

## OMNETRIC Group urges utilities to focus on customer needs to address potential congestion at the grid edge

- **OMNETRIC Group publishes US-focused whitepaper on the growing risk of congestion in the distribution grid as the use of distributed energy resources increases**
- **Research finds that North American utilities implementing customer-centric approaches to grid management can better mitigate risks of congestion**
- **In addition to solving congestion, in a scenario based on 8500 households and 750 C&I customers, OMNETRIC modeling\* indicates that the distribution utility could save approximately \$4.5 million over 10 years (translating to a yearly yield of \$20,000 per MW of DER capacity) by implementing a DERMS solution that applies direct and indirect load control actions to optimize grid management.**

**Raleigh, May 29 2018:** OMNETRIC Group has found that utilities in North America need to better understand their customers' behavior and evolving needs if they are to mitigate the risks of congestion in the distribution network, according to research released today.

OMNETRIC Group's 'Watch Out! Congestion ahead' whitepaper finds that the growing penetration of distributed energy resources at the grid edge means that grid reinforcement techniques traditionally used to avoid congestion can no longer form the only remedy. Instead, utilities must incorporate digital solutions that expose and influence customer behavior and design new market models to achieve greater grid flexibility and stability in the future.

OMNETRIC Group's whitepaper, commissioned as part of the company's push to surface trends related to the new energy economy, is the result of research and qualitative interviews conducted in 2018 with nine leading utility executives with authority in the USA. Companies involved include: Consolidated Edison, Duke Energy, Entergy and NV Energy. The paper explores how US utilities can best address the risks related to congestion and makes recommendations on how to mobilize to make the change.

The report shows that congestion troubles can be alleviated in five key ways:

- **Increasing flexibility:** distributed energy resources, while unpredictable, have the potential to enable utilities to operate grids more efficiently and economically. By adding software tools to the grid, utilities can influence the behavior of different stakeholders such as consumers and aggregators and smooth-out peaks in the system.
- **Utilizing data-driven insight:** improved integration of data from assets, sensors and meters across the distribution grid can allow utilities to combine operational and customer behavior-related insights to better avoid congestion.
- **Sharing responsibility but retaining control:** in the pursuit of flexibility, utilities will devolve some of their grid management responsibilities to third parties, but by setting the operating framework in which the ecosystem operates, utilities will continue to maintain ultimate responsibility for grid health.
- **Establishing a value-based market:** utilities can avoid congestion by transforming the market from a centrally fueled and controlled system to a network of localized grid components that produce, consume or manage energy and where every activity is evaluated according to the positive and negative consequences it has on the grid, and charged accordingly.
- **Calling on regulators:** in many ways, regulators have the potential to set the pace for utilities' response to congestion. By becoming ambassadors and enablers of an age of customer centricity regulators will ensure the future success of utilities.

Simulations run by OMNETRIC Group indicate that by taking an active approach to congestion management utilities have the potential to not only avoid the damaging impacts of grid congestion, but also to make considerable cost savings. The company projects that in tackling congestion – either with infrastructure enhancements, battery storage integration, demand response or a distributed energy management system – utilities could secure average yearly benefits ranging up to \$20,000 per MW of connected DER capacity, or \$4.5 million over 10 years\*.

Craig Cavanaugh, CEO – North America, OMNETRIC Group, said, “As more energy resources are added to the grid edge, congestion is a looming threat which the traditional system view cannot expose.”

“Our research shows that distribution operators need to switch outlook if they are to avoid grid congestion in the new energy economy. Rather than focusing on load arriving downstream from transmission, they need to monitor the activities initiated by customers and other parties, often located behind the meter. This type of vigilance requires advanced solutions and integration of operational and information systems data to enable a mix of asset-, behavior- and market-based actions that can combat congestion.”

To review a full copy of the whitepaper, visit [www.omnetric.com/Energycongestion](http://www.omnetric.com/Energycongestion)

\* Based on modeling that looks at four different scenarios for addressing network congestion in example town ‘Gladville’, where the current generation capacity of 25 MW connected to its distribution network will almost double over the course of the next three years.

### **Contact for journalists**

Julia Clarke

Phone: +44 7926 171 316; E-mail: [Julia.clarke@missive.co.uk](mailto:Julia.clarke@missive.co.uk)

### **About OMNETRIC Group**

OMNETRIC Group is dedicated to helping energy providers reap the benefits of the digital energy system by integrating their energy operations with IT to support their business goals. Our global team of engineering, IT, security and data experts brings extensive industry experience to help customers discover and exploit data intelligence to capitalize on industry change, and realize new business models.

Helping customers since 2014, we are an inventive, technology services company and a joint venture between Siemens AG and Accenture. For more information, visit [www.omnetricgroup.com](http://www.omnetricgroup.com)