

Eco solution's not just another brick in the wall

WHEN it comes to saving the planet, it is the high-tech solutions like solar and geothermal energy or geosequestration that seem to get a lot of attention.

However, there are arguably much greater efficiencies to be gained if common, high energy processes can be converted into low energy ones.

Building is one obvious area, which is why a collection of boffins with PhDs are poking around making bricks for US company Calstar Products.

Normally brick-making is a very high carbon activity, culminating in the lengthy firing process which puts clay bricks in a furnace above 1000C for a couple of days.

The Calstar approach is to use fly ash which is a waste product from coal power stations and combine it with clay in a precise chemical combination so that the bricks can be baked at just 100C and are finished in 10 hours.

While the bricks look and feel like any other, they are produced with 80 to 90 per cent less energy and 85 per cent fewer greenhouse emissions.

The process has been so successful that the San Francisco company is now setting up its first plant in Wisconsin which is near a power plant that is happy to supply fly ash.

Initially it will be producing facing bricks rather than structural ones and wants to branch out to paving



stones and roofing tiles later on, with offshore expansion also a priority.

Calstar is aiming to produce 12 million bricks in its first year, ramping up to 100 million.

Another sign of some success is a whispering campaign from conventional brickmakers questioning the long-term performance of the fly ash bricks.