

### **Trimet starts trial operation of its 'virtual battery'**

Düsseldorf, 21 Mai 2019 - Trimet Aluminium has begun the trial operation of its so-called 'virtual battery', which will allow the energy supply for aluminium production at its Essen plant to be controlled flexibly for the first time. This will create a huge power storage facility that will make it easier to integrate the discontinuously generated electricity from renewable energy sources into the power grid. A total of around 36 million euros was invested in the conversion.

"We have reinvented the electrolysis process for the production of aluminium," says Philipp Schlüter, CEO of Trimet. "For the first time, we will be able to vary the energy supply during operation significantly. This will allow us to react to changes in the electricity supply, which will benefit the power supply to households in Essen. As an aluminium producer, we are naturally an energy-intensive company. As such, however, we are also a valuable partner for the energy revolution."

With the conversion of a total of 120 furnaces at the Essen plant, 25 per cent more or 25 per cent less electricity can be consumed for up to 48 hours without interrupting aluminium production. The energy requirement can also be reduced to zero for up to an hour if necessary. This means up to 2,000 megawatt hours of electricity can be stored for use in the energy revolution. The virtual battery thus has the capacity of a medium-sized pumped storage facility.

Since its invention in 1886, the aluminium production process has been based on having a constant supply of energy. With its virtual battery, Trimet is abandoning the traditional approach for the first time and is making the energy-intensive electrolysis process more flexible. To achieve such flexible control of the process, Trimet and Bergische Universität Wuppertal have developed a controllable heat exchanger that keeps the temperature in the pot constant despite the energy supply being unsteady.

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