RPA IN THE ENERGY SECTOR | EBOOK

SHAPING THE ENERGY MARKET OF TOMORROW WITH RPA

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Contents

Changes in the energy sector

The energy sector is changing. There's a shift in energy supply, competitive pressure, increasing customer demands and digitalization. With the liberalization, German legislators opened the electricity and gas markets to free competition, putting the business models of most energy providers to a test. As a result, leading companies are now, more than ever, working on their digital transformation and putting internal processes to the test.

The good news is that there is a high potential for robotic process automation (RPA) in this area. Most energy suppliers still handle a wide variety of back-office processes - such as meter management, account management, customer billing and consumption management - independently.

Energy trading requires a considerable number of employees to manage the flow of data within the organization. These processes usually require enormous manual effort and are highly time-consuming.

To meet the rising energy consumption and process volumes, energy organizations are increasingly investing in RPA technology. Most of the companies expect growing investments in RPA over the next two years.

According to a **study by HFS**, the entire RPA service and software market is expected to grow by about 40 percent annually and reach $4.3 billion by 2022*. **Navigant Research estimates** that the energy and utilities industry's RPA investments alone are expected to reach approximately $470 million by 2027**.

It seems that energy experts are aware of the benefits of RPA and how technology can save organizations time and money.

* **Horses for Sources**, RPA will reach $2.3bn next year and $4.3 by 2022, 2018

** **Navigant Research**, Robotic Process Automation in the Utility Industry is Expected to Experience a Nearly 26% Compound Annual Growth Rate, 2018

Challenges in the energy sector

In its current model, the energy sector faces several challenges. Due to legal requirements, there are comparatively high compliance demands on the energy sector. In Germany, the Federal Network Agency and the state regulatory authorities retain control and approval functions. Also, various trends require a reorganization of energy and supply companies:

DIGITAL DISRUPTION OF THE ENERGY INDUSTRY

Global energy consumption is growing at an increasing rate. With rising volumes and diverse data sources, the complexity of the situation is growing as well. Energy companies are tackling this data chaos by further digitizing their value chain and increasing efficiency through new technologies

ECOLOGICAL ENERGY MIX

The industry is experiencing a paradigm shift from grey to green energy, and customers are increasingly demanding ecological alternatives. With the use of green energy, organizations and governments are facing new challenges, such as maintaining a secure, reliable, and sustainable energy supply for customers.

COMPLEX BUSINESS MODEL

Low-carbon power generation and the development of new energy products and services make the business model even more complex. Since energy costs, and therefore prices, suffer from **relatively high volatility**, it is often difficult to assess supply and demand. Also, the shift in society is leading to increased competitive pressure between new suppliers.

Thanks to RPA there are new possibilities for energy production and consumption. Organizations should, therefore, take advantage of RPA at every stage of their energy value chain:

- Power generation
- Supply and demand balancing
- Smart networks
- Distribution system
- Customer services

New generation models can be enabled and thus promote the growth of modern energy use.

> "The energy industry is experiencing a double transformation. In addition to digitalization, the shift in energy supply is changing the basis of our previous value chain. Both developments are directly intertwined."

Stefan Kapferer
Chairman of the Executive Board BDEW
Bundesverband der Energie- und
Wasserwirtschaft e. V.

An excellent environment for RPA

As Capgemini reports, the energy and utilities industry currently benefits from RPA initiatives more than many other sectors and is deriving significant operational benefits from its RPA investments*. This open attitude towards the digital workforce results in higher quality work, improved data accuracy and enhanced compliance with regulatory standards.

In addition to the numerous RPA-compatible processes and the necessary order volume, the structured nature of the data in this industry also makes it particularly well suited. Key factors that indicate the use of RPA in the energy sector include:

1 Massive data silos: The best breeding ground for RPA

The energy sector generates a huge amount of data. Most of it is stored in various business departments, such as power generation; transmission and distribution; and energy trading and risk management (ETRM). However, to identify patterns in the data sets and make rational decisions, it is important to have access to a database that is as large and consistent as possible. RPA can extract data from information silos, make it available for business purposes, and use it.

Integrated functions can enable business units to form a collaborative system and benefit from data stored in other departments.

2 Liberalization and regulatory requirements: A good fit for RPA

The liberalization of the energy market has increased the number of energy suppliers enormously. Under the pressure of competition, utilities have optimized their structures and costs and have entered into mergers with other suppliers. Even today, due to increasing competition, energy suppliers are still in a direct price war with their competitors.

However, this competition can only work if the network is available to all market participants on equal terms and conditions. Network access and network fees are regulated by the state to ensure this. With the help of RPA, energy companies can carry out and report on their processes based on specific regulatory requirements.

3 High transaction volume: Driver for a fast ROI

Countless transactions take place every day in the energy industry. Regardless of the type of utility, the list of customers using the corresponding network is huge. If these transactions are processed manually, human error is usually unavoidable.

Energy suppliers that use robotic process automation benefit from more than a significant reduction in the error rate. RPA-controlled energy processes lead to a more stable transaction flow and can adapt quickly to an increasing or decreasing number of activities (e.g. in case of a crisis).

4 Many standardized processes: Essential for maximum scalability

Digitization, complexity and the high pressure for efficiency are the main drivers for automation in the energy industry. With its large-volume and mostly standardized process sequences, the energy sector offers the best conditions for RPA.

Because a lot of data also means an enormous volume of recurring processes, data processing, checking and extraction, tasks like form filling, accounting, and reporting are therefore perfect candidates for rolling out enterprise-wide RPA. This eliminates the need for error-prone and monotonous work to be carried out by the human workforce.

5 Integration of legacy systems: From old to new

One of the main advantages of RPA is the ability to consolidate automated processes organization-wide under a single, comprehensive solution. This is because most companies have a complex environment with different applications and systems.

As the business grows, complexity increases. New technologies are used, mergers and acquisitions take place or customer-specific offerings are created to meet requirements. More applications mean more work to link them together. RPA integrates all business-critical applications under one roof, regardless of whether they are new or legacy systems.

*Capgemini, Intelligent Automation in Energy and Utilities, 2

Pursuing digital transformation

According to a **Capgemini survey**, only a few energy and utility companies focus on easy-to-implement use cases that deliver high value. Use cases can include both core and support functions*.

In terms of core functions, these include processes such as energy trading, load forecasting, yield optimization, energy storage and complaint management. Support functions include price calculations, order entry, contract management, HR compliance and reporting.

There is plenty of opportunity for energy and utility conmpanies to embrace the promise of digital transformation starting with the power of RPA.

Learn more at Hyland.com/RPA »

*Capgemini, Intelligent Automation in Energy and Utilities, 2019

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