



thyssenkrupp is the first to enable conversion of existing elevators into net-zero energy units through modernization

- thyssenkrupp shared the proof of concept for its net-zero energy solution at this year's Energy Efficiency Global Forum 2017
- Concept can be applied to existing elevators through modernization, creating net-energy positive systems without having to replace the entire elevator
- This breakthrough is especially relevant for its application in current buildings: With +12 million elevators in operation globally, modernization solutions have far more impact than newly installed units

Washington DC, May 9, 2017: At the Energy Efficiency Global Forum in Washington DC thyssenkrupp today showcased its latest innovation in making urban mobility greener: a net-zero energy system which can be used for existing elevators. With buildings now accounting for as much as 40% of global energy consumption, this breakthrough marks a milestone moment for the building industry and opens the door to more energy-savvy technologies being implemented to tackle resource scarcity.

The development of thyssenkrupp's net-zero energy system was motivated by the long lifecycle of elevator equipment; on average, elevators remain in a building for 15 years and each year new installations contribute to only 6% of the +12 million units currently in operation. Across the world, elevators transport over one billion people each day and can account for up to 10% of a building's energy consumption. Therefore for thyssenkrupp, finding a solution to improve efficiency in existing elevators was essential to reducing the overall energy consumption in our built environment.

"Energy creating" elevators are already popular, converting the elevator's kinetic energy into electricity that can be fed back into the building's power grid. thyssenkrupp installed this solution at the One World Trade Center in New York, where the elevators regenerate energy in an amount that could feed the building's entire lighting system.

But the new net-zero concept goes one step further, focusing on improving energy efficiency even when the elevator is *idle*, which can be as much as 70% of its working life. The design uses new controllers which trigger "hibernation" or "sleep" modes in idle cabins thus significantly reducing the energy demand. The required energy can be generated

using solar panels no larger than the footprint of the elevator shaft, creating net-energy positive systems that generate more energy than they consume.

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Andreas Schierenbeck, CEO of thyssenkrupp Elevator, commented: “Elevators are often overlooked in our buildings but are actually at the very heart of a more energy-efficient future for our cities. We are delighted to reveal today our progress in developing a new concept that can help deliver this vision and set the stage for the next generation of intelligent, energy-savvy innovation.”

Testing for the net-zero concept has been rigorous. The system was installed in a building that is over 100 years old, as part of a third-party validation project with the Fraunhofer USA Center for Sustainable Energy Systems. The goal was to turn the company’s headquarters in Boston into a leading center of energy efficiency. A particular focus was on retrofitting energy-efficient solutions in existing buildings.

Schierenbeck added: “If we are to meet the sustainability targets defined by countries and ultimately save our planet’s resources, authorities and private companies need to act collaboratively in implementing the latest technology solutions to deliver real energy savings. At thyssenkrupp, we are constantly evolving our game-changing technologies and solutions in order to best serve current and future urban mobility needs.”

The net-zero elevator concept is part of thyssenkrupp’s larger ambition to provide smarter products and services that enhance urban mobility and energy savings. Other major innovations in the portfolio include MAX - the elevator industry’s first cloud-based predictive maintenance solution that helps to ensure efficiency in service visits; MULTI – the world’s first rope-less horizontal/vertical lift system; ACCEL – the first transportation system that improves access to metro stations attracting up to 30% additional passengers and in airport terminals offers a reduction of connection times between gates by up to 70%.

The final report on the net-zero energy elevator can be downloaded [here](#)

About us:

thyssenkrupp Elevator

thyssenkrupp Elevator brings together the Group’s global activities in passenger transportation systems. With sales of 7.5 billion euros in fiscal 2015/2016 and customers in 150 countries, thyssenkrupp Elevator built its position as one of the world’s leading elevator companies from scratch in a mere 40 years’ time applying thyssenkrupp unique engineering capabilities. With more than 50,000 highly skilled employees, the company offers smart and innovative products and services designed to meet customers’ individual requirements. The portfolio includes passenger and freight elevators, escalators and moving walks, passenger boarding bridges, stair and platform lifts as well as tailored service solutions for all products. Over 900 locations around the world provide an extensive sales and service network to guarantee closeness to customers.

thyssenkrupp

thyssenkrupp is a diversified industrial group with traditional strengths in materials and a growing share of capital goods and services businesses. Around 156,000 employees in nearly 80 countries work with passion and technological expertise to develop high-quality products and intelligent industrial processes and services for sustainable progress. Their skills and commitment are the basis of our success. In fiscal year 2015/2016 thyssenkrupp generated sales of around €39 billion.

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Together with our customers we develop competitive solutions for the challenges of the future in the areas Mechanical, Plant and Materials. With our engineering expertise we enable our customers to gain an edge in the global market and manufacture innovative products in a cost- and resource-friendly way. For us, technical progress and innovations, allied with the combined strength of the Group, are key factors enabling us to meet current and future customer and market requirements around the world, grow on the markets of the future, and generate strong and stable earnings, cash flows and value growth.

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