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Is It Worth Turning Off Escalators To Save Energy?

There are some 30,000 escalators in this country, most of them running constantly, according to Next American City. While some see that as a waste of energy (enough to power 375,000 homes) others see it as a necessary accommodation for people with disabilities, heart conditions, or injuries.

Many countries in Europe and Asia have sleeping escalators that only run when somebody approaches them. New York City installed 35 of these "green" escalators in four subway stations last year, and the Energy Efficiency Act calls for putting them in the Capitol Building as well. But would this really save energy?

Starting up the escalators over and over again could waste more energy than simply keeping them running. Though it might be an energy saver for escalators that are only used infrequently, or have certain periods of high traffic - during commute hours - and other times when they are more dormant.

But determining whether escalators could be made more efficient, or if running them intermittently would save energy, is a difficult challenge. The problem is proprietary, rather than technical. The escalator industry is extremely secretive about pricing and energy specifications on specific models. Representatives from Kone Inc. which provides CAD drawings of their escalators, won't confirm the figures, citing 9-11 security measures as their reason for secrecy.

Because traditional escalators are very heavy, some research has been done into making escalators lighter, and Dunlop Inc. has applied for a patent for a plastic escalator step in Europe.

Power Efficiency Corporation is applying E-Save Technology , which enhances motor efficiency to escalators at airports and Las Vegas hotels. Steve Strasser, Chairman and CEO of the company says , "This project is an excellent example of how energy efficiency can be implemented into existing facilities and can positively impact the owners and the communities that they serve."