Report on Amazon's climate commitments in context of data center growth

RESOLVED: Shareholders request that Amazon issue a report explaining how it will meet the climate change-related commitments it has made on greenhouse gas emissions, given the massively growing energy demand from artificial intelligence and data centers that Amazon is planning to build.

SUPPORTING STATEMENT:

Amazon plans massive data center expansion in the coming years – reportedly planning to spend almost $150 billion in the coming 15 years – anticipating a boom in artificial intelligence.[1] Cloud computing is Amazon's top source of profits,[2] decisions related to data centers are vital to corporate strategy, and data center power poses particular risks. Data center power demand may more than double, from 1-2% of global power now to 3-4% by 2030 (though some analysis suggests a range of possible scenarios).[3]

Amazon has made high-profile climate commitments central to its corporate strategy. With its Climate Pledge, the company has committed to "net-zero carbon emissions by 2040" and "matching" 100% of the electricity it uses "with renewable energy by 2030".[4] Among the aims of the Pledge is "good jobs in green industries."[5]

A number of factors raise concerns about Amazon's ability to meet its climate commitments while expanding data centers for artificial intelligence. Can it achieve net-zero emissions by 2040? Amazon announced it has matched 100% of electricity used in 2023 with renewable energy; can it maintain this in future years given data center expansion plans?[6]

Utilities in a number of geographies are planning expansion of fossil power, or pushing back retirement dates, to meet data center demand. For example, Virginia has the world's largest concentration of data centers, and Amazon Web Services "call[s] Virginia home"[7]. Utilities in the

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1 https://www.bloomberg.com/news/articles/2024-03-28/amazon-bets-150-billion-on-data-centers-required-for-ai-boom

2 https://www.seattletimes.com/business/amazon/amazon-reports-13-5-billion-profit-in-second-quarter-driven-by-aws/

3 https://www.goldmansachs.com/insights/articles/AI-poised-to-drive-160-increase-in-power-demand, https://iea.blob.core.windows.net/assets/02b65de2-1939-47ee-8e8a-4f62c38c44b0/WorldEnergyOutlook2024.pdf

4 https://www.aboutamazon.com/planet/climate-pledge

5 https://www.theclimatepledge.com/us/en/History

6 https://www.aboutamazon.com/news/sustainability/amazon-renewable-energy-goal

7 https://www.vpm.org/news/2024-11-14/meta-google-amazon-dominion-energy-data-centers-virginia-power-demand, https://www.aboutamazon.com/news/aws/aws-commitment-to-virginia

state are planning buildout of new gas plants to meet demand from data center growth. Utilities elsewhere are also keeping coal online to meet demand.[8]

As a central part of meeting energy demand going forward, Amazon has announced it will invest in small modular nuclear reactors – but these will not deliver power until the early 2030s, so they can not help meet Amazon's growing power demands for the remainder of this decade.[9]

To meet its climate commitments, Amazon relies on renewable energy credits or certificates (RECs).[10] But this approach faces new questions in the context of rapidly rising energy demand. For example, will the quantity of RECs purchased increase, and will a sufficient amount be available going forward? How will time and location of use change, and does growing demand impact additionality?

Amazon's investors would benefit from analysis that explains how the company will tackle the above concerns.

[8] https://www.powermag.com/power-demand-from-data-centers-keeping-coal-fired-plants-online/, https://www.washingtonpost.com/climate-environment/2024/11/19/ai-cop29-climate-data-centers/

[9] https://www.aboutamazon.com/news/sustainability/amazon-nuclear-small-modular-reactor-net-carbon-zero, https://apnews.com/article/climate-data-centers-amazon-google-nuclear-energy-e404d52241f965e056a7c53e88abc91a

[10] https://sustainability.aboutamazon.com/renewable-energy-methodology.pdf, https://sustainability.aboutamazon.com/2023-renewable-energy-assurance.pdf