

DATACOM

# The changing landscape of data centre energy density



**DATACOM**  
Data Centres



Andrew Green



[Andrew.green@datacom.com](mailto:Andrew.green@datacom.com)

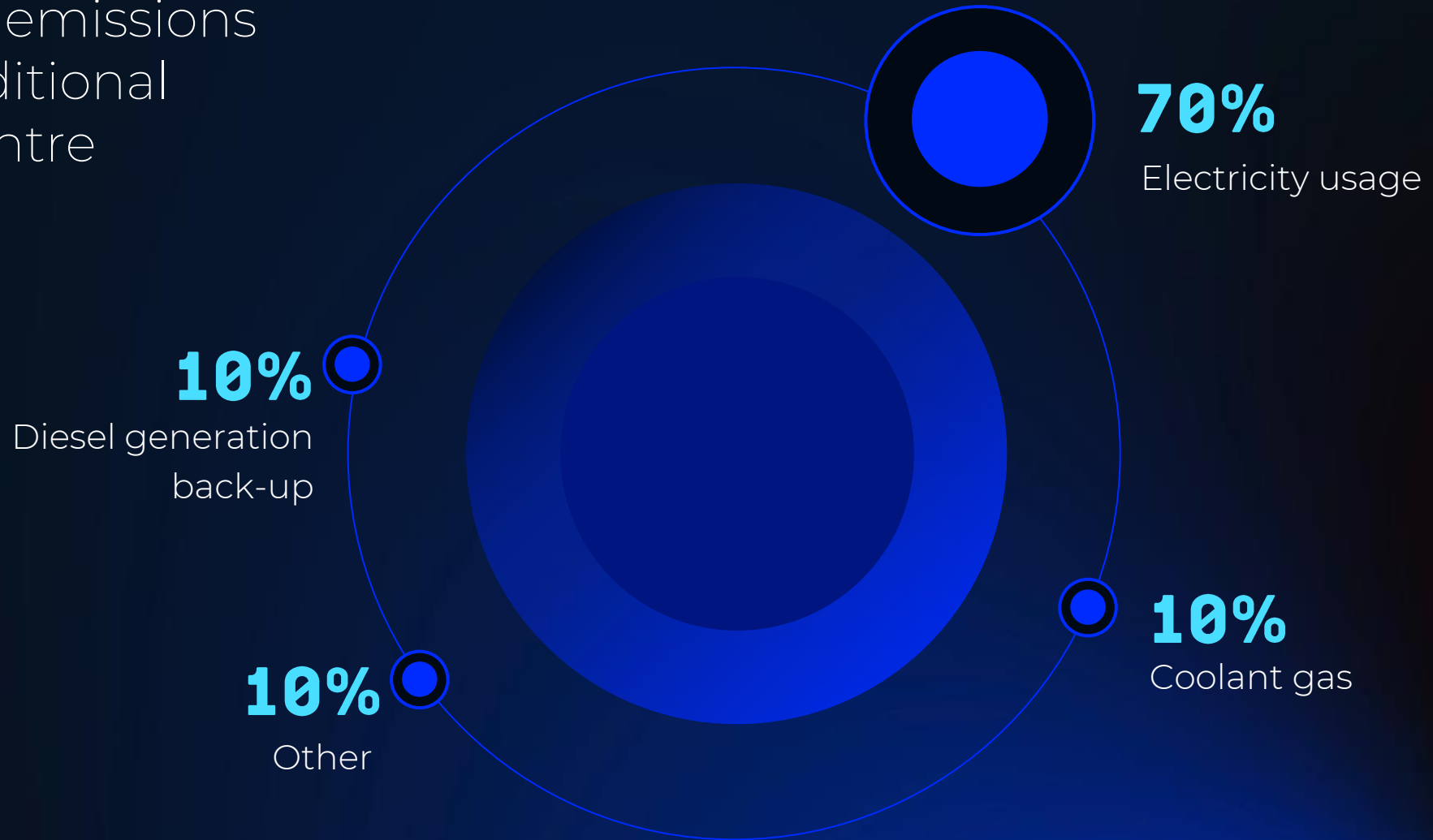


[linkedin.com/in/andrewgreennz/](https://linkedin.com/in/andrewgreennz/)

Data centre expert

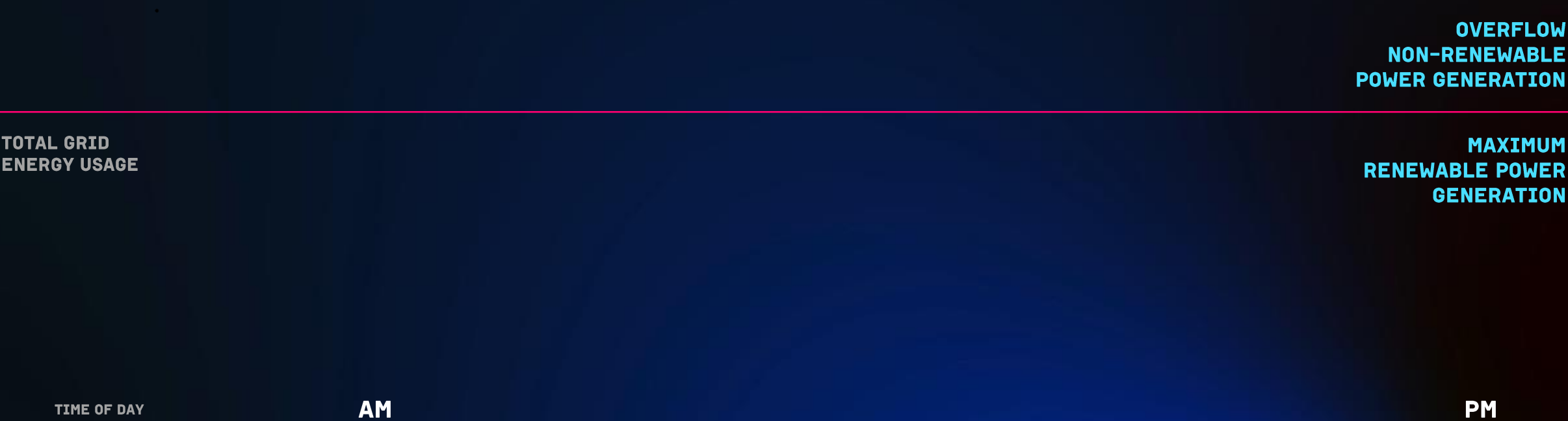
Dad (not an expert)

# Carbon emissions in a traditional data centre





# Peak demand still relies on fossil fuels



Source: Transpower, MBIE, Stuff, NZ Herald, 2023–2024

# Impact of AI on Data centres



One Google search can  
power a light bulb  
for **11 seconds**

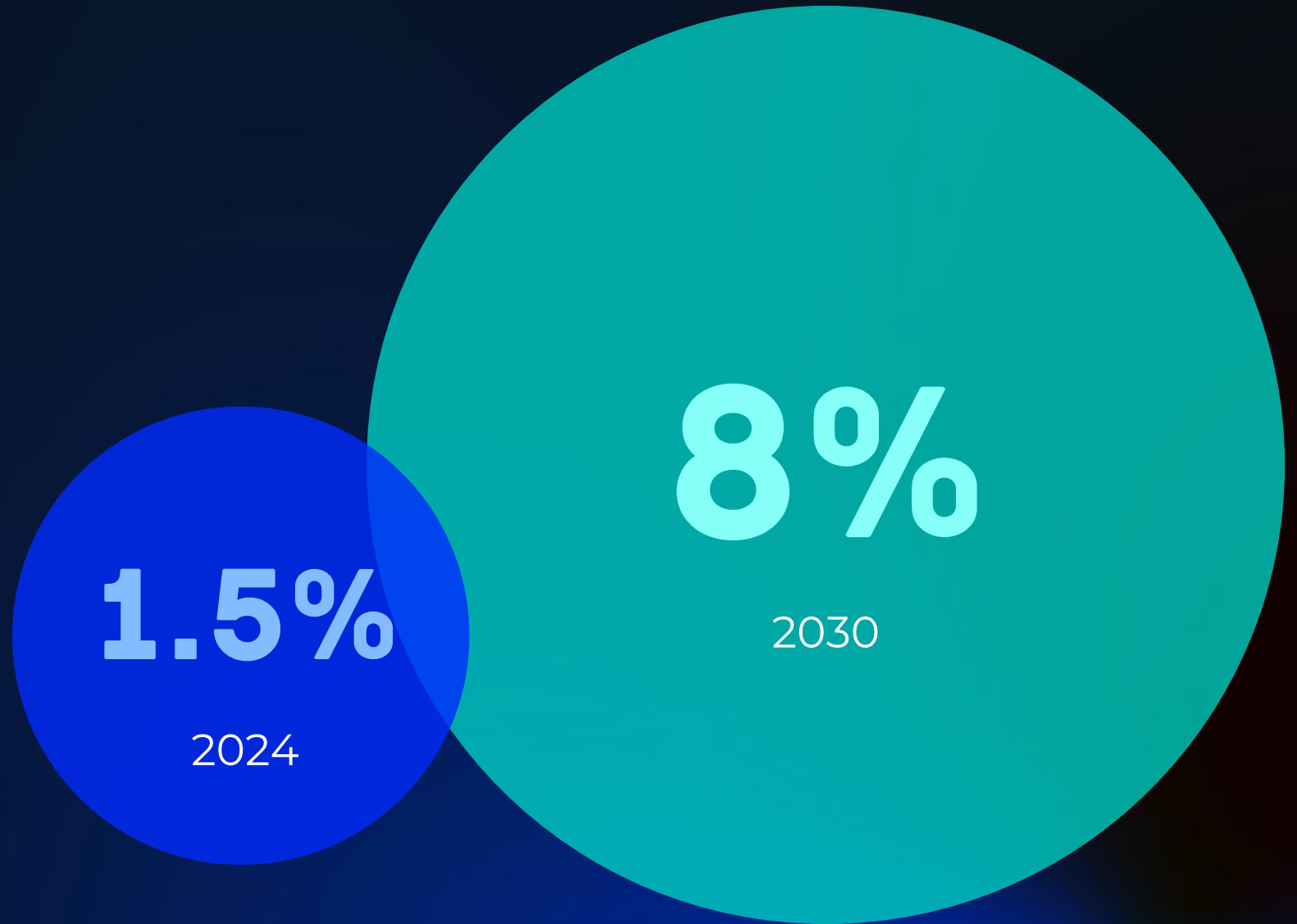


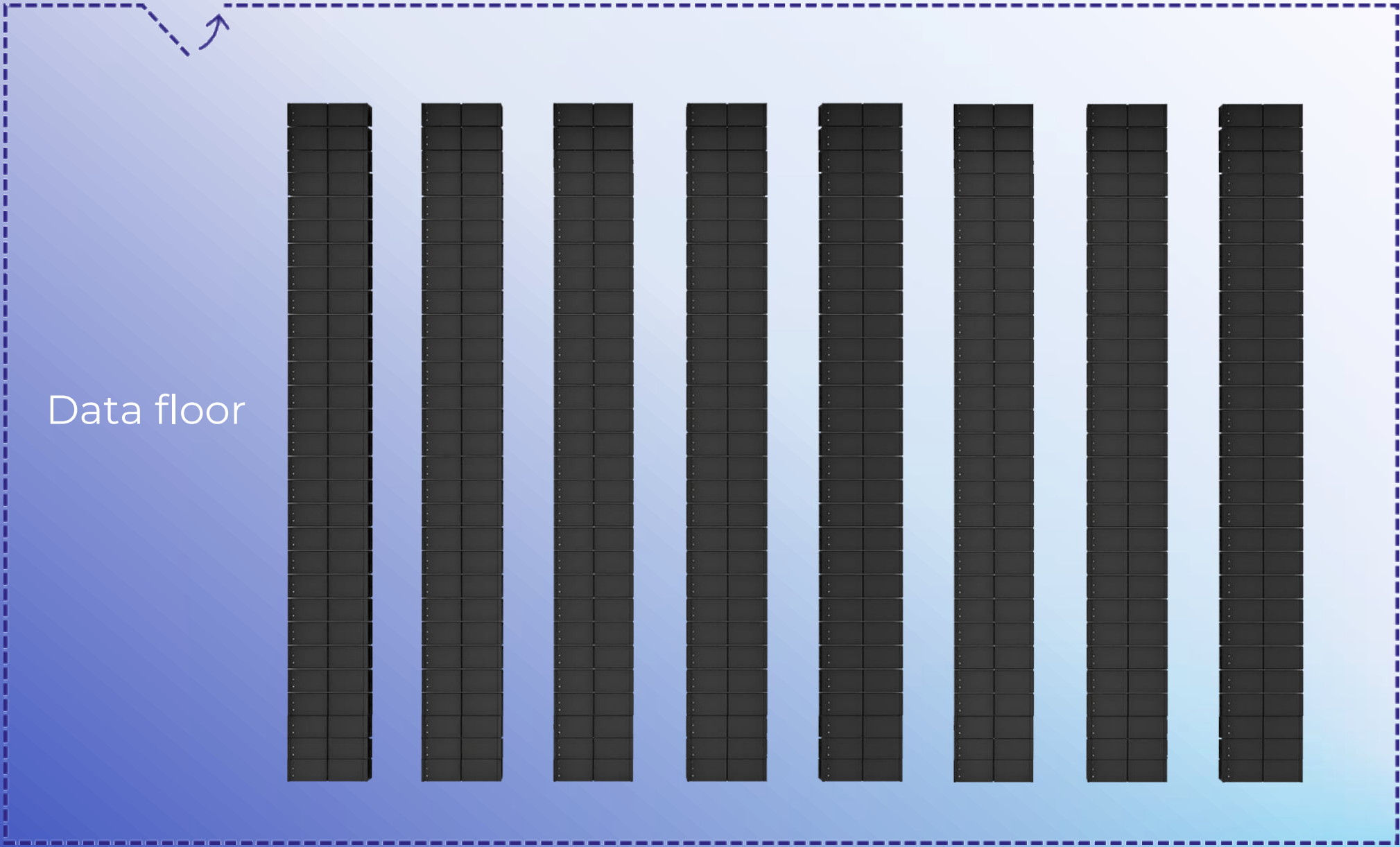
A single ChatGPT-3 session can  
power a light bulb  
for **3 hours and 3 minutes**



A single ChatGPT-4 session can  
power a light bulb  
for **152 hours and 30 minutes**

# Data Centre global energy use and growth projections





























# Thank you.



<https://www.linkedin.com/in/andrewgreennz/>



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