

EcoDataCenter launches carbon-positive data center into operation

FALUN, Sweden: With data centres expected to consume as much as 20% of the world's energy within only a few years, the deployment of energy efficient data centres is crucial.



Swedish developer of climate-positive data centres EcoDataCenter has taken a global lead in this segment and is now launching the first carbon positive data centre in the world, in Falun in central Sweden.

Increased digitalisation will lead to data processing at data centres using one-fifth of the world's total energy production as early as 2025, as calculations from several researchers and experts show. Since fossil fuel sources are responsible for two-thirds of the world's production of electricity, data centres risk becoming one of the largest sources of carbon dioxide emissions.

Sweden's EcoDataCenter, a provider of colocation data centre solutions, is now ready to give the central Swedish city of Falun the world's first climate-positive data centre. After four years of development efforts, EcoDataCenter has managed to create a data center that is integrated with the surrounding energy ecosystem to reuse the heat generated and create the world's first climate positive data center - being climate positive means that not only are there no carbon emissions, but that during operation it even promotes the reduction of total carbon emissions.

Great interest from around the world

The carbon-positive operation is achieved through green electricity and using the surplus heat from the centre in Falu Energi och Vatten's local district heating networks and a wood pellet factory. During the warmer months, the surplus energy in the district heating network is used for cooling the data centre. The facility will have a total capacity of 1.9 mW and will be put into operation in the autumn of 2018.

“The technical design of the data centre will be a crucial issue going forward, since it has a tremendous impact on both environment and costs, and we see a very large market for our technology,” said Lars Schedin, CEO of EcoDataCenter.

The steadily increasing need for processing data in the wake of 5G, the Internet of Things and artificial intelligence are what lie behind the expected rise in the energy consumption of data centres.

According to Gartner, a leading Internet analyst, there will be more than 20 billion connected objects by 2020, a figure that in the opinion of some commentators could increase to a full 100 billion as early as 2025.

Digital habits impact the environment

Most of us, however, are likely unaware of the fact that our daily digital habits have a serious impact on the environment, according to Schedin.

“Naturally, one person watching a video on the internet has a marginal impact, but when several million do it several times, the total energy consumption is very large — something most of us barely think about,” says Schedin, citing the example of the video for the megahit “Despacito,” which has now been shown more than 5 billion times on YouTube.

“This means that viewing this video alone has consumed energy equivalent to an estimated 850 GWh. If we start from the fact that it has been viewed around the globe, it is reasonable to assume that this, in turn, has involved emissions of approximately 360,000 tons of carbon dioxide - as much as 220,000 taxis release in an entire year.”

Major energy drain

Simply put, data centres consist of a large number of data servers that process data, something that uses a lot of energy since the processing in itself requires energy, but also because the servers must be constantly cooled in order to function. Energy consumption constitutes one of the largest operating costs in a data centre, and a facility with lower energy consumption will thereby have less of an impact on the environment and offer lower costs - something that is extremely attractive for both data companies and their customers.

As a result of its low energy prices, Sweden is already an attractive country for investments in new data centres, which is why several major players - Facebook and Google among them - have chosen to establish centres in Sweden. EcoDataCenter expects that their technology for carbon-positive data centres will further strengthen Sweden’s position in the industry.

“Interest in the facility in Falun is enormous, and we have had visits from customers around the world even though it’s not really ready,” says Lars Thunell, chairman of EcoDataCenter’s board of directors. “Everything points to it being a major success, and we are therefore counting on the need to build a large number of facilities of this type, both in Sweden and abroad, to successfully meet interest and demand.”

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