	MODULE NAME
	PROCESS NAME: MDM RELATED PROCESSES
PROCEDURE NO.	PROCESS OWNER: I.C.S. PREMIER ENERGY DISTRIBUTION S.A.

I. INTRODUCTION

INITIATE	In the context of an electricity distribution company planning to implement a Meter Data Management (MDM) system, the intent of describing business processes is versatile and strategic. This intent centralizes the need to create a comprehensive and detailed framework that enables technological integration, operational optimization, and improved customer relationships. The process description aims to document and standardize all key activities and interactions, ensuring that the MDM system implementation and interoperability with other existing systems are carried out efficiently. This contributes to the transition from manual or partially automated practices to complete digital solutions, designed to increase data accuracy and reduce costs associated with electricity management and distribution.
SCOPE	**1. Clarification and Standardization of Processes** By explicitly describing each step, the company aims to eliminate ambiguities and create a uniform standard to be followed by all employees. This is essential to avoid errors and to ensure that all actions are in accordance with applicable regulations and internal policies. Standardizing processes also facilitates the training of new employees, accelerating their integration into the company. **2. Facilitating Technological Integration** Documenting processes helps identify areas where the MDM system needs to connect with other systems, such as ERP systems for resource management, CRM for customer relationship management, Billing for service invoice management. This allows for the development of custom interfaces and automation of data transfer between systems, reducing the risk of human error and the time required to process data. **3. Improving Efficiency** **Detail** : By automating the collection and analysis of consumption data, the company can optimize resource utilization, reduce operational costs, and improve response time to customer requests. Streamlined

processes contribute to reducing unnecessary energy consumption and promoting sustainable consumption behavior among consumers.

4. **Compliance and Regulation**

   Clear and detailed description of processes ensures compliance with legal and regulatory norms. This is crucial in a highly regulated industry such as electricity distribution, where non-compliance can attract severe penalties and damage the company's reputation.

5. **Improving Consumer Services**

   Implementing MDM allows the company to provide customers with up-to-date and detailed information about their energy consumption, thus improving transparency and customer satisfaction. The description of business processes helps ensure efficient data collection and customer service tailored to specific needs.

6. **Data-Driven Decision Support**

   The MDM system, supported by well-defined and integrated processes, provides management with reliable and real-time data, essential for strategic planning and operational decisions. Detailed analyses help to anticipate market trends, optimize resource allocation and formulate proactive strategies for energy efficiency and sustainable development.

Therefore, the description of business processes not only substantiates the technical implementation of an MDM system, but also establishes the basis for a more strategic operation, aligned with the company's long-term objectives in the energy industry.

ROLES	
	1. Applicant / Household/non-household consumer / Customer
	2. Legal Department
	3. Technical Staff
	4. DSO's ERP (currently CMS) platform
	5. MDM system (DSO)
	6. Billing System (ES)
	7. Electricity Supplier
	8. NRCP

ABBREVIATIONS	MDM	Metering Data Management
	ERP	Enterprise Resource Planning
	CRM	Customer Relationship Management
	CMS	Customer Management System (currently has ERP functionalities)
	NRCP	National Registry of Consumption Places
	ES	Electricity Supplier
	DSO	Distribution System Operator
	TSO	Transport System Operator
	SPR	State Polpulation Register
	CPN	Consumption Place Number
	CN	Connection Notice
	RL	Rejection Letter
	DA	Delimitation Act
	HV/MV/LV	High Voltage/Medium Voltage/Low Voltage

II. PROCESSES

PROCESS	FINISHING THE PROCESS ELEMENTS
BP_1 **NEW client enrollment in MDM**	**Initiation of the process:** The process of enrolling a new customer in the MDM system is triggered after the installation of the electricity meter at the applicant's location is completed and all relevant data is recorded in the Distribution System Operator's ERP system (DSO ERP - CMS). This activity includes completing and updating information related to the meter, such as serial number, technical specifications and location, and other relevant data that are necessary to create an accurate and complete customer profile in the MDM. The process trigger is essential to enable continuous monitoring and management of the new customer's electricity consumption, ensuring data integration into centralized systems and facilitating correct and transparent billing. **Process Steps/Activities:** **1. Registration and Coordination of the meter installation procedure** **Actor : ERP DSO (CMS)** **Description :** After confirming the payment for the connection, the next stage of registration and coordination of the meter installation procedure is carried out. In the ERP System (CMS), the request is transferred to the Meter Installation status. The standard Work Order is generated: - For household customers: "Connection and verification of technical parameters"; - For legal customers: "Connection of consumers to LV" or "Connection of consumers to HV".

Note: For household consumers (only in the case of electricity supply) electricity meters will be installed by the DSO, at its expense.

The time required to travel to connect the customer is coordinated with the Local Operations Technician or, in his absence, with the Chief Distribution Network Engineer. The customer is informed about the connection day.

2. Informing the Applicant regarding the connection day
Actor : ERP DSO (CMS)
Description : After determining the time required to travel and connect the customer, the DSO ERP (CMS) generates an official notification to inform the applicant about the day, time and conditions of the connection. The notification can be sent through several means of communication, such as email, SMS, phone call or through the customer platform (Personal Cabinet). This stage ensures that the customer is aware of the details of the meter installation procedure, avoiding possible misunderstandings and preparing the ground for an efficient and fast connection. At the same time, the customer is given the opportunity to confirm availability or request a rescheduling, depending on the case.

3. Receipt of notification regarding the connection day
Actor : Applicant
Description : The applicant receives the notification issued by the DSO ERP (CMS) regarding the day, time and conditions of connection. It is the applicant's responsibility to verify the information received and to confirm or request changes, if necessary. Confirmation can be made by the means specified in the notification (email, phone call, customer platform, etc.). In case of any ambiguities, the applicant can contact the operator for additional details. This stage is essential for the synchronization between the network operator and the customer, ensuring that the installation and connection process is carried out according to the established schedule.

4. Generate WO Meter Installation
Actor : ERP DSO (CMS)
Description : In the ERP DSO (CMS) system, a work order (WO) is generated for the installation of the electricity meter. This WO includes details such as the location where the meter is to be installed, the type of meter to be installed, the scheduled date and time for installation, and other information necessary for the intervention team. Generating WO in ERP DSO (CMS) is an essential step to ensure that the meter installation process is carried out efficiently and according to plan.

5. Fulfillment of WO Meter installation, sealing
Actor : Technical Personnel/Authorized Electrician
Description : The installation of the DSO meter is done only for the household consumer.

The authorized technical team travels to the specified location to install the electricity consumption meter. The installation includes the physical installation of the meter, its connection to the electrical network and the making of all necessary adjustments to ensure correct and safe operation. After installation, the meter is sealed to prevent any unauthorized interventions. For non-household customers, the meter installation is done by the authorized electrician, contracted by the Customer. Only sealing services are requested from DSO against payment.

6. Completion of WO
Actor : Technical Staff
Description : During the installation of the meter at the applicant's location, the technical staff completes the Work Order on their tablet with essential details about the meter, including its number, specific technical data and other information relevant to the management system. This allows for an accurate and detailed record of the installation, essential for the following verification and validation steps.

7. Work Order Resolution - Resolved status in CMS
Actor : DSO ERP (CMS)
Description : After the technical staff completes the meter installation and verification, all related data is recorded in the DSO ERP (CMS). This data includes the meter serial number, technical specifications, installation location and operating parameters, as well as the results of the verifications performed. Once all information is completed, the Work Order (WO) is updated to the "Resolved" status, marking the completion of the installation process. The ERP system automatically notifies stakeholders and updates the database to accurately reflect the registered meter status and details.

8. Export Meter Data and Indices
Actor : ERP DSO (CMS)
Description : In this stage, the ERP of the Distribution System Operator (CMS) performs the export of the meter data and indices recorded for the applicants. This data, which includes consumption indices, technical parameters and meter identification information, is exported in parallel both to the MDM (Meter Data Management) system of the DSO, for centralized management of meter data and continuous monitoring of consumption, and to the ERP system of the electricity supplier. It is important to note that the data is recorded in the MDM both for smart meters, which allow remote reading and automatic transmission of data, and for classic meters. Even though classic meters cannot be read remotely, the information related to them is kept in the MDM to ensure data consistency, correct consumption monitoring and efficient management of the relationship with consumers. The export ensures data consistency between the different platforms, allows correct and accurate billing and supports the monitoring and management processes of electricity consumption. This automatic data

synchronization ensures that information is up-to-date and available for further analysis and effective consumer relationship management.

9. Consumer Profile Formation in MDM
Actor : MDM
Description : The MDM system receives the data exported by the DSO ERP and uses this information to create the consumer profile in the metering system. The profile includes details such as the type of meter (smart or classic), initial indications, installation location and consumer identification data. The MDM system ensures the recording and management of data related to both smart meters, which automatically transmit information in real time, and classic meters, whose data is entered manually or collected periodically. The configuration of the customer profile is done according to the established Regulations, guaranteeing complete and correct records for all consumers. This profile is essential for monitoring and storing in real time (for smart meters) or at regular intervals (for classic meters) energy consumption data, ensuring correct billing and efficient meter management. Enrolling the customer in MDM marks an important step in establishing the database for tracking and managing electricity consumption.

10. Data update Electricity Supplier
Actor : ES Electricity Supplier
Description : Updated consumer data and meter readings are received from the ERP DSO (CMS) into the electricity supplier's ERP system. This transmission ensures the synchronization of consumption information , technical meter data and the complete consumer profile. Thus, the supplier can update its own records, guaranteeing the accuracy of consumption data for billing, monitoring and other administrative operations. This stage completes the integration of data into the supplier's systems, contributing to a uniform and coherent record between the distribution operator and the supplier.

Actors and Responsibilities:

1. ERP DSO (CMS)

- Responsible for managing the entire flow of processing meter installation requests.
- Records and coordinates the installation procedure, generates work orders (WO) and notifies the customer of the connection date and time.
- Exports meter data and indices to the electricity supplier's MDM system and ERP system.

2. Technical Staff/Authorized Electrician

- Mounts and/or seals the metering meter at the specified location.

- Complete the Work Order (WO) with essential meter data and record details during installation.

3. Applicant

- He is responsible for receiving notification of the day and time of connection.
- In the case of non-household consumers, it is responsible for hiring a licensed electrician to install the meter and paying for sealing services to the DSO.

4. MDM (Meter Data Management)

- Receives and processes meter data exported from DSO ERP to create a detailed consumer profile.
- Ensures continuous management and monitoring of electricity consumption.

5. ERP Electricity Supplier (ES)

- Updates its own consumer records based on data received from the DSO ERP.
- It uses meter data for billing processes and administrative management of customer relationships.

Process Objectives:

Objectives of the New Customer Enrollment Process in MDM (Meter Data Management)

1. **Ensuring Correct Integration of the Applicant into the Metering Data Management (MDM) System**
   The main objective of the process is to enroll the new customer into the distributor's MDM system, ensuring that all data related to the installed meter, such as the type, number and initial indications of the equipment, are correctly recorded. This way, the MDM will have a complete picture of the consumption profile for each customer.

2. **Data Flow Optimization between ERP DSO and MDM**
   The process aims to facilitate data transfer between ERP DSO and MDM, ensuring that critical information, such as meter technical data and other essential characteristics, is automatically and error-free transmitted between systems. This is essential to prevent problems in billing and monitoring energy consumption.

3. **Create a Complete and Up-to-Date Applicant Profile**
   By accurately recording all information, a detailed consumer profile is created in MDM, including identification information, location, meter details, and initial indications. This profile enables accurate billing and

efficient monitoring of energy consumption, contributing to an improved customer experience.

4. **Reduce the Need for Physical Documents**
   The process allows for the automatic integration of relevant data directly into ERP and MDM systems, thereby reducing the need for physical documents and optimizing the efficiency of the enrollment process. This automated method minimizes the time and errors associated with manual processing.

5. **Ensuring Compliance with Applicable Regulations**
   By verifying and validating data in accordance with regulations, the process complies with legal requirements and operating standards of the energy sector, thus protecting both the distributor and the consumer.

BP_2 **Remote Disconnection of Smart Meters from MDM**	**Initiation of the process:** The remote disconnection process of smart meters is initiated when the Distribution System Operator (DSO) ERP receives a request to disconnect a consumption point, regardless of the reason or initiator of the request. The disconnection request can come from various sources, such as non-payment of invoices, requests from the consumer, termination of the supply contract, technical malfunctions or other regulated reasons. Before the request is registered in the DSO ERP, all stages of notification and approval of the customer are ensured, according to legal regulations, giving the customer the opportunity to remedy any situation or contest the disconnection. If after these stages the meter is confirmed as smart, the DSO ERP automatically sends a disconnection request to the MDM system to perform the operation remotely. **Process Steps/Activities:** 1. **Generation of disconnection WO (Smart meters)** **Actor : ERP DSO (CMS)** **Description :** When the ERP DSO (CMS) generates a disconnection WO (Work Order), regardless of the initiator or reason, it is checked whether the meter is a smart meter. If this is the case, the ERP DSO automatically generates a disconnection request to the MDM system. Prior to generating the disconnection WO in the ERP DSO, the process includes **all stages of notifying the consumer about the disconnection** , to ensure transparency and compliance with regulations. 2. **Sending Disconnect Request to MDM** **Actor : ERP DSO**

Description : ERP DSO sends the disconnect request to MDM, ensuring that all the necessary requirements for disconnection are included in the message sent. This step is automated, and MDM receives the details related to the meter identification and the reasons for disconnection. This efficient integration allows MDM to process the request quickly, reducing waiting times.

3. Remote Disconnection
Actor : MDM
Description : The MDM system, upon receiving the disconnection request, performs the remote disconnection process of the smart meter. This process is performed without physical intervention, reducing costs and ensuring a safe and fast disconnection. The MDM confirms the disconnection by recording the necessary changes in the meter profile and prepares the system for the next steps.

4. Changing the Meter Status - Disconnected in Profile and Reading the Indicators
Actor : MDM
Description : After the disconnection is completed, MDM updates the meter status to "Disconnected" in the user profile. At the same time, MDM performs a reading of the meter consumption indicators at the time of disconnection to have a clear record of the consumption up to that moment. This information is essential for correct billing and monitoring of the meter activity.

5. Export of the data of the meter
Actor : MDM
Description : After the disconnection is complete and the meter status is updated in the user profile, the MDM system transmits all data and consumption indicators collected at the time of disconnection to the ERP DSO (CMS). This data transfer ensures that the information in the ERP is updated correctly and accurately, so that operators and management systems accurately reflect the consumption situation and meter status. The data transmitted includes the meter identification information, the updated status, the reasons for disconnection and the final consumption indications. This export process facilitates data synchronization between the MDM and ERP, allowing for a coherent and complete record of meter activities within the operator's management system.

6. Data update in ERP DSO (CMS)
Actor : ERP DSO (CMS)
Description : After receiving the data and consumption indices transmitted by the MDM, the ERP DSO system (CMS) automatically updates the meter records. This update includes changing the meter status to "Disconnected", recording the final consumption indices and any other relevant data associated with the disconnection process. The update allows for a correct and complete record of the meter status in the operator's database, ensuring the alignment of all information regarding consumption, status and history of the meter. After this update, the ERP DSO automatically transmits the data to the electricity supplier's ERP (ERP ES) to ensure the synchronization of information regarding meter status, consumption and other

relevant data required for billing and customer relationship management processes.

7. Update data in ERP ES
Actor : ERP ES
Description : The electricity supplier's ERP (ERP ES) receives the data transmitted from the ERP DSO, which includes updated information on the meter status, final consumption indicators and other relevant details associated with the disconnection. The system records this data, updating the customer profile and ensuring that all information related to consumption, billing and meter status is correctly reflected in its database. This update is crucial for maintaining accurate records of energy consumption, preparing final invoices (respectively, within the ES, data synchronization with the Billing system will take place), and managing the relationship with the consumer, allowing for complete transparency and effective control over subsequent processes of reconnection, settlement or termination of the contractual relationship.

Actors and Responsibilities:

1. ERP DSO (CMS)

- **Responsibilities:**

    - Generating the Work Order (WO) for disconnection, ensuring verification of the meter type (smart or classic).
    - Sending disconnection request to MDM for smart meters.
    - Updating meter data following receipt of data from MDM, including changing status and recording final consumption indices.
    - Transmission of updated data to the electricity supplier's ERP (ERP ES) for synchronization.

2. MDM (Meter Data Management)

- **Responsibilities:**

    - Receiving and processing the disconnection request from ERP DSO for smart meters.
    - Performing remote disconnection for smart meters, without physical intervention, ensuring the speed and safety of the operation.
    - Changing the meter status to "Disconnected" and taking a reading of the consumption indices at the time of disconnection.
    - Transmission of data and consumption indices to the DSO ERP for updating and synchronization.

3. ERP ES (Electricity Supplier ERP)

- **Responsibilities:**

  - Receiving data transmitted by the DSO ERP, including updated meter status, final consumption indices and other relevant information.
  - Updating the customer profile to correctly reflect consumption, meter status, and all data associated with disconnection.
  - Preparing and synchronizing data for billing processes, customer relationship management, and other subsequent administrative operations.

Objectives of the disconnection process:

The objectives of the remote disconnection process of smart meters through the MDM system are as follows:

1. **Achieving fast and accurate disconnection:** The process ensures fast and efficient disconnection of smart meters remotely, without physical intervention, through the MDM platform, thus reducing the costs and time associated with a classic disconnection.
2. **Ensuring the accuracy and transparency of consumption data:** By reading the final indices at the time of disconnection and recording them in the consumer profile, the process guarantees that all consumption data is accurate and transparent, allowing for correct billing.
3. **Automatic update of consumer status:** The involved MDM, ERP and Billing ES systems allow real-time update of the meter status and consumer profile, providing an updated record for MDM DSO and Billing ES.
4. **Facilitating final billing:** The process contributes to issuing the final bill for the consumer, based on accurate energy consumption data up to the time of disconnection.
5. **Optimization of operational resources:** Implementing remote disconnection reduces the need for physical travel and technical resources, increasing the operational efficiency of the operator and supplier, allowing resources to be focused on other critical distribution and consumer support activities.

These objectives contribute to the efficiency, transparency, and fairness of disconnection operations, improving the overall customer experience and resource management.

BP_3 **Remote Reconnection of Smart Meters from MDM**	**Initiation of the process:** The remote reconnection process for smart meters is initiated when a reconnection request is registered in the Distribution System Operator (DSO) ERP system. This request can either come from the end customer or can be generated automatically as a result of resolving a cause that led to the disconnection, such as paying debts. Before the request is registered in the ERP DSO (CMS), it is ensured that all stages of notification and approval of the customer are completed, according to legal regulations. At the time of registration of the request in the ERP DSO, the system checks the type of meter to determine whether it is a smart meter (which allows remote reconnection) or a classic meter (which requires field intervention). If the request refers to a smart meter, the ERP DSO sends this request to the MDM system, which manages the remote reconnection operation. **Process Steps/Activities:** **1. Generation of disconnection WO (Smart meters)** **Actor : ERP DSO (CMS)** **Description :** When a reconnection request is registered in the ERP DSO (CMS) system, the type of meter associated with it is identified. If the request is for a smart meter, the reconnection will be performed remotely through the MDM system. In the case of classic meters, the reconnection will be performed on site, by the technical staff of the system operator. All previous steps, such as notifying the customer about the reconnection, are already completed by this stage. **2. Sending the Reconnection Request to MDM** **Actor : ERP DSO** **Description :** ERP DSO sends the reconnection request to MDM, ensuring that all the necessary requirements for disconnection are included in the message sent. This step is automated, and MDM receives the details related to the meter identification and the reasons for the reconnection. This efficient integration allows MDM to process the request quickly, reducing waiting times. **3. Remote Reconnection** **Actor : MDM** **Description :** The MDM system, upon receiving the request, performs the remote reconnection of the smart meter. The reconnection is managed automatically, without physical intervention, and allows the customer to resume electricity consumption. The MDM monitors the process to confirm successful reconnection and ensures data integrity. **4. Changing the Meter Status - Disconection in Profile and Reading the Data** **Actor : MDM** **Description :** Once the reconnection is complete, the MDM system updates the meter status in the customer profile to "connected" and performs a start-up reading. These initial values are essential to resume correct billing of energy consumption, ensuring that all consumption data is accurate and correct from the moment of reconnection.

5. Export of the data of the meter
Actor : MDM
Description : After the reconnection is complete and the meter status is updated in the user profile, the MDM system transmits all data and consumption indicators collected at the time of reconnection to the ERP DSO (CMS). This data transfer ensures that the information in the ERP is updated correctly and accurately, so that operators and management systems accurately reflect the consumption situation and meter status. The data transmitted includes the meter identification information, the updated status, the reasons for the reconnection, and the initial consumption indications. This export process facilitates data synchronization between the MDM and ERP, allowing for a coherent and complete record of meter activities within the operator's management system.

6. Data update in ERP DSO (CMS)
Actor : ERP DSO (CMS)
Description : After receiving the data and consumption indices transmitted by the MDM, the ERP DSO (CMS) system automatically updates the meter records. This update includes changing the meter status to "connected", recording the initial consumption indices and any other relevant data associated with the reconnection process. The update allows for a correct and complete record of the meter status in the operator's database, ensuring the alignment of all information regarding the meter's consumption, status and history. After this update, the ERP DSO (CMS) automatically transmits the data to the electricity supplier's ERP (ERP ES) to ensure the synchronization of information regarding the meter status, consumption and other relevant data required for the billing and customer relationship management processes.

7. Update data in ERP ES
Actor : ERP ES
Description : The electricity supplier's ERP (ERP ES) receives the data transmitted from the DSO ERP (CMS), which includes updated information on the meter status, initial consumption indices and other relevant details associated with the disconnection. The system records this data, updating the customer profile and ensuring that all information related to consumption, billing and meter status is correctly reflected in its database. This update is crucial for maintaining accurate records of energy consumption, preparing invoices (i.e. within the ES the data will be synchronized with the Billing system), and managing the relationship with the consumer, allowing for complete transparency and effective control over the subsequent processes of reconnection, settlement or termination of the contractual relationship.

Actors and Responsibilities:

1. ERP DSO (CMS)

- **Responsibilities:**

  - Generating the Work Order (WO) for reconnection, ensuring verification of the meter type (smart or classic).
  - Sending the reconnection request to MDM for smart meters.
  - Updating meter data following receipt of data from MDM, including changing status and recording consumption indices.
  - Transmission of updated data to the electricity supplier's ERP (ERP ES) for synchronization.

2. MDM (Meter Data Management)

- **Responsibilities:**

  - Receiving and processing the reconnection request from ERP DSO for smart meters.
  - Performing remote reconnection for smart meters, without physical intervention, ensuring the speed and safety of the operation.
  - Changing the meter status to "connected" and performing a reading of the consumption indices upon reconnecting.
  - Transmission of data and consumption indices to the DSO ERP for updating and synchronization.

3. ERP ES (Electricity Supplier ERP)

- **Responsibilities:**

  - Receiving data transmitted by ERP DSO, including updated meter status, consumption indices and other relevant information.
  - Updating the customer profile to correctly reflect consumption, meter status, and all data associated with reconnection.
  - Preparing and synchronizing data for billing processes, customer relationship management, and other subsequent administrative operations.

Objectives of the reconnection process:

The objectives of the remote disconnection process of smart meters through the MDM system are as follows:

1. **Prompt restoration of services**

Ensuring rapid reconnection of customers who have paid their debts or renewed their contracts, thus minimizing interruptions in the supply of electricity, through an automated process carried out remotely.

2. Automating the reconnection process

Eliminating manual intervention by fully automating the process, thus ensuring increased operational efficiency and reducing human errors.

3. Improving customer satisfaction

Providing a positive customer experience through fast and accurate processes, reducing wait times for reconnection and ensuring rapid restoration of services.

4. Maintaining data accuracy and transparency

Automatic and real-time update of meter status in relevant systems (MDM, ADMS, Billing), ensuring consistency and accuracy of information in all departments involved.

5. Optimization of technical network management

Ensuring correct synchronization between data management and operational systems to maintain the integrity of the distribution network and facilitate efficient management of the energy infrastructure.

6. Reducing operational costs

Automate processes to reduce costs associated with manual interventions, thus optimizing resource utilization and operational efficiency.

7. Effective monitoring and reporting

Facilitate accurate monitoring and reporting of reconnections, allowing for detailed performance analysis and identification of improvement opportunities.

8. Improving system resilience and flexibility

Developing a robust and flexible system capable of efficiently managing reconnections in various scenarios, including in the event of resolving technical failures and breakdowns.

9. Compliance with regulations and policies

Implementing the process in accordance with legal regulations and internal policies, ensuring compliance with safety and operating standards.

BP_4 **Meter replacement**	<u>Initiation of the process:</u> The meter change process in the MDM system is initiated when the system operator decides that a meter needs to be replaced at the point of consumption. Reasons may include: equipment wear, detected faults in the consumption measurement, the need for more accurate measurement or technological update. Generating the Work Order (WO) in the DSO ERP marks the beginning of the process and allows the necessary tasks to be assigned to the technical team. This prepares the equipment for the dismantling of the old meter and the installation of the new one, with the measurement data subsequently being transmitted and recorded in the MDM system and in the supplier's billing system . **Process Steps/Activities:** **1. Generate WO for meter change** **Actor : ERP DSO (CMS)** **Description :** The process begins with the generation of a Work Order (WO) in ERP DSO (CMS) for meter change. This order can be generated for various reasons, such as the need to update old equipment, detecting faults or to improve measurement accuracy, etc. The operator's technical staff receives the WO, is informed about the specific details of the consumption point and prepares the necessary equipment for replacement. **2. Dismantling the old meter, installing the new meter, unsealing and sealing** **Actor : Technical Staff of DSO/ Authorized Electrician** **Description :** In this stage, the technical team travels to the consumption site to dismantle the old meter and install the new meter. The dismantling process involves unsealing, disconnecting the old meter from the network, recording the final reading and removing it. Then, the new meter is installed, which is connected to the network and tested to ensure correct operation. After installation, the meter is sealed to prevent unauthorized manipulation and to ensure the integrity of the measurements. *Note: For household consumers (only in the case of electricity supply) electric meters will be installed by the DSO, at its expense. For non-households, it only offers sealing/unsealing services against payment, and the installation/dismantling services are performed by the authorized electrician contracted by the Customer.* **3. Filling in the Work Order with the relevant data** **Actor : Technical Staff** **Description :** After the installation and sealing of the new meter, the technical team fills in the Work Order (WO) with all the relevant details. This includes the data of the old meter (such as the serial number and final reading) and the data of the new meter (serial number, initial reading and other technical information). The

correct filling in of the WO is essential to ensure a transparent and correct transition between the old and new meters and to document all the activities performed.

4. WO Resolution – resolved
Actor : ERP DSO (CMS)
Description : Once the WO is completed, it is marked as "resolved" in ERP DSO (CMS). This status indicates that all activities required for the meter change have been successfully completed and that the consumption point is now equipped with a new, functional meter. The "resolved" status serves as an official confirmation that the order has been properly fulfilled.

5. Register old meter (status dismantled - archive), new (status mounted - registered OPEN scheme)
Actor : ERP DSO (CMS)
Description : The old meter is registered with the status "dismantled" in the system and moved to the archive for records. This involves keeping a history of the old meter for future reference, if necessary. At the same time, the new meter is registered with the status "mounted" and added to the OPEN scheme, indicating that it is active and in operation. This registration is important for maintaining an accurate and up-to-date database of the equipment used.

6. Export of meter data and meter indices
Actor : ERP DSO (CMS)
Description : Relevant meter data, including serial number, initial/final reading and other technical information, is exported to the supplier's Meter Data Management (MDM) system and ERP. Exporting this data ensures that all the information needed to monitor and manage energy consumption is available in the MDM and relevant supplier systems. This step is essential to enable accurate analysis and ensure correct billing of the consumer.

7. Update Consumer Profile
Actor : MDM
Description : MDM receives the data transmitted from the ERP and updates the consumer profile with the information related to the dismantled/installed meter and their indices. The update includes all the relevant technical details, allowing efficient and centralized management of the meter in the metering network.

8. Update data in ERP ES
Actor : ERP ES
Description : The data is updated in the electricity supplier's ERP (ERP ES) to reflect the changes related to the meter, including the updated status, technical characteristics and final consumption indices. Subsequently, this data is synchronized with the supplier's Billing system, ensuring correct and accurate billing of electricity consumption based on the new meter parameters. This update guarantees correct and integrated records in all

relevant systems, contributing to the efficient management of the contractual relationship with the customer and the correctness of the billing processes.

Actors and Responsibilities

1. **ERP DSO (CMS)**

   - **Responsibilities:**

     - Generation and management of Work Order (WO) for meter replacement.
     - Transmitting data to the MDM system for update.
     - Ensuring communication and synchronization of information with the electricity supplier's ERP.
     - Coordination of the registration, updating and archiving stages of the old and new meter for accurate records of equipment and their status.

2. **DSO Technical Staff/Authorized Electrician**

   - **Responsibilities:**

     - Dismantling the old meter and installing the new meter, including unsealing/sealing them.
     - Correct recording of old and new meter reading data.
     - Detailed completion of the Work Order to ensure documentation of all operations performed.
     - Testing and ensuring the correct operation of the newly installed meter.

3. **MDM (Meter Data Management System)**

   - **Responsibilities:**

     - Receiving and processing data transmitted by ERP DSO regarding the new and old meter.
     - Updating the consumer profile with data related to the meter change.
     - Centralized management and monitoring of electricity consumption for installed meters.

4. **ERP ES (Electricity Supplier ERP)**

   - **Responsibilities:**

     - Reception and updating of data regarding the new and old meter, transmitted by ERP DSO.
     - Synchronization of this data with the Billing system for correct and accurate consumption billing.

	• Ensuring a clear record of the customer profile, including technical changes and meter status. **Objectives of the Meter Replacement Process** **Ensuring accurate consumption measurements:** By replacing old or faulty meters, the process aims to improve the accuracy of measuring energy consumed, thus ensuring correct billing for the consumer. **Increased operational efficiency:** Automating data exchange between ERP DSO, MDM and ERP ES optimizes the flow of information, eliminates manual errors and reduces the time needed to record changes in all systems involved. **Strengthening the consumer profile** : Updating information in MDM and integrating it into the consumer's billing profile ensures that all relevant data (new meter, initial and final indices) are accessible in one place and allow for efficient management of the consumer relationship. **Regulatory Compliance** : The process aims to comply with regulations regarding the sealing and highlighting of meter readings, providing complete and audited documentation of all changes made at the point of consumption. **Increased transparency and consumer confidence** : By fully documenting the replacement process and providing up-to-date guidance, the consumer benefits from greater clarity regarding billing and metering of energy consumption.
BP_5 **CT or VT replacement**	**Initiation the process:** The process is initiated when an WO is received for other activities (CT/VT replacement), for technical reasons, checks, failures, etc. **Process Steps/Activities:** **1. Generate WO for changing CT/VT** **Actor : ERP DSO (CMS)** **Description :** The process begins with the generation of a Work Order (WO) in ERP DSO (CMS) for changing the Current Transformer (CT) or Voltage Transformer (VT). This order can be issued either at the request of a non-household customer, who bears the costs related to the CT/VT change, and requests unsealing and sealing services from the DSO against payment. The CT/VT change is carried out and covered from the DSO account if these relate to household consumers. **Connection Regulation :** **224.** The relocation, replacement, at the initiative of the non-household consumer, of

the measuring transformers (which supply the measuring equipment), including the installation of measuring transformers with a different transformation coefficient, shall be carried out at the expense of the non-household consumer, with the consent of the system operator based on the consumer's request submitted to the supplier. The supplier shall send the respective request to the system operator no later than 1 working day from its registration.

2. Dismantling old CT/VT, installing new CT/VT, unsealing and sealing
Actor : Technical Staff of DSO or Authorized Electrician of the Customer
Description : The technical team of DSO or the authorized electrician of the non-household customer carries out the dismantling of the old CT/VT and the installation of the new equipment. The process involves unsealing the old equipment, disconnecting it from the network, installing the new CT/VT and testing to ensure correct operation. After installation, the meter or transformer is sealed to prevent unauthorized manipulation.

3. Filling in the Work Order with the relevant data
Actor : Technical Staff
Description : After the installation and sealing of the new CT/VT, the technical staff fills in the Work Order (WO) with all the necessary details. The data includes the technical specifications of the dismantled and assembled equipment, serial numbers and other relevant information. Filling in the WO ensures an accurate documentation of the equipment change, contributing to a transparent and correct management.

4. WO Resolution – resolved
Actor : ERP DSO (CMS)
Description : The WO is marked as "resolved" in ERP DSO (CMS) once the CT/VT change is completed and all relevant information is recorded. This confirms that the procedure was performed correctly and that the consumption site has a new, functional equipment.

5. Registration of old CT/VT (status dismantled - archive), new (status assembled - registered in the OPEN scheme)
Actor : ERP DSO (CMS)
Description : The old CT/VT is registered in the system with the status "dismantled" and moved to the archive for further records. The new CT/VT is registered with the status "assembled" and added to the OPEN scheme, marking it as active. This registration allows maintaining an accurate database of equipment in operation.

6. Export CT/VT related data to MDM and ERP ES
Actor : ERP DSO (CMS)
Description : Technical data and specifications of CT/VT s are exported to the MDM system and ERP of the electricity supplier. The equipment related information is necessary for the proper management of data and their monitoring in the MDM and supplier systems.

7. Update Consumer Profile
Actor : MDM
Description : The MDM system updates the consumer profile with details regarding the dismantled and installed CT/TT, including technical specifications. This update ensures efficient management of metering equipment and contributes to a clear record of the consumer network.

8. Update data in ERP ES
Actor : ERP ES
Description : The supplier's ERP receives the updated data regarding the CT/VT change, synchronizing it with the Billing system to ensure correct and accurate billing. This process ensures the correct integration of data related to newly installed equipment, contributing to the efficient management of the contractual relationship with the customer and the correctness of the billing processes.

Actors and Responsibilities

1. ERP DSO (CMS)

- **Responsibilities:**

  - Generating Work Orders (WO) for changing the Current Transformer (CT) or Voltage Transformer (VT) depending on operational requirements or at the request of non-household customers.
  - Ensuring that the WO contains all the necessary details and is forwarded to technical staff for execution.
  - Recording and updating the WO status in the system once the work is completed, moving old equipment to the archive and adding new equipment to the OPEN operating scheme.
  - Export of CT/VT related data to relevant systems (MDM and ERP ES).

2. DSO Technical Staff or Authorized Electrician

- **Responsibilities:**

  - Performing physical activities to dismantle old CT/VT and install new equipment, including unsealing and sealing them to ensure integrity.
  - Testing and verifying installed equipment to ensure proper operation and compliance with technical requirements.
  - Filling out the WO with all necessary data, including technical specifications of the dismantled and assembled equipment.
  - Ensuring that all safety measures and regulations are followed during the work.

3. MDM (Meter Data Management System)

- **Responsibilities:**

  - Receiving and updating the consumer profile with details related to dismantled and assembled CT/VT.
  - Ensuring efficient and centralized management of measurement equipment and its specifications in the measurement network.

4. ERP ES (Electricity Supplier ERP)

- **Responsibilities:**

  - Receiving data transmitted by ERP DSO regarding the change of CT/VT.
  - Updating the consumer profile and synchronizing data with the billing system to ensure correct and accurate billing based on the new equipment parameters.
  - Maintaining accurate and up-to-date records of equipment and associated consumption, contributing to the accuracy of billing processes and the management of contractual relationships.

Objectives of the CT/VT Replacement Process

The process of replacing current transformers (CT) or voltage transformers (VT) is essential for maintaining the efficiency and safety of the electricity distribution network. Here are the main objectives of this process:

1. **Ensuring Continuity and Quality of Service**
   Objective: Maintaining the continuity of the supply of electricity to consumers and ensuring that it is delivered at established quality standards.

2. **Improving Metering Accuracy**
   Objective: Guaranteeing the accuracy of electricity consumption measurements for correct billing.

3. **Increasing Network Reliability**
   Objective: Improving the reliability and sustainability of the electricity distribution network.

4. **Compliance with Norms and Regulations**
   Objective: Ensuring compliance with standards and technical regulations in force.

5. **Reducing Technical Losses**
   Objective: Minimize technical losses in the network.

6. **Maintenance Optimization**
   Objective: Streamlining maintenance processes and reducing associated costs.

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7. **Customer Satisfaction**
    Objective: Improve customer satisfaction by ensuring high quality service.

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BP_6

Anomaly detection in MDM

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<u>Initiation of the process:</u>
The process of detecting and managing anomalies in consumption data is automatically initiated when the Meter Data Management (MDM) system receives and analyzes the consumption data collected from smart meters. If the recorded values do not align with the expected values, according to the predefined rules in the MDM, the anomaly detection process is triggered.
These rules can include identifying unusual consumption variations, detecting signs of manipulation, and monitoring other possible failures. Thus, any deviation identified in real time or during the scheduled analysis process can trigger the initiation of this process, allowing the system to promptly manage any potential problems.

<u>Process Steps/Activities:</u>

1. Predefined anomaly detection rules
Actor : MDM
Description : The MDM (Meter Data Management) system uses a set of predefined rules to detect anomalies in meter consumption data. These rules are configured to identify deviations from normal values, such as unusual variations in energy consumption, signs of tampering, or technical failures. MDM constantly monitors meter data in real time to ensure prompt detection of any problems.

2. Anomaly messages
Actor : MDM
Description : When the MDM system detects an anomaly according to predefined rules, it automatically generates alert messages. These messages contain detailed information about the type and nature of the detected anomaly, such as the date and time of detection, the location of the meter, and a description of the problem. Anomalies can be removed remotely from the MDM, and if they cannot be removed remotely, the anomaly messages are transmitted to the ERP DSO system (CMS) for further investigation.
3. Remote anomaly removal
Actor : MDM
Description : If the detected anomaly can be resolved remotely, MDM initiates automated corrective actions. These actions may include meter recalibration, parameter resets, or other technical adjustments. Remote anomaly removal reduces the need for physical interventions and allows for rapid problem resolution.

4. Update anomaly removal info
Actor : MDM

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Description : After remote anomaly removal, the MDM system updates the meter profile to reflect the final resolution of the issue. This step ensures that all data in the system is correct and up-to-date, fully documenting the remediation process. The final update in MDM closes the process and ensures continued monitoring of the meter to prevent recurrence of anomalies.

5. Reception of anomaly messages, Generation of AN
Actor : ERP DSO (CMS)
Description : If anomalies cannot be resolved remotely from the MDM, the ERP DSO system (CMS) receives the anomaly messages generated by the MDM and creates anomaly notifications (AN). These notifications are used to initiate the investigation and resolution process of the reported anomalies. ERP DSO manages the workflow for technical investigation and distributes the necessary tasks to technical personnel.

6. WO technical verification
Actor : Technical Staff
Description : Following the generation of anomaly notifications, the ERP DSO (CMS) issues a Work Order (WO) for the technical verification of the meter suspected of anomaly. The central technical staff receives the WO and prepares for the field investigation. The WO includes details about the consumption location, the nature of the anomaly and instructions for performing the verification.

7. WO Fulfillment
Actor : Technical Staff
Description : Technical personnel travel to the consumption site to perform the meter verification. This includes physical inspection of the meter, functionality testing, and recording any deficiencies or problems identified. Technical personnel document all findings and actions taken in the WO. After the verification, the WO is completed with details of the findings and actions taken.

8. Registration of technical verification results
Actor : ERP DSO
Description: After completing the technical verification, all information is recorded in the DSO ERP system. This stage indicates that all necessary investigations and actions have been completed and that the reported anomaly has been addressed appropriately.

9. Export data related to anomaly removal
Actor : ERP DSO (CMS)
Description : The data and results of the technical verification are exported to the MDM and ERP ES system. This data includes information about the nature of the anomaly, the actions taken and the final status of the meter. Exporting this data ensures that the MDM and ERP Supplier has all the information necessary to update the meter profile and for continuous monitoring.

10. Update anomaly removal info in MDM
Actor : MDM

Description : The MDM system updates the meter and consumption point profile with information received from the DSO ERP. This ensures that all data is correct and reflects the current meter status, including the resolution of anomalies. Updating information in the MDM is crucial for maintaining an accurate database and preventing similar issues from occurring in the future.

11. Data update
Actor : ERP ES
Description: The electricity supplier's ERP (ERP ES) receives updated anomaly data from the ERP DSO (CMS). This data includes information about the necessary changes resulting from anomaly management, such as consumption adjustments, updated equipment statuses or any other relevant details. The update in ERP ES ensures correct data reflection, synchronization of information for billing, reporting and customer relationship management, contributing to total transparency and efficiency in the supplier's operational processes.

Actors and Responsibilities

1. MDM (Meter Data Management)

- **Responsibilities:**

    - Defining and using predefined rules to detect anomalies in electricity consumption.
    - Generation and management of alert messages in case of anomaly detection.
    - Automatic removal of anomalies, if possible, through remote technical adjustments.
    - Updating meter information and consumption status for continuous monitoring.

2. ERP DSO (CMS)

- **Responsibilities:**

    - Receiving anomaly messages from MDM and generating anomaly notifications (AN).
    - Issuance of a Work Order (WO) for the technical verification of the meter suspected of having an anomaly.
    - Recording and management of technical inspection results.
    - Export of anomaly data to MDM and ERP ES systems for updating and monitoring.

3. DSO Technical Staff

- **Responsibilities:**

- Carrying out technical checks at the point of consumption for meters suspected of anomalies.
- Completing and documenting findings within the Work Order.

4. ERP ES (Electricity Supplier ERP)

- **Responsibilities:**

  - Receiving updated anomaly data from the DSO ERP.
  - Updating information related to consumption, equipment and other relevant data for billing and customer relationship management.

Objectives of the Anomaly Detection Process

Early detection of abnormalities

- Using a set of predefined rules in the MDM system to quickly and accurately identify deviations from normal energy consumption. These rules help detect problems such as unusual variations in consumption, signs of tampering, or technical failures.

Monitoring automation

- Implementing an automated system that constantly monitors meter consumption data. This ensures prompt and continuous detection of anomalies without the need for constant human intervention.

Real-time alert generation

- Automatic alert messages are issued as soon as anomalies are detected, providing detailed information about the nature and location of the problem. This allows for quick and efficient intervention.

Remote troubleshooting

- Using MDM capabilities to initiate automated corrective actions, such as meter recalibration or parameter resets, thereby reducing the need for physical interventions and enabling rapid problem resolution.

Operational efficiency

- Automating the process of detecting and removing anomalies helps increase operational efficiency, reducing the time and resources needed to identify and correct problems.

Transparency and documentation

- Maintaining detailed and transparent records of all anomalies detected and corrective actions taken. This ensures traceability and regulatory compliance.

Cost reduction

- Minimize costs associated with physical interventions by using remote troubleshooting solutions. Automation reduces the need for technical teams to travel and allows for quick and efficient problem resolution.

Improving customer satisfaction

- Ensuring fast and efficient anomaly management helps improve customer experience, minimizing disruptions and ensuring accurate energy consumption measurements.

Resource optimization

- Using technical and human resources in an optimal way, focusing physical interventions only where absolutely necessary and managing most issues remotely through MDM.

Regulatory compliance

- Ensuring compliance with legal standards and regulations regarding the management and monitoring of energy consumption, by implementing a robust system for detecting and eliminating anomalies.

BP_7 **Periodic meter check (anti-fraud)**	**Initiation of the process:** The process is initiated when the MDM (Meter Data Management) system detects an anomaly in a meter's consumption data, according to predefined rules to identify potential fraud or manipulation. **Process Steps/Activities:**

1. Alert Notification
Actor : MDM
Description : The MDM (Meter Data Management) system constantly monitors meter consumption data using predefined rules to detect anomalies. When a possible anomaly is identified that suggests meter fraud or manipulation, the system automatically generates an alert notification. This alert includes details about the suspect meter and the nature of the anomaly detected, and is transmitted to the ERP DSO for initiation of a detailed investigation.

2. WO generation Meter verification (anti-fraud)
Actor : ERP DSO (CMS)
Description : Based on the notification received from MDM, ERP DSO generates a Work Order for the verification of the meter suspected of fraud. The WO is created for the electricity control team and contains all the details necessary for the investigation, including the location of the meter, the nature of the anomaly and the instructions for performing the verification.

3. Physical verification in the field
Actor : Electricity Control Department
Description : The electricity control team travels to the specified location to perform a physical inspection of the meter. The inspection includes visual inspection for signs of tampering, checking electrical connections, and testing the meter functionality. All findings are documented for use in subsequent steps.

4. Preparation of Protocols of violation of contractual clauses
Actor : Electricity Control Department
Description : If fraud is detected during the verification, the control team draws up a Report documenting the violations of the contractual clauses. This document includes details about the nature of the fraud, the evidence collected and the impact on the recorded consumption. The Report serves as official proof of the fraud and is used in the following steps to calculate penalties and inform the customer.

5. Legal process (if disagree with the Protocol)
Actor : Legal department
Description : If the Client does not agree with the Protocol and refuses to sign, the case is sent to the legal department for resolution. This may involve initiating legal proceedings to recover debts and penalties. The legal process includes preparing the necessary documentation, representing the client in court, and following up on the case until a final legal solution is reached.

6. Signing of the Protocol
Actor : Client
Description : If the end consumer agrees with the Protocol, he signs them. By signing the document, the customer acknowledges the breach of the contractual clauses.

7. WO fulfilled
Actor : Electricity Control Department.

Description: In both cases, whether fraud is detected or not detected during the verification, the WO is completed with the appropriate information and is properly documented in the system.

8. WO updated in ERP DSO
Actor : ERP DSO (CMS)
Description : If no Protocol has been prepared, at this stage the information related to the verification is recorded in the DSO ERP system (CMS). This step ensures that all actions taken are documented correctly and that the system reflects the current status of the verification. The recorded information is subsequently transmitted to the ERP ES for updating and to the DSO MDM.

9. Reception of verification result
Actor : ERP ES
Description : ERP ES receives the verification results from ERP DSO (CMS). If no fraud is detected, it is notified that the meter is working correctly and no further action is required.

10. Update data in MDM
Actor : MDM
Description : Similarly, if no Protocol has been prepared, the information recorded in the ERP DSO is transmitted to MDM for updating the data in this system as well. The data in MDM is updated to reflect the results of the process. This step is essential for maintaining the accuracy and integrity of the meter data. The update ensures that MDM has correct and up-to-date information about the meter status and any corrective actions taken.

11. Data recording in ERP
Actor : ERP DSO (CMS)
Description : Following the preparation and signing of the Protocol by the customer, the detailed information regarding the verification carried out is recorded in the ERP system of the Distribution System Operator (CMS). This initial recording includes the essential data of the verification process, but is partially completed, as the procedure is not completed at this point. The DSO then calculates the related energy consumption, and the supplier issues the corresponding invoices, also integrating the applicable penalties for any fraud discovered.

12. Performs electricity consumption calculations
Actor : ERP DSO (CMS)
Description : In this stage, the ERP system of the Distribution System Operator (DSO) calculates the electricity consumption based on the data recorded following the verification. This calculation takes into account the actual consumption, according to the meter readings, and any corrections resulting from the verification process, including fraud or other anomalies identified. The ERP DSO (CMS) applies specific calculation methods, in accordance with the regulations in force, to determine the correct consumption for the analyzed period. This data will then be transmitted to the supplier,

who will integrate the information into the final billing to the consumer, ensuring transparency and accuracy in the billing process.

13. Data update in MDM
Actor : MDM
Description : In this stage, the MDM (Meter Data Management) system receives and updates the data received from the ERP DSO (CMS), regarding the fraudulent electricity consumption, in cases confirmed by a report accepted by the consumer. This update includes all the relevant details regarding the calculation of the additional consumption, documenting the value of the illicitly consumed energy, according to the regulations. The integration of this data in MDM ensures a centralized record, facilitating long-term monitoring and prevention of similar situations. Thus, MDM fully and accurately reflects the current status of the meter and the consumer profile, supporting efficient account management in the distribution system.

14. Forward to ES energy consumption calculations
Actor : MDM
Description : In this step, the MDM system transmits the calculation of unauthorized electricity consumption to the ES ERP. This data includes details of the amount of energy consumed illegally. The prompt transmission of this information ensures that the supplier can issue the invoice and apply the appropriate sanctions to the customer. This information flow allows the supplier to efficiently manage the billing process and correctly reflect the penalties for fraudulent consumption, respecting legal procedures and ensuring transparency in the relationship with the end consumer.

15. Forwarding Payment Order to Customer
Actor : ERP ES
Description : The electricity supplier, through ERP ES, receives the detailed calculation of unauthorized electricity consumption, transmitted by the MDM system. Based on this information, Billing ES issues the invoice that reflects both the illicit consumption and the associated penalties according to the regulations in force. The payment order is prepared and transmitted to the consumer, providing clear details about the amount owed, the penalties applied and the payment deadline. This step ensures transparency and clarity for the customer and allows the supplier to comply with billing procedures for correct cost recovery.

16. Payment of debts and penalties
Actor : Client
Description : After receiving the payment order issued by the supplier, the customer is responsible for paying the amount related to the unauthorized energy consumption, including the penalties applied. This payment can be made through the payment methods made available by the supplier, respecting the deadline specified in the invoice. The full payment of debts and fines ensures the closure of the cost recovery process and allows the consumer to avoid additional sanctions or disconnection from the network, according to the procedures and regulations established by the supplier.

17. Confirmation of no debts
Actor : ERP ES
Description : After processing the payment from the consumer for the accumulated debts and the related penalties, ERP ES checks the status of the customer's account. If the payment has been made in full and there are no other outstanding debts, the system updates the customer's status to "no debts." This confirmation is essential to allow the restoration of normal supply conditions, preventing the application of additional measures, such as additional penalties or disconnection from the network.

Actors and Responsibilities

1. MDM (Meter Data Management)

- **Responsibilities:**
    - Constantly monitors meter consumption data to detect anomalies, using predefined rules.
    - Generates alert notifications when possible fraud or meter manipulation is identified and sends these alerts to the DSO ERP (CMS).
    - Transmits to ERP ES the calculation of illicit consumption in cases of confirmed fraud, ensuring a centralized and accurate record of unauthorized consumption.
    - Update the consumer profile with data on fraudulent consumption to support efficient and accurate account management.

2. ERP DSO (CMS)

- **Responsibilities:**
    - Receives alerts from MDM and generates work orders (WO) for the control team, triggering the process of physical verification of meters suspected of fraud.
    - Records and manages data from work orders and Protocol, including technical inspection results and unauthorized consumption calculations.
    - It performs detailed calculations of unauthorized consumption and transmits this data to MDM to enable updating of the consumer profile.
    - Ensures that a complete and up-to-date record is kept of all actions taken for each meter investigated.

3. Electrical Control Department (DSO)

- **Responsibilities:**
    - Performs physical checks at the point of consumption, inspecting suspected meters for signs of tampering or malfunctions.
    - Prepares a report in cases of fraud, documenting violations of contractual clauses and evidence found.

- Provides the DSO ERP (CMS) with the information necessary to complete and record data on unauthorized consumption, contributing to the transparency of the process.

4. Legal Department

- **Responsibilities:**
  - Manages cases of consumer objections to the Protocol, initiating legal proceedings when necessary.
  - Prepares documentation and legal representation for lawsuits related to electricity fraud, ensuring compliance with regulations.
  - Collaborates with other departments to resolve legal cases effectively, protecting the interests of the operator and the supplier.

5. ERP ES

- **Responsibilities:**
  - Integrates into billing the calculations of illicit consumption and related penalties, transmitted by MDM, and the Billing system issues the final invoice to the consumer.
  - Prepares and sends the consumer the payment order detailing the amounts owed and the penalties for unauthorized consumption.
  - Verify and confirm full payment of debts and penalties by the consumer, updating the customer's status to reflect the current financial situation.

6. Client

- **Responsibilities:**
  - Collaborates during technical meter inspections and signs the report if he agrees with the findings.
  - Pay the total amount related to unauthorized energy consumption and the penalties applied, according to the payment order received from the supplier.
  - Comply with payment terms to avoid disconnection from the network or other additional sanctions, maintaining an appropriate contractual relationship with the supplier.

Objectives of the Periodic Meter Verification Process (anti-fraud)

The main objective of the fraud detection and management process is to ensure the integrity and accuracy of electricity consumption measurements by quickly identifying and correcting anomalies and fraudulent meter manipulations. This objective is achieved through the following specific activities:

1. **Early anomaly detection:**
   Using a set of predefined rules to continuously monitor consumption data and promptly identify suspicious deviations.

	2. Process automation: Implementing an automated system for generating alerts and initiating investigations, thus reducing manual interventions and ensuring a rapid response. **3. Rigorous verification and documentation:** Conducting detailed physical inspections of suspected meters and accurately documenting any detected contractual violations. **4. Penalty Calculation and Recovery:** Calculating fines and debts resulting from fraud and ensuring their recovery through efficient billing and payment processes. **5. Maintaining transparency and compliance:** Ensuring clear and transparent communication with consumers, notifying them of the results of investigations and requesting compliance with legal and contractual provisions. **6. Dispute Management:** Efficient management of disputes and challenges through the intervention of the legal department, if necessary, for the legal resolution of cases of non-compliance. **7. Data Update and Maintenance:** Constantly update meter profiles and consumption locations in MDM and ADMS systems to correctly reflect status and actions taken.
BP_8 Migration 1P-3P reflected in MDM	<u>**Initiation of the process:**</u> The process of changing the meter for increasing the power is triggered when an end consumer officially requests an increase in the electrical consumption capacity. Once the application is submitted, all preliminary procedures are followed, including obtaining compliance with the requirements of the Connection Notice (CN) and any necessary adjustments to the electrical installations, paying for the power supply and confirming the signing of the amended contract with the supplier. After completing these steps, the point is reached where the existing meter must be replaced to support the new capacity. It is at this point, after recording the data in the DSO ERP (CMS), this information is also transmitted to the MDM, thus the consumer profile is updated with the related data related to the migration process from 1P-3P. <u>**Process Steps/Activities:**</u> **1. Generate WO meter change (reason for power increase)** **Actor : ERP DSO (CMS)** **Description :** As a result of the consumer's request for an increase in power, and after completing all the preliminary procedures related to the Connection Notice (CN) and the adjustment of the electrical installations, the stage is reached where the existing meter

must be replaced to support the new capacity. At this point, the DSO ERP system generates a Work Order (WO) for the meter change, specifying the details necessary for the intervention of the technical team. The technical staff receives the WO and prepares to carry out the meter change, according to the new consumption requirements.

2. Dismantling the old meter, installing the new meter, unsealing and sealing , reading the meter readings
Actor : DSO Technical Staff / Authorized Electrician
Description : The technical team travels to the consumption site to dismantle the old single-phase meter and install a new three-phase meter. The process involves unsealing the old meter, disconnecting it, recording the final reading, installing the new meter, connecting to the network , testing its functionality and reading the initial readings. After installation, the new meter is sealed to prevent unauthorized manipulation.

Note: For household consumers (only in the case of electricity supply) electric meters will be installed by the DSO, at its expense. For non-households, it only offers sealing/unsealing services against payment, and the installation/dismantling services are performed by the authorized electrician contracted by the Customer.

3. Complete the WO with the related data
Actor : Technical Staff
Description : After the installation and sealing of the new meter, the technical team fills in the Work Order (WO) with all relevant details. This includes the data of the old meter (such as the serial number and final reading) and the data of the new meter (serial number, initial reading and other technical information). The correct filling in of the WO is essential to ensure a transparent and correct transition between the old and new meters and to document all the activities performed.

4. WO Resolution – resolved
Actor : ERP DSO (CMS)
Description : Once the WO is completed, it is marked as "resolved" in ERP DSO (CMS). This status indicates that all activities required for the meter change have been successfully completed and that the consumption point is now equipped with a new, functional meter. The "resolved" status serves as an official confirmation that the order has been properly fulfilled.

5. Register old meter (status dismantled - archive), new (status mounted - registered OPEN scheme)
Actor : ERP DSO (CMS)
Description : The old meter is registered with the status "dismantled" in the system and moved to the archive for records. This involves keeping a history of the old meter for future reference, if necessary. At the same time, the new meter is registered with the status "mounted" and added to the OPEN scheme, indicating that it is active and in operation. This registration is important for maintaining an accurate and up-to-date database of the equipment used.

6. Export of meter data and meter indices
Actor : ERP DSO (CMS)
Description : Relevant meter data, including serial number, initial/final reading and other technical information, is exported to the Meter Data Management (MDM) system and supplier's ERP. Exporting this data ensures that all the information needed to monitor and manage energy consumption is available in the MDM and relevant supplier systems. This step is essential to enable accurate analysis and ensure correct billing of the consumer.

7. Update Consumer Profile
Actor : MDM
Description : MDM receives the data transmitted from the DSO ERP (CMS) and updates the consumer profile with the information related to the dismantled/installed meter and their indices. The update includes all the relevant technical details, allowing efficient and centralized management of the meter in the metering network.

8. Update data in ERP ES
Actor : ERP ES
Description : The data is updated in the electricity supplier's ERP (ERP ES) to reflect the change of meter and technical characteristic from single-phase to three-phase . Subsequently, this data is synchronized with the supplier's Billing system, ensuring correct and accurate billing of electricity consumption based on the new meter parameters.

Actors and Responsibilities

1. ERP DSO (CMS)

- **Responsibilities:**

  - Generating a Work Order (WO) for meter replacement in the event of a power increase request, following the completion of preliminary procedures.
  - Managing the WO resolution and updating its status to "resolved" once the meter change has been completed.
  - Recording the status of the old meter in the archive and updating the new meter in the OPEN scheme, ensuring a complete and updated record of the equipment used.
  - Export of relevant meter data and their indices to the Meter Data Management (MDM) system and supplier's ERP.

2. DSO Technical Staff / Authorized Electrician

- **Responsibilities:**

  - Dismantling the old meter and installing the new meter, including unsealing and sealing it.

- Recording the final reading of the old meter and reading the initial readings of the new meter to ensure accurate records.
- Filling in the relevant details in the Work Order (WO), documenting all activities performed, the old meter data and the new meter data.

3. MDM (Meter Data Management)

- **Responsibilities:**

  - Receiving and updating the consumer profile with the data of the dismantled/installed meter, including related indices.
  - Ensuring efficient and centralized management of energy consumption data, based on information transmitted from the DSO ERP (CMS).

4. ERP ES (Electricity Supplier ERP)

- **Responsibilities:**

  - Reception and updating of data regarding the change of meter and modification of technical characteristics from single-phase to three-phase.
  - Synchronization of data with the Billing system to ensure correct and accurate billing of electricity consumption, reflecting the parameters of the new meter.

Objectives of the Meter Change Process in the Event of a Power Increase

Ensuring continuity and reliability of electricity supply:
The main objective of the meter change is to enable support for the new consumption capacity required by the customer, in accordance with the demand for increased power and all technical and safety requirements. The process contributes to the stable and secure supply of electricity, without the risk of overloading or malfunctioning of the metering system.

Compliance with regulations and technical procedures:
The entire process is carried out in accordance with applicable legal, technical and connection regulations. The sealing/unsealing procedures, WO registration and consumer profile updating are intended to comply with the standards imposed by national legislation and system operator regulations.

Documentation and transparency of activities:

Each stage of the meter change is rigorously documented to ensure transparency of the activities carried out. From the registration of the WO and the readings of the old and new meter to the updating of data in the DSO's MDM and ERP systems, the process aims to provide a clear and complete record for customers, operators and suppliers.

	Process optimization and reduction of intervention time: The process is designed to facilitate a quick and efficient meter change, reducing intervention time and minimizing potential interruptions in energy supply. By automating certain steps and integrating data into IT systems, the process becomes more efficient and easier to manage. **Correct update and synchronization of data in all relevant systems:** Another fundamental objective is to ensure that all data regarding the old and new meter, including technical specifications and consumption indices, are updated in real time in the ERP DSO, MDM and ERP ES systems. This update allows for efficient management of energy consumption and correct synchronization with the billing and reporting processes of the electricity supplier. **Improving customer relations:** Changing the meter in accordance with the customer's requirements, while respecting transparency and informing them about each stage, contributes to improving the relationship between the operator, supplier and customer. The aim is to ensure quality service and open and efficient communication. **Facilitates monitoring and control of consumption:** By updating data in meter management and monitoring (MDM) systems, the process allows for accurate tracking of energy consumption and prompt interventions in case of anomalies. This contributes to optimized and predictable management of customer energy requirements.
BP_9 3P-1P migration reflected in MDM	**Initiation of the process:** The process of changing the meter for **power reduction** from 3-phase to 1-phase is triggered when a consumer officially requests a reduction in electrical consumption capacity. After submitting the request for power reduction, all preliminary procedures are completed, including obtaining the Connection Notice (CN) and the necessary adjustments to the electrical installations to comply with the new consumption capacity. After completing these steps, the existing meter must be replaced to support the reduced power requirements. At this point, the data is recorded in the DSO ERP, and the information is also transmitted to the MDM, so that the consumer profile is updated with the data corresponding to the migration from 3P to 1P. **Process Steps/Activities:**

1. WO generation for meter change (reason for power reduction)
Actor : ERP DSO (CMS)
Description : As a result of the consumer's request to reduce the power from three-phase to single-phase, after completing all the preliminary procedures related to the Connection Notice (CN) and the adjustment of the electrical installations, the stage is initiated in which the existing meter must be replaced to support the new capacity. At this point, the ERP DSO system generates a Work Order (WO) for the meter change, specifying the necessary details for the intervention of the technical team. The technical staff receives the WO and prepares to carry out the meter change in accordance with the new consumption requirements.

2. Dismantling the old meter, installing the new meter, unsealing and sealing, reading the meter readings
Actor : DSO Technical Staff / Authorized Electrician
Description : The technical team travels to the consumption site to dismantle the old three-phase meter and install a new single-phase meter. The process involves unsealing the old meter, disconnecting it, recording the final reading, installing the new meter, connecting it to the network, testing its functionality and reading the initial readings. After installation, the new meter is sealed to prevent unauthorized manipulation. Note: For household consumers (only in the case of electricity supply), DSO covers the costs of installing the meters. For non-household consumers, DSO only provides sealing/unsealing services for a fee, while installation/dismantling is performed by an authorized electrician contracted by the customer.

3. Complete the WO with the related data
Actor : Technical Staff
Description : After the installation and sealing of the new meter, the technical team completes the Work Order (WO) with all relevant details. This includes the old meter data (serial number and final reading) and the new meter data (serial number, initial reading and other technical information). The correct completion of the WO is essential to ensure a transparent and fair transition between the old and new meters and to document all activities performed.

4. WO resolution – resolved
Actor : ERP DSO (CMS)
Description : Once the WO is completed, it is marked as "resolved" in ERP DSO (CMS). This status indicates that all activities required for the meter change have been successfully completed and that the consumption location is now equipped with a new, functional meter. The "resolved" status serves as an official confirmation that the order has been fulfilled correctly.

5. Register old meter (dismantled status - archive), new (mounted status - registered OPEN scheme)
Actor : ERP DSO (CMS)
Description : The old meter is registered with the status "dismantled" in the system and moved to the archive for further records. This involves keeping a history of the old meter for future reference, if necessary. At the same time, the new meter is registered

with the status "mounted" and added to the OPEN schema, indicating that it is active and in operation. This registration allows for the maintenance of an accurate database of equipment in operation.

6. Export data related to meters and meter indices
Actor : ERP DSO (CMS)
Description : Relevant meter data, including serial number, initial/final reading and other technical information, is exported to the Meter Data Management (MDM) system and supplier's ERP. Exporting this data ensures that all the information needed to monitor and manage energy consumption is available in the MDM and relevant supplier systems. This step is essential to enable accurate analysis and ensure correct billing of the consumer.

7. Update Consumer Profile
Actor : MDM
Description : MDM receives the data transmitted from the ERP and updates the consumer profile with the information related to the dismantled/installed meter and their indices. The update includes all relevant technical details, allowing efficient and centralized management of the meter in the metering network.

8. Update data in ERP ES
Actor : ERP ES
Description : Data is updated in the electricity supplier's ERP (ERP ES) to reflect the change of meter and technical characteristics from three-phase to single-phase. Subsequently, this data is synchronized with the supplier's Billing system, ensuring correct and precise billing of electricity consumption based on the new meter parameters. This update ensures the correctness of the records and billing for the customer enrolled in the system.

Actors and Responsibilities

1. ERP DSO (CMS)

- **Responsibilities:**

  - Generating a Work Order (WO) for meter replacement in the event of a power reduction request, following the completion of preliminary procedures.
  - Managing the WO resolution and updating its status to "resolved" once the meter change has been completed.
  - Recording the status of the old meter in the archive and updating the new meter in the OPEN scheme, ensuring a complete and updated record of the equipment used.
  - Export of relevant meter data and their indices to the Meter Data Management (MDM) system and supplier's ERP.

2. DSO Technical Staff / Authorized Electrician

- **Responsibilities:**

    - Dismantling the old meter and installing the new meter, including unsealing and sealing it.
    - Recording the final reading of the old meter and reading the initial readings of the new meter to ensure accurate records.
    - Filling in the relevant details in the Work Order (WO), documenting all activities performed, the old meter data and the new meter data.

3. MDM (Meter Data Management)

- **Responsibilities:**

    - Receiving and updating the consumer profile with the data of the dismantled/installed meter, including related indices.
    - Ensuring efficient and centralized management of energy consumption data, based on information transmitted from the DSO ERP (CMS).

4. ERP ES (Electricity Supplier ERP)

- **Responsibilities:**

    - Reception and updating of data regarding the change of meter and modification of technical characteristics from three-phase to single-phase.
    - Synchronization of data with the Billing system to ensure correct and accurate billing of electricity consumption, reflecting the parameters of the new meter.

Objectives of the 3P-1P Migration Process

Adaptation of equipment to reduced consumer consumption requirements
The main goal of this process is to ensure the compatibility of metering equipment with reduced consumption requirements, by switching from a 3-phase to 1-phase configuration. This objective allows energy efficiency and continuity of supply at an adjusted capacity.

Compliance with technical and safety requirements
The process aims to maintain the safety of the installation and the integrity of the metering system by complying with all technical regulations and sealing standards. Meter sealing and technical checks ensure protection against unauthorized manipulation.

Correctly updating data in management and billing systems
It is essential that new data, including serial number and meter readings, are correctly

integrated into DSO ERP, MDM and supplier's Billing, ERP systems. This update allows for accurate consumption monitoring and accurate billing based on the new power capacities, contributing to the transparency and integrity of the billing process.

Ensuring operational traceability and transparency
Detailed documentation of each stage of the meter change process facilitates subsequent verifications and audits. Traceability of each action ensures transparency and accountability for all technical and administrative changes.

Improving the consumer experience through prompt and accurate processing
The objective of this process is to efficiently respond to the consumer's request for reduced consumption capacity, thus minimizing waiting time and ensuring a smooth transition, aligned with the consumer's updated requirements.

Minimizing the impact on the grid: adapting the grid capacity to real consumption requirements contributes to better resource management and maintaining the stability and reliability of the electricity grid.

BP_10 Monthly closing	**Initiation of the process**: The monthly closing process of the DSO is initiated on the **1st of each month, at 00:00**, when the border meter readings with Moldelectrica are taken. This moment marks the beginning of the process of reconciling and reporting the electricity consumption and delivery data for the previous period. The readings taken are the basis for calculating the total amount of energy that entered the Electricity Distribution Network (EDN) from the Electricity Transmission Network (ETN). Subsequently, the process includes reconciling data with renewable energy producers, verifying consumption and deliveries to Electricity Suppliers (ESPs), calculating technological losses and drawing up the monthly energy balance, which is transmitted to Moldelectrica for validation and confirmation. The process is intended to ensure transparency and compliance of data on energy distributed and consumed within the network. **Process Steps/Activities:** **1. Border Meter Reading with Moldelectrica (01.01)** **Actor : MDM DSO** **Description :** On the 1st of each month, at 00:00, the MDM system of the Distribution System Operator (DSO) performs border meter reading to determine the amount of electricity entering the Electricity Distribution Network (EDN) from the Electricity Transmission Network (ETN) operated by Moldelectrica. This process is essential for establishing the amount of energy supplied and for verifying the energy balance between energy inputs and outputs in the EDN. The collected data is automatically recorded in the MDM system and will be used to prepare the monthly energy balance.

2. Closing with REP Producers and Transmission of the Monthly Report
Actor : MDM DSO
Description : After reading the border meters, MDM DSO centralizes the data on the electricity delivered by Renewable Energy Producers (REP) during the previous month. A detailed report is generated that includes the total amount of energy supplied, producer identification data and other relevant information. This report is transmitted to each producer, as part of the process of reconciliation and transparency of energy deliveries.

3. Receipt of Monthly Report
Actor : Producers
Description : Renewable energy producers receive the monthly report from MDM DSO, which contains the energy delivery data for the respective period. They are responsible for verifying the accuracy of the reported data, analyzing the information received to ensure that everything is in accordance with their internal records.

4. Submitting Data Confirmation
Actor : Producers
Description : After verifying the data in the monthly report, producers submit a formal confirmation to MDM DSO. This indicates acceptance of the reported data or signals any inconsistencies that require clarification. Confirmation is a crucial step in the reconciliation process, ensuring alignment between the data provided and those recorded.

5. Data Confirmation Reception
Actor : MDM DSO
Description : MDM DSO receives data confirmation from producers and records their validation. In case of inconsistencies, MDM DSO may initiate additional procedures to verify and correct the data. Completion of this stage guarantees the correctness of the data on the energy delivered by producers.

6. Transmission of the Monthly Consumption Report to ES
Actor : MDM DSO
Description : After reconciling the data with the producers, MDM DSO generates a monthly report on electricity consumption and transmits it to the Electricity Suppliers (ES). The report contains detailed information on the amount of energy delivered, the recorded consumption and other data necessary for the billing and management processes.

7. Report Reception
Actor : ES
Description : ES receives the monthly report from MDM DSO and analyzes it to verify the accuracy and compliance of the data with its own records. This step is essential to ensure correct billing and to reconcile data between the distributor and suppliers.

8. Calculation of Technological Losses
Actor : MDM DSO
Description : Based on the data on the energy entering and leaving the network, MDM

DSO calculates the technological losses. This calculation reflects the differences between the total energy entering and that consumed by end users and is necessary for monitoring the efficiency of the network and reporting to regulatory authorities.

9. Generation of the Monthly Balance Sheet
Actor : MDM DSO
Description : MDM DSO compiles all collected and validated data into a monthly balance sheet that presents details about the electricity entering the EDN, the recorded consumption, the energy supplied to consumers and the technological losses. This balance sheet serves as the basis for official reporting and for establishing financial responsibilities.

10. Transmission of the Monthly Balance Sheet to Moldelectrica
Actor : MDM DSO
Description : MDM DSO transmits the monthly balance sheet to Moldelectrica for verification and reconciliation. The document details the quantities of energy delivered, consumed and technological losses, ensuring clear and transparent records between network operators.

11. Reception of the Monthly Balance
Actor : Moldelectrica
Description : Moldelectrica receives the monthly balance transmitted by MDM DSO and performs checks to ensure the compliance and correctness of the data. This stage facilitates reconciliation between network operators and contributes to establishing an agreement on the transmitted data.

12. Sending the Response
Actor : Moldelectrica
Description : After verifying the balance, Moldelectrica sends an official response to MDM DSO, confirming acceptance of the data or indicating any discrepancies that require additional clarification.

13. Response Reception and Update, if Necessary
Actor : MDM DSO
Description : MDM DSO receives the response from Moldelectrica and, if necessary, makes updates and corrections to the reported data. This process completes the monthly reconciliation and ensures that all information is correct and compliant with the requirements of the regulations in force.

Actors and Responsibilities

1. MDM DSO (Distribution System Operator's Metering Data Management)

- **Responsibilities:**

- Reading border meters with Moldelectrica to determine the amount of electricity entering the Electricity Distribution Network (EDN) from the Electricity Transmission Network (ETN).
- Performing monthly closing with renewable energy producers (REP) by generating and submitting the monthly report on the amount of energy supplied.
- Sends monthly consumption report to the Electricity Supplier.
- Calculation of technological losses in the network, based on the amounts of energy input and output.
- Generating the monthly energy balance for EDN, which includes all energy consumption, production and delivery data.
- Sending the monthly balance sheet to Moldelectrica for verification and validation, as well as updating the data based on the ESdback received.

2. Renewable Energy Producers (REP)

- **Responsibilities:**

  - Receiving the monthly report from the DSO and verifying the data transmitted regarding the amount of energy supplied in the EDN.
  - Confirmation of data transmitted by MDM DSO, ensuring the accuracy of information regarding energy deliveries.

3. ES (Electricity Supplier)

- **Responsibilities:**

  - Receiving the monthly consumption report from MDM DSO and verifying the data on the amount of energy distributed to consumers.
  - Ensuring the correlation of consumption data with the monthly balance sheet to guarantee transparency and accuracy in reporting to customers and authorities.

4. Moldelectrica (Transmission Network Operator)

- **Responsibilities:**

  - Receiving the monthly balance sheet sent by MDM DSO for verification and validation of data on energy entering and leaving the EDN.
  - Sending an official response following data validation, indicating confirmation or the need for adjustments to the consumption and delivery ratio.

Objectives of the DSO Monthly Closing Process

Ensuring Complete Coverage of Electricity Consumption and Delivery Data: Complete collection and analysis of data on energy entering the Electricity Distribution Network

(EDN) from the Electricity Transmission Network (ETN) and energy supplied to consumers and producers.

Data Correlation and Validation between All Involved Actors:
Establishing a clear and rigorous data verification procedure to ensure the consistency of information in reporting to renewable energy producers (REP), Electricity Suppliers (ES) and Moldelectrica (Transmission Network Operator).

Correct Calculation and Transparency of Technological Losses:
Determination of energy losses in the network based on the quantities of energy input and output, in order to highlight and report technological losses that must be covered by the DSO, according to the regulations in force.

Accurate Reporting and Transparency in Communication:
Generating the monthly energy balance, which correctly reflects the input and output data, and transmitting it to Moldelectrica for validation and verification. Accurate and fast communication with all stakeholders involved, including REP and ES producers, to ensure the transparency of consumption and supply data.

Optimization of Energy Data Management Processes:
Using the MDM and ERP system for efficient data management, eliminating errors and ensuring an automatic update of consumption and supply data in real time.

Compliance with Regulations and Legal Requirements:
Ensuring compliance with legal requirements and regulations in force regarding the reporting and management of electricity consumption and supply data, so that the quality and integrity standards imposed by the authorities are respected.

Identifying and Implementing Network Improvements:
Using collected and analyzed data to identify opportunities to improve energy efficiency, reduce losses, and optimize energy delivery to consumers.

BP_11.1 Supplier Change, household consumer	**Initiation of the process** The process of changing electricity supplier is triggered when a household consumer decides to conclude a contract with a new supplier, either for reasons of cost, better services, or other advantages offered by the new supplier. **Process Steps/Activities:** **1. Choose a new supplier** Actor : Household consumer Description : **The consumer analyzes** the offers available on the market and decides to change the electricity supplier, choosing a new supplier that offers more advantageous conditions in terms of price or services.

2. Concludes a New Contract

Actor : New Supplier

Description : In order to conclude an electricity supply contract, the final consumer negotiates with the new supplier and transmits to him all the data necessary for drawing up the electricity supply contract provided for in the Regulation on the supply of electricity, as well as the name of the current supplier, the address of the place of consumption(s) where the electricity consumption is expected and the contracted electrical powers. The new supplier is obliged to provide sufficient quantities of electricity to cover the electricity consumption of the final consumer, in accordance with the provisions of the concluded contract.

3. Submit Supplier Change Request to Current ES

Actor : Household consumer

Description : After the household consumer and the new supplier agree on the contractual clauses, including the electricity price, the household consumer is obliged to submit to the current supplier the request for changing the electricity supplier (hereinafter – request) in the following ways:

1) submitting the request directly to the current supplier's office;

2) sending by registered letter;

3) sending in electronic format through the Personal Cabinet, only if the request is authenticated by electronic signature.

Content of the request to change the electricity supplier submitted by the household consumer:

a) Name, surname of the household consumer;

b) IDNP;

c) Home address;

d) Contact details (contact address, telephone, fax, email);

e) Address of the place of consumption for which the change of supplier is requested;

f) Name of the new supplier;

g) Contact details of the new supplier;

4. Submit Supplier Change Request to Current ES (through the power of attorney)

Actor : New supplier

Description : If the consumer provides a power of attorney to the new supplier, the latter can submit the supplier change request on behalf of the consumer. This step is useful for consumers who cannot submit the request in person.

5. Request Reception

Actor : Current Supplier

Description : The current supplier receives the request to change supplier and initiates the verification process. At this stage, the request is registered in the internal system.

6. Send notification of receipt of application

Actor : Current supplier

Description : On the first working day following receipt of the application, the current supplier shall notify the final consumer, the new supplier and the system operator to whose electricity network the consumption point(s) is/are connected of the receipt of the application by means of a notification. The information regarding the receipt of the application shall be transmitted by e-mail, personal cabinet, fax or other means of written communication.

7. Notification of receipt of request
Actor : Household consumer
Description : The consumer receives the notification from the current supplier, confirming that the change request has been received and that the process is ongoing.

8. Notification of receipt of request
Actor : New supplier
Description : The new supplier is informed by the current supplier of the receipt of the request to change supplier and can thus continue the process in coordination with the system operator.

9. Notification of receipt of request
Actor : ERP DSO
Description : The system operator receives the notification regarding the change of supplier, preparing for the technical and administrative verification of the process.

10. Debt Check
Actor : Current Supplier
Description : The current supplier checks whether the consumer has outstanding debts for the electricity supplied up to the time of application. This check is crucial to determine whether the procedure can continue.

11. Debt settlement
Actor : Household consumer
Description : Within a maximum of 7 (seven) days from the date of sending the request, the final consumer is obliged to pay all invoices for the place(s) of consumption for which the procedure for changing the electricity supplier was initiated, issued by the current supplier for the electricity consumed prior to the submission of the request and, where applicable, all penalties, calculated in accordance with and pursuant to the electricity supply contract, for the consumption of electricity at the place(s) of consumption for which the procedure for changing the electricity supplier was initiated.

12. Notifies suspension of the procedure
Actor : Current supplier
Description : If the consumer does not pay the debts, within one working day of the expiry of the established deadline, the current supplier notifies the final consumer, the new supplier and the system operator, to whose electricity network the consumption place(s) for which the procedure for changing the electricity supplier has been initiated is connected, about the existence of debts at the consumption place(s) for which the change of electricity supplier is requested. The supplier change procedure is considered

suspended for the consumption place(s) for which there are debts until the final consumer meets the requirements for the debt settlement. The current supplier immediately notifies the new supplier and the system operator to whose electricity network the consumption place(s) for which the procedure for changing the electricity supplier has been initiated are connected, about the removal of the causes for the suspension of the supplier change procedure.

13. Suspension notification due to debt
Actor : Household consumer
Description : The consumer is officially notified by the current supplier that the supplier change procedure has been suspended due to outstanding debts.

14. Notification of suspension due to debt
Actor : New supplier
Description : The new supplier receives notification that the procedure has been suspended, being informed that the change of supplier cannot continue until the debts are resolved.

15. Notice of suspension due to debt
Actor : ERP DSO (CMS)
Description : The system operator is informed that the supplier change procedure has been suspended due to the existence of outstanding debts to the consumer.

16. Transmits data related to the consumer profile
Actor : ERP DSO (CMS)
Description : Within a maximum of 7 (seven) days from the date of receipt of the notification regarding the initiation of the procedure for changing the electricity supplier, the system operator, to whose electricity network the consumption place(s) for which the procedure for changing the electricity supplier has been initiated is(are) connected, shall transmit the following information to the new supplier:

1) the name/designation of the final consumer, the address and the specific number of the consumption place(s) for which the change of electricity supplier is requested;
2) the method of carrying out and the current date(s) of reading the indications of the measuring equipment(s), respectively whether the reading is done remotely or on site;
3) copies of the documents signed by the system operator and the final consumer, provided for in point 82 of the Regulation on connection.

17. Reception of consumer profile data
Actor : New supplier
Description : The new supplier receives from the system operator the data relating to the point of consumption (CPN), including information about connections, meter readings and other technical details necessary to continue the process.

18. Send notification of lack of debt
Actor : Current supplier
Description : If the consumer has no unpaid invoices by the time of submitting the

application or if the consumer has settled the debt with the current supplier, the latter is obliged to notify the system operator regarding the confirmation of the lack of debt.

19. Receipt of notification of lack of debts
Actor : ERP DSO (CMS)
Description : The system operator receives confirmation of the absence of debt from the current Provider, so the process can continue.

20. Generation and transmission of signed additional agreements
Actor : ERP DSO (CMS)
Description : After receiving confirmation of the absence of debt, within a maximum of 7 (seven) days from receiving the notification regarding the initiation of the procedure for changing the electricity supplier, the system operator to whose electricity network the consumption place(s) for which the procedure for changing the electricity supplier has been initiated is(are) connected, shall send to the current supplier and the new supplier the additional agreements regarding the modification of the consumption places within the contract for the provision of the transmission service or the contract for the provision of the electricity distribution service, as the case may be. The inclusion in the additional agreements regarding the modification of the consumption places of other clauses than the modification of the consumption place(s) is not allowed.

21. Reception of additional agreement
Actor : New supplier
Description : The new supplier receives the signed additional agreement, which details the changes made to the distribution contract for the place of consumption, and checks it for correctness.

22. Signing and transmission to the DSO
Actor : New supplier
Description : Within one working day of receiving the additional agreements regarding the modification of the consumption points within the contract for the provision of the transmission service or the contract for the provision of the electricity distribution service, the new supplier signs and transmits to the system operator to whose electricity network the consumption point(s) for which the procedure for changing the electricity supplier has been initiated are connected.

23. Reception of additional agreement
Actor : Current supplier
Description : The current supplier receives the additional agreement and checks it, ensuring that all changes comply with the legislation and regulations in force.

24. Signing and transmission to the DSO
Actor : Current supplier
Description : Within one working day of receiving the additional agreements regarding the modification of consumption points within the contract for the provision of the transmission service or the contract for the provision of the electricity distribution service, the current supplier signs and transmits to the system operator to whose

electricity network the consumption point(s) for which the procedure for changing the electricity supplier has been initiated are connected.

25. Reception of additional agreements
Actor : ERP DSO (CMS)
Description : The system operator receives all additional agreements signed by both parties (current and new supplier), thus confirming that the supplier change process can continue.
Note: If the current supplier or the new supplier refuses without justification to sign the additional agreement to the contract for the provision of the transport service or to the contract for the provision of the electricity distribution service for the place(s) of consumption indicated by the final consumer requesting the change of electricity supplier, this fact is considered as an obstacle by the current supplier/new supplier to the exercise of the right to change the electricity supplier by the final consumer. In the event of an unreasoned refusal by the current supplier/new supplier to sign the additional agreement, the system operator shall unilaterally amend the contract for the provision of the electricity transport/distribution service for the respective place(s) of consumption.

26. Notifies the day, time of meter reading and verification, seals
Actor : ERP DSO (CMS)
Description : Within 5 (five) days, but not earlier than 2 (two) days from the moment of signing the additional agreements, the system operator to the electricity network of which the consumption place(s) for which the procedure for changing the electricity supplier has been initiated is connected, is obliged, in the presence of the final consumer or the final consumer's representative, to carry out the control of the measuring equipment and the seals applied to it, to read the indications of the measuring equipment, to check the connection diagram of the measuring equipment and to draw up the act of control of the measuring equipment and, if necessary, the act of delimitation of the property of the electrical installations, in two copies each. Thus, the system operator informs the final consumer, the current supplier and the new supplier about the date and time of carrying out these activities. If at the time of the control of the metering equipment by the system operator one of the parties is not present, the activities shall be carried out in its absence, with this fact indicated in the act of reading the indications of the metering equipment and in the act of control of the metering equipment. In the event of the end consumer's failure to appear, the act of control of the metering equipment, signed by the responsible person of the system operator, shall be sent to the end consumer by registered mail or by signed personal cabinet, within a maximum period of 3 days from the date of the respective control. In the event of unforeseen situations that prevent the system operator from appearing at the set date and time, he is obliged to notify the final consumer, the current supplier and the new supplier about this fact and to establish another date and time that would not exceed 5 (five) days from the moment of signing the additional agreements, otherwise, the failure of the system operator's representatives to appear at the set date and time communicated to the suppliers and the final consumer is considered an impediment created by the system operator to the final consumer's right to change

supplier and is sanctioned according to the provisions of the Law on Electricity.

27. Notification
Actor : Household consumer
Description : The consumer receives notification from the system operator regarding the date and time of the verification of the metering equipment, in order to be present on site.

28. Notification
Actor : New supplier
Description : The new supplier is notified by the system operator regarding the meter reading and verification, to ensure a proper transition of the electricity supply.

29. Notification
Actor : Current supplier
Description : The current supplier is also notified about the reading and verification of the metering equipment so that it can finalize the contractual relationship with the consumer.

30. Preparation of control act
Actor : ERP DSO (CMS)
Description : The system operator is obliged, in the presence of the final consumer or the final consumer's representative, to carry out the control of the measuring equipment and the seals applied to it, to read the indications of the measuring equipment, to check the connection diagram of the measuring equipment and to draw up the act of control of the measuring equipment and, if necessary, the act of delimitation of the property of the electrical installations, in two copies each.

31. The readings will be read remotely
Actor : MDM
Description : If the metering equipment installed at the household consumer allows remote data transmission, the system operator is obliged to read the readings of the metering equipment installed at the consumption location(s) for which the change of electricity supplier is requested, taking the readings of the respective metering equipment from the electronic records in MDM, setting the value recorded at 00-00 CET (Central European Time) on the date of reading the metering equipment readings, and entering them in the act of reading the metering equipment readings.

32. Indices read manually on the meter site
Actor : ERP DSO (CMS)
Description : In the case of a household consumer whose installed metering equipment does not allow remote data transmission, the system operator indicates in the act of reading the indications of the metering equipment installed at the consumption location(s) for which a change of electricity supplier is requested, the indications of the metering equipment at the time of reading.

33. Update data in MDM and transmit meter readings
Actor : MDM
Description : The system operator transmits meter readings to the current and new supplier, ensuring that both parties have access to the correct data for billing and supply takeover.

34. Receives meter readings
Actor : New supplier
Description : The new supplier receives the meter readings in order to issue the invoice based on the measured consumption and to continue the contractual relationship with the consumer.

35. Receives meter readings
Actor : Current supplier
Description : The current supplier receives the meter readings to issue the last invoice, thus closing the contractual relationship with the consumer.

36. Terminated contract
Actor : Current supplier
Description : Once the current supplier receives the meter readings and the consumption calculation from the DSO, the contract is considered terminated. Based on these data, the supplier performs the necessary recalculation. If applicable, the last invoice is issued, without affecting the official termination of the contract.

37. Issue invoice or return advance payment (as applicable)
Actor : Current supplier
Description : The current supplier issues the final invoice for the remaining consumption or, in the event of debts of the current supplier towards the final consumer, the current supplier is obliged to return them to the consumer within 15 (fifteen) days from the date of the change of supplier. This represents the last billing interaction with the consumer.

38. Receives recalculation and notification of terminated contract
Actor : Household consumer
Description : The consumer receives the final invoice or recalculation, which must be paid within the specified deadline. If there is an advance, it will be returned by the current supplier.

39. Payment
Actor : Household consumer
Description : The consumer pays the last invoice issued by the current supplier, thus officially ending the contractual relationship with it.

Actors and Responsibilities

1. Household consumer

- **Responsibilities** :
    - Analyze the offers and choose a new provider that offers more advantageous conditions.
    - Sign the contract with the new supplier and, depending on your preferences, submit the request to change supplier to the current supplier, either in person or online, with an electronic signature.
    - Ensures that he has no outstanding debts with the current supplier, paying the invoices by the date set for continuing the process.
    - Receives notifications from involved suppliers and ERP DSO about the status of the request and participates in meter reading, as scheduled.
    - Pay the final invoice issued by the current supplier, thus finalizing the previous contractual relationship.

2. New supplier

- **Responsibilities** :
    - Negotiates and finalizes a new supply contract with the consumer, preparing all necessary documents for submitting the change request.
    - In case of power of attorney, he can submit the change request on behalf of the consumer.
    - Receives notifications from the current provider regarding confirmation of receipt of the request and coordinates with ERP DSO and the current provider the continuation of the procedure.
    - Checks and signs the necessary additional agreements with ERP DSO and, finally, receives the meter readings from MDM to begin supply and billing.

3. Current supplier

- **Responsibilities** :
    - Receives and records the supplier change request, notifying all parties involved (consumer, new supplier, ERP DSO) of the status of the request.
    - Checks whether the consumer has outstanding debts and, if they exist, suspends the procedure until they are paid, notifying the parties.
    - Sign the additional agreements necessary for the transfer of the place of consumption and the completion of the relationship with the consumer.
    - Receives meter readings from MDM for issuing the last invoice and, if applicable, refunding the advance to the consumer within the established deadline.

4. ERP DSO (CMS)

- **Responsibilities** :
    - Receive notifications regarding the request to change supplier and prepare information related to the place of consumption, including profile and technical details.
    - Transmits the consumer's profile data and technical information to the new supplier to continue the supply takeover process.
    - Coordinates with MDM for meter reading and verification, including seals, in the presence of the parties involved or remotely, if equipment allows.
    - Collaborates with MDM to transmit the necessary information to the involved suppliers, ensuring the accuracy of billing and completion of the transfer process.

5. Meter Data Management (MDM)

- **Responsibilities** :
    - Monitors, stores and updates the meter's measurement data and consumption profile.
    - Remote reading of the equipment, if supported (smart), and recording of data from classic meters (manually read by the technical team on-site).
    - Transmit meter readings to both the new and current supplier for correct billing and supply takeover.
    - Ensures that consumption data is accurate and accessible to suppliers, contributing to an accurate and efficient transition in the supplier switching process.

The objectives of the process of changing electricity supplier are the following:

Facilitating access to a competitive energy market
The main objective of the process is to allow consumers to freely change their electricity supplier, depending on the more advantageous offers or better services available on the market. This stimulates competition between suppliers and ensures consumers' access to competitive prices and quality services.

Ensuring continuity of electricity supply
The process aims to ensure a seamless transition in electricity supply when a consumer changes supplier. Through proper coordination between the current supplier, the new supplier and the system operator, disruptions in energy supply and negative impact on the consumer are avoided.

Compliance with legal and contractual regulations
Another objective is to comply with all legal provisions and specific regulations in the energy sector, including the consumer's financial obligations towards the current supplier (such as paying debts) and ensuring fair conditions for all actors involved. It also

ensures compliance with the contractual terms and conditions between the consumer and suppliers.

Transparency and correct information of the parties involved
The process is designed to ensure full transparency regarding the change of supplier. All actors (consumer, current supplier, new supplier, system operator) are informed at every stage of the process, and the consumer has access to clear and accurate information related to energy consumption and billing.

Cost optimization for the consumer
The process allows the consumer to optimize their electricity costs by choosing a supplier that offers more advantageous rates, discounts or other benefits. Through a more competitive and transparent market, consumers can save financial resources.

Simplification and automation of procedures
Another objective of the process is to simplify and automate administrative steps, such as electronic submission of requests, automatic meter reading and invoicing. This reduces the time and effort involved for all parties and makes the process more efficient.

Protecting consumer rights
The process is intended to protect the consumer's rights, giving them the opportunity to choose the desired provider and benefit from better services or lower prices, without unjustified delays or abusive penalties.

These objectives contribute to creating a balanced, efficient and transparent process that meets the needs and interests of consumers, while respecting regulations and good practices in the energy field **.**

BP_11.2 Supplier change, non-household consumer	<u>**Initiation of the process**</u> The process of changing electricity supplier is triggered when a non-household consumer decides to conclude a contract with a new supplier, either for reasons of cost, better services, or other advantages offered by the new supplier. <u>**Process Steps/Activities:**</u> **1. Choose a new supplier** **Actor : Non-household consumer** **Description :** The non-household consumer analyzes the offers available on the market and decides to change the electricity supplier, choosing a new supplier that offers more advantageous conditions in terms of price or services. **2. Concludes a New Contract** **Actor : New Supplier** **Description :** In order to conclude an electricity supply contract, the final consumer negotiates with the new supplier and transmits to him all the data necessary for drawing

up the electricity supply contract provided for in the Regulation on the supply of electricity, as well as the name of the current supplier, the address of the place of consumption(s) where the electricity consumption is expected and the contracted electrical powers. The new supplier is obliged to provide sufficient quantities of electricity to cover the electricity consumption of the final consumer, in accordance with the provisions of the concluded contract.

3. Submit Supplier Change Request to ES Current
Actor : Non-household consumer
Description : After the non-household consumer and the new supplier agree on the contractual clauses, including the electricity price, the household consumer is obliged to submit to the current supplier the request for changing the electricity supplier (hereinafter – request) in the following ways:
1) submitting the request directly to the current supplier's office;
2) sending by registered letter;
3) sending in electronic format through the Personal Cabinet, only if the request is authenticated by electronic signature.

Content of the request to change the electricity supplier submitted by the non-household consumer:
a) Name of the non-household consumer;
b) IDNO;
c) Legal address;
d) Contact details (contact address, telephone, fax, email);
e) List of consumption places for which the supplier change is requested, mentioning the specific number of the consumption place, as well as the name of the system operator to whose electrical networks the consumption place is connected;
f) Address of the consumption place(s) for which the supplier change is requested;
g) Name of the new supplier;
h) Contact details of the new supplier.

4. Submit Supplier Change Request to Current ES (through the power of attorney)
Actor : New supplier
Description : If the consumer provides a power of attorney to the new supplier, the latter can submit the supplier change request on behalf of the consumer. This step is useful for consumers who cannot submit the request in person.

5. Request Reception
Actor : Current Supplier
Description : The current supplier receives the request to change supplier and initiates the verification process. At this stage, the request is registered in the internal system.

6. Send notification of receipt of application
Actor : Current supplier
Description : On the first working day following receipt of the application, the current supplier shall notify the final consumer, the new supplier and the system operator to whose electricity network the consumption point(s) is/are connected of the receipt of

the application by means of a notification. The information regarding the receipt of the application shall be transmitted by e-mail, personal cabinet, fax or other means of written communication.

7. Notification of receipt of request
Actor : Non-household consumer
Description : The consumer receives the notification from the current supplier, confirming that the change request has been received and that the process is ongoing.

8. Notification of receipt of request
Actor : New supplier
Description : The new supplier is informed by the current supplier of the receipt of the request to change supplier and can thus continue the process in coordination with the system operator.

9. Notification of receipt of request
Actor : ERP DSO (CMS)
Description : The system operator receives the notification regarding the change of supplier, preparing for the technical and administrative verification of the process.

10. Checking measuring equipment
Actor : ERP DSO (CMS)
Description : Within 7 (seven) days from the date of receipt of the notification regarding the initiation of the procedure for changing the electricity supplier, the system operator, to whose electricity network the consumption place(s) for which the procedure for changing the electricity supplier has been initiated is connected, shall check the measuring equipment installed at the consumption place(s) of the non-household consumer requesting the change of electricity supplier (it must comply with the provisions of the Regulation on the measurement of electricity for commercial purposes, approved by the Agency and allow for the hourly recording of electricity consumption) and, in the event of non-compliance with the requirements, notify the non-household consumer, the current supplier and the new supplier of this fact. The supplier change procedure shall be considered suspended for the consumption place(s) that do not meet the requirements until the non-household consumer meets them.

11. Notification of suspension of the procedure
Actor : ERP DSO (CMS)
Description : in case of non-compliance with the requirements (non-compliance of the metering equipment), the DSO notifies the non-household consumer, the current supplier and the new supplier about this fact. The supplier change procedure is considered suspended for the consumption place(s) that do not meet the requirements until the non-household consumer meets them.

12. Suspension notification due to non-compliant equipment
Actor : Current supplier
Description : The current supplier receives notification from the DSO that the procedure has been suspended, being informed that the consumer has metering equipment that

does not meet the requirements and the procedure cannot continue until he changes the equipment on his account.

13. Suspension notification due to non-compliant equipment
Actor : New supplier
Description : The new supplier receives notification from the DSO that the procedure has been suspended, being informed that the consumer has metering equipment that does not meet the requirements and the procedure cannot continue until he changes the equipment on his account.

14. Notification of suspension due to inadequate equipment
Actor : Non-household consumer
Description : The non-household consumer receives the notification from the DSO regarding the suspension of the procedure, being informed that he has metering equipment that does not meet the requirements and the procedure cannot continue until he changes the equipment on his account.

15. Change the metering equipment on his own account
Actor : Non-household consumer
Description : The non-household consumer is obliged to change the metering equipment on his account, which must comply with the provisions of the Regulation on the metering of electricity for commercial purposes, approved by the Agency and allow hourly recording of electricity consumption.

16. Notify DSO
Actor : Non-household consumer
Description : if the consumer has changed the metering equipment according to the requirements, then notify the system operator about it. Otherwise, the supplier change procedure will not be able to continue.

17. Reception of notification of exchange of measuring equipment
Actor : ERP DSO (CMS)
Description : The system operator receives the notification regarding the change of metering equipment in accordance with the requirements. The system operator immediately notifies the current supplier and the new supplier about the removal of the causes for the suspension of the supplier change procedure.

18. Send notification of removal of the cause of suspension
Actor : ERP DSO (CMS)
Description : The system operator shall promptly notify the current supplier and the new supplier of the removal of the causes of the suspension of the supplier change procedure.

19. Notification reception removal of the cause of suspension
Actor : New supplier
Description : The new supplier receives the notification about the removal of the causes

of suspension of the supplier change procedure.

20. Notification reception removal of the cause of suspension
Actor : Current provider
Description : The current provider receives the notification about the removal of the causes of suspension of the provider change procedure.

21. Debt Check
Actor : Current Supplier
Description : The current supplier checks whether the consumer has outstanding debts for the electricity supplied up to the time of application. This check is crucial to determine whether the procedure can continue.

22. Debt settlement
Actor : Non-household consumer
Description : Within a maximum of 7 (seven) days from the date of sending the request, the final consumer is obliged to pay all invoices for the place(s) of consumption for which the procedure for changing the electricity supplier was initiated, issued by the current supplier for the electricity consumed prior to the submission of the request and, where applicable, all penalties, calculated in accordance with and pursuant to the electricity supply contract, for the consumption of electricity at the place(s) of consumption for which the procedure for changing the electricity supplier was initiated.

23. Notifies suspension of the procedure
Actor : Current supplier
Description : If the consumer does not pay the debts, within one working day of the expiry of the established deadline, the current supplier notifies the final consumer, the new supplier and the system operator, to whose electricity network the consumption place(s) for which the procedure for changing the electricity supplier has been initiated is connected, about the existence of debts at the consumption place(s) for which the change of electricity supplier is requested. The supplier change procedure is considered suspended for the consumption place(s) for which there are debts until the final consumer meets the requirements for settling the debt. The current supplier immediately notifies the new supplier and the system operator to whose electricity network the consumption place(s) for which the procedure for changing the electricity supplier has been initiated are connected, about the removal of the causes for the suspension of the supplier change procedure.

24. Suspension notification due to debt
Actor : Non-household consumer
Description : The consumer is officially notified by the current supplier that the supplier change procedure has been suspended due to outstanding debts.

25. Notification of suspension due to debt
Actor : New supplier
Description : The new supplier receives notification that the procedure has been

suspended, being informed that the change of supplier cannot continue until the debts are resolved.

26. Notice of suspension due to debt
Actor : ERP DSO
Description : The system operator is informed that the supplier change procedure has been suspended due to the existence of outstanding debts to the consumer.

27. Transmits data related to the consumer profile
Actor : ERP DSO
Description : Within a maximum of 7 (seven) days from the date of receipt of the notification regarding the initiation of the procedure for changing the electricity supplier, the system operator, to whose electricity network the consumption place(s) for which the procedure for changing the electricity supplier has been initiated is(are) connected, shall transmit the following information to the new supplier:

1) the name/designation of the final consumer, the address and the specific number of the consumption place(s) for which the change of electricity supplier is requested;
2) the method of carrying out and the current date(s) of reading the indications of the measuring equipment(s), respectively whether the reading is done remotely or on site;
3) copies of the documents signed by the system operator and the final consumer, provided for in point 82 of the Regulation on connection.

28. Reception of data related to the consumer profile
Actor : New supplier
Description : The new supplier receives from the system operator the data related to the place of consumption - the consumer profile, including information about connections, meter readings and other technical details necessary to continue the process.

29. Send notification of lack of debt
Actor : Current supplier
Description : If the consumer has no unpaid invoices by the time of submitting the application or if the consumer has settled the debt to the current supplier, the latter is obliged to notify the system operator regarding the confirmation of the lack of debt.

30. Receipt of notification of lack of debts
Actor : ERP DSO (CMS)
Description : The system operator receives confirmation of the absence of debt from the current Provider, so the process can continue.

31. Generation and transmission of signed additional agreements
Actor : ERP DSO (CMS)
Description : After receiving confirmation of the absence of debt, within a maximum of 7 (seven) days from receiving the notification regarding the initiation of the procedure for changing the electricity supplier, the system operator to whose electricity network the consumption place(s) for which the procedure for changing the electricity supplier

has been initiated is(are) connected, shall send to the current supplier and the new supplier the additional agreements regarding the modification of the consumption places within the contract for the provision of the transmission service or the contract for the provision of the electricity distribution service, as the case may be. The inclusion in the additional agreements regarding the modification of the consumption places of other clauses than the modification of the consumption place(s) is not allowed.

32. Reception of additional agreement
Actor : New supplier
Description : The new supplier receives the signed additional agreement, which details the changes made to the distribution contract for the place of consumption, and checks it for correctness.

33. Signing and transmission to the DSO
Actor : New supplier
Description : Within one working day of receiving the additional agreements regarding the modification of the consumption points within the contract for the provision of the transmission service or the contract for the provision of the electricity distribution service, the new supplier signs and transmits to the system operator to whose electricity network the consumption point(s) for which the procedure for changing the electricity supplier has been initiated are connected.

34. Reception of additional agreement
Actor : Current supplier
Description : The current supplier receives the additional agreement and checks it, ensuring that all changes comply with the legislation and regulations in force.

35. Signing and transmission to the DSO
Actor : Current supplier
Description : Within one working day of receiving the additional agreements regarding the modification of consumption points within the contract for the provision of the transmission service or the contract for the provision of the electricity distribution service, the current supplier signs and transmits to the system operator to whose electricity network the consumption point(s) for which the procedure for changing the electricity supplier has been initiated are connected.

36. Reception of additional agreements
Actor : ERP DSO (CMS)
Description : The system operator receives all additional agreements signed by both parties (current and new supplier), thus confirming that the supplier change process can continue.
Note : If the current supplier or the new supplier refuses without justification to sign the additional agreement to the contract for the provision of the transport service or to the contract for the provision of the electricity distribution service for the place(s) of consumption indicated by the final consumer requesting the change of electricity supplier, this fact is considered as an obstacle by the current supplier/new supplier to the exercise of the right to change the electricity supplier by the final consumer. In the

event of an unreasoned refusal by the current supplier/new supplier to sign the additional agreement, the system operator shall unilaterally amend the contract for the provision of the electricity transport/distribution service for the respective place(s) of consumption.

37. Notifies the day, time of meter reading and verification, seals
Actor : ERP DSO (CMS)
Description : Within 5 (five) days, but not earlier than 2 (two) days from the moment of signing the additional agreements, the system operator to the electricity network of which the consumption place(s) for which the procedure for changing the electricity supplier has been initiated is connected, is obliged, in the presence of the final consumer or the final consumer's representative, to carry out the control of the measuring equipment and the seals applied to it, to read the indications of the measuring equipment, to check the connection diagram of the measuring equipment and to draw up the act of control of the measuring equipment and, if necessary, the act of delimitation of the property of the electrical installations, in two copies each. Thus, the system operator informs the final consumer, the current supplier and the new supplier about the date and time of carrying out these activities. If at the time of the control of the metering equipment by the system operator one of the parties is not present, the activities shall be carried out in its absence, with this fact indicated in the act of reading the indications of the metering equipment and in the act of control of the metering equipment. In the event of the end consumer's failure to appear, the act of control of the metering equipment, signed by the responsible person of the system operator, shall be sent to the end consumer by registered mail or by signed personal cabinet, within a maximum period of 3 days from the date of the respective control. In the event of unforeseen situations that prevent the system operator from appearing at the set date and time, he is obliged to notify the final consumer, the current supplier and the new supplier about this fact and to establish another date and time that would not exceed 5 (five) days from the moment of signing the additional agreements, otherwise, the failure of the system operator's representatives to appear at the set date and time communicated to the suppliers and the final consumer is considered an impediment created by the system operator to the final consumer's right to change supplier and is sanctioned according to the provisions of the Law on Electricity.

38. Notification
Actor : Non-household consumer
Description : The consumer receives notification from the system operator regarding the date and time of the verification of the metering equipment, in order to be present on site.

39. Notification
Actor : New supplier
Description : The new supplier is notified by the system operator regarding the meter reading and verification, to ensure a proper transition of the electricity supply.

40. Notification
Actor : Current supplier

Description : The current supplier is also notified about the reading and verification of the metering equipment so that it can finalize the contractual relationship with the consumer.

41. Preparation of control act
Actor : ERP DSO (CMS)
Description : The system operator is obliged, in the presence of the final consumer or the final consumer's representative, to carry out the control of the measuring equipment and the seals applied to it, to read the indications of the measuring equipment, to check the connection diagram of the measuring equipment and to draw up the act of control of the measuring equipment and, if necessary, the act of delimitation of the property of the electrical installations, in two copies each.

42. Indices read manually on the meter site
Actor : ERP DSO (CMS)
Description : In the case of a household consumer whose installed metering equipment does not allow remote data transmission, the system operator indicates in the act of reading the indications of the metering equipment installed at the consumption location(s) for which a change of electricity supplier is requested, the indications of the metering equipment at the time of reading.

43. The indicators will be read remotely
Actor : MDM
Description : If the metering equipment installed at the non-household consumer allows remote data transmission, the system operator is obliged to read the indications of the metering equipment installed at the consumption location(s) for which the change of electricity supplier is requested, taking the indications of the respective metering equipment from the electronic records in MDM, setting the value recorded at 00-00 CET (Central European Time) on the date of reading the metering equipment indications, and to enter them in the act of reading the metering equipment indications.

44. Transmit meter readings
Actor : MDM
Description : The system operator transmits meter readings to the current and new supplier, ensuring that both parties have access to the correct data for billing and taking over the supply.

45. Receives meter readings
Actor : New supplier
Description : The new supplier receives the meter readings from the MDM in order to issue the invoice based on the measured consumption and to continue the contractual relationship with the consumer.

46. Receives meter readings
Actor : Current supplier
Description : The current supplier receives the meter readings/energy calculation to issue the last invoice, thus closing the contractual relationship with the consumer.

47. Terminated contract
Actor : Current supplier
Description : Once the current supplier receives the meter readings and the consumption calculation from MDM, the contract is considered terminated. Based on these data, the supplier performs the necessary recalculation. If applicable, the last invoice is issued, without affecting the official termination of the contract.

48. Issue invoice or return advance payment (as applicable)
Actor : Current supplier
Description : The current supplier issues the final invoice for the remaining consumption or, in the event of debts of the current supplier towards the final consumer, the current supplier is obliged to return them to the consumer within 15 (fifteen) days from the date of the change of supplier. This represents the last billing interaction with the consumer.

49. Receives recalculation
Actor : Non-household consumer
Description : The consumer receives the final invoice or recalculation, which must be paid within the specified deadline. If there is an advance, it will be returned by the current supplier.

50. Payment
Actor : Non-household consumer
Description : The consumer pays the last invoice issued by the current supplier, thus officially ending the contractual relationship with it.

Actors and Responsibilities:

1. Non-household consumer

- **Responsibilities:**
    - Choose the new provider based on the available offers.
    - Enter into a contract with the new supplier, according to the established clauses.
    - Submit the request to change supplier to the current supplier or provide a power of attorney to the new supplier to do so on their behalf.
    - Pay any outstanding debts to your current provider within 7 days of submitting the request.
    - Participates, if necessary, in the verification of the meter and measuring equipment.
    - Pay the final invoice issued by the current supplier for energy consumption up to the time of the change or, if applicable, have the advance payment returned from the current supplier.

2. Current supplier

- **Responsibilities:**
    - Receives the request to change supplier from the consumer or the new supplier and initiates the process.
    - In the event of debts after the expiration of the 7-day period from the time of filing the application, suspend the process and notify all parties involved.
    - In the event of no debts or after payment of expired debts, the current supplier notifies DSO.
    - Participates in the signing of additional agreements necessary to modify consumption locations.
    - Performs consumption recalculation and issues the final invoice for the energy consumed up to the time of change.
    - In the event that the consumer has an advance on the respective CPN(s), the current supplier is obliged to return it to the consumer within 15 days.

3. New supplier

- **Responsibilities:**
    - It concludes the contract with the consumer and may take responsibility for submitting the request to change supplier, based on a power of attorney provided by the consumer.
    - Receives technical data from the system operator regarding the place of consumption.
    - In case of suspension of the procedure due to unpaid debts of the consumer, he is notified of this by the current supplier.
    - Sign the additional agreement sent by the system operator, for taking over the consumption site(s).
    - It receives the meter readings from the system operator to issue the first invoice based on actual energy consumption from the time of taking over the supply.

4. ERP DSO (includes not only actions performed automatically by the ERP system but also the data that is recorded in this system) (CMS)

- **Responsibilities:**
    - Receives notifications regarding supplier change and coordinates technical and administrative verification.
    - Check if there are legal and technical conditions for changing supplier, including debts or irregularities in metering equipment.
    - Transmits the data related to the place of consumption (CPNs) to the new supplier, ensuring that all technical details are correct.
    - Organizes and performs the reading of the measuring equipment (manually), draws up the verification report and transmits the meter reading data to MDM.

- If the consumer is not present at the meter check, the operator sends the verification document by mail/personal office.

5. Meter Data Management (MDM)

- **Responsibilities** :
  - Monitors, stores and updates the meter's measurement data and consumption profile.
  - Remote readings of equipment, in the case of smart meters.
  - Transmit meter readings to both the new and current supplier for correct billing and supply takeover.
  - Ensures that consumption data is accurate and accessible to suppliers, contributing to an accurate and efficient transition in the supplier switching process.

The objectives of the process of changing electricity supplier are the following:

Facilitating access to a competitive energy market
The main objective of the process is to allow consumers to freely change their electricity supplier, depending on the more advantageous offers or better services available on the market. This stimulates competition between suppliers and ensures consumers' access to competitive prices and quality services.

Ensuring continuity of electricity supply
The process aims to ensure a seamless transition in electricity supply when a consumer changes supplier. Through proper coordination between the current supplier, the new supplier and the system operator, disruptions in energy supply and negative impact on the consumer are avoided.

Compliance with legal and contractual regulations
Another objective is to comply with all legal provisions and specific regulations in the energy sector, including the consumer's financial obligations towards the current supplier (such as paying debts) and ensuring fair conditions for all actors involved. It also ensures compliance with the contractual terms and conditions between the consumer and suppliers.

Transparency and correct information of the parties involved
The process is designed to ensure full transparency regarding the change of supplier. All actors (consumer, current supplier, new supplier, system operator) are informed at every stage of the process, and the consumer has access to clear and accurate information related to energy consumption and billing.

Cost optimization for the consumer

The process allows the consumer to optimize their electricity costs by choosing a supplier that offers more advantageous rates, discounts or other benefits. Through a more competitive and transparent market, consumers can save financial resources.

Simplification and automation of procedures
Another objective of the process is to simplify and automate administrative steps, such as electronic submission of requests, automatic meter reading and invoicing. This reduces the time and effort involved for all parties and makes the process more efficient.

Protecting consumer rights
The process is intended to protect the consumer's rights, giving them the opportunity to choose the desired provider and benefit from better services or lower prices, without unjustified delays or abusive penalties.

These objectives contribute to creating a balanced, efficient and transparent process that meets the needs and interests of consumers, while respecting regulations and good practices in the energy field **.**

PROCESS	FINISHING THE PROCESS ELEMENTS
BP_12 **Data Management and Registration of Classic Measurement and Control Devices in MDM**	**Initiation of the process:** The process is triggered to enable efficient management of data from classic metering and control devices directly in the MDM system, eliminating the use of ERP for recording this data. This marks the transition to a unified approach to managing all meters (smart and classic) within the MDM framework. The trigger occurs automatically, upon the initiation of any of the following actions: • Updating or modifying the parameters of classic measurement and control devices. • Manual reading of indices on classic meters. • Defining, planning and generating routes and itineraries for reading classic meters. **Process Steps/Activities:** **1. Generation of Routes and Itineraries for Reading Classic Metering and Control Devices** **Actor : MDM** **Description :** MDM generates itineraries for manual reading of classic meter readings (meters and other similar devices). This process is based on the information associated with each CPN (Consumption Place Number), such as geographical location, consumption history and periodic schedules. The itineraries

are optimized for efficiency, using algorithms that reduce the time and costs associated with manual reading.

2. Defining, Managing and Modifying Reading Teams
Actor : MDM
Description : MDM defines reading teams, assigning them the devices needed for reading, as well as their tasks. MDM also manages and modifies reading teams based on operational needs and changes in planning.

3. Transmission of Routes to Reading Teams
Actor : MDM
Description : The generated routes and itineraries are transmitted to the reading teams via mobile devices (tablets) or other electronic means. These include details about each consumption location, the reading order and specific instructions (e.g. checking the status of the measuring devices). The routes are transmitted via local or remote connection, ensuring coordination between the field teams and the management center.

4. Reception of routes and itineraries
Actor : Reading Teams
Description : Reading teams receive routes and itineraries via mobile devices (tablets) or other electronic means. These include details about each consumption location, the order of reading and specific instructions (e.g. checking the status of the measuring devices)

5 . Manual Consumption Data Collection
Actor : Reading Teams
Description : Reading teams travel to the field according to itineraries and collect consumption data manually, including meter readings and other classic measuring devices, observations related to their status and other relevant details. The data is entered directly into mobile applications connected to MDM, thus eliminating the need for separate recording in ERP.

6. Direct Data Entry into MDM
Actor : Reading Teams
Description : Data collected manually by field teams is entered directly into MDM via mobile tablets. This process ensures the correct association of data with the related CPN and the complete integration of information into the consumer profile. Preliminary data validation is performed to reduce the risk of errors or discrepancies.

7. Validation and Update of the Consumer Profile
Actor : MDM
Description : MDM validates the data entered to verify its accuracy and consistency. After validation, the information is used to update the customer

profile, ensuring full traceability of consumption and interventions performed on classic measurement and control devices.

Note: In the event that anomalies are identified that cannot be resolved directly from MDM, the relevant information will be transmitted to the ERP DSO for the necessary measures to be taken.

8. Consumption History Keeping
Actor : MDM
Description : The MDM system maintains a detailed history of all consumption data and interventions associated with classic measurement and control devices. This allows quick access to information for analysis, reporting and identification of possible anomalies or discrepancies.

9. Calculation of Electricity and Losses for Classic Devices
Actor : MDM
Description : MDM automatically calculates the electricity consumed and losses associated with classic measurement and control devices, using data collected by reading teams. These calculations are integrated into the MDM system, ensuring accurate reporting of consumption and losses for each CPN.

10. Report Generation and Transmission
Actor : MDM
Description : Based on the collected and validated data, MDM generates periodic reports that can be transmitted to other systems (e.g. ERP - Billing) or relevant authorities. These reports include details about energy consumption, technical interventions and other relevant information.

Actors and Responsibilities:

1. MDM (Meter Data Management)

Responsibilities:

- **Defining, managing, and modifying reading teams** : MDM defines reading teams, assigns them the devices required for reading, and manages their modifications.
- **Generating routes and itineraries** : MDM creates routes and itineraries for reading measurement and control devices (meters and other devices) based on location, consumption, and scheduling data.
- **Transmission of routes and itineraries to reading teams** : Routes and itineraries are transmitted to reading teams via mobile or electronic devices, ensuring that the information is accurate and up-to-date.
- **Validation and update of the consumer profile** : MDM validates the data collected by the reading teams and updates the consumer profile with the correct information, to ensure traceability of consumption and interventions.

- **Calculation of electricity and losses** : MDM performs automatic calculations for electricity consumption and losses, using data collected from measurement and control devices.
- **Report generation and submission** : MDM creates detailed reports based on the collected data, which are submitted to external systems (e.g., ERP for billing) or relevant authorities.

2. Reading Teams

Responsibilities:

- **Manual collection of consumption data** : Reading teams travel to the field according to the itineraries received, collecting readings of meters and other measuring devices, observations related to their condition and other relevant details.
- **Data Entry into MDM** : After collecting data, teams enter it directly into MDM-connected mobile applications, ensuring that information is correctly recorded and updated.

Process objectives:

1. Centralization of Classic Measurement and Control Device Data in MDM

The main goal is to ensure direct recording of data from classic measurement and control devices in MDM, without the need for ERP. This approach contributes to:

- Simplifying the data management workflow by eliminating redundant steps.
- Creating a single and centralized system for managing consumption data and the status of classic meters.
- Reducing the risk of information loss or duplication by eliminating intermediate transfer.

2. Complete Management of Consumer Profiles in MDM

All information related to classic measurement/control devices – including status (mounted, dismantled, connected, disconnected), consumption history and technical interventions – will be managed directly in MDM. This objective ensures:

- Unified access to information related to each CPN (Consumption Place Number).
- Full data traceability for monitoring, reporting and analysis.
- A detailed record, updated in real time, that can be used in all subsequent processes.

3. Generating and Managing Routes and Itineraries Directly in MDM

MDM takes responsibility for generating and managing itineraries for reading classic meters. This includes:

- Creating optimized routes for manual reading teams.
- Associating itineraries with CPNs and related locations.
- Keeping history of itineraries and reading sessions for complete records.

4. Improving Data Monitoring and Analysis

MDM is equipped to analyze data collected manually from classic measurement and control devices. The objective of the process is to:

- Automatically detect anomalies, such as abnormal consumption or discrepancies from consumption history.
- Ensure quick access to data for billing, technical, and support departments.
- Supports network optimization processes by using accurate and up-to-date data.

5. Regulatory Compliance and Data Traceability

MDM will manage all information related to classic meters in accordance with legal requirements. This objective includes:

- Creating a fully traceable system for all modifications and interventions on classic meters.
- Ensuring compliance with data protection regulations and reporting to authorities.
- Providing an audited database, which can be used for official checks or inspections.

6. Preparing for the Transition to Smart Meters

Although the current process focuses on classic meters, MDM enables a smooth transition to exclusive management of smart meters. This objective aims to:

- Gradual integration of smart meters, keeping complete records of classic meters until their replacement.
- Compatibility of historical data with that generated by smart meters, ensuring continuity in reporting and analysis.
- Reducing management differences between the two types of meters for optimal unification of processes.

7. Facilitating Interaction with Other Systems

MDM enables simplified integration with other systems, such as Billing ES, to support billing and reporting processes. This goal includes:

- Automatic transmission of relevant data to other systems for further use.

	• Ensuring interoperability and data consistency between departments. • Creating an efficient workflow that supports end-to-end processes.