Dedicated to People Flow™

KONE

CENTRAL PLAZA ONE, BRISBANE, AUSTRALIA

HIGH-RISE ELEVATOR HOISTING AND ELECTRIFICATION MODERNISATION

ReGenerate™ 800

It pays to make a good first impression

What are prospective tenants' first impressions when they enter your building? Is the lobby full of people waiting for the elevator, or are they moving efficiently to their floors? Is the elevator ride smooth and comfortable, or bumpy and noisy?

Your competitive edge
The KONE ReGenerate™ 800 modernisation solution includes the main components of the elevator: the hoisting machinery, controller and electrification system. These can be supplemented with new elevator cars, signalisation and landing doors, and a destination control system.

The result is an elevator group that operates reliably, energy-efficiently and smoothly. There are fewer people waiting in the lobby, even during peak periods, and they ride to their destination in safety and comfort.

The KONE ReGenerate 800 is a high-performance solution for elevators in high-rise buildings. It can help you maintain your building's status as a prime property within your market.

Addressing your concerns
Naturally, you may have concerns about disruption to your building operations during modernisation. That is also our concern. Thorough analysis of your requirements ensures that you get the solution you require. KONE provides modernisation solutions that integrate seamlessly with existing technologies to speed up installation. KONE project management ensures that the project is planned properly and implemented efficiently. When modernising an elevator group, the KONE Modernisation Overlay maintains or even increases traffic capacity during the project.

Before you begin a modernisation project, it makes sense to see exactly what needs to be done. KONE Care for Life™ is an analysis and reports on the condition of your elevators, together with recommendations on how to improve their performance.

CASE: SKYTOWER, AUCKLAND, NEW ZEALAND

Observing first class elevators for a major landmark

Located in the heart of New Zealand's largest city, The SKYTOWER in Auckland's commercial centre is the country's most recognisable building. At 328 Metres high, the tallest free standing structure in the Southern Hemisphere provides visitors with stunning views of the greater Auckland area and the surrounding coastline. Observation decks, restaurants and adventure sports opportunities provide 500,000 visitors a year with a truly memorable experience.

A combination of increased demand and ageing equipment led to KONE being awarded a modernisation contract in 2012 which will see the equipment fully upgraded with a number of industry leading KONE solutions. In addition to improved traffic handling through the installation of Hybrid Destination Control, KONE will also provide new EcoDisc™ drive machines, ReNova door system and customised graphics on the main lobby touchscreens. The installation of Building Sway detection technology will minimise unscheduled downtime due to high winds by automatically sensing excessive movement and reducing lift speed to a more comfortable level.

Phase Two of the upgrade process will see KONE ReGenerate™ 800 control and a new KONE EcoDisc™ drive machine installed on the central service lift that fulfills the dual role of providing 'back of house' services to all tower levels as well as acting as a Shuttle Lift between public observation decks. A ReNova door system and ReVive Signalisation package will complete the 'Life-Cycle re-start' of the elevator equipment in this iconic building.

FAST FACTS

Building type: Observation Tower

Completion year: 2013

KONE Solution - Passenger Lifts: Full modernisation of a 3 car elevator group including KONE ReGenerate™ 800, KONE Hybrid DCS, ReNova Car and Landing Doors and Building Sway Technology.

KONE Solution – Service Lift: Full modernisation including KONE ReGenerate™ 800, KONE, speed increase to 5.0 m/s, ReNova Car and Landing Doors and Building Sway Technology.

KONE ReGenerate™ 800 raises your building's competitiveness

A stylish car interior, with award-winning KONE Design signalisation, is an attractive feature in any building.

KONE ReGenerate 800	MX18 Machine		MX32 Machine		MX40 Machine	
	1:1	2:1	1:1	2:1	1:1	2:1
Max load (kg)	1150	2000	1600	3200	2000	4000
Max speed (m/s)	3.5	4.0	6	3.5	8	4
Max travel (m)	180	180	300	180	400	180
Max floors	63	63	126	63	126	63
Max elevators in group	8	8	8	8	8	8
Max starts/year	400,000	400,000	400,000	400,000	400,000	400,000
Leveling accuracy (mm)	+/- 3	+/- 3	+/- 3	+/- 3	+/- 3	+/- 3

Improved performance
The new electrification system in the KONE ReGenerate 800 package replaces outdated technology to improve reliability, safety and energy efficiency. It can interface with many types of existing elevator components, ensuring rapid, trouble-free installation. KONE regenerative drives can recover up to 30% of the elevator system's total energy consumption.

Less waiting
The KONE group control system, available as an option, efficiently manages traffic, minimising passenger waiting and travel times. If required, KONE can install the KONE Polaris™ destination control system. This can significantly improve traffic handling – to the standard of a modern Class A building. It reduces waiting times in the lobby while reducing crowding in the cars, thus improving passenger comfort.

Greater safety
The KONE ReGenerate 800 complies with the most stringent safety standards. One important safety criterion is leveling accuracy. The closed loop drive control provides accurate floor leveling for improved passenger safety and accessibility. The re-leveling feature maintains the floor level within +/-3 mm during loading and unloading. Ascending overspeed protection and uncontrolled movement protection are also standard safety features of this solution.

Ride comfort
A smooth, silent ride creates a feeling of luxury as tenants rise to the upper floors. The powerful, highly-efficient KONE EcoDisc® permanent magnet motor provides a smooth, efficient ride. KONE drive systems ensure smooth acceleration and stopping, while the KONE door systems provide fast and smooth door operation to improve traffic capacity and ride comfort.

Cut energy consumption in half

KONE is a pioneer in eco-efficiency, having introduced many innovations that have proved themselves in thousands of installations. The KONE EcoDisc®, introduced in 1996, has made energy-hungry hoisting units obsolete. It can reduce an elevator's energy consumption by as much as two-thirds.

In high-speed applications, where gearless hoisting units are already used, reductions in electrical losses are the main area of savings. This is mainly achieved because of the very high power factor of the permanent magnet design, together with zero slip losses.

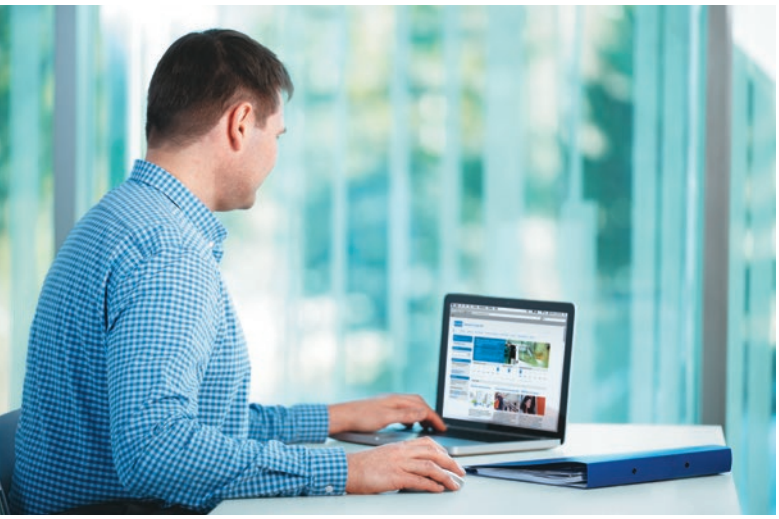
Typical KONE EcoDisc® energy savings:

- Up to 60% against Ward Leonard motor generator sets
- Up to 50% against AC geared units
- Up to 35% against AC gearless units
- Up to 30% further energy savings with regenerative drive after hoisting upgrade with KONE EcoDisc®

These savings also reduce the machine room riser capacity requirements, emergency power generators and fuse sizes. The lower thermal losses also result in reduced requirements for machine-room air-conditioning.

Experience based on thousands of modernisation projects

Based on its long experience, KONE has developed a systematic modernisation process that ensures that you get precisely the solution you require, and that the project is completed on time and on budget, with minimum disturbance to building tenants and visitors.



STEP 1:
Assess your requirements

The first step is an evaluation of your business targets and opportunities for improved competitiveness.

KONE provides industry leading solutions to help you determine the opportunities for improving your building's competitiveness. For example, the KONE QuickTraffic tool compares different types of control systems to see how they influence traffic capacity. The KONE QuickEnergy tool compares the amount of electricity consumed by different elevator solutions, so you can see where the greatest energy savings are possible in your building.

Decision-making services

- **KONE QuickEnergy** – to calculate and compare the amount of electricity consumed by different elevator solutions.
- **KONE QuickTraffic** – to compare traffic capacity between destination control systems (DCS) and conventional control systems.

STEP 2:
Evaluate your equipment

Analysis of the existing systems is needed to understand how efficiently your current people flow solution is working.

KONE Care for Life™ is a thorough analysis covering the main characteristics of your equipment and identifying areas needing improvement. Based on this assessment, together we can agree on an action plan to raise your installation to the required standard.

Analysis and planning services

- **KONE Care for Life™ assessment** – to analyse the performance, safety, eco-efficiency, aesthetics and accessibility of your elevator and compare solutions.
- **KONE Building Traffic Simulator** – a powerful tool for before-and-after analysis to simulate energy consumption, passenger service times and elevator performance in customer-defined building surroundings.

STEP 3:

Minimise downtime during installation

KONE Project Managers plan the details with you to ensure smooth and hassle-free modernisation.

STEP 4:

Maximise reliability for a lifetime

Maintenance capabilities after modernisation are of great importance so that the new equipment can run reliably for decades.

KONE Project Managers plan the details and discuss with you how to ensure smooth and trouble-free modernisation. During installation, the KONE technicians protect the floors and walls and provide safe routes for building users. To maximise handling capacity during the project, the KONE Modernisation Overlay is a temporary group control that combines the old and new systems. Upon completion, KONE takes responsibility for the safe removal, disposal or recycling of old equipment. KONE then does the final safety and performance inspections before handover.

Implementation services

- **KONE Modernisation Overlay** – a temporary modernisation time group overlay which maximises traffic handling capacity during modernisation.
- **KONE project planning and control procedures** – a global tool to plan and control the project and ensure that delivery and installation progress as planned.

To ensure reliable operation during modernisation, KONE maintenance training programs focus on equipment from all manufacturers. After completion of the project, KONE can provide KONE Care™ maintenance packages that can be tailored to the requirements of your particular building and equipment. KONE Care is based on KONE Modular Based Maintenance™, a preventive maintenance method that ensures the appropriate level of service and fixes problems before they lead to downtime.

Maintenance services

- **KONE Care** – KONE creates a unique KONE maintenance plan for each site and piece of equipment. The KONE Care offering enables you to choose the level of service you need.
- **KONE Customer Care Center™** – a 24/7 helpdesk for reporting technical failures and requesting assistance. Two-way voice communication with elevator passengers.

KONE provides innovative and eco-efficient solutions for elevators, escalators and automatic building doors. We support our customers every step of the way; from design, manufacturing and installation to maintenance and modernisation. KONE is a global leader in helping our customers manage the smooth flow of people and goods throughout their buildings.

Our commitment to customers is present in all KONE solutions. This makes us a reliable partner throughout the life-cycle of the building. We challenge the conventional wisdom of the industry. We are fast, flexible, and we have a well-deserved reputation as a technology leader, with such innovations as KONE MonoSpace®, KONE MaxiSpace™, and KONE InnoTrack™. You can experience these innovations in architectural landmarks such as the Trump Tower in Chicago, the Northbridge Tower in Brisbane, the 30 St Mary Axe building in London, the Southern Cross Towers in Melbourne, the Schiphol Airport in Amsterdam, the Beijing, National Grand Theatre in China, 85 Castlereagh Street in Sydney, 140 William Street in Perth the City Central Tower 8 in Adelaide and the Skytower in Auckland New Zealand.

KONE employs on average 35,000 dedicated experts to serve you globally and locally in over 50 countries.

COVER STORY: CENTRAL PLAZA ONE, BRISBANE, AUSTRALIA

Major upgrade for an iconic landmark

Central Plaza One, stands at a height of 174m (571ft and containing 44 floors). Owned by ISPT, it is an iconic building within the Brisbane skyline.

To ensure energy efficiency, performance and reliability benefits in line with ISPT's sustainability requirements, KONE will up-grade the original 19 elevators with KONE Regenerative 800, Renova, Polaris DCS with MDE overlay, KSS800 and KSP state of the art appointments.

The project will be completed in late 2015.

KONE Corporation
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