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## DECENTRALIZED CLOUD SERVICE TURNS SERVERS' WASTE ENERGY INTO HOUSEHOLD HEAT

 TELECOMMUNICATIONS

**Germany-based AOTERRA hopes to place cloud servers in people's homes, using the waste heat they produce to keep the properties warm.**

When energy is transferred, heat is always a waste product – however, if the heat can be captured it can be converted back into useful energy. This is something that the creators of the [BioLite](#) stove and device charger has already recognized, and now Germany-based [AOTERRA](#) hopes to place cloud servers in people's homes, using the waste heat they produce to keep the properties warm. The current model for cloud services is to keep multiple servers in one data center, using intensive air conditioning to stop them overheating. AOTERRA wants to provide cloud computing using servers that are decentralized – placed across a network of local households, rather than specialized facilities. The servers are contained in fire-proof safety cabinets that include a system to direct the heat they produce to power the property's central heating boiler. According to the company, the method is reliable and environmentally-friendly, producing no CO2 emissions. Homeowners do not have access to the servers themselves – ensuring data security – and the machines are placed in networks of buildings with close proximity, meaning a negligible loss in retrieval speeds for cloud customers. AOTERRA's solution cuts the cost and waste energy associated with traditional data centers by innovatively marrying two disparate services – home energy and cloud computing. The company has already raised over 700 percent of its EUR 100,000 target on the German crowdfunding site [Seedmatch](#) and hopes to use the money to roll out its first server-heaters. Are there other opportunities to harness the energy available from waste heat?

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