



CLIQ® – Trusted Security for Critical Infrastructure

Reduce the risks: Secure your facilities with CLIQ® locking system

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door opening solutions

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Can you afford to take risks with your security?



Your challenge

So much of modern life – from boiling a kettle to national security – relies on the safety of our critical infrastructure. If electricity supply is interrupted, business and the economy grind to a halt. Without safe uncontaminated drinking water, we cannot cook food or keep clean.

And that infrastructure is increasingly interdependent. A single failure can set off a cascade of consequences. Consider the effects of a major electricity outage on our water supply. Pumps would be inoperable, interrupting the supply of fresh water as well as our ability to process waste, a domino effect.

Potential threats to critical infrastructure are many and varied, from intentional water contamination to the theft of valuable equipment from electricity generation or distribution sites. To a utility company, the costs of

shutdowns can be huge and the damage to the reputation of the business can impact on stakeholder value and confidence.

To complicate the security picture, sites associated with utilities tend to be dispersed and remote. They rely on a vast array of contractors and service teams to keep them running. Physical security at these sites is especially difficult, yet equally crucial. Utilities need to guard against sabotage, theft and trespass, while guaranteeing access to those who need it – at any time of day or night, and often at short notice.

[How can public utilities manage these risks effectively?](#)



CLIQ® for a solution



“CLIQ® is a tried-and-tested technology with many thousands of installations around the globe that has already proven its high level security capabilities in the field and is very cost effective compared to wired access control solutions.”

Kevin Hoare, CLIQ® Business Development Director at ASSA ABLOY EMEA.

Increasingly, utilities across Europe are turning to CLIQ® to protect their premises.

CLIQ® is a mechatronic locking solution that combines the highest standards of electronic and mechanical security. The CLIQ® solution is comprised of the following: keys, cylinders and padlocks, software and key programming devices.

Each CLIQ® key can be programmed by a system administrator to open only the locks for which a user has authorization. Keys have replaceable batteries that power both the key, and the cylinder when the key is inserted. Communication between cylinder and key is encrypted to ensure a high level of security. Because locks are wireless, installation time is minimal, as is onsite maintenance.

The CLIQ® solution is fully scalable and can be configured to suit smaller installations, right through to mega locking solutions that can have 50,000 plus locking points spread over a wide geographic area. CLIQ® can be used to secure facilities as diverse as remote reservoirs in Wales to power stations in Finland to district heating plants in Kiel.



What makes CLIQ® so well suited to securing these infrastructure sites?

CLIQ® has several advantages over traditional locks. Any CLIQ® key can be de-authorized immediately if it goes missing, eliminating the risks associated with lost keys that can degrade the security of traditional mechanical locking solutions. In the words of Mats Fagerström, chief security officer at CLIQ® customer Helsingin Energia:

“If someone goes out on a Saturday night and loses the key, it is not a risk to us anymore.”

Administrators can tailor the access rights of every key, so that it opens certain locks in a facility, but not others, or it only grants access rights at certain times. This allows security managers to introduce highly specific permissions for employees, service crews and contractors.

For Annica Strandberg, Security Manager at Eskilstuna Energi och Miljö – another CLIQ® customer – this flexibility is vital:

“Programmable keys allow us to give access to certain doors, to certain people and at a certain time.”

Where previously some employees had to carry an enormous bunch of keys for their day-to-day work, one single CLIQ® key has both lightened their load and upgraded company security.

On the access control software side, the CLIQ® Web Manager allows administrators to program, amend or delete keys remotely and instantly. It is straightforward for security managers to generate time-stamped audit trails for any lock or key, and trace access workflows. Remote programming devices enable users to update keys anywhere.

“CLIQ® locks and keys are also designed to withstand working in the harshest of environments. They can be easily retrofitted to interior and exterior openings, with the minimum amount of disruption and work across multiple types of enclosure.”

Kevin Hoare, CLIQ® Business Development Director at ASSA ABLOY EMEA

The CLIQ® range includes cylinders for doors, gates, windows, machines guards, equipment enclosures, elevators and many other structures both internally and externally. The CLIQ® range includes cylinders in explosion-prone areas. Because there is no cabling needed nor the need to visit the cylinders to maintain batteries, installation in remote settings presents no problems.

Reduce the risks: Secure your infrastructure with CLIQ®



Another utility that has made the switch to CLIQ® is Stadtwerke Speyer, which supplies a Rhineland town with power, gas, water, and district heating. Around 50,000 residents rely on the company to keep operating, safely, around the clock.

Stadtwerke Speyer installed approximately 300 CLIQ® locking cylinders across its multiple critical sites. It is now quick and easy for security staff to reprogram cylinders when access rights need to be changed. As security demands at Stadtwerke Speyer also change—or operating sites are removed or added to the portfolio—it's easy to manage all doors, padlocks, gates, and windows under the same CLIQ® locking system. According to Ralf Lange, Stadtwerke Speyer's security officer, *"CLIQ® makes daily work much easier, thanks to its flexibility."*



In northern Germany, where almost quarter-of-a-million people rely on Stadtwerke Kiel for electricity, gas, water and district heating supply, the company installed around 10,000 locking cylinders to secure multiple sites. For Stadtwerke Kiel, a secure locking system that would be resistant to extremes of temperature and other weather was essential. Many of its secured openings are outdoors.

"We live in a world of diverse threats to our critical infrastructure," says Kevin Hoare.

"Vandalism, theft and deliberate sabotage are ever-present dangers. Security managers can't eliminate those risks. But with CLIQ® installed, locks become the strongest link in their security chain, not the weakest."



CLIQ® References

Why do many leading energy providers rely on CLIQ® to deliver a dedicated security solution that addresses the specific needs and challenges of their critical infrastructure?

Read more about the experiences of our customers:

**CLIQ® helps to keep Helsinki's lights on
Helen Oy, Finland**

**CLIQ® flexibility keeps
Speyer's critical services running
Stadtwerke Speyer, Germany**

**Securing Eskilstuna's environment
with CLIQ®
Eskilstuna Energi och Miljö, Sweden**

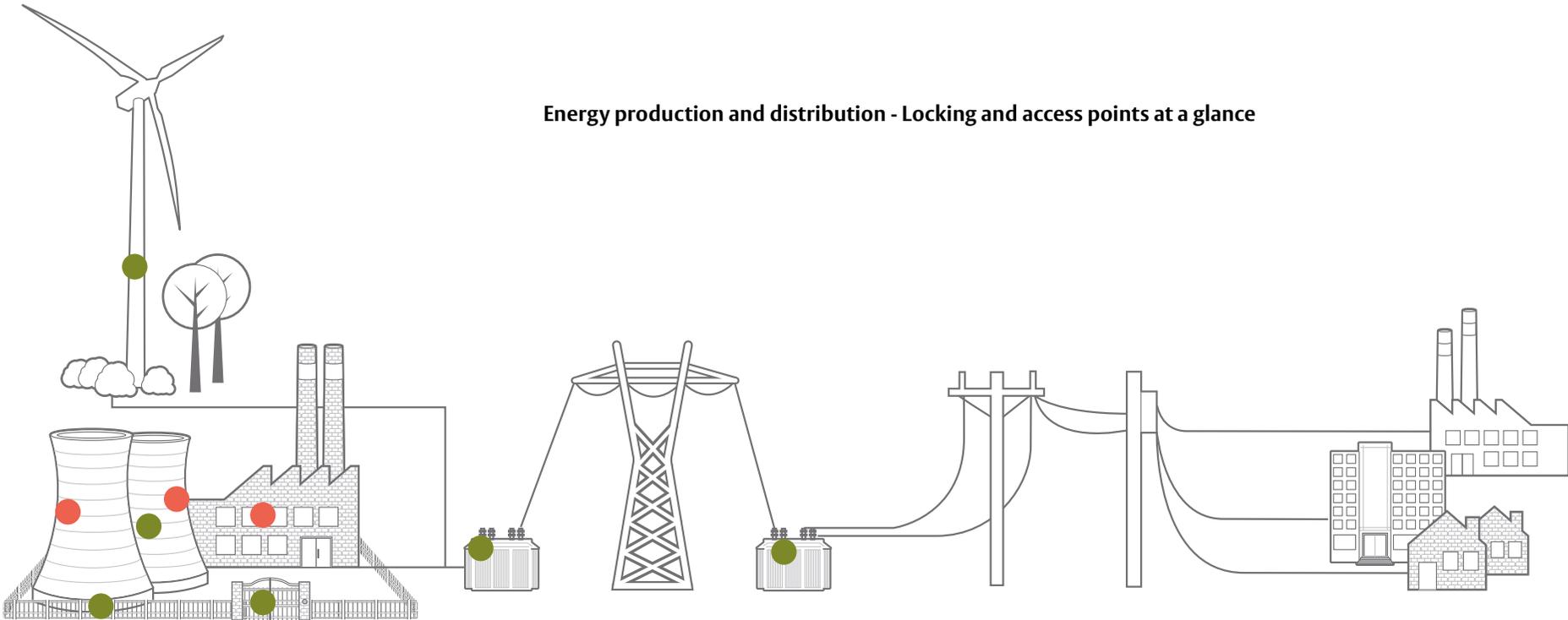
**CLIQ® keeps critical infrastructure working
around the clock
Stadtwerke Kiel, Germany**

**Industrielle Werke Basel use CLIQ® for their
security needs
Industrielle Werke Basel, Switzerland**

Critical Infrastructure requires reliable access control



Remote objects can be secured using the same CLIQ® system as in the office – power comes from the battery in the key installation time is minimal; on-site maintenance requirements likewise



Energy production and distribution - Locking and access points at a glance

Interior locking/access points, e.g.:

Doors, elevators, machines, windows, shutters, cupboards, cabinets, switchgears need special locking cylinders which resist, e.g.:

- Extreme temperatures
- Respirable dust & toxic substances
- Fire
- Explosions
- Unauthorized access

Exterior locking/access points, e.g.:

Gates, fences, doors, shutters, switchgears, key safes need special locking cylinders which resist, e.g.:

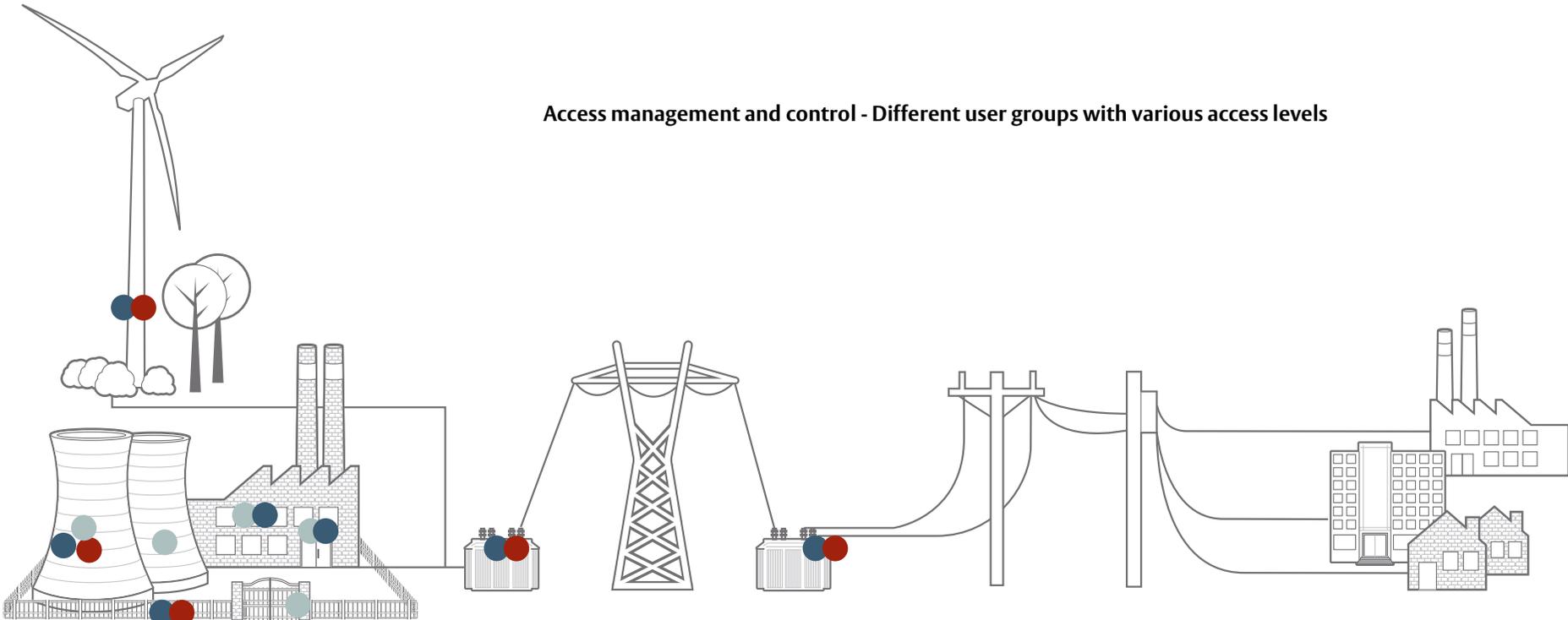
- Extreme temperatures
- Dust & Rain
- High voltage
- Manipulations
- Unauthorized access

Critical Infrastructure requires flexible access control

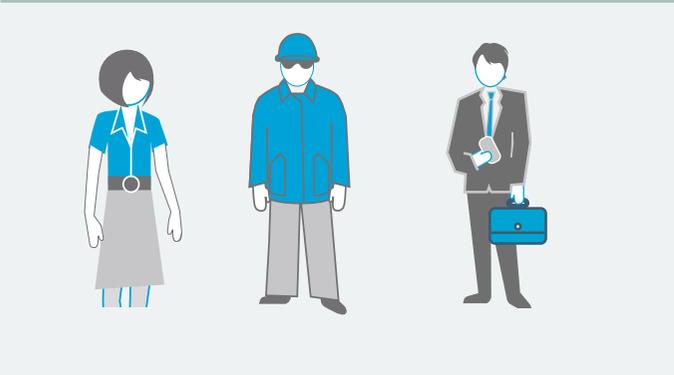


CLIQ® keys and locking cylinders can be programmed with flexible access rights and schedules

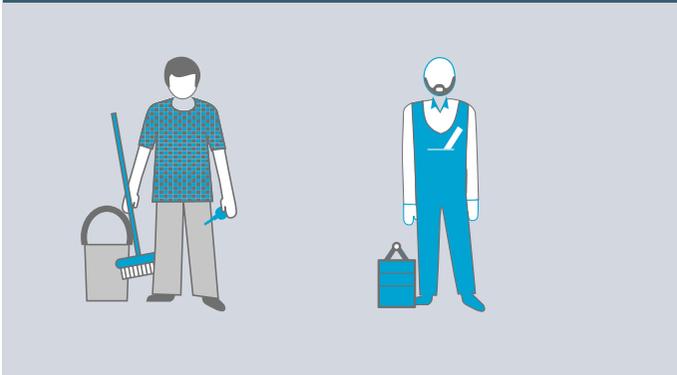
Access management and control - Different user groups with various access levels



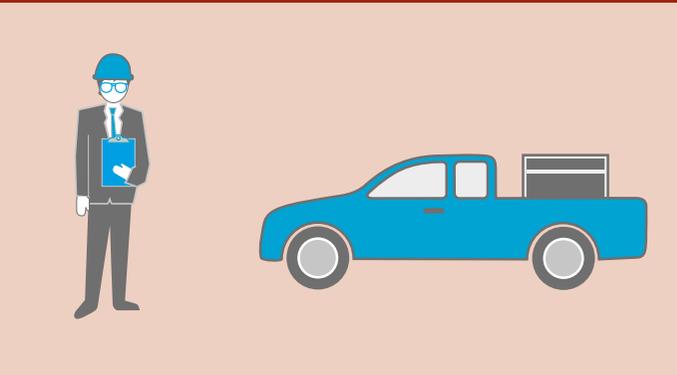
Permanent staff



Part-time staff



Third party contractors



Why CLIQ®?

Trusted security for critical infrastructure



Key and access control

- Minimize the risks associated with lost keys
- One key can access doors, cabinets, cupboards, elevators, machines, gates and many outdoor areas
- Improved security due to flexible access and key management, e.g. the right person (employees, consultants and service crews) at the right location at the right time
- Freedom to easily administer the system anytime and anywhere

Reduce cost

- Cost effective solutions by eliminating the need to return to the administrator to update keys or replace batteries
- Reduced operational costs due to easy wire free installation, power supply by battery in the key as standard
- Reduced IT infrastructure costs due to software as a service solution from ASSA ABLOY

Security and convenience at its best

- System devices are certified to meet requirements of local markets
- Customized software integration possibilities to third party solutions
- CLIQ®: The robust and reliable locking system tailored to securing critical infrastructure and high security premises
- Key with audiovisual indication and fast opening for enhanced user experience

Introducing the CLIQ® solution: The key to securing critical infrastructure

Access management and control - Locking system components at a glance



CLIQ® Cylinders and Padlocks



CLIQ® Keys



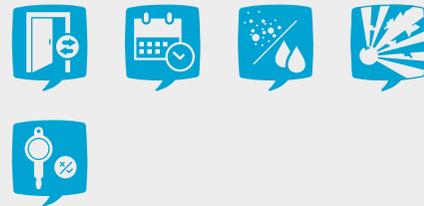
CLIQ® Programming Devices



CLIQ® Software



- Prepared for variety of applications
- Compact electronic locking cylinders provide the strongest possible security
- Easy and quick to install, no cabling is needed



- Programmable keys with flexible access rights and schedules
- Battery powered (standard battery)



- Transfer access rights and receive audit trails from keys
- Position on desks or walls, or use mobile programmer for use in the field



- Management of access rights and schedules for keys, doors and users
- Audit trails and reports
- Support of workflows
- Remote or locally hosted
- Customized software integration possibilities to third party solutions



Case Study/Reference: Helen Oy, PROTEC² CLIQ[®]

CLIQ[®] helps to keep Helsinki's lights on

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CLIQ® helps to keep Helsinki's lights on



“When our employees arrive in the morning, they update their access rights. The audit trail for the previous day is collected at the same time.”

Mats Fagerström, chief security officer at Helen Oy

Project

Company: Helen Oy
Type: Utility Company
Employees: 1,250
Location: Helsinki, Finland



CLIQ® devices installed:
Most of the company's 3,500 door openings are secured with the PROTEC² CLIQ® system
Year of installation: 2013



Challenge

Helsingin Energia is one of Finland's largest energy companies. It supplies around 400,000 customers with electricity, covering about 90 percent of the heating needs of the national capital, Helsinki. The company required a secure locking system suited to a large and dispersed workforce: Helen Oy has around 1,250 employees and 2,600 contractors, with ever-changing access requirements.

Key requirements included:

- High levels of security to ensure reliability of energy supply, around the clock and every day of the year
- Unified locking system that works across 3,500 door openings and 70 different site locations, ranging in type from power plants to warehouses

- Remote web-based administration for managing employee and contractor access rights

For Helsingin Energia and its customers, infrastructure security is paramount. Any interruption in supply would affect homes and businesses across the city, so the company switched to a security system tailored to the needs of critical services like public utilities.



Solution

The CLIQ® system ticked all the boxes. CLIQ® uses mechanical locking paired with electronic identification. Each employee carries a single, programmable key which opens only those doors that correspond to its access rights—up to 3,500 interior and exterior doors across 70 different Helsingin Energia locations.

The access rights of every key are updated every 10 hours, ensuring that the company's high security needs are met. If a key is somehow lost, it ceases to be a security risk after the 10 hours have expired. Locks are powered by a battery inside each key, so maintenance of widely dispersed secure sites is minimized.

The whole security ecosystem is managed remotely, using web-based administration software.



“If someone goes out on a Saturday night and loses the key, it is not a risk to us anymore.”

Mats Fagerström, chief security officer at Helen Oy

Access rights in each key can be set valid or invalid, and can be easily changed, removed or revalidated whenever required. Audit trails can be generated instantly. Helsinki's energy supply is in safe hands, thanks to the CLIQ® system.

[Watch the video on the ASSA ABLOY Youtube Channel](#)





Case Study/Reference: Stadtwerke Speyer, VERSO® CLIQ

CLIQ® flexibility keeps Speyer's critical services running

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For Stadtwerke Speyer, flexibility and affordability are the keys to CLIQ®

“ CLIQ® makes our daily work much easier, thanks to its flexibility.”

Ralf Lange, security officer at Stadtwerke Speyer

Project

Company: Stadtwerke Speyer GmbH (www.sws.speyer.de)
Type: Public utility and local transport provider
Location: Speyer, Germany

CLIQ® devices installed:
Approximately 300 VERSO® CLIQ cylinders



Challenge

With a 2010 turnover of over € 67 million, Stadtwerke Speyer GmbH supplies the residents of Speyer with power, gas, water, and district heating. The utility provider also runs Speyer’s waste management, and a subsidiary is responsible for public transport, harbours, park management, and ferry services.

In short, Stadtwerke Speyer is the infrastructure backbone of the Rhineland town and its surrounding area, involved in everything from water safety to residents’ daily commute. The utility’s requirements for a new locking system prioritised:

- **Security:** 50,000 people rely on the company to keep operating, safely, around the clock



Solution

Only the CLIQ® locking system could meet these exacting standards. Working with ASSA ABLOY and its certified partner network Stadtwerke Speyer installed around 300 locking cylinders across its multiple sites. CLIQ® has already proven itself in the field, securing utilities and other important infrastructure sites all over Europe. Now the utility provider can enjoy the benefits. With CLIQ®, sophisticated microelectronics inside every lock work in tandem with intelligent software. It is quick and easy for security staff to reprogram cylinders when access rights need to be changed, audit trails can be read out from the cylinder if needed. When keys are lost, they present no security risk: security staff just de-authorizes them. Unlike with a mechanical master-key

system, there’s no need to change the locks – and that saves the utility provider both time and money. The CLIQ® locking system was installed without wires or cables. Each CLIQ® cylinder powers up when a user’s key is inserted. A standard battery powers the key, which also keeps both installation costs and operating costs down – helping to meet another of the company priorities. By installing CLIQ®, Stadtwerke Speyer has adopted a future-proofed locking system. As their security needs change, or operating sites are removed or added to the utility provider portfolio, it’s easy to manage their doors, padlocks, gates, fences and windows in the same CLIQ® locking system.

- **Flexibility:** the new locking system needed to be simple to install and easy to expand or amend as security needs changed
- **Affordability:** the utility provider operates within strict budget guidelines
- **Usability:** the company required a software system which could provide audit trails on demand
- **Robustness:** the locking cylinders must withstand tough weather conditions





Case Study/Reference: Energi och Miljö, ASSA CLIQ®

Securing Eskilstuna's environment with CLIQ®

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Securing Eskilstuna's environment with CLIQ®



“ Programmable keys allow us to give access to certain doors, to certain people and at a certain time.”

Annica Strandberg, Security Manager at Eskilstuna Energi och Miljö

Project

Company: Eskilstuna Energi och Miljö
Type: Utility Company
Employees: > 400
Location: Eskilstuna, Sweden



CLIQ® devices installed:
ASSA CLIQ® system
Year of installation: 2011



Challenge

Eskilstuna Energi och Miljö (Eskilstuna Energy and Environment) provides water, heating, electricity and environmental services to the city and municipality of Eskilstuna, 110 km west of Stockholm. Multiple types of building require security, including a waterworks, a heating plant and a recycling centre, plus around 300 pump stations in the area. The company operates around the clock, serving approximately 97,000 residents.

Key requirements included:

- The highest level of security, to ensure that sites relating to water, electricity and other vital environmental works were safe from trespassing, sabotage and other risks

- A locking system flexible enough to work with different types of building and security setup, from high-security perimeter fencing and access control systems, to openings where a padlock provides deterrence
- Variable permission control for different time periods and multiple types of user

From safe, unpolluted water to dependable electricity supply, Eskilstuna needs Eskilstuna Energi och Miljö to keep working round the clock. Everyday life and economic activity in this small city west of Stockholm relies on its utility, which is why the company turned to an access-control system tailored to securing critical infrastructure and high-security premises with a vast array of lock types.

Solution

The CLIQ® system of high-security, programmable keys has been issued to around 400 Eskilstuna Energi employees, plus various 3rd party consultants, technicians and the utility's water-tower tenants. CLIQ®'s straightforward administration software allows Eskilstuna Energi's security team to monitor security across its network of sites. Security management staff can set and amend the boundaries for each individual's access to every site across the municipality. And if a key is lost, its access rights are simply deleted—a big time and cost saving (and security enhancement) over mechanical key systems. Where previously some employees had to carry an enormous bunch of keys for their day-to-day work, one single programmable key on

the CLIQ® system has eliminated the burden.



Annica Strandberg, Security Manager at Eskilstuna Energi och Miljö

The CLIQ® system has also provided Eskilstuna Energi with locks that can be integrated into RFID-compatible access control and other building management systems – a key attribute as the access control market continues to adapt to changing customer needs and technologies.

[Watch the video on the ASSA ABLOY Youtube Channel.](#)





Case Study/Reference: Stadtwerke Kiel AG, VERSO®CLIQ

CLIQ® keeps critical infrastructure
working around the clock

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CLIQ® keeps critical infrastructure working around the clock



“Adaptability is the critical CLIQ® ingredient.

It is ideal for dispersed workforces and complex infrastructure sites with several different types of opening to secure.”

Torsten Kant, regional sales manager North-East Germany at ASSA ABLOY

Project

Company: Stadtwerke Kiel AG (www.stadtwerke-kiel.de)
Type: Utility provider
Location: Kiel, Germany

CLIQ® devices installed:

Approximately 10,000 cylinders VERSO CLIQ®
Year of installation: 2009- 2012

Challenge



Stadtwerke Kiel AG, or SWK, has supplied energy to Schleswig-Holstein's regional capital, Kiel, and its surrounding municipalities for decades. Businesses and households in a city of almost quarter-of-a-million people rely on SWK for electricity, gas, water and district heating supply. Now a public-private enterprise operating in Germany's liberated energy markets, the company sought a modern, flexible locking system to meet its complex and rapidly developing security needs.

Key requirements included:

- A locking system flexible enough to assign different areas individual levels of security and to give employees and contractors fine-grained, personalized access to only the areas for which they have authorization
- A system that could be installed quickly and at a relatively low price
- Locks and other security equipment that would be resistant to extremes of temperature and other weather conditions.

Solution

Stadtwerke Kiel AG chose the CLIQ® mechatronic locking system, installing around 10,000 locking cylinders to secure multiple sites in the Kiel area. CLIQ® combines the best of electronic access control and mechanical security to provide optimum protection for critical infrastructure. Each lock's power is provided by the battery inside the programmable CLIQ® key, meaning no wiring is needed when fitting CLIQ® cylinders – a particular advantage in securing remote or outdoor openings. No wires means fast, affordable installation comes as standard, too. Flexibility is another crucial CLIQ ingredient. The CLIQ® range includes cylinders designed for doors, gates, windows, flaps, machines, postboxes and many other structures both indoors

and outdoors, including for explosion-prone areas. With CLIQ® installed, administrators can now issue and modify access authorizations right down to the individual level, for employees and temporary contractors working time-limited shifts across SWK's multiple sites. And if one of them loses a key? That's no problem for CLIQ®. The company simply revokes the key's authorizations from the system, and there's no need to waste time and expense changing the locks.





Case Study/Reference: Stadtwerke Basel, VERSO®CLIQ

CLIQ® locking solution weathers even a harsh Swiss winter

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Critical infrastructure sites are usually dispersed and often outdoors – so locks must be reliable in all seasons



“ We’re convinced of the benefits of CLIQ®.”

Thomas Hug, project manager at Industrielle Werke Basel

Project

Company: Industrielle Werke Basel (www.iwb.ch)
Type: Utility Company
Location: Basel, Switzerland

CLIQ® devices installed:

Approximately 4,500 cylinders VERSO® CLIQ
ASSA ABLOY partner: Fritz Blaser & Cie. AG
Year of installation: 2010-2012

Challenge



Founded as a private gas company in the 1800s, Industrielle Werke Basel (IWB) is now an independent utility owned by the city and canton of Basel. It employs over 750 people and supplies around 190,000 customers in Basel and north-western Switzerland with electricity, district heating, biogas and natural gas, energy services, telecommunications and safe drinking water. As critical infrastructure for one of Switzerland’s most economically dynamic

regions, IWB needed a proven locking system that would equip it to face 21st-century security challenges. Key requirements included:

- A security system flexible enough to work across geographically distributed sites of diverse types, from water plants to electricity stations
- Locks that could withstand extremes of climate and weather, including solar radiation, freezing temperatures, and heavy rain

Solution

For IWB, the answer was CLIQ® from ASSA ABLOY. CLIQ® is an intelligent mechatronic locking system that combines the best of mechanical security and electronic access control. Users are issued with a single, programmable key that enables them to open just the locks for which the key has authorization. Power for communication between key and cylinder comes from a standard battery in each key, so technicians servicing the system don’t need to start up each cylinder to replace a battery. No power supplied to the cylinders also means installing CLIQ® needs no wiring – a big advantage in securing remote or outdoor openings. Precision mechanics inside every CLIQ® cylinder also guarantee durability. CLIQ® locking cylinders are compli-

ant with EN1303, EN12320, and EN15684 – and so offer high levels of protection against physical attack. They are IP rated, waterproof, and ATEX approved for use in potentially explosive areas. It’s easy to reprogram access rights at any time with the user-friendly CLIQ® Web Manager software. CLIQ® remote programming devices enable managers to update keys anywhere, even in the field. If someone loses a key, it’s straightforward for system administrators to delete its authorization from the system. Thanks to CLIQ®, IWB can wave goodbye to the time and expense wasted on refitting locks every time a key goes missing.



ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience

ASSA ABLOY

ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience. Since its formation in 1994, ASSA ABLOY has grown from a regional company into an international group with about 44,000 employees, operations in more than 70 countries and sales close to SEK 57 billion. In the fast-growing electromechanical security segment, the Group has a leading position in areas such as access control, identification technology, entrance automation and hotel security.



CLIQ® is a security locking system with high-end microelectronics, programmable keys and cylinders. The system offers a variety of combinations of mechanical and electronic systems to match different security and flexible access needs. Available on the global market place, it provides flexible access and key management solutions for all kinds of locking applications.

A wire free system, each key can be programmed and updated individually to allow access to specific areas at specific times and dates, accommodating constantly changing access requirements and ensuring maximum flexibility. The power is provided by a battery inside the programmable CLIQ® key. The intuitive software makes it simple to manage access rights, enable and disable keys and customise access schedules, on site or on the go. ASSA ABLOY can also host your data securely for complete peace of mind.