An 85-ton steel flywheel that will keep lights in Cambridge from dimming when a new magnetic research laboratory starts up next year was moved by truck from Framingham to Cambridge in early July.

The flywheel is part of electrical equipment for MIT's National Magnet Laboratory, now under construction.

The 20-mile trip for the flywheel started about 2 a.m. and took six hours. Early morning was picked to avoid traffic. Cambridge meant the wheel had to be moved the rest of the way down the road as far as Framingham. It was unloaded in the Framingham freight yards in July. Low clearance along the railroad track into Cambridge meant the wheel had to be moved the rest of the way by truck. The wheel itself is 36 feet tall and it reaches even higher when mounted on a flatbed railroad car or trailer.

Because of wheel size and weight, road movement turned into a fairly sizable engineering task itself. Since no ordinary trailer would support the wheel, a special low flatbed trailer rig was constructed, using 32 tires mounted on four axles.

The wheel is part of a motor-and-generator unit being installed by General Electric at the laboratory and was delivered to GE engineers. The wheel will turn alternating current into direct current and supply this current, when needed, in short high power bursts without causing a dip in the Cambridge electric system.

Determined when a new-magnet research laboratory starts up next year, the flywheel, mounted on the motor-generator shaft, will spin at high speed and, by its momentum, will be a store of energy. When power bursts are needed, this momentum will be coupled onto the generator shaft by simply slowing down the wheel. Thus, the wheel will supply the added energy needed for the power bursts.

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