



CALOR

Calor quenches Radnor Hills' fuel needs



Radnor Hills is one of the leading manufacturers of still and sparkling spring water in the UK, and is renowned for its flavoured waters, premium sparkling pressés and fruit juices, as well as school compliant drinks and own label brands.

With over 350 million products rolling off the production lines each year, and a variety of buildings and systems at its production facility near Knighton, Powys, it needs a fuel supply it can rely on to meet business and manufacturing demands.

Customer: Radnor Hills

Application: Calor LPG used across the site, from powering the boilers for the sterilisation processes, to keeping its FLTs running 24/7

Location: Knighton, Powys

Project highlights:

- With 350 million products coming off the production line each year, Radnor Hills has been working with Calor to ensure a secure supply of fuel to this rural location.
- LPG bulk tanks installed to provide the power for six boilers used to create the steam for sterilisation processes, heat the office buildings and refill the LPG bottles used to run FLTs across the production facility.
- Keeping sustainability firmly in mind, switching from oil to LPG has helped the company cut its emissions by 16%.¹



Originally powered using oil, the company wanted to switch fuels to reduce emissions without having a detrimental effect on production. So, to meet the challenge of finding an off-grid energy solution that could drive its hi-tech facility and meet its sustainability goals, Radnor Hills turned to LPG and to Calor as the UK's leading LPG and BioLPG supplier.

With Radnor Hill's business needing to run around the clock, it was important to know that its fuel supplier had a large delivery network. With two of Europe's largest LPG gas storage terminals in place, Calor could ensure the security of supply with 24/7 emergency cover, 365 days a year. Equally, Calor's ability to create solutions tailored to the specific needs of the site, was another vital plus point.

And with a pledge to supply its customers with 100% renewable energy by 2040, working with Calor meant it could deliver on all of these requirements.

Wide ranging fuel needs

"At Radnor Hills we are fairly unique in producing a wide range of packaging formats from this one rural location, including plastic, tetra, glass and cans all coming off the production lines here," explains Dave Pope, General Manager at Radnor Hills. "Our site also features a wide range of buildings and systems, from the factory and offices to the distribution centre, all of which need a rural energy source that can meet our manufacturing processes and heating needs effectively."

"Add to this the fact that our production and distribution demand is a 24/7 operation, so having a constant, reliable supply is vital for the efficient running of the business and its surrounding buildings.

"We also feel very strongly about protecting the countryside in which we are lucky enough to be located and have many systems in place to limit our impact. Sustainability and recycling play a huge role in ensuring we are a zero-to-landfill company. Hence, finding an alternative for oil was important to us, and the decision to switch to LPG has already seen the Radnor Hills site cut its emissions by up to 16%¹.



Making the switch to LPG

Calor has been supplying LPG to the factory site since it began to phase the six CFB commercial boilers that are integral to its manufacturing output capabilities, from oil to LPG.

These boilers create the steam used for the essential sterilisation processes required across the production lines, from the syrup tanks to pipework, as well as providing heating to the two adjacent office buildings, that house the marketing, sales staff, and customer service teams.

“When we originally made the switch to LPG, we opted for two smaller tanks to be installed on the site to handle our phased move away from oil and were grateful for the guidance received from Calor throughout. The team were on hand to advise on where to locate the tanks to meet regulations, and ensure the process was handled effectively and without downtime for the plant, which was vital for us. **”**

Dave Pope, General Manager at Radnor Hills.

Meeting growth plans

However, as demand for its drinks grew, so did Radnor's energy requirement. Dave describes how Calor has continued to support the company to ensure its expansion plans could be carried out successfully.

“As the popularity of our products increased, we found ourselves in a position to widen our production capabilities much further. So, in 2015, to handle our enhanced production lines and product offerings, we opted to upgrade to two larger LPG tanks that would allow us to continue to grow as and when. This was a huge undertaking, and we looked to Calor again to help ensure the smooth running of the project.

Calor really made it simple. They assigned a dedicated account manager and engineering team and thought creatively to work a vaporiser system into the larger technical installation. This achieves a high kw offtake for us, without the need for additional LPG tanks and infrastructure. Essentially, with the two tanks connected to the vaporiser, it'll allow us to increase demand further down the line too, more than meeting our needs now and avoiding unnecessary disruption in the future.

Calor also stepped in to advise on suitable locations for the tanks, so that they could be easily accessed for LPG deliveries, whilst meeting all safety requirements and codes of practice.

Since those early days, the company has not looked back as it continues to develop. “When we see an opening in the market, we have to be in a position to take it,” Dave explained. “Knowing we have the ability to take this on and with the backup of a flexible fuel supply to help us achieve this, is essential.”

A further boiler is currently being added to the site to allow for increased production and a change in steam routing. Again, this will be powered via the current LPG tank and vaporiser system.





Fuelling the LPG forklifts

As well as being used to power the manufacturing process at the site, the company's fleet of 20 forklift trucks (FLTs), which transport raw ingredients through to the finished products, are also powered by LPG.

Dave continues: "We have 20 FLTs that work right across the factory. They are absolutely central to our operations here as they are used to move every pallet from the start of the manufacturing process to the moment the finished products are lifted onto the distribution trucks.

"We previously had a fleet of diesel FLTs, but this resulted in dust particles and a reduction in air quality, especially when used inside the factory. So, we needed to make a change.

"When making the move to a more sustainable fuel there were several considerations to take into account. Running 24/7, the fleet is required to work indoors and out and needs to manage many heavy loads, as well as meeting our aim to improve air quality. With this in mind, we opted for LPG refillable gas bottles to ensure simple refuelling with very little downtime. As we have the LPG tanks on site it means the FLT operators can refill on site with ease. We also have access to a dedicated local Calor operation centre that delivers to our site for a constant, reliable

supply. The telemetry² unit installed by Calor allows them to monitor the quantity of LPG in the bulk tanks, and Calor's Auto-ordering technology means fuel arrives when we need it². This is one less thing to worry about when running a busy production facility like ours as we know everything will be taken care of."

To further improve sustainability credentials, Calor's BioLPG is also an option for the future. Chemically identical to LPG, BioLPG is a renewable fuel made from a blend of waste, residues, and sustainably sourced materials, that can be switched without affecting performance, infrastructure, or the gas bottles or tanks in place. However, with a mix of 40% BioLPG and 60% conventional LPG, it can deliver carbon savings of up to 32%³, compared to using conventional LPG alone. What's more, as Calor works with the Green Gas Certification Scheme (GGCS), companies who purchase Calor's blend of BioLPG and conventional LPG to power their forklift trucks (FLTs) can gain Green Gas Credits and a certification so that businesses can demonstrate they are using renewable fuels and can be fully transparent about how they have calculated any carbon savings.





Working with Hospitality

It is not just the factory that benefits from Calor providing its fuel either. The Radnor Hills Estate also includes a country pub, The Lion Leintwardine. Again, off the main gas grid, Calor provides the LPG required annually to ensure it can rustle up cooked meals for its guests as well as providing heating and hot water for the pub and its four hotel bedrooms. As the fuel requirements of the hospitality sector can fluctuate depending on the season, the versatility Calor has been able to provide has meant the pub can cope with changing needs and continue to keep customers happy whenever needed. Again, the telemetry service has taken the headache out of knowing when and how much LPG to order, with it topped up automatically when levels were low.

Looking ahead, the Radnor Hill's site plans for ongoing growth. It is looking to extend its warehouse to provide additional storage and distribution facilities, keep its fleet of FLTs running at capacity and ensure customers to the pub can enjoy their favourite meals. What it can continue to rely on is a dependable supply of LPG from Calor, giving them one less thing to worry about.

Switching with Calor

Making the switch from oil to LPG can seem a big step. However, working with the leading LPG supplier, Calor, you have access to advice on the provision needed, plus the customer service to ensure it runs smoothly once installed. With two of the largest LPG terminals in Europe and a widespread delivery network,

you can be rest assured that you'll have security of supply and 24/7 emergency cover to keep your business going. Opting for Calor also allows businesses like Radnor Hills to be compliant with emissions legislation and, as Calor moves towards its 2040 vision to offer 100% renewable energy, they'll be continuing to help create sustainable energy solutions that further cut emissions and help future-proof customers' businesses.



1 Atlantic Consulting, 2017

2 A telemetry unit will need to be installed by Calor for the purpose of enabling Calor to remotely measure the quantity of LPG contained within the bulk tank(s) and schedule deliveries accordingly. Subject to the telemetry unit being able to receive signal. Direct-debit payment plan required.

3 Atlantic Consulting, 2017

Want your business to reap the benefits of Calor?

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or call 0800 121 4568.



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