



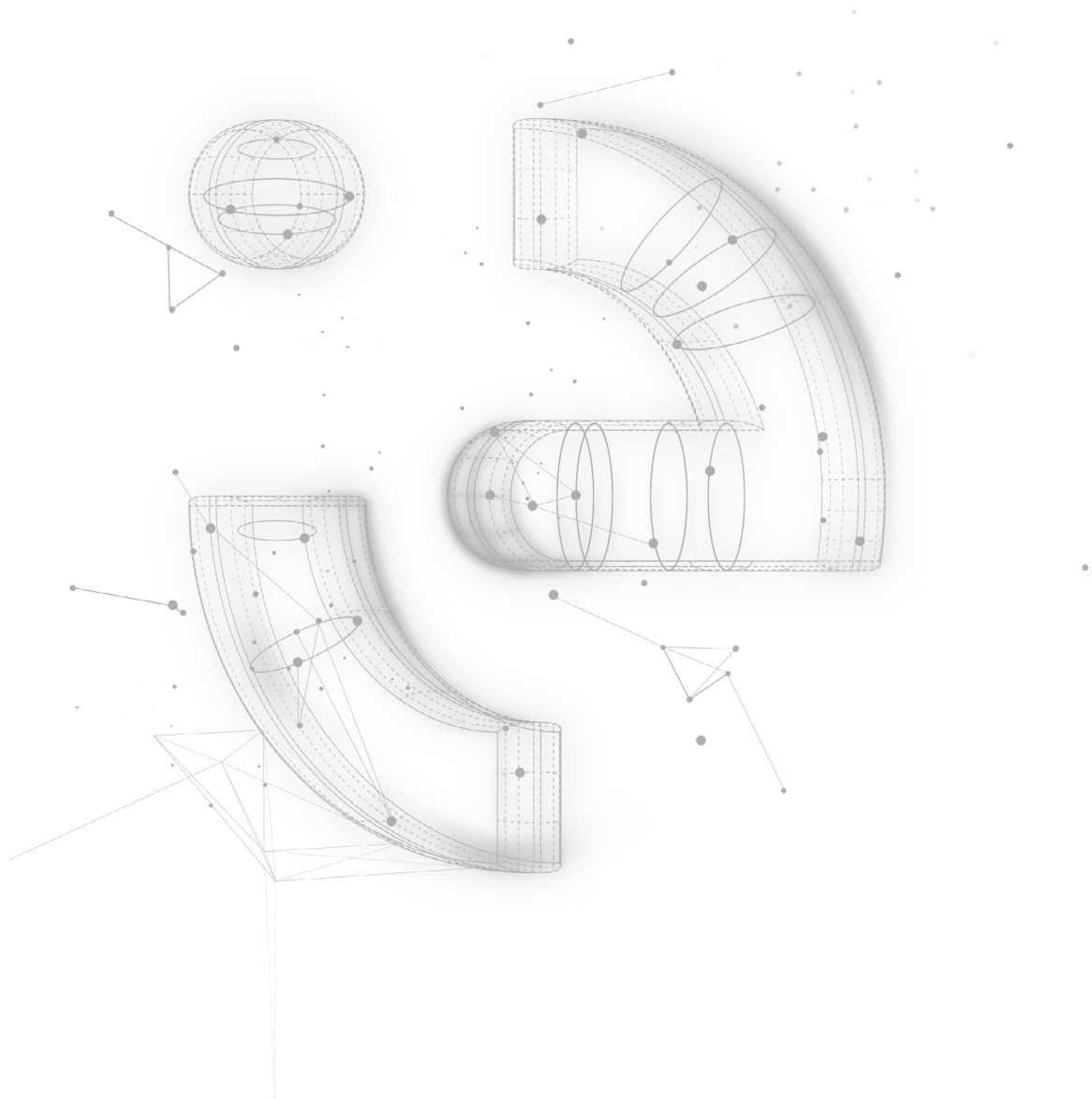
# Services Catalogue



iskraemeco  
BY ELSEWEDY ELECTRIC



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# Intelligence to energy.

Having delivered millions of devices over the past several years, our team has gained extensive knowledge and expertise, which allows us to support our customers at all stages of smart metering projects, from planning to implementation, and continue to provide high-quality support services after the delivery of the project. Experts with vast experience in the field will make sure that your tailored solutions will be implemented professionally, efficiently and on time.



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Business Strategy  
Innovation  
Branding  
Solutions  
Marketing  
Analysis  
Ideas  
Success  
Management

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23:35:60



# 01

## Planning.

We provide a range of services already in the project planning phase. These services include a detailed analysis and comprehensive understanding of the customer's existing infrastructure and the requirements for future infrastructure, as well as preparation of a solution that is best fitted to the customer's budget.





## Infrastructure survey

Our experts perform a detailed analysis of the customer's current infrastructure, with emphasis on the following:

- the number of meters (by type) installed at the customer,
- the geo location of the meters,
- the number of transformer stations and the number of meters per transformer station,
- the type of data transfer communication system,
- the third-party vendor system connected to AMI infrastructure,
- the type of IT support (customer's or outsourced),
- and other parameters.

The information or/and documentation which our team needs in order to perform the infrastructure survey has to be provided by the customer.



## Feasibility study

On the basis of the information gathered by an infrastructure survey, customer requirements for future infrastructure, country specifics, applicable legislation and planned budget, our team of highly-skilled solution architects with years of experience will prepare a comprehensive feasibility study. The feasibility study will then be communicated to and discussed with the customer.



## Solution design

Taking into account the findings of the infrastructure survey and the feasibility study, our solution architects, assisted, if needed, by other experts within the company, will prepare a customised solution proposal which will be analysed in cooperation with the customer.



## Consultancy

Consulting services are part of our wide portfolio of services that addresses the unique challenges which a specific utility is facing today or might be facing in the future.

Our team supports the customer at all stages of their smart metering projects by sharing our knowledge and understanding of AMI systems, including the device features (meters, communicators), type of communication, system integration, as well as security or any other part of the solution. Our team of dedicated consultants uses the information obtained in the infrastructure survey and the feasibility study to prepare a proposal to optimize the existing solution by extending or adding certain functionalities, thereby maximising the benefits of the system. Additional use cases might be proposed with an aim to lower the costs or increase the efficiency of the system.



# 02

## Deployment.





## Installation

Iskraemeco's professional team offers installation of our system for automated collection and processing of smart metering data in order to secure proper installation and guarantee maximum performance. Prior to the installation, all use cases need to be defined and confirmed and general architecture has to be ready. The virtual or physical test environment has to be prepared by the customer as all use cases are first tested in the test environment. When the tests in the test environment are confirmed by the customer, the system is ready to be transferred to the production environment. Installation does not include system configuration. The above services can be performed either remotely or on site. The customer needs to provide Iskraemeco's team with administrative rights in order to allow them to access the environment.



## Configuration

The configuration service covers the definition and configuration of communication and metering devices which will be implemented into the system. Configuration also includes deployment of the confirmed use cases, manual data import, preparation of schedules to obtain metering values, and deployment of reports.

When all the above steps are completed, the described service system is ready for start-up.



## Integration

We offer integration services which include analysis, design, development, testing and integration of Iskraemeco's system to other systems that are part of the customer's infrastructure or integration of third-party devices into our Head-End System.



## Testing

The testing service includes testing of metering devices, communication devices or the complete system. Testing can be carried out remotely or on site. Testing can be performed on different communication types and can also include third-party devices.

The testing of **metering devices** covers testing of new or specific functionalities according to customer requirements.

The testing of the **system** includes testing of system installation, testing of use cases, collection performance, and API layer.

The testing of **communication** on Iskraemeco's devices equipped with various communication interfaces. Testing includes several activities in order to examine communication interfaces according to operational specifications. The service can be performed on different communication types (DLC, GSM/GPRS, PSTN/ISDN, RS485 and many others).





## Infrastructure optimization

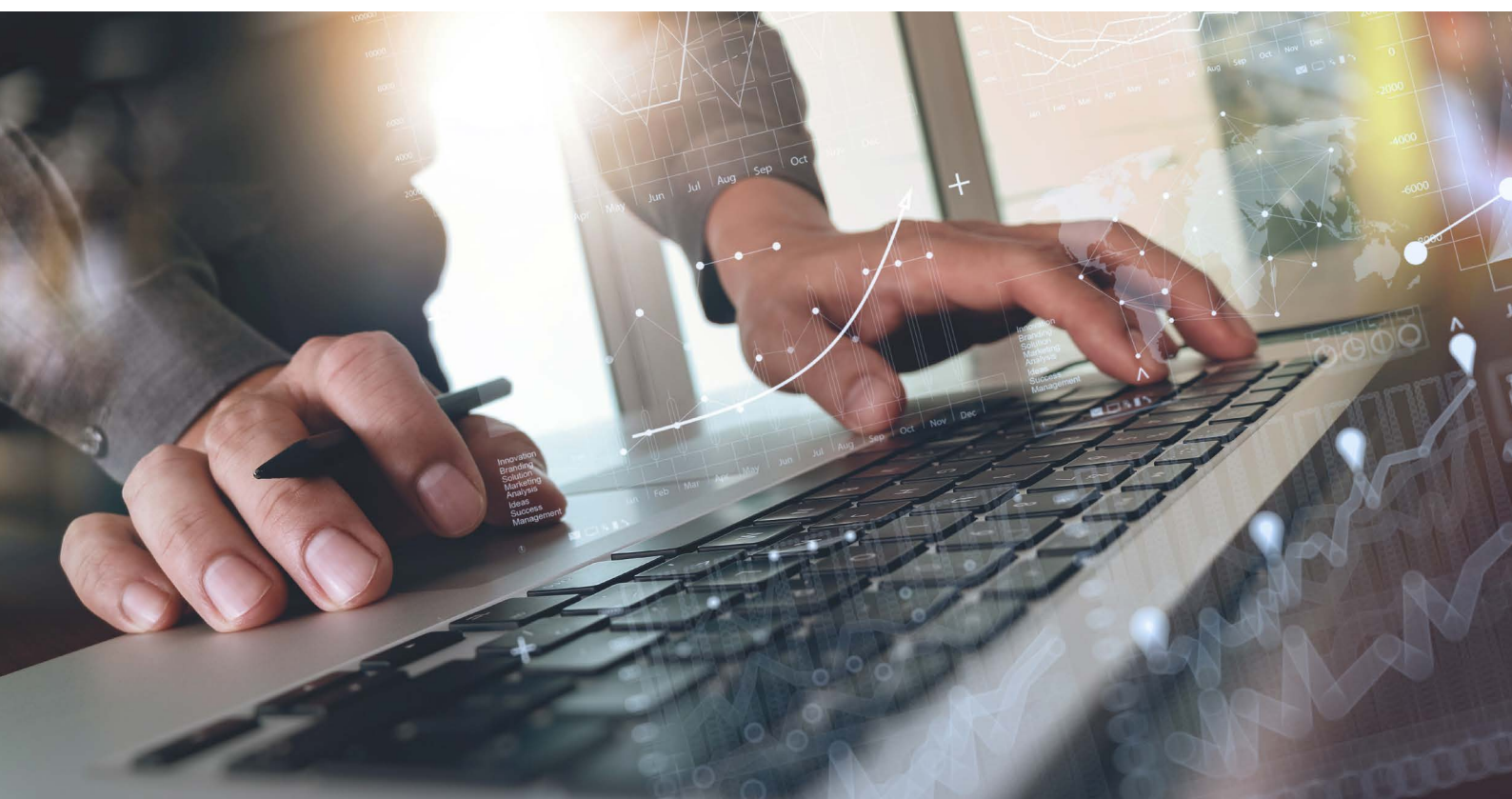
Due to infrastructure and solution specifics, in some cases a variety of problems might cause non-availability of measurement data. Such problems include failure when linking the metering point to the meter, presence of network interference or attenuation causing missing data, or any other. In such cases, adjustment or fine tuning is required to secure the optimal performance of the system. We can offer this service based on our expertise and usage of appropriate tools. The service can be performed either remotely or on site (site visit). In order to successfully carry out this service, the customer has to provide our team with proper information on the current status of the device, such as parameterisation of devices in the field (data concentrator or gateway meters), information on the existing Service Level Agreement (which services are included).

## On-site optimization

This service includes the initial site analysis which helps to identify the possible root cause of a problem. The location and the effect of disturbances can be measured and determined using a special tool (Iskra PLC Spy device, or a spectrum analyser). The analysis is prepared to locate the detected disturbances and identify the possible solution for network stabilisation. In case disturbances cannot be eliminated, our skilled personnel propose a solution using another type of communication. In order to perform the service successfully, the team needs to be provided with detailed technical topology documentation and continuous assistance of authorised personnel.

## Remote optimization

The connection to the system or device is established and a check-up of the system intended to eliminate any issues is performed. In order to connect to the system or device, the customer has to grant administrative rights for all the parts of AMI components.







## Documentation

The documentation prepared by our experts is a vital part of any project as it supports the performed activities and can be used in the future whenever open issues arise.



## Project management

Project management is vital for a successful AMM roll-out project. It consists of all activities necessary for the project to be performed as efficiently as possible with the best possible results.

03

**Support  
services.**







## Preventive maintenance

Iskraemeco's team of experts performs preventive maintenance activities in order to avoid extensive and costly repairs at a later stage. Preventive maintenance helps to secure reliability and maximize the performance of the system.

The preventive maintenance service is advised in order to discover and avoid potential risks and failures on communication interfaces. The service includes all necessary activities to examine the compliance of communication interfaces with operational specifications.

Preventive maintenance can be performed either remotely or on site.

## Remote preventive maintenance

Remote preventive maintenance is provided by Iskraemeco's offices using the agreed type of remote access (VPN, TeamViewer, Remote desktop, or any other solution). The activity is advised to be performed on a periodical basis. Iskraemeco's technical staff connects to the environment and checks the system as briefly described below:

- HW status (CPU usage, RAM usage, remaining storage space)
- OS status (health of an operating system)
- Database status (fragmentation of tables, re-indexation jobs, tables size)
- Head-End System status (status of background processes, usage of services, general system performance)

After the check is performed, a status report is generated. If an anomaly is detected, a proposal of the measures is written in the report. If a critical issue is found, an immediate notification is triggered in order to prevent any further complications.

## On-site preventive maintenance

This type of preventive maintenance is done once per year. The visit is agreed in advance with the customer, so that the needed support by the customer can be guaranteed. In addition to the remote preventive maintenance, the on-site preventive maintenance also covers the following:

- Physical check of the equipment
- Cleaning of the server equipment
- HW status (CPU usage, RAM usage, remaining storage space)
- OS status (health of an operating system)
- Database status (fragmentation of tables, re-indexation jobs, tables size)
- Head-End System status (status of processes running in background, usage of services, general performance of the system)
- Device communication wiring check
  - Check of connectivity on all used channels (if the AMI system cannot communicate with a particular device, the staff examines proper wiring)

After the check is performed, a status report is generated. If an anomaly is detected, a proposal for the following steps is written in the report. If a critical issue is found, an immediate notification is triggered in order to prevent any further complications.





## Update

The update means eliminating minor non-conformities discovered during the use of the product.

With the update, the customer gets the latest fixes and security improvements which help the device run efficiently and stay protected.

The update includes all necessary activities to update meters, communication modules or SW.

This service can be performed either remotely or locally, on site.



## Upgrade

We offer upgrade service in order to enable smooth and timely upgrades to the latest version of data collection system environment. As part of the upgrade, the consultant analyses current usage and processes and prepares recommendations to maximise the value of new features and capabilities.

The upgrade means a future release of the product containing improved functionality, operation enhancements and/or other changes, as defined by the Iskraemeco's software strategy for the product. Drivers for third-party devices or new features requests are out of the scope of an upgrade.

After receiving the notification about the upgrade, the customer confirms that they understand the changes and approves the relevant documentation. The upgrade is first applied to the customer's test environment. Pre-agreed tests are executed together with the customer. When all the tests are performed, the customer approves and releases the new upgrade. When the upgrade is released by the customer, it is ready for application in the production environment. The plan of the upgrade is now approved and ready for implementation. The time plan has to be defined and confirmed by the customer. Once the upgrade is finished and the test is completed, an upgrade report is prepared and added to the project documentation.



## Corrective maintenance

Corrective maintenance is a form of system maintenance performed after a fault or problem emerges in the system, with an aim of restoring the operability of the system.

Remote corrective maintenance includes all activities related to Head-End System SW platform excluding relational database management system (RDBMS) and other vendor components.



## Service desk

We offer support to day-to-day service requests and incident resolution via our Service Desk. It operates according to respective ITIL processes. Service Desk personnel are properly trained and instructed to support the services.

Business hours are every working day (Monday to Friday) from 8:00 to 16:00 local time, excluding Saturdays, Sundays and Slovenian national holidays.



## Training

We offer an effective professional training service covering the entire product and solutions portfolio. Training modules are easy to understand, comprehensive and empower participants with the knowledge and competencies required for specific tasks. Each module is equipped with quality training material which includes practical examples and hints from experts. Training modules are upgraded on a regular basis.



# Shaping the future.



More than 10 million intelligent  
metering devices in operation



An established global  
network partner



A fair meter pioneer



Provider of customisable  
global solutions



Game changer in intelligent  
metering innovations



Worldwide delivery of future-  
proof solutions





**Together we achieve more.**





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