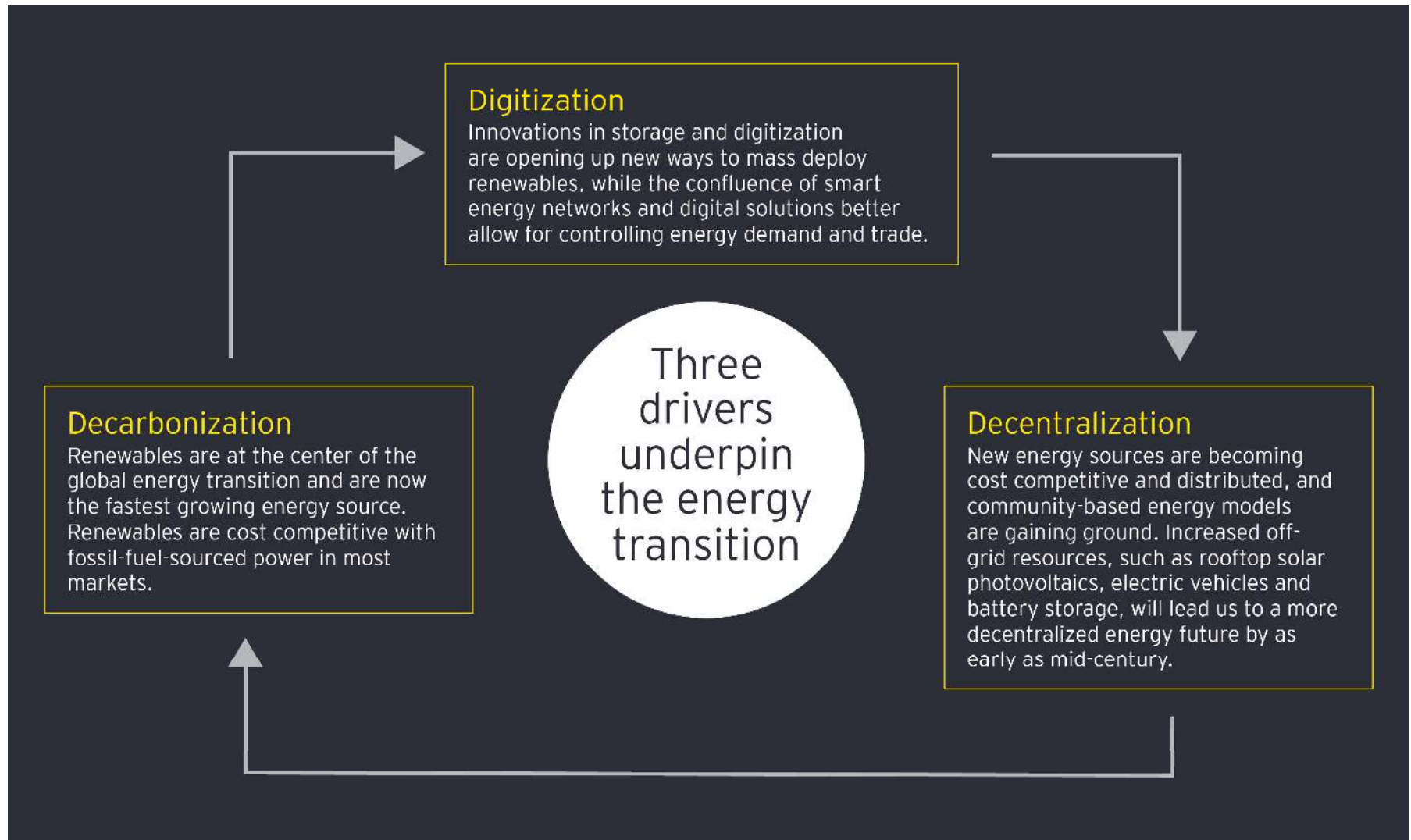




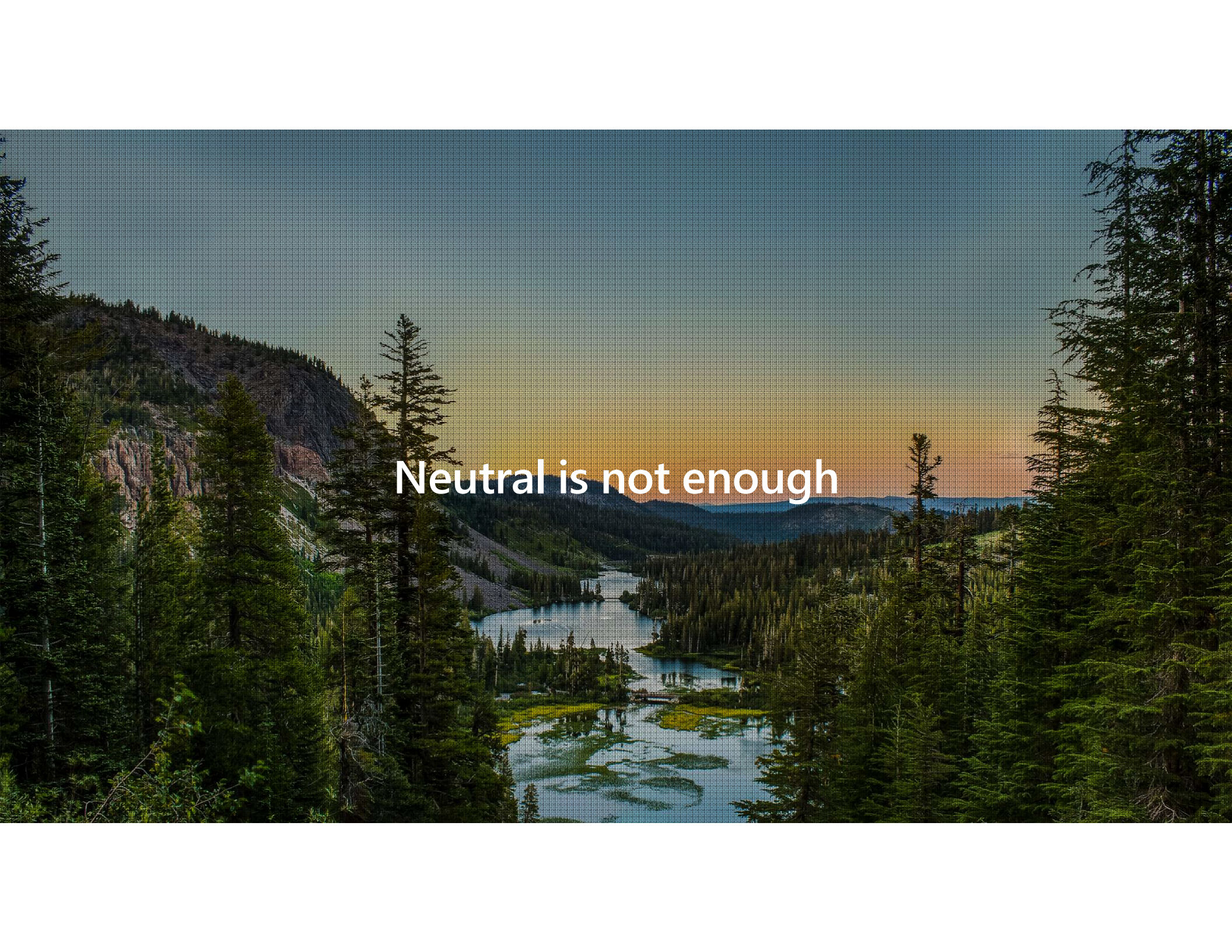
Decarbonization and Digitization

Empowering our customers



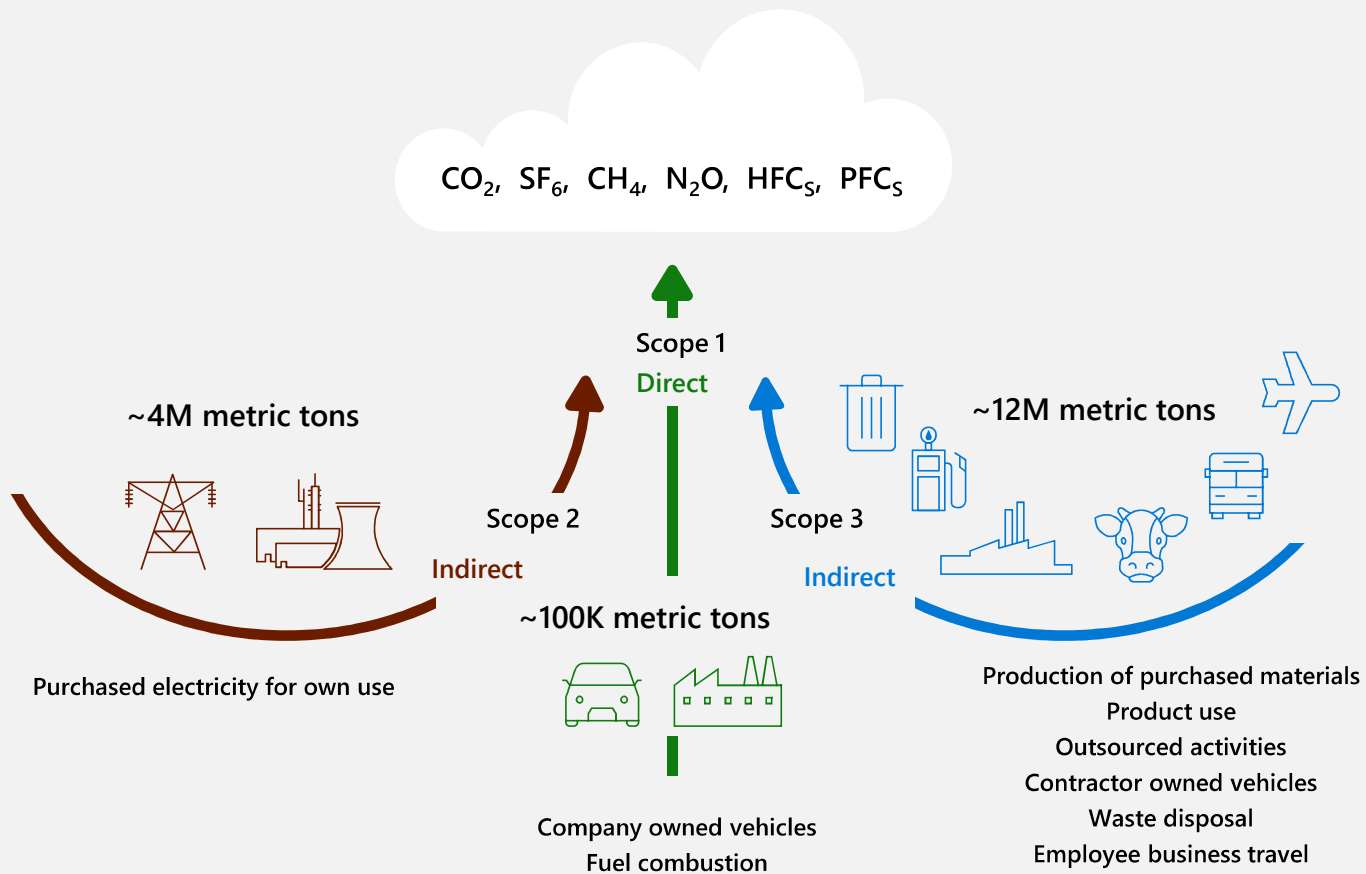


Source: EY, IDC



Neutral is not enough

Microsoft's carbon emissions



Reducing our carbon footprint

Microsoft will be **carbon negative by 2030**

By 2030 across our entire business, including our supply chain, **we will reduce our emissions by more than half**

We will **remove more carbon than we emit annually as a company**, resulting in a carbon impact that is below net zero.

By 2050, our goal is to remove from the environment **all the carbon Microsoft has emitted either directly or via electricity consumption since our founding in 1975**



Taking responsibility

Microsoft's sustainability strategy



Developing new tools, deepening our engagement

New tools to better track and reduce carbon

Release of the **Microsoft Sustainability Calculator**, a new Power BI dashboard shows the estimated emissions from Azure services.

New offerings that go further, providing insight across Scopes 1, 2 and 3 and material circularity related to all Microsoft Azure services

24/7 matching solution with Vattenfall to give customers ability to choose the green energy they want

More **transparency on carbon performance** of Microsoft products

Co-innovation with customers and partners



Supporting our
customers and suppliers



Sustainability Calculator

Customer: Contoso

Months

Multiple selectio...

Region

All

Azure service type

All

Calculations in this tool are estimates, and values may not sum due to rounding. For more information, see the FAQs.



Select the efficiency of your on-premises infrastructure:

Low

Azure emissions and savings (MTCO2e)

478

MTCO2e from on-premises alternative



↓95%

Reduction in MTCO2e

— 380

MTCO2e saved from Microsoft efficiencies



↓452

MTCO2e saved

— 72

MTCO2e saved from Microsoft renewable energy purchases



↓1M

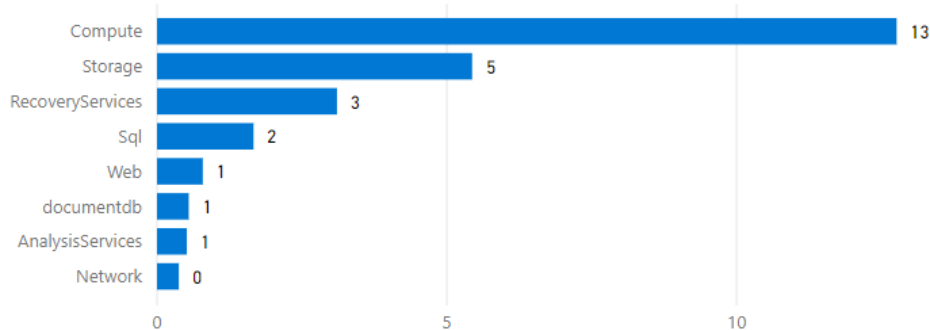
Equivalent reduction in vehicle miles travelled

26

MTCO2e emissions from Azure

MTCO2e: metric tons carbon dioxide-equivalent

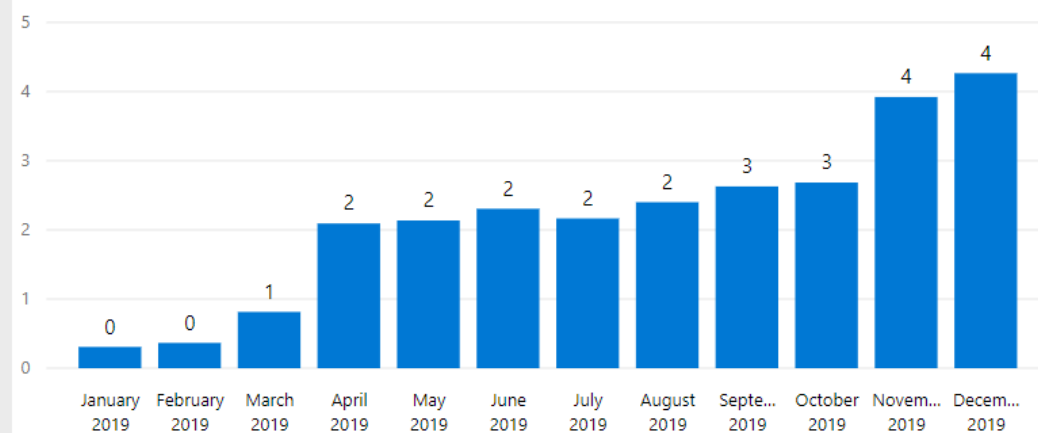
Emissions by Azure service (MTCO2e)



Azure emissions by region



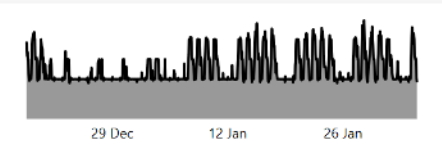
Azure emissions over time (MTCO2e)



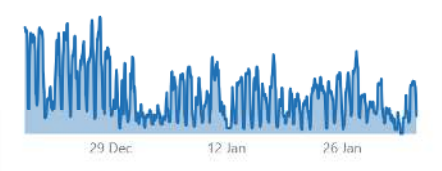
24/7 matching of consumption and renewable production

24/7 Matching – a unique solution for energy transparency showing the origin of the energy consumed in near real-time. A first-of-its-kind solution delivered by Microsoft and Vattenfall.

Consumption



Hydro production



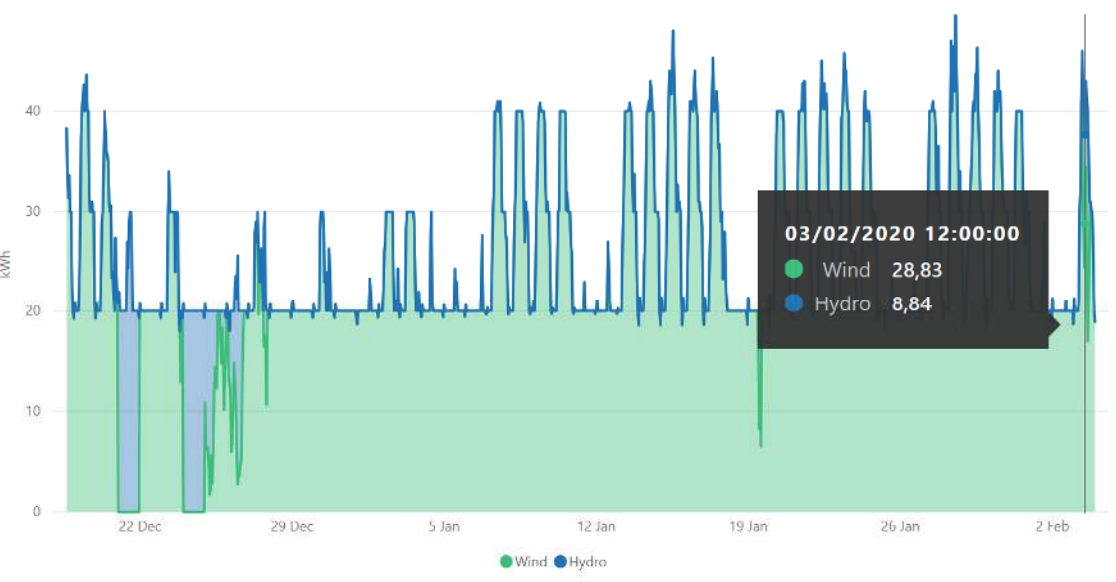
Wind production



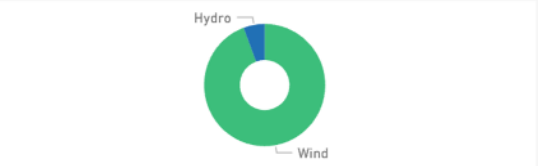
Locations



Matching results (per hour)



Matching results (total for the time period)



Location and date selection

Location selection: Microsoft Sweden office

Date range: 18/12/2019 to 05/02/2020

Agder Energi builds an intelligent grid

“

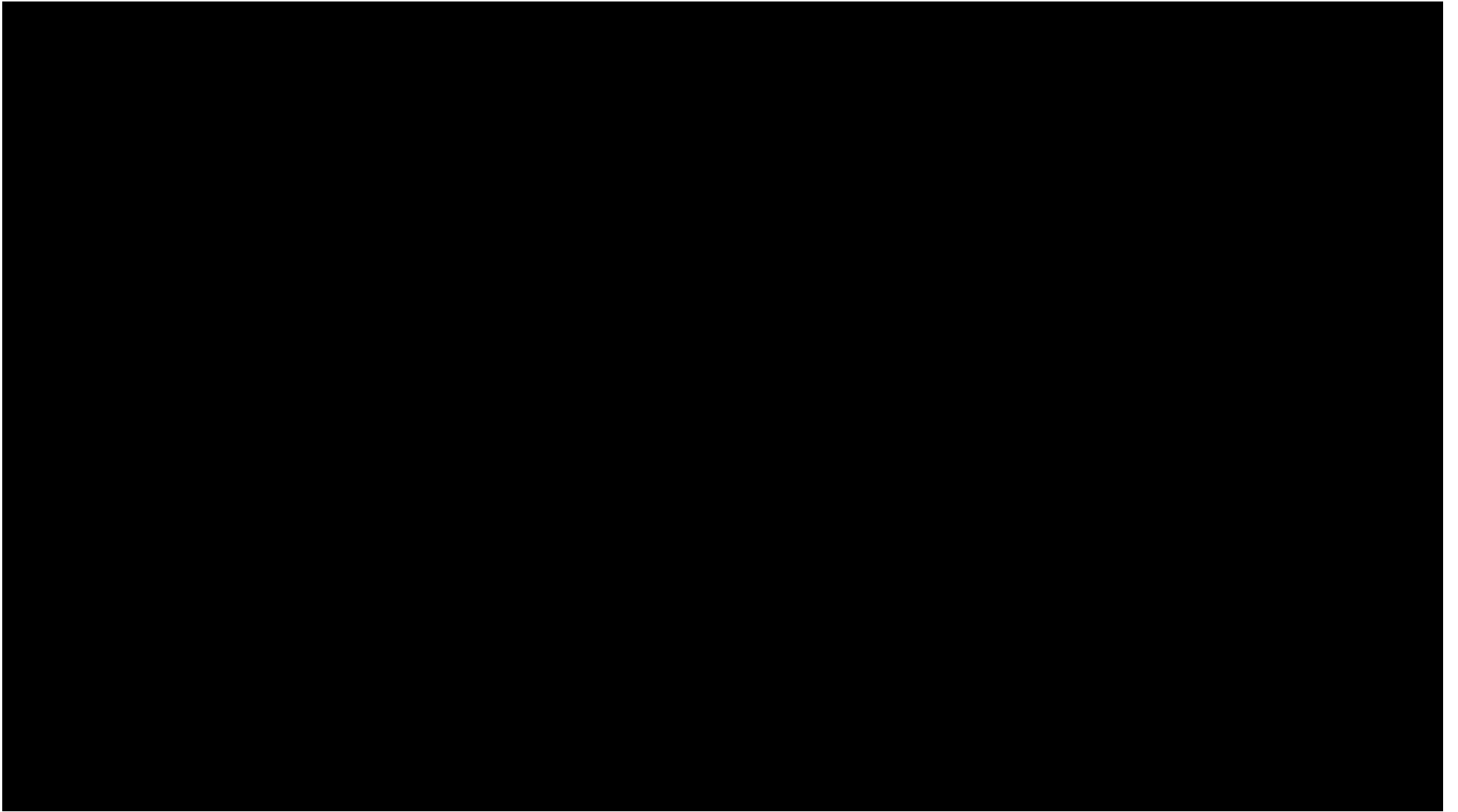
At Agder Energi we want to use new technology to make the power grid more efficient, more predictable and more flexible. We will go from being energy generators to energy partners, with a more active role for our customers.

”

— Tom Nysted
CEO, Agder Energi

agder energi





Siemens-Gamesa creates a more sustainable future with wind power, AI, and the cloud

“ To review all the photos is a huge task. The more we can make it an automated process, the easier it is for us to work with the data.

”

— **Anne Katrine Karner-Gotfredsen**
*Manager Product integrity
and warranty management*





Fairness



Reliability & Safety



Privacy & Security



Inclusiveness



Transparency



Accountability

Responsible AI

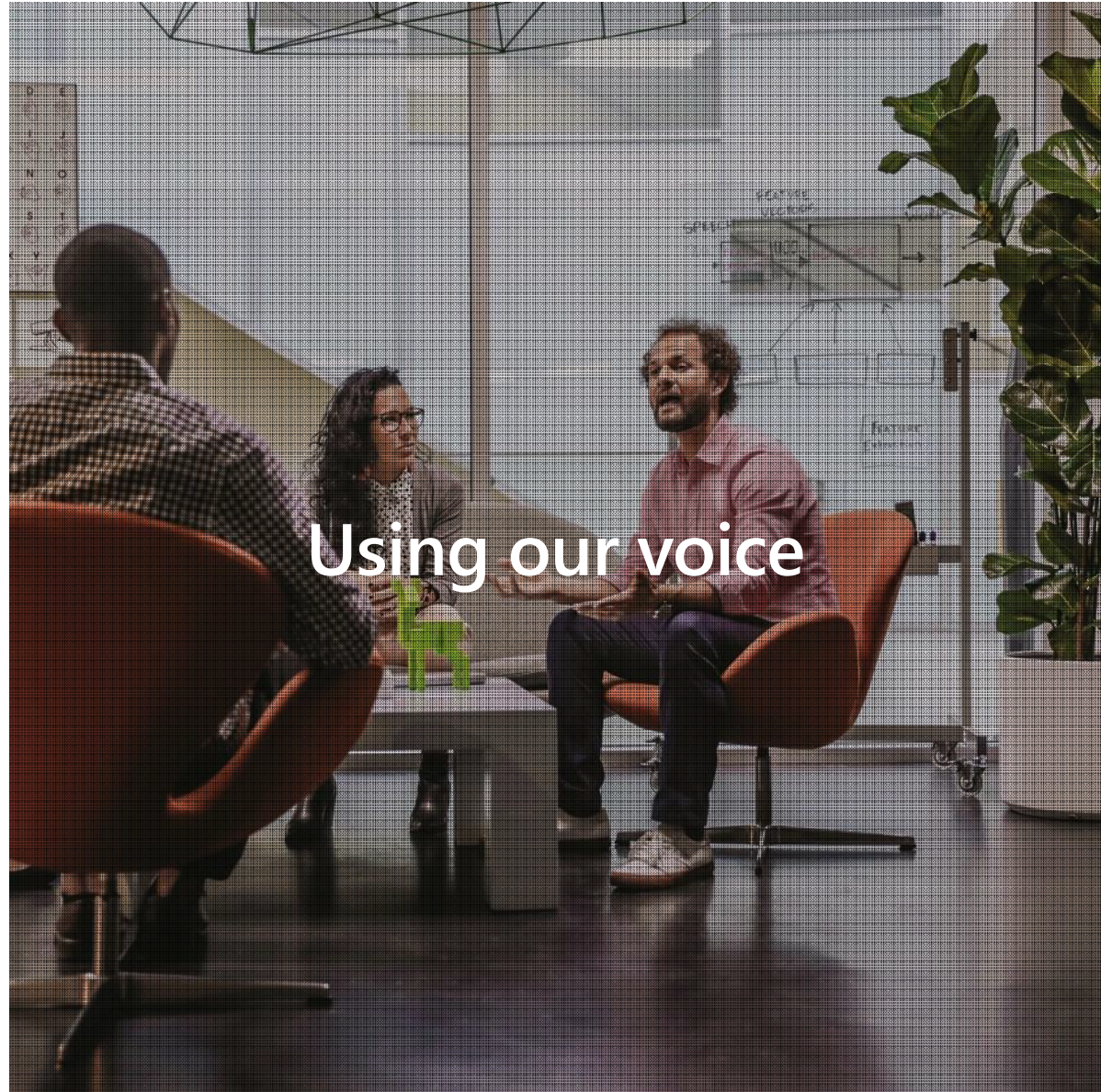
We'll advocate for the needed changes in laws and regulations

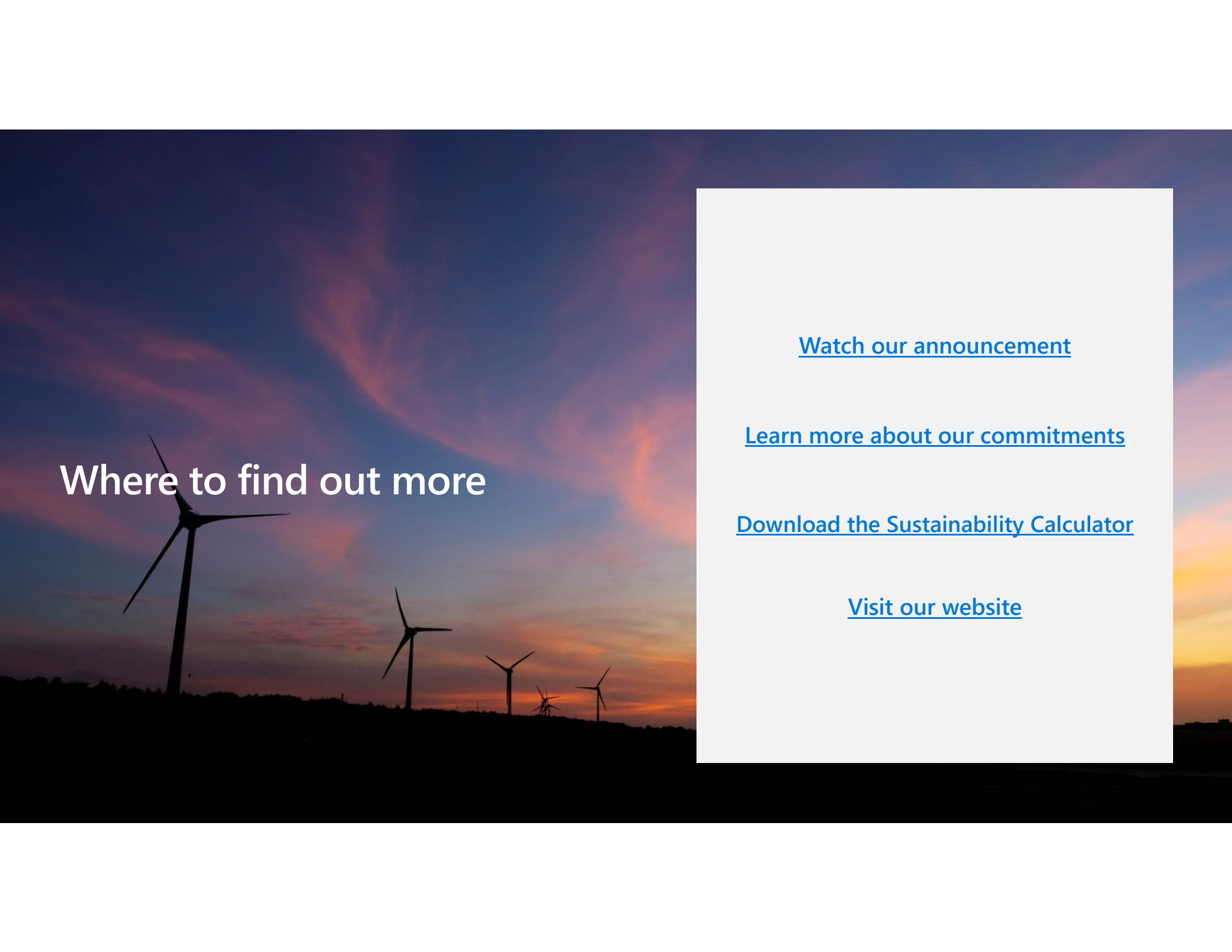
The need to **expand global basic and applied research efforts** on carbon to develop the breakthrough technologies needed to achieve net zero global emissions

The **removal of regulatory barriers** to help catalyze markets to enable carbon-reduction technologies to scale more quickly.

The **use of market and pricing mechanism** so people and businesses can make more informed carbon decisions.

The **empowerment of consumers through transparency** based on universal standards to inform purchasers about the carbon content of goods and services



A background image showing several wind turbines silhouetted against a vibrant sunset sky with orange, pink, and blue hues. The turbines are positioned on a dark horizon line.

Where to find out more

[Watch our announcement](#)

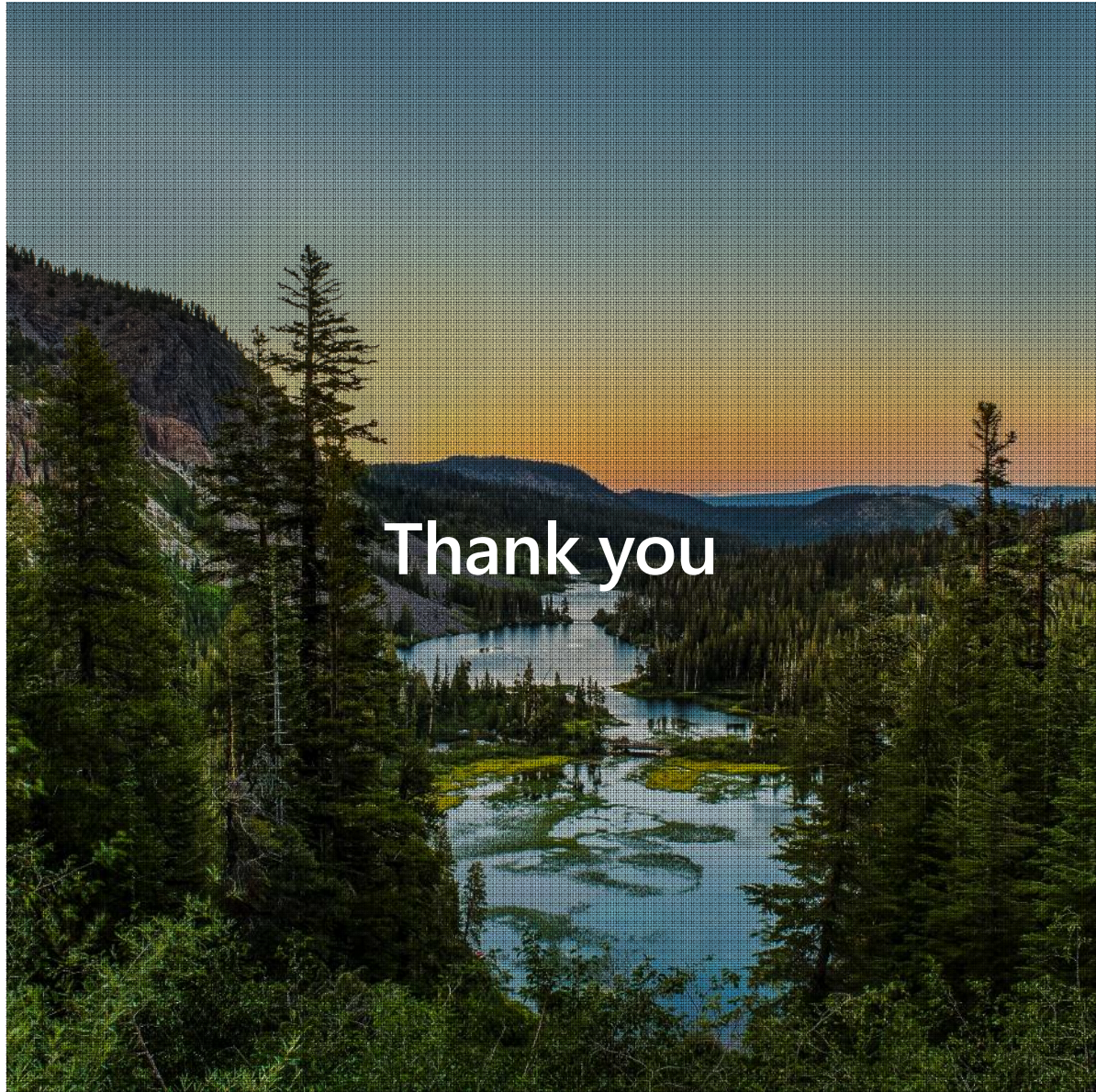
[Learn more about our commitments](#)

[Download the Sustainability Calculator](#)

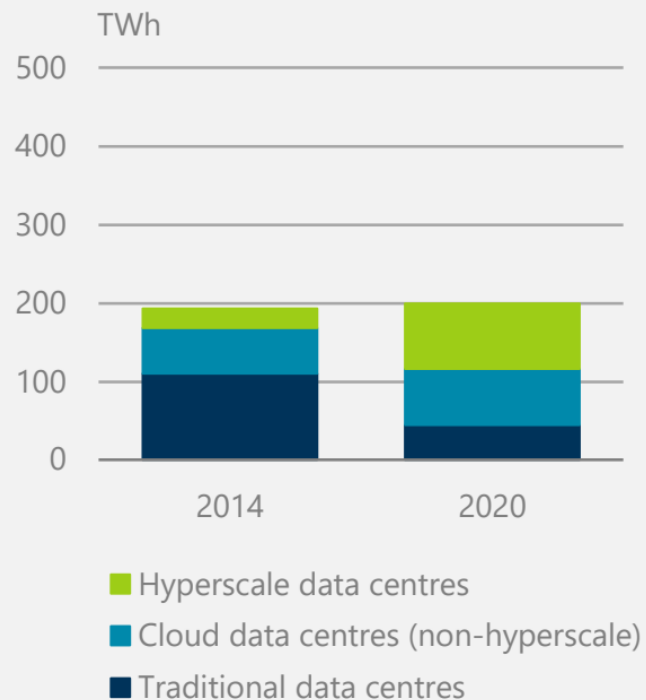
[Visit our website](#)



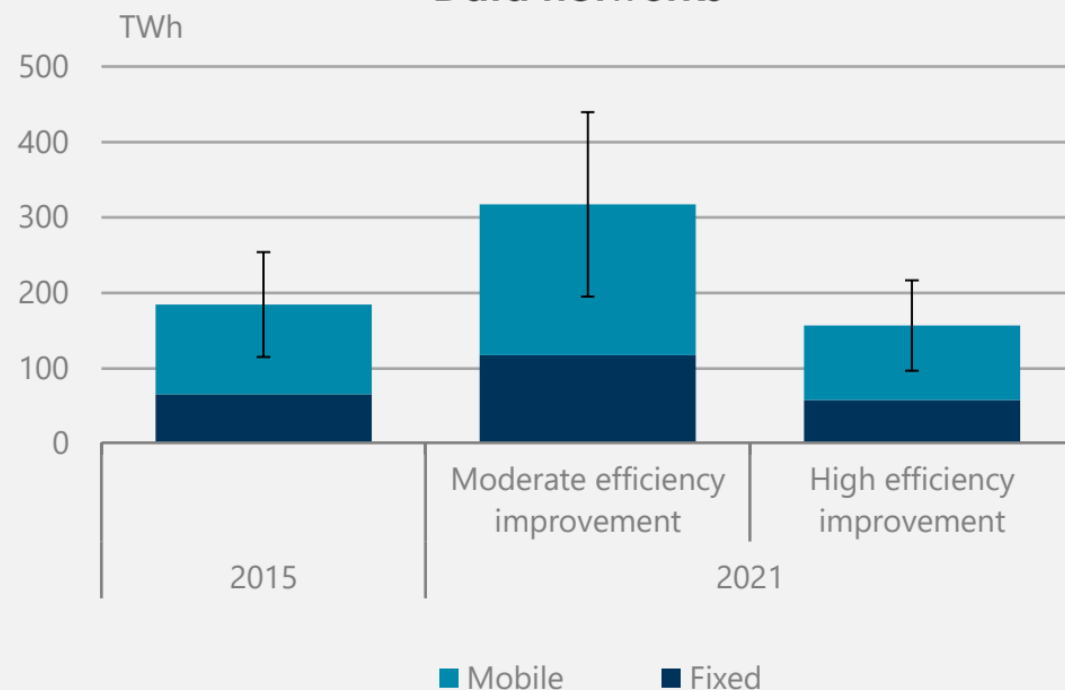
Thank you



Data centres



Data networks



Sustained efficiency gains could keep ICT electricity demand largely in check over the next five years, despite exponential growth in demand for data centre and network services

Source: IEA