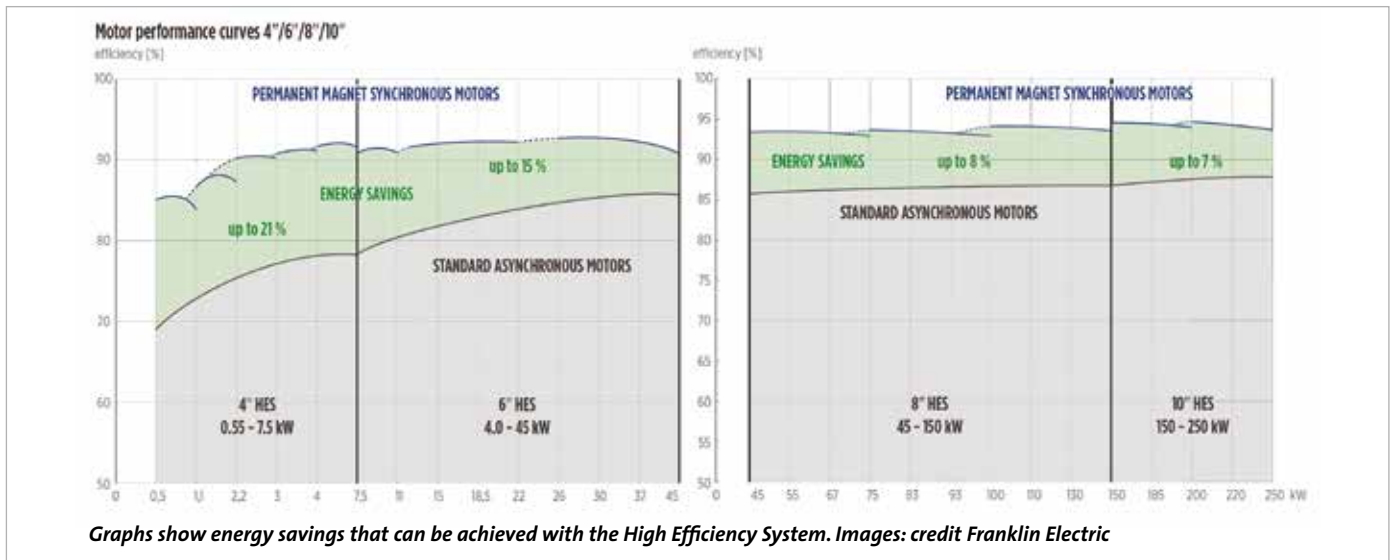


# Energy efficient system delivers optimum savings

*With energy consumption accounting for nearly 90% of the lifecycle of a pumping system, it makes sense to take advantage of the latest technology to achieve significant savings.*



Franklin Electric, renowned worldwide for excellence and innovation, is helping customers do exactly that with its High Efficiency System (HES), which cuts energy costs by up to 21%.

The system comprises of a synchronous submersible NEMA permanent magnet high efficiency motor, a submersible E-Tech pump and a frequency converter, as well as a matching output filter for systems higher than 230 V. It uses pre-written software to ensure greater efficiency with higher power density.

The permanent magnet motor is critical to the system's high efficiency abilities, as Mike Deed, managing director of Geoquip Water Solutions, Franklin Electric's UK strategic partner for groundwater products, explains.

"This sets it apart from current asynchronous technology as it means the windings are permanently magnetised, therefore using less energy when starting and running, delivering both a smoother and faster solution and improving the efficiency of the motor," he says.

"The permanent magnet motor also has less temperature heat rise and requires lower amps to run at the same pump load, while utilising the frequency converter further optimises energy efficiency."

A solar-powered option is also available, further increasing energy savings by carefully calculating how much energy can be provided by each day's sunlight. It uses an algorithm

to maximise motor and pump performance based on the number of solar panels in place, and its clever advanced voltage boost function makes it possible to size systems up to 2.2kW based on power rather than voltage, saving up to 50% on solar panels compared to a standard system.

Among those to benefit from investing in an HES has been one of London's major teaching hospitals, which estimates it has saved around £2.5k a month on running costs.

After encountering problems with its existing borehole water supply, St George's Hospital in Tooting, called in borehole and well drilling specialist Darren Hughes, who determined that a replacement pumping system was needed.

His team worked with Geoquip to install the Franklin Electric HES and Darren explains: "The original 8" pump was pumping 140 cubic litres an hour and would be switched on and off every time the tanks needed filling. The new 6" pump now runs for longer to match peak demand but because it has the permanent magnet system in place, it uses less energy when starting and running, is much more energy efficient and there is no detriment to supply."

Customers can estimate their likely financial savings and see how long the payback period is likely to be by using Franklin's online calculator [www.fehighefficiency.franklinwater.eu](http://www.fehighefficiency.franklinwater.eu)

A further key advantage of the HES is its easy set up, a step-by-step guide takes users through the drive settings, and once in place, monitoring can take place either manually via a board panel or remotely through Bluetooth and the Franklin Smartphone App 'FE Connect Drivetech' (Android and IOS).

Mike Deed continues: "The ability to access information via your phone or tablet makes a huge difference as you can instantly check usage and data at the touch of a button. You can monitor pump performance and quickly identify any issues, such as reduced water pressure, and take remedial action before the problem accelerates."

In addition to enabling operator monitoring, it also provides access to the Franklin Electric support team in order to help solve any issues.

Always at the forefront of innovation, Franklin Electric continually works to develop new products, including the constant-pressure system DriveTech and DriveTech Mini and various controls for submersible and surface pumping systems.

As a strategic partner, the Geoquip team works closely with Franklin Electric and has direct access to its European manufacturing facilities, enabling Geoquip's experts to provide tailored solutions to meet customer requirements.

For more information, visit [www.geoquipwatersolutions.com](http://www.geoquipwatersolutions.com) or call 01473 462046.