

SAP Solution Brief

SAP Solution Extensions

SAP Energy Data Management, Add-On
for Gas Regulatory Compliance by PROLOGA

Objectives

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Quick Facts

Thrive in Regulated Gas Markets with Enhancements for SAP® Software



The Best-Run Businesses Run SAP®

Opportunities, challenges, and regulations

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The evolving European energy sector provides companies with new opportunities, as well as complex tasks and requirements to comply with. For example, one Europe-wide legislative framework defines processes for cross-border gas transport and harmonizes national rules to streamline transactions and enhance supply security. Are you [ready to support these processes?](#)

Regardless of your firm's role in the gas sector, you'll need to implement new processes in each country and meet higher standards for data quality and exchanges between market partners. Succeeding necessitates adapting your IT infrastructure to meet requirements for gas handling, data monitoring, cost controls, and more.

The challenge is doing this swiftly, affordably, and in a way that works with your SAP® software for efficient, end-to-end processes.

SAP Energy Data Management, add-on for gas regulatory compliance by PROLOGA, can help. Based on software in the SAP for Utilities solution portfolio – that is, the SAP Energy Data Management application – the add-on provides enhancements and features designed to meet the exact requirements of participants in the gas market. Use it to jump-start adaptation of your IT infrastructure and business processes to fulfill national and European regulatory requirements – and in role-specific ways – directly within your SAP for Utilities solutions.



Automated management of gas allocation

Automated management of gas allocation

Sophisticated management of capacity and nominations

Process support for gas utilities at the highest level

Monitoring functions to help ensure master data quality

The add-on for SAP Energy Data Management helps **distribution system operators** make the correct allocation determinations regarding the amount of gas needed for a given day. Typically, there are two types of customers for which you must determine gas allocations:

- Larger, consumption-metered customers using interval metering
- Small businesses and private households (also referred to as standard-load profiles, or SLPs)

The software performs the calculations for consumption-metered customers using a technical quantity determination. Calculation routines use measured amounts of gas and the calorific value of the gas to determine the total amount of necessary energy in kilowatt hours.

The calculations for SLPs depend on the rules for a local market, which are based that country's national model. The add-on allows your gas company to apply a national calculation model, or algorithm, on top of existing SAP software standard calculations that calculates the gas allocation within the operated grid for SLP customers.

Distribution system operators can choose to arrange small-business consumers into subgroups based on their typical consumption behavior. In such cases, the software's algorithm uses data about seasons, weather, and other variables to calculate an average amount of gas consumed by members of the subgroup.



Sophisticated management of capacity and nominations

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Transport system operators (or gas shippers) must handle gas network access in accordance with requirements defined by national markets or market areas (for example, European regulatory authorities such as the European Network of Transmission System Operators for Gas, or ENTSOG). To meet these requirements, the SAP Energy Data Management add-on uses special capacity and nomination management processes to determine points

of delivery and help ensure a balanced gas allocation and capacity settlement.

Specifically, the add-on gives operators a visual, hierarchical overview of the grid topology for a given market area all the way down to the measuring devices. The result is a single, integrated view of gas stations that can be used to categorize and map any facility supporting gas transport in the real world.

Gain a hierarchical view of network interconnection points, gas storages, city gates, liquefied natural gas stations, and gas hubs.



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The add-on for SAP Energy Data Management also provides a special capacity view that provides detailed information on:

- The capacity situation for each gas station and its respective network interconnection points
- The technical maximum capacity of each gas station (which is the maximum that can be shipped using high pressure through the pipeline at a certain grid point)
- The booked capacity per shipper at interconnection points
- Capacity information about all entry and exit points for a given period of time

You can use this information to check for free capacity not sold to a supplier, as well as to validate that booked capacity doesn't exceed the technical maximum for a given grid point.

The software also supports nomination management, which helps gas utilities balance the overall demand and consumption of a gas grid (see the [figure](#) on the next page). The proper processing of nominations and renominations – and the validation of nominations against the capacity information of each nomination point – is also supported.

Distribution system operators, transport system operators, and balancing-group managers can more easily comply with regulations.



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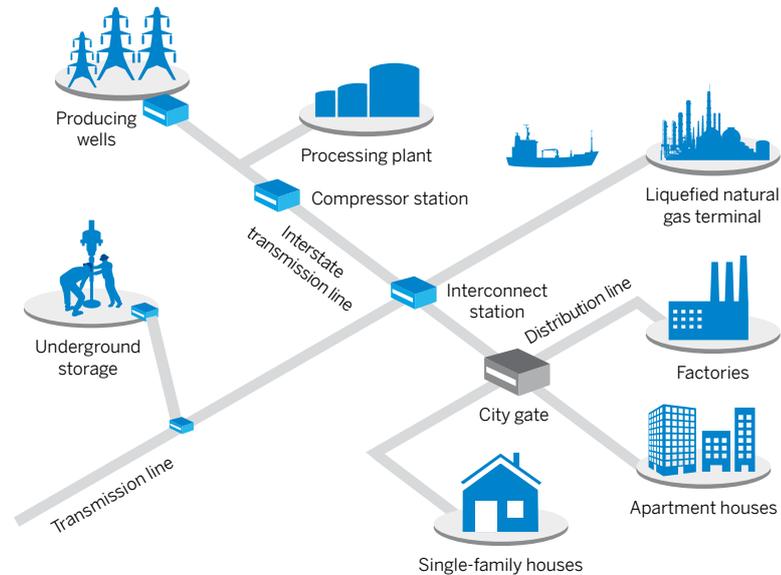


Figure: Efficiently balancing overall demand and consumption across the gas grid



Process support for gas utilities at the highest level

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Monitoring functions to help ensure master data quality

With the add-on for SAP Energy Data Management, utility companies can monitor and analyze time-series information from market partners. The software delivers balancing-group management processes within the SAP for Utilities set of solutions, as well as a balancing-group monitoring screen that displays time-series information received from partners both graphically and hierarchically. This view allows users to identify the difference between ordered amounts of gas (nominations) and booked capacities; the lower the difference between these numbers, the more accurately

the supplier has predicted consumption for contracted end customers. Increased accuracy directly results in cost savings.

Utility companies acting as balancing-group managers can also compare the received allocation and nomination data to validate the accuracy of the data from market partners, as well as aggregate data for different market partners based on a specified time series. Using this information, you can transfer energy amounts between balancing groups to help ensure the entire market is in balance.

Process incoming information from market partners using a wide range of transaction formats, as defined by EDIG@S.



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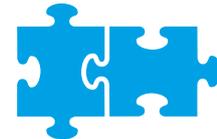
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Monitoring functions to help ensure master data quality

The add-on for SAP Energy Data Management also maps the different time-series types in accordance with the national rules and processes transactions between parties; relevant transaction data is automatically stored and ready for next steps in processes.

The software also supports key processes for supplier companies and shippers. For example, supplier companies can perform the same calculations as their market partners to validate the quality of the data received regarding quantities. Suppliers can also perform nomination and capacity-management calculations from a supplier's point of view.

Gain all the functionality needed to support end-to-end processes for suppliers using standard SAP software.



Monitoring functions to help ensure master data quality

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The SAP Energy Data Management add-on also performs numerous automated master data checks through a cluster framework, including ad hoc and cyclically automated plausibility checks for energy data. This functionality improves data quality before settlement runs are performed, which is critical because even a small set of incorrect master data or implausible time-series information can lead to significant errors in gas allocation amounts.

The add-on also provides various algorithms, referred to as “finding” methods, that you can use to select a subset of the entire data set and validate it (for example, against thresholds using check routines). It also includes a huge set of analytical functions delivered standard with the product. Furthermore, the cluster framework allows you to integrate your own custom-developed plausibility checks using open interfaces.

Now you can automatically validate master data quality before settlement runs – the key to making correct gas allocations.



Comprehensive enhancements to support all industry roles

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No matter which role your company represents within the gas market, the add-on for gas regulatory compliance provides a wide variety of functional enhancements for your SAP Energy Data Management application. These help you comply with evolving business and accounting process requirements.

You benefit from:

- Full integration of the SAP Energy Data Management, add-on for gas regulatory compliance, with the SAP for Utilities solution portfolio

- Faster, easier regulatory compliance today – and in the future
- Consistent, integrated business processes spanning all areas of your company
- Optimal, more customer-oriented processes that result in faster, higher-quality calculations
- The ability to process incoming messages from market partners using a wide range of transaction formats, as defined by EDIG@S, an electronic data interchange standard for processes in the oil and gas industry

You can be fully prepared to implement business process changes according to the rules and market roles supported by your SAP software.





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Summary

Changes in energy markets are creating complex new regulatory requirements. SAP® Energy Data Management, add-on for gas regulatory compliance by PROLOGA, can help by providing functionality tailored for different gas market participants. It supports allocation determinations for distribution system operators, capacity and nomination management for transport system operators, and balancing-group monitoring for balancing-group managers. And monitoring functions constantly evaluate and improve master data quality.

Objectives

- Thrive in a liberalized gas market facing new regulations
- Implement complex, efficient new processes
- Help ensure the quality of large data sets used in new processes

Solution

- Gas-specific, automated processes for all market roles
- Visualization to aid capacity management
- Nomination management
- Allocation management
- Balancing-group management and visualization
- Monitoring and plausibility checks

Benefits

- Streamlined integration between the add-on and the IS-U functionality in the SAP Energy Data Management application
- Faster, easier regulatory compliance
- Consistent business processes across your company
- Optimal, more customer-oriented processes
- Faster processing of incoming messages using market transaction formats like EDIG@S

Learn more

To find out more, call your SAP representative today or visit us [online](#).



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