

Electrical distribution system usage and issue monitoring

NeMo



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Challenges in energy distribution management

\$2,500

Estimated grid capacity upgrade cost required per electric vehicle for transmission and distribution

40.7%

Projected compound annual growth rate in the global electric vehicle market through 2027

Utilities should adopt new technologies to limit the strain that EVs put on the grid

Electrical distribution system usage and issue monitoring

Robotron + Azure + IoT

Robotron's NeMo solution helps you avoid power disruptions and plan network upgrades to meet today's unpredictable electricity demands from customers that are adding loads like electric cars, solar panels, heat pumps. Our cellular-enabled sensors deploy easily and provide insights into transformer performance so you can detect and address issues proactively.

Improve grid visibility and reduce outtages



Real-time data

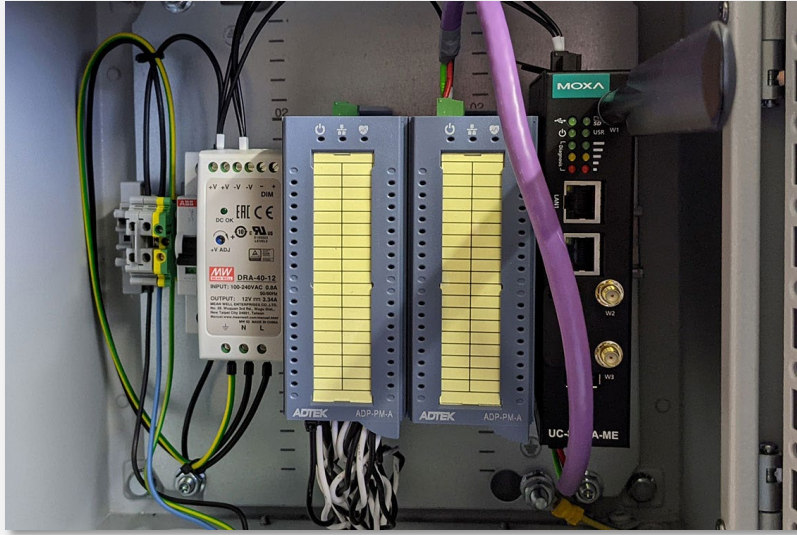
See exactly what is happening on the electrical grid in near real-time and identify at-risk transformers and lines

Cost savings

Save money by upgrading or replacing infrastructure before it fails and by eliminating high-cost emergency repairs

Happy customers

Avoid power interruptions and issues that cause customers to call for support or file government complaints



Cellular-enabled hardware
deploys easily to your
transformer stations



Drill down on transformer
and gateway performance
with 1x/minute data

Actions	Name	Description	Severity
> ✎ 🗑	Telemetry Data Loss within Last Hour		
> ✎ 🗑	Voltage Anomalies Weekly Average		MEDIUM
∨ ✎ 🗑	Voltage Anomaly Lunch Time Peaks		MEDIUM
Interval */10 ****			
Time period 10m			
Threshold 420			
External Function VoltageThresholdViolationOver			
> ✎ 🗑	Telemetry Data Loss within 72 Hours		

Configure rules and alerts to
stay on top of issues with the
distribution grid

Improve grid visibility and reduce outtages

Solution built on Microsoft Azure

Aggregate, analyze and react in real-time



Integration to
upload solution
telemetry



Storage to scale
solutions without
latency



Visualization to
surface solution
insights



Analytics to
predict and
plan



Security to
protect
solution data

Steve Bahn, Project Manager NetzFlex, MITNETZ STROM



Monitoring our low-voltage grid is an essential building block for ensuring grid stability in the future. In particular, the combined use of hardware bundles with Robotron's native cloud software offers significant added value for the successful and rapid realization of such a project and is an important building block for the planning value-based coordination of loading processes with our NetzFlex reservation logic. By optimising the charging processes, we are able to transport more electricity through existing grids.

Start improving your operation with IoT



Contact us to discuss how we can help:
nemo-sales@robotron.de

Learn more about our IoT and Azure solution:
www.robotron.de/produkte/nemo

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About Robotron

Robotron is the partner for industrial companies on their way to Industry 4.0. Innovative solutions involving current edge and cloud technologies, as well as artificial intelligence, successfully contribute to the optimization of processes as well as the increase in quality and efficiency at well-known customers from industrial manufacturing, including the automotive and semiconductor industries.