

# Students become human hamsters as exercise machines are connected to power grid

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A growing number of American gyms are connecting their exercise machines to the power grid. University campuses and exercise clubs are making use of new green technology which allows the momentum from running and walking machines to be converted into voltage.

The amount of power produced by these human hamsters is small but supporters say it is a valuable educational device.

Displays on each machine show every watt generated by a workout.

The technology was created by ReRev.com, a Florida company. Its founder, Hudson Harr, 22, investigated the internal workings of various exercise machines, including bikes and stair steppers.

He found that the Precor elliptical cross-trainer, a popular walking and running machine, already had a small generator that powered the control panel, which he adapted to instead feed into the power grid.

Most other exercise machines use alternators, which are better suited to charging batteries, as they do in cars.

ReRev.com estimates that a typical 30-minute workout on one machine generates enough electricity to run a laptop computer for an hour, or a compact fluorescent light bulb for 2 1/2 hours.

In a green technology development that some have compared to the advent of electric cars, Mr Harr said he hopes other gym equipment makers will now switch to using generators instead of alternators.

His company is in talks with major US gym chains, which Mr Harr said could “essentially be giant GE turbines”.

He said: “There are over 30,000 health clubs in the US. If you could figure each one producing electricity will take one house off the grid, that is 30,000 houses off the grid.”

The University of Oregon, one of a dozen organisations that has rigged up exercisers to the grid, has converted 20 Precor elliptical machines in its student recreational centre to generate electricity.

The power from each machine – a stationary contraption used to stimulate walking or running - goes through a converter that turns DC into AC current before it flows into the grid.

The process is hardly a huge power provider. The university estimates that it would take 3,000 people a day on the 20 machines to generate 6,000 kilowatt hours a year, sufficient to power a single energy efficient house.

“We’re not going to get off Middle Eastern oil by connecting up all the ellipticals all over the country,” said Steve Mital, the university’s director of sustainability.

“We bought it and installed it mostly because it’s an educational opportunity. People will be on those things sweating away and it gets them thinking.”

The university split the \$14,000 (£9,200) cost of installing the technology with the local electricity provider.

*Source: The Daily Telegraph*

*Posted by Calco Services - Power Division at 7:51:00 AM*