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Sent: Thursday, May 14, 2026 9:30 AM
To: planadmin <planadmin@milwaukee.gov>
Subject: Testimony for a Data Center

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Dear Planning Commission:

I recently saw a plan for a data center on N. 60th Street, just north of Capitol Drive at the site of an abandoned Walmart. The proposed site supposedly would house a 19000 sq foot data center and a self-storage facility. While I am not against the self-storage facility, I am thoroughly against the data center.

My name is Dr. Philip Chang. I am a professor of physics and astronomy and department chair at UWM. The proposed data center would focus on high-performance computing.

I also happen to be a theoretical and computational astrophysicist who does a lot of high performance computing -- most of it on-site at UWM. I also wrote a grant to the NSF to build a half a million dollar cluster at UWM to support the computational research here. So I know a thing or two about high-performance computing.

The key metric for data centers is electricity usage. Here the proposed data center has given zero information on this -- no information on the type of servers, number of servers, total investment or anything to estimate electricity usage. So I had to estimate the power usage of such a facility based on comments and limited publicly available information. Based on the proposed size 19K sq ft. The estimate electricity usage is about 5 megawatts. This is about 10x what the Walmart used at the same site. 5MW is also a decent, but possibly lower estimate as high density packing of modern servers can easily double this estimate.

Anyhow 5-10MW of electricity usage is *a lot* of cooling. Computers themselves are quiet, but the cooling systems are not. The proposed data center will use a closed-loop glycol cooling system. This means no water usage, which is good, but a huge amount of fans for the AC system. How much? This would be similarly to eliminating the heat produced by 50,000 people at once. So think the air-conditioning power of the Bucks arena during a playoff game times 2.5, running 24 hours a day, 365 days a year. I would feel bad for all the residents around the site that would be subjected to this constant unrelenting drone.

Finally, the investment is huge for this site. Having procured servers as part of my NSF grant, I can tell you that the cost of a data server is about \$20,000 per 1,000 W of computing power. So I estimate the this data center will cost about 50-100M in computer costs alone. This is great, but zero of this money will be spent in the local community. Moreover the number of jobs that this investment will produce in the local community can be measured in the single digits. Basically, they will hire a few security guards and that is it. The value proposition to the local community is simply not there especially in regard to a large monolith that just produces noise constantly -- at least a noisy factory closed down at night and hires lots of local workers.

There are plenty of better sites around Milwaukee that are far from residential areas to site such a data center. Moreover, the proposers are better off renting office building downtown or at UW-Milwaukee or Marquette to distribute the siting of their data center. There is zero reason why for the type of HPC

compute that they are proposing to host why a distributed data center would not work better -- less centralized cooling, more distributed noise footprint.

Cheers,
Philip Chang