

# Paris building to be warmed by commuters' body heat

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(PhysOrg.com) -- Paris Habitat, owner of a low-income public housing project in Paris, is planning to use the excess body heat of commuters in a subway station beneath it to warm an apartment building.

The scheme will use a series of heat exchangers and pipes to draw heat from underground passages in the metro underground rail system to warm 17 apartments in the [building](#) on Rue Beaubourg, which is close to the Pompidou Center. The building is directly above a metro station.

The heat in the metro is generated by the trains, but also by the bodies of the passengers, each one producing an estimated 100 W of energy.

Paris Habitat is the largest owner of social housing in Paris and estimates

the scheme, which is part of the housing project's renovations, will also slash [carbon dioxide emissions](#) by one third over using a boiler room connected to district heating.

At present there is a staircase leading from the building to the metro, and this is kept at 14-20 degrees C by the heat of commuters and the trains, even in winter. Paris Habitat spokesman François Wachnick said they were lucky there was already a passageway that allowed them to collect the heat from the [metro](#) without building a staircase or altering the [structural design](#) of the station. If they had needed to build an entirely new staircase or passageway the scheme would have been financially impossible.

If the plans are approved, work is expected to start on the scheme early in 2011 after the tender process is completed, and should be completed by the end of the year.

The Paris Habitat idea of using unusual energy sources to heat buildings is not the first. Similar projects are being installed in Austria, and a scheme in the Mall of America in Minnesota, in the US, uses the heat of shoppers' bodies to supplement the heating system during winter. A project in Stockholm in Sweden uses the [body heat](#) of subway passengers to heat underground water tanks. The water is then used to warm a 13-floor office building 100 meters away.

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