CRITICAL ANALYSIS OF EMERGING THEMES AND TRENDS

FRONT DESK

SUSTAINABILITY

New weather tool to help FMs enact climate justice

by Herpreet Kaur Grewal

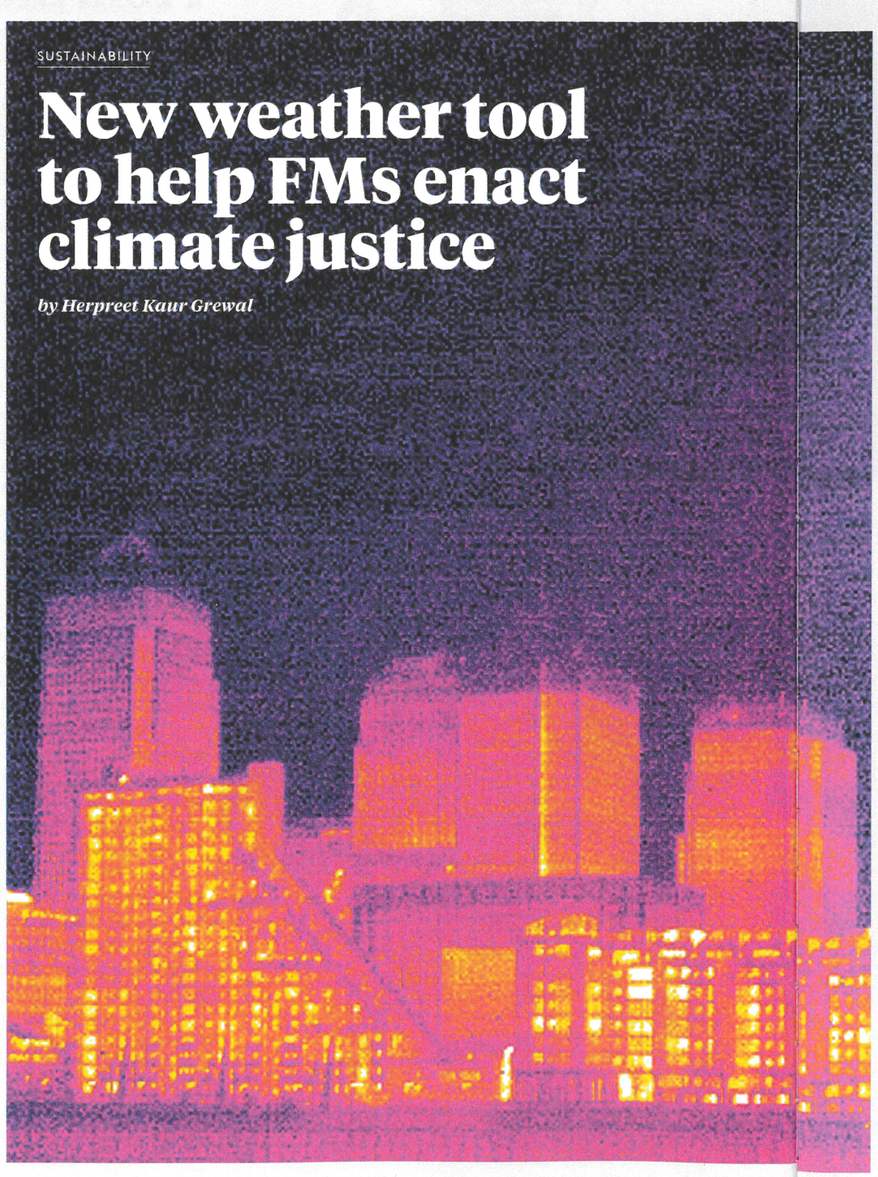

IMAGE: SCIENCE PHOTOLIBRARY

Awareness of the climate crisis continues to spread – with many emphasising the extent to which facilities managers can help tackle the challenge. Back at the IWFM's annual conference in 2020, Arctic explorer turned conservationist Pen Hadow called FMs "agents for change" uniquely placed to tackle the dangers to global biodiversity through the infrastructure they manage.

At COP26 in 2022, Cristina Gamboa, CEO of the World Green Building Council, said that the buildings and construction sector "must be elevated as a critical solution provider to the climate emergency" because "the built environment is responsible for almost 40% of global greenhouse gas emissions".

A new data tool from the Met Office should help FMs factor climate change objectives into their management of buildings. The Met Office's Climate Data Portal aims to give organisations "improved access to climate data and other resources, allowing them to better understand and respond to climate change".

The portal, part of the Met Office's wider strategy "to maximise the benefits of its data", contains 60 different data layers, as well as guidance and information.

So how does it work – and how can FMs use it to get tangible results that really will make a difference?

The portal enables any business or government organisation to combine open climate data with their own data and "reveal the future impact of extreme conditions on their operations, including heatwaves, floods or droughts".

The tool presents complex scientific climate projections in "easy-to-use formats, ready to visualise and analyse in GIS [geographic information systems] and non-spatial applications or integrate into business processes for improved decision-making". The Met Office said that spatial analysis can be performed at "a global, regional or local level, enabling location-specific action plans to be developed".

Climate reporting

The project is part of a strategic partnership between the Met Office and software company Esri UK, which have been working together for 20 years.

Professor Jason Lowe, head of climate services at the Met Office, said: "Historically, climate science has defined the problem – now it's moving to help with the solution, providing information at a local level which is highly relevant to UK organisations. By combining the Met Office's latest projections with Esri UK's geospatial tools, the reach and value of this data is greatly extended. UK stakeholders can investigate their physical climate risks over the next 50 to 100 years.

"The most detailed climate projections reveal a greater chance of warmer, wetter winters and hotter, drier summers – and these help users plan and prepare for extreme weather, climate change and the reporting which new regulations, linked to climate change, will require."

The portal is also intended to provide insight to help organisations start their response to regulatory climate reporting programmes such as Task Force on Climate-related Financial Disclosures (TCFD), which is being rolled out across the UK, making it particularly timely.

Pete Wilkinson, managing director of Esri UK, added: "The Climate Data Portal is a giant step forward in making climate data more usable for UK stakeholders. Climate change presents a major challenge, and this challenge is a geographic one. Using geospatial technology as a delivery mechanism for climate data makes it quickly accessible and usable in spatial and temporal analysis, helping to identify at-risk areas and develop location-specific action plans."

Ian Cameron, Met Office markets director told *Facilitate*: "The Met Office Climate Data Portal is a vital progression to put our pioneering science data in the hands of the people who need it, in a format that is most useful to them, to enable people to make better decisions to stay safe and thrive.

"There are numerous industries that utilise Esri GIS software, so it is significant that they wanted the best environmental data available to make better decisions for their sectors to thrive in a changing climate."

Stephen Belcher, chief of science and technology at the Met Office, added: "Climate change is having more and more impact on our lives, and it is crucial that new technologies, such as data integration tools, are harnessed to make sure the insights from science are getting into the hands of people who make decisions."

How FMs put this tool to use will be of great interest in the months and years ahead.

> **The Climate Data Portal is a giant step forward in making climate data more usable for UK stakeholders**
>
> PETE WILKINSON

STEP-BY-STEP GUIDANCE

HOW TO USE THE CLIMATE DATA PORTAL

- Users select the climate data they want to view in a range of file formats and display it on a map to understand how climate change impacts the areas that matter to them, such as where their offices are. Users can either download the data, visualise it on the portal itself or open the data in their own GIS (Geographic Information System).
- Data can be browsed by category; for example, precipitation or temperature, or by time period, including projections (future) and observed (past) data.

For example, if you search for temperature data sets, many different data sets will appear. Selecting 'Monthly Temperature Projections 2050-2079', will bring up the data and offer the user more information about exactly what the data is.

The amount of future global warming depends on future emissions. For some data sets there are multiple future emission scenarios available to choose from. For example, for sea level, you can choose from more than one scenario.

- Data on the portal can be used to inform the impacts of climate change. Data on temperature extremes can be used to understand the impacts on infrastructure, health and energy demand.
- Going back into the explorer view and using the filters on the left and the legend on the right, users can display the data according to a number of different criteria and visualisation styles. Hovering over the map at a particular location will display the specific temperature projection while panning and zooming in and out lets you quickly move about the map.
- As well as being able to view the data sets available, the portal allows users to overlay their own data – which could range from the location of offices or staff to transport and logistics routes. The climate data can also be added to other applications, such as Excel and Power BI.

SOURCE: MET OFFICE

ONE FOR THE GAUGES

- **Summer days** – when the temperature reaches over **25°C**
- **Hot summer days** – when the temperature reaches over **30°C**
- **Extreme summer days** – when the temperature reaches over **35°C**
- **Tropical nights** – when night temperatures don't dip below **20°C**
- **Frost days** – the number of days with a minimum temperature of less than **0°C**