



Enerdrape's panels harness shallow geothermal energy to heat buildings | Photo source [Enerdrape](#)

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## UNDERGROUND CAR PARKS USED TO HEAT BUILDINGS ABOVE

 AGRICULTURE & ENERGY

### Modular geothermal panels provide year-round heating and cooling

**Spotted:** Rather than drab grey walls, underground car parks can now feature stylish, colourful panels that are also sustainably heating the buildings above. Seeking to harness the power of shallow geothermal energy, Swiss startup Enerdrape has created modular, renewable energy panels that are customisable with any look, and easy to install and manage.

Currently being tested in an underground parking lot in Lausanne, the company expects to supply the apartment building above with around one-third of its energy needs. The metal panels are the same thickness as a painter's canvas and can be retrofitted to any structure with a wall in direct contact with the surrounding soil.

The panels absorb heat from ground as well as ambient air from the underground structure. This is why car parks are an ideal location. Rather than waste the heat given off by vehicles after they have been driven, the panels absorb it, and the connected piping system sends it to the structure's heating and cooling system.

The Enerdrape system can work for a single building or can connect to district heating and cooling lines. It can also be used alongside other heat and energy sources as part of a suite of power options.

Geothermal energy is becoming a more popular addition to renewable energy sources as technologies develop and storing and transfer systems become more efficient. Springwise recently spotted a new [drilling technology](#) that makes ultra-deep geothermal energy a possibility, along with plans to turn [disused coal mines](#) into zero-carbon heat sources for local communities.

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## Takeaway:

Retrofitting is becoming more popular, with [projects](#) across the UK investing millions of pounds into reducing the operational emissions of scores of buildings. If, as part of that work, underutilised spaces are turned into renewable power sources, it might be possible to meet the country's 2030 and 2050 emissions goals. [Experts](#) believe the rate of retrofitting needs to at least double to meet those targets.