

The Sound of a Modern Data Center

| What responsible noise management looks like

Noise is often the most personal concern for neighbors of a data center. It's immediate, it's tangible, and it's worth addressing directly.

All data centers are subject to local noise regulations, which establish a baseline that operators must meet. Where operators differ is in how seriously they take noise management beyond that minimum. Siting decisions, construction quality, and proactive community engagement can make a significant difference in what neighbors actually experience.

Responsible operators typically deploy regular decibel testing at property perimeters, acoustic barriers and baffled walls around generator enclosures, testing restricted to daytime hours, and sound-attenuating enclosures and muffler systems built in as standard equipment. Some operators go further, entering into formal noise agreements with surrounding communities as a condition of development.

A well-run facility generally targets 55 dB or less at the property line, roughly equivalent to moderate rainfall.²⁴ Many operational data centers measure below that threshold at the nearest residential properties.

24. Noise Monitoring Services, [A Guide to Data Center Noise Control](#), January 2026.

25. Commonwealth of Virginia, [Data Centers in Virginia](#), December 2024.

26. Reason, [The Joys of Data Centers: Debunking the Backlash Against the \\$7 Trillion AI Building Boom](#), April 2026.



QUIETER THAN A PICKLEBALL COURT

The ambient hum of a data center's generators and cooling equipment typically falls between 40 and 59 decibels.²⁵ That's a little louder than a library, but quieter than a pickleball court.²⁶



Community Impact

What communities actually experience when a data center moves in

It's the question at the heart of almost every zoning meeting and public hearing. The answer is more reassuring than the headlines suggest, and the economic case is stronger than most people realize.

