

PRESS RELEASE



Ricardo plc
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Ricardo and Electricity North West work to unlock capacity from UK electricity networks

Ricardo Energy & Environment is supporting Electricity North West to unlock additional capacity from the UK's North West electricity network by enhancing the thermal efficiency of substation assets, maximizing the power potential of existing infrastructure.

Over the next 30 years the introduction of low carbon incentives and technology – such as domestic heat policies, electric vehicles, ground source heat pumps and renewable energy generation – is predicted to significantly increase peak electricity demand. In the newly launched 'Celsius' project, funded via Ofgem's Network Innovation Competition, Ricardo Energy & Environment and Electricity North West will identify innovative methods to accommodate this demand by optimizing the capacity of substation assets, such as transformers.

Drawing on experience devising and managing smart power network projects, Ricardo Energy & Environment will work with Electricity North West to improve the thermal management of power substation assets. Power specialists from Ricardo Energy & Environment will perform detailed analysis of substation asset performance and determine their capacity to handle increased electricity demand across a range of environments and demand characteristics, including time of day and seasonal variability. These insights will allow the team to develop operational strategies and retrofit cooling techniques that enhance thermal performance and capacity, avoiding the need for early replacement while safeguarding costs for energy users.



Ricardo Energy & Environment has a strong history of developing specialist tools and strategies to support smart grid innovation across the UK. This includes delivering a low cost solution to accommodating growing electricity demands in Brighton and London by optimizing capacity sharing through the use of power electronics in interconnected networks. The team also provided the system scope and technical guidance to the 'Distribution Network Visibility' project which analyses and visualizes network data so that it becomes actionable, useful information.

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Cliff Walton, Ricardo Energy & Environment project technical director, said: "We are delighted to work with Electricity North West on this innovative project. The emergence of new and low carbon technology means that the load and requirement on the UK's electricity network is changing. By maximizing the use of substation assets over the North West's power distribution network, the Celsius project will lay a foundation to meet these changes while reducing the cost of network reinforcement for electricity users. Our experience innovating smart grid electricity networks will support Electricity North West to achieve its goal of developing an effective, implementable methodology which can potentially be rolled out across UK networks."

To find out more about how Ricardo Energy & Environment's team is helping countries across the world develop robust power network systems and respond to emerging trends in electricity generation, visit: <http://ee.ricardo.com/cms/ppa-energy-project-examples/>

For more information on Celsius visit www.enwl.co.uk/celsius

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NOTES TO EDITORS:

Ricardo Energy & Environment is a leading sustainability consultancy, helping clients to respond to environmental challenges and opportunities around the world. Its team of over 450 staff draws on an impressive heritage supporting governments and businesses for over 40 years. The consultancy is an operating division of Ricardo plc.

Ricardo plc is a global, world-class, multi-industry consultancy for engineering, technology, project innovation and strategy. Our people are committed to providing outstanding value through quality engineering solutions focused on high efficiency, low emission, class-leading product innovation and robust strategic implementation. With almost a century of delivering value through technology, our client list includes the world's major transportation original equipment manufacturers, supply chain organizations, energy companies, financial institutions and governments. Guided by our corporate values of respect, integrity, creativity & innovation and passion, we enable our customers to achieve sustainable growth and commercial success. For more information, visit www.ricardo.com.

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