on the Leneda data model described in the previous chapter and use the interfaces and services referenced in the Services and Technical Implementation chapter for communication with	Please define the 'temporal scope' of the SGR's restricted Data Ownership and clarify how it relates to the planned Leneda self-service functionality
53	61	2.5 Responsibilities and Information Flow > Data Owner	Comment	Exceptions for data changes via MCS: In certain, clearly defined cases, individual data fields can also be changed by MAs who are not the primary Data Owner of the entire object. Such changes are typically made via specific MCS and are subject to strict market rules and checks by Leneda. An example of this is the process for a meter Locking due to payment arrears: The Supplier can request the Locking via a specific MCS, but it is the DSO, as the Data Owner, who ultimately executes the change on the status field of the A. If Business Scenario are based on the Leneda data model described in the previous chapter and use the interfaces and services referenced in the Services and Technical Implementation chapter for communication with	The LMR should list the master-data fields that may be changed through an MCS, or reference a formally governed and continuously maintained field-level catalogue.
54	63	3 Business Scenarios	Comment	Exceptions for data changes via MCS: In certain, clearly defined cases, individual data fields can also be changed by MAs who are not the primary Data Owner of the entire object. Such changes are typically made via specific MCS and are subject to strict market rules and checks by Leneda. An example of this is the process for a meter Locking due to payment arrears: The Supplier can request the Locking via a specific MCS, but it is the DSO, as the Data Owner, who ultimately executes the change on the status field of the A. If Business Scenario are based on the Leneda data model described in the previous chapter and use the interfaces and services referenced in the Services and Technical Implementation chapter for communication with	Each Business Scenario—and ideally each technical step—should be cross-referenced to the relevant API endpoint and queue notification or message so that Market Actors can identify the service implementing the process.
55	65	3.1 Fundamental Data Interactions with Leneda > Read Customer Data	Question	Contract Data : Details of supply contracts.	Please clarify which Supply Contract Data may be disclosed to other Market Actors, for which purposes and at what level of detail. The scope should be limited to what is legally and operationally necessary.
56	66	3.1 Fundamental Data Interactions with Leneda > Create and Modify Data	Comment	The services chapter provides a high-level business description of the key Base Services and MCS, focusing on their purpose and important business checks. The complete technical details for all services, including all parameters and specific validation checks, are defined in the corresponding API interface description in Swaeger. Master Data Synchronisation	The referenced Services chapter and validation logic are not sufficiently complete. The LMR should provide the missing business-level service descriptions and validation rules required for implementation.
57	66	3.1 Fundamental Data Interactions with Leneda > Master Data Synchronisation	Question	Master Data Synchronisation	Please describe the mechanism for identifying master-data deltas
58	75	3.2 Start and End of Supply > Vacancy Management for Consumer	Question	Vacancy Management for Consumer	What will you do with empty PODs that are (en travaux), so that they do not always fall into vacancy suobv/endless loco?
59	94	3.2 Start and End of Supply > Consumer switches Supplier	Comment	Consumer switches Supplier	For gas Supplier Switches, please align the deadline with the applicable 21-day legal requirement and explicitly clarify whether the period is measured in calendar or working days.
60	94	3.2 Start and End of Supply > Consumer switches Supplier > Scenario Introduction	Question	Scenario Introduction	How will Unpaid invoices be handled in a Supplier Switch? Please clarify whether outstanding debt may legally or technically block a switch and how this is represented in Leneda.
61	98	3.2 Start and End of Supply > Consumer switches Supplier > Scenario Components > Clarify Contract Binding	Question	If the new Supplier discovers while reading the Customer Data that an active Contract Binding from the incumbent Supplier is stored for the MP, this process step is triggered. The Customer or the new Supplier must then contact the incumbent Supplier to clarify the validity of this contractual obligation. If the incumbent Supplier confirms that the Contract Binding is valid, the switch cannot take place and must be postponed to a later date. If the Contract Binding is incorrect or no longer valid, the incumbent Supplier removes the entry in Leneda, allowing the new Supplier to continue the	Please clarify who may remove or override a Contractual Binding, under which conditions, what evidence is required and how the Customer and involved Suppliers are informed.

ID	Page	Section	Type	Paragraph	comment
62	108	3.3 Start and End of Feed-In > Producer Move-In at new MP > Scenario Components > Selection of a Buyer	Question	■ Selection of a Buyer After being successfully registered as the FIR, the Customer selects their desired Buyer for the respective MP in their Leneda portal. The available choices are based on the Feed-In Parameters previously defined by the DSO. In case there is only one applicable Buyer available or a Preferred Buyer has been chosen by the Customer this selection will simply ■ Fast Lane: If the Customer selects an Regulated Feed-In, Leneda immediately creates the necessary ComRelS. The selected Buyer is notified about the newly created SCR and subsequently retrieves the relevant Market Data and Customer Data to update their internal systems. Offer & Confirmation: When the Customer selects Market Feed-In, they may request offers from one or more Buyers. Each such request serves as an implicit CM, authorizing the respective Buyer to access Customer Data solely for the purpose of preparing an offer and contract. Once the Customer has chosen their final Buyer, that Buyer must then obtain a separate, explicit CM to ■ Power Reduction xOR Locking ■	please specify how you will communicate this info to the supplier ? Via a queue ?
63	108	3.3 Start and End of Feed-In > Producer Move-In at new MP > Scenario Components > Selection of a Buyer	Comment	■ For any switch involving a Regulated Feed-In contract (e.g., switching to, from, or within an Regulated Feed-In Variant), the process begins with an administrative phase managed by the DSO ■. The Customer must first formally request a modification of the underlying feed-in contract. The DSO validates this request and, upon authorization, prepares the contract amendment and updates the binding Feed-In Parameters. This phase concludes with the DSO requesting a new CM, prompting the Customer to digitally confirm the amended contract terms. Once confirmed, Leneda directly creates the ■ This Business Scenario represents the proactive path for the Customer. Instead of letting their contract expire, the Customer can initiate this process to seamlessly transition to a new Buyer or a different Feed-In Variant. The successful completion of th ■ is Business Scenario prevents the fIMP from entering a vacant state.	The Regulated Feed-In fast-lane flow requires a detailed end-to-end description, including triggers, validations, data exchange etc. for us to implement this.
64	116	3.3 Start and End of Feed-In > Vacancy Management for Producer > Scenario Components > Power Reduction xOR	Question		Please clarify how Power Reduction or Locking is applied in a One-Meter Model and whether the measure affects both the consumption and feed-in sides.
65	127	3.3 Start and End of Feed-In > Producer switches Buyer or Feed-In Variant > Scenario Process Flow	Comment	■ For any switch involving a Regulated Feed-In contract (e.g., switching to, from, or within an Regulated Feed-In Variant), the process begins with an administrative phase managed by the DSO ■. The Customer must first formally request a modification of the underlying feed-in contract. The DSO validates this request and, upon authorization, prepares the contract amendment and updates the binding Feed-In Parameters. This phase concludes with the DSO requesting a new CM, prompting the Customer to digitally confirm the amended contract terms. Once confirmed, Leneda directly creates the ■ This Business Scenario represents the proactive path for the Customer. Instead of letting their contract expire, the Customer can initiate this process to seamlessly transition to a new Buyer or a different Feed-In Variant. The successful completion of th ■ is Business Scenario prevents the fIMP from entering a vacant state.	To clarify; producers have the option of choosing different suppliers for new regulated Feed-In contracts. However, once a supplier has been selected, it cannot be changed during the regulated period (p.ex. 15 years).
66	135	3.3 Start and End of Feed-In > End of Feed-In > Scenario Components > Producer switches Buyer or Feed-In Variant	Comment	■ For any switch involving a Regulated Feed-In contract (e.g., switching to, from, or within an Regulated Feed-In Variant), the process begins with an administrative phase managed by the DSO ■. The Customer must first formally request a modification of the underlying feed-in contract. The DSO validates this request and, upon authorization, prepares the contract amendment and updates the binding Feed-In Parameters. This phase concludes with the DSO requesting a new CM, prompting the Customer to digitally confirm the amended contract terms. Once confirmed, Leneda directly creates the ■ This Business Scenario represents the proactive path for the Customer. Instead of letting their contract expire, the Customer can initiate this process to seamlessly transition to a new Buyer or a different Feed-In Variant. The successful completion of th ■ is Business Scenario prevents the fIMP from entering a vacant state.	it isn't possible to switch suppliers under the regulated Feed-In Variant.
67	137	3.4 Data Corrections and Process Reversals > Fundamental Principles > Correction of Historized Data	Question	Structural changes to Time Slices: The structure of the time slice chain is protected to guarantee a seamless history. Therefore, a structural change - such as modifying the start or end date of a past time slice for specific historized data (e.g., the installed meter), or deleting it entirely - is only possible if all more recent time slices for that particular historized data are removed first. ■ The Correction must proceed chronologically from the newest entry back to the point of change, before the correct history of this data can be rebuilt. ■ ■ Changes to attributes within a Time Slice: An important distinction is made for changes to data fields within an existing time slice. As long as its validity period and core relationship remain unchanged, designated attributes can be adjusted directly in a past time slice without affecting ■ Exceptions via guided MCS: For specific, recurring use cases, Leneda may offer a dedicated MCS that provides a guided process for complex structural changes. Such an MCS would manage the necessary removal and recreation of time slices automatically, simplifying the Correction for the MA. ■	When a correction requires several Market Actors to reverse and rebuild historical time slices, who is responsible for coordinating the sequence and ensuring completion?
68	137	3.4 Data Corrections and Process Reversals > Fundamental Principles > Correction of Historized Data	Comment	■ Changes to attributes within a Time Slice: An important distinction is made for changes to data fields within an existing time slice. As long as its validity period and core relationship remain unchanged, designated attributes can be adjusted directly in a past time slice without affecting ■ Exceptions via guided MCS: For specific, recurring use cases, Leneda may offer a dedicated MCS that provides a guided process for complex structural changes. Such an MCS would manage the necessary removal and recreation of time slices automatically, simplifying the Correction for the MA. ■	Please add a concrete example illustrating a permissible attribute change within an existing historical time slice that does not require structural changes to newer time slices.
69	137	3.4 Data Corrections and Process Reversals > Fundamental Principles > Correction of Historized Data	Question	■ Exceptions via guided MCS: For specific, recurring use cases, Leneda may offer a dedicated MCS that provides a guided process for complex structural changes. Such an MCS would manage the necessary removal and recreation of time slices automatically, simplifying the Correction for the MA. ■ Leneda acts as the Single Source of Truth for the physical and contractual reality of the energy market. Therefore, corrections to Historized Data or past processes are generally possible and technically supported up to the statutory limitation periods (■ typically up to 10 years in the past ■).	Do retroactive corrections require a Customer Mandate? Please specify the scenarios in which a CM is required, waived or cannot be obtained.
70	137	3.4 Data Corrections and Process Reversals > Fundamental Principles > Temporal Scope of Corrections	Comment	Leneda acts as the Single Source of Truth for the physical and contractual reality of the energy market. Therefore, corrections to Historized Data or past processes are generally possible and technically supported up to the statutory limitation periods (■ typically up to 10 years in the past ■).	The permitted retrospective period for corrections must be stated precisely. Please replace 'typically up to 10 years' with definitive limits or cite the applicable legal provisions for each case.
71	137	3.4 Data Corrections and Process Reversals > Fundamental Principles > Temporal Scope of Corrections	Question	It is strictly necessary to distinguish between the correction of data in Leneda and the subsequent commercial energy settlement processes. While specific balancing or settlement processes may have shorter operational deadlines (e.g., 15 months) after which they are considered closed, this does not restrict the obligation to correct the underlying data in Leneda to reflect the true historical state. The commercial or financial resolution of corrections that exceed such sector-specific settlement deadlines is ■ subject to the applicable legal framework or bilateral clarification between the involved parties and is managed outside of Leneda's automated processes. ■ ■ It requires a recalculation of grid usage fees because it affects billing-relevant data in a period that has already been billed ■. As Leneda acts as the calculation engine for grid usage fees, the system automatically detects if a data change invalidates an existing invoice, in which case a Correction Ticket is required to proceed. Upon execution of the Correction, Leneda triggers a recalculation of the fees. The DSO is then notified and must align their back-end systems by cancelling the original invoice and finalising the newly generated It requires a recalculation of grid usage fees because it affects billing-relevant data in a period that has already been billed. As Leneda acts as the calculation engine for grid usage fees, the system automatically detects if a data change invalidates an existing invoice, in which case a ■ Correction Ticket is required to proceed ■. Upon execution of the Correction, Leneda triggers a recalculation of the fees. The DSO is then notified and must align their back-end systems by cancelling the original invoice and finalising the newly generated	Please clarify whether a party may block a Leneda correction on legal or contractual grounds, and define the governance for unresolved disputes. The LMR should also establish processing deadlines, escalation mechanisms and KPIs to ensure that Market Actors process open Correction Tickets.
72	138	3.4 Data Corrections and Process Reversals > Standard Procedure via Ticket > The Correction Ticket	Question	■ It requires a recalculation of grid usage fees because it affects billing-relevant data in a period that has already been billed ■. As Leneda acts as the calculation engine for grid usage fees, the system automatically detects if a data change invalidates an existing invoice, in which case a Correction Ticket is required to proceed. Upon execution of the Correction, Leneda triggers a recalculation of the fees. The DSO is then notified and must align their back-end systems by cancelling the original invoice and finalising the newly generated It requires a recalculation of grid usage fees because it affects billing-relevant data in a period that has already been billed. As Leneda acts as the calculation engine for grid usage fees, the system automatically detects if a data change invalidates an existing invoice, in which case a ■ Correction Ticket is required to proceed ■. Upon execution of the Correction, Leneda triggers a recalculation of the fees. The DSO is then notified and must align their back-end systems by cancelling the original invoice and finalising the newly generated	How are MAs supposed to know if a certain period has already been billed? Since grid fee billing will in a first phase remain in classical MaCo, how is this information synched to LENEDA and spread to MAs?
73	138	3.4 Data Corrections and Process Reversals > Standard Procedure via Ticket > The Correction Ticket	Question	It requires a recalculation of grid usage fees because it affects billing-relevant data in a period that has already been billed. As Leneda acts as the calculation engine for grid usage fees, the system automatically detects if a data change invalidates an existing invoice, in which case a ■ Correction Ticket is required to proceed ■. Upon execution of the Correction, Leneda triggers a recalculation of the fees. The DSO is then notified and must align their back-end systems by cancelling the original invoice and finalising the newly generated	Will this correction ticket be issued automatically or does the data change requesting MA need to actively create this ticket?
74	139	3.4 Data Corrections and Process Reversals > Standard Procedure via Ticket > The Correction Ticket	Comment	Categorization for Market Analysis: To facilitate structured error analysis and identify systemic issues in the market, Leneda provides distinct ■ Correction Ticket ■ categories. When creating a ticket, the initiating MA is required to select the category that best describes the underlying error. This categorization aids process steering by helping involved parties quickly understand the context and required actions, and simultaneously supports market quality monitoring by allowing for reporting on the frequency of specific error types, enabling MA's such as DSOs or the ILR to identify areas where market processes or data quality need improvement. ■ ■ Categorization for Market Analysis: To facilitate structured error analysis and identify systemic issues in the market, Leneda provides distinct Correction Ticket categories. When creating a ticket, the initiating MA is required to select the category that best describes the underlying error. This categorization aids process steering by helping involved parties quickly understand the context and required actions, and simultaneously supports market quality monitoring by allowing for reporting on the frequency of specific error types, enabling MA's such as DSOs or the ILR to identify areas where market processes or data quality need improvement. ■	Please identify the document and location containing the official Correction Ticket categories and ensure the catalogue is versioned and maintained.
75	139	3.4 Data Corrections and Process Reversals > Standard Procedure via Ticket > The Correction Ticket	Question	■ Categorization for Market Analysis: To facilitate structured error analysis and identify systemic issues in the market, Leneda provides distinct Correction Ticket categories. When creating a ticket, the initiating MA is required to select the category that best describes the underlying error. This categorization aids process steering by helping involved parties quickly understand the context and required actions, and simultaneously supports market quality monitoring by allowing for reporting on the frequency of specific error types, enabling MA's such as DSOs or the ILR to identify areas where market processes or data quality need improvement. ■	How is agreement obtained when a correction involves several parties? Please define whether parties may reject the proposed correction, when a validated action becomes mandatory and how disputes are resolved.
76	139	3.4 Data Corrections and Process Reversals > Standard Procedure via Ticket > Lifecycle of a Ticket	Question	Create: To ensure the process is as streamlined and efficient as possible, an MA can easily initiate a Correction Ticket (e.g., via API or a GUI) by providing only the essential information needed to identify the issue. Conceptually, this includes the scope (such as the affected MPs and the correction period) and a clear reason (e.g., by selecting a standardized error category). While this document outlines these business requirements, the exact mandatory data fields and technical structures required to successfully trigger a Correction Ticket are specified in the official API documentation. Upon creation, Leneda returns a unique Correction Ticket ID. As long as the Correction Ticket is open, all affected MPs ■ are flagged in Leneda ■ to signal the ongoing Correction to all Data Use & Track: After a Correction Ticket is created, the primary Data Owner responsible for the erroneous data typically takes on the role of coordinator. ■ The coordinator ■ shares the Correction Ticket ID with any other involved Data Owners and original MCS initiators. These MAs then use this ID in their respective service calls to execute the necessary corrective actions, which are now enabled Use & Track: After a Correction Ticket is created, the primary Data Owner responsible for the erroneous data typically takes on the role of coordinator. The coordinator shares the Correction Ticket ID with any other involved Data Owners and ■ original MCS initiators ■. These MAs then use this ID in their respective service calls to execute the necessary corrective actions, which are now enabled by the Correction Ticket.	What is the effect of this flagging? Can other MCS, i.e. BDR not be answered or will they be answered but the answer will not be trustworthy since currently undergoing changes? If so, the flagging must be part of the answer.
77	139	3.4 Data Corrections and Process Reversals > Standard Procedure via Ticket > Lifecycle of a Ticket	Comment	Use & Track: After a Correction Ticket is created, the primary Data Owner responsible for the erroneous data typically takes on the role of coordinator. ■ The coordinator ■ shares the Correction Ticket ID with any other involved Data Owners and original MCS initiators. These MAs then use this ID in their respective service calls to execute the necessary corrective actions, which are now enabled by the Correction Ticket.	For multi-party corrections, could you consider assigning Leneda or a Leneda Agent as the neutral ticket coordinator and executor of the platform changes once the parties have agreed on the correction.
78	139	3.4 Data Corrections and Process Reversals > Standard Procedure via Ticket > Lifecycle of a Ticket	Question	Use & Track: After a Correction Ticket is created, the primary Data Owner responsible for the erroneous data typically takes on the role of coordinator. The coordinator shares the Correction Ticket ID with any other involved Data Owners and ■ original MCS initiators ■. These MAs then use this ID in their respective service calls to execute the necessary corrective actions, which are now enabled by the Correction Ticket.	How is a correction completed when the original MCS initiator is no longer active or has withdrawn from the market? Please define the substitute responsible actor and escalation path.
79	141	3.4 Data Corrections and Process Reversals > Corrections without a Ticket > Conditions for a MCS-Reversal without a Ticket	Comment	The relevant data state of the MP has not been altered in the meantime by another, subsequent and interdependent process (e.g., a Locking or a device change). Subsequent processes that are completely independent and ■ do not affect the structural integrity of the initial process ■, such as simple updates to Customer contact data, explicitly do not block a reversal.	This also depends heavily on the design of each market participant's solution and on the point at which additional data elements may be affected. Further details will therefore be essential as the process definition is developed.

ID	Page	Section	Type	Paragraph	comment
80	142	3.4 Data Corrections and Process Reversals > Corrections without a Ticket > Conditions for Data Updates without a Ticket	Question	The data update does not affect any previously invoiced periods, ensuring that no recalculation of grid usage billing is required. Leneda automatically performs a rebilling relevance check on every data-modifying request and will reject it if this condition is violated without a valid Correction Ticket.	Is there a way to verify whether such processes already exist, or do market participants need to test them first and submit a ticket if an issue occurs?
81	148	4.3 Reference to Technical Documentation	Comment	Reference to Technical Documentation	Section 4.3 should define a clear, versioned mapping between LMR processes and the official API specification, including endpoints, methods, permitted Market Roles and the fields read or submitted for each operation.
82	148	4.3 Reference to Technical Documentation	Comment	While these Leneda Market Rules define the binding business logic, deadlines, and process flows, the detailed technical specifications are maintained in the official API Documentation (e.g., Swagger).	The binding technical reference should be an officially published, immutable and versioned OpenAPI artefact, rather than a mutable Swagger UI.
83	148	4.3 Reference to Technical Documentation	Comment	Data Structures: Detailed descriptions of input and output parameters, mandatory and optional fields, and data formats.	Some of these elements, such as mandatory fields, code lists and business meanings, can directly affect whether a market process is accepted or rejected. They should therefore also be described in the LMR or in a formally maintained annex, rather than only in the API documentation.
84	148	4.3 Reference to Technical Documentation	Comment	Validation Logic: Technical descriptions of field-level validations that complement the high-level business rules.	The validation logic referenced in this section is not yet included. It must be completed and published before implementation.
85	148	4.3 Reference to Technical Documentation	Comment	Validation Logic: Technical descriptions of field-level validations that complement the high-level business rules. Response Codes: A comprehensive list of success and error messages (including rejection reasons) returned by the API to indicate the outcome of a request.	The API documentation should include a complete, stable catalogue of business validations and rejection reasons, with error codes, triggering conditions and the corrective action expected from the Market Actor, rather than relying on free-text messages.
86	148	4.3 Reference to Technical Documentation	Comment	MAs are required to consult the latest version of the technical API documentation to ensure their systems are compliant with the current Leneda interface specifications.	Market Actors should not be required to implement an uncontrolled 'latest version'. Please define versioning, change notifications, effective dates, testing and implementation periods, and the support period for previous API versions.
87	148	4.3 Reference to Technical Documentation	Comment	Purely technical updates and the detailed specification of the system implementation - such as specific endpoint behavior, validation logic, internal data processing rules, and Leneda's system responses - are handled exclusively within the technical documentation . Provided these technical details do not alter the underlying market rules or business processes described in this document, they may be updated or refined to reflect operational optimizations without requiring a revision of the Leneda Market Rules.	Even technical changes that do not trigger a formal LMR public consultation must be communicated sufficiently in advance and remain open to market review. Market-wide implementation and testing lead times should be defined according to the scope and impact of each change.