

# BUSINESS BENEFITS FROM SWITCHING TO (BIO)LPG

## “UP TO 80% CARBON EMISSION REDUCTION FROM SWITCH TO (BIO)LPG”

- LPG study underpins role of (bio)LPG as immediate solution to drive decarbonisation and reducing air pollution in Europe.
- LPG emits ~84% less NOx than oil and emits almost no particulate matter as it is a clean burning fuel. BioLPG is a clean burning fuel with a negligible impact on air quality, and also a low-carbon alternative to oil and coal with a long-term role in the energy mix.
- The report demonstrates a cost-effective and low-hassle pathway away from high-carbon fossil fuels such as oil, to lower emission alternatives such as LPG, and ultimately to renewable fuels such as bioLPG.

### #1 DRIVING DECARBONISATION

- The energy transition is driven by ambitious environmental policy targets directly affecting European businesses. However, even at a European level, each economy is at different stages of progress in their energy transition and in achieving their climate ambitions.
- Businesses like this distillery have the opportunity to publicise their sustainability credentials to create brand loyalty, establish a point of differentiation against competitors, and develop the conditions for premium pricing.
- Increasingly customers, employees and supply chain partners are putting pressure on businesses to reduce their emissions and switch away from the use of high-carbon fuels like oil.

### #2 OPERATIONAL BENEFITS

- (Bio)LPG is an inherently resource efficient and low-hassle solution for phasing out the use of solid and liquid fuels and is pivotal for industries and businesses to become compliant with current and future environmental regulations.
- Benefits of (bio)LPG in commercial, industrial and agricultural sectors:
  - Transition with minimal disruption
  - Direct replacement for existing appliance
  - Flexibility in combining with other fuel solutions
  - Ease of use, even in remote areas
  - Providing mature and familiar technology
  - Switching with high cost-effectiveness
  - LPG can support creation of CSR value

### #3 CLEANING THE AIR

- Europe has a serious air quality problem, failing to meet set standards, making air quality Europe's second biggest environmental risk next to climate change.
- In 2015 around 391,000 premature deaths were attributed to exposure from particulate matter concentrations in the EU.
- Next to the reduction of greenhouse gases, Europe is actively engaged in improving air quality.
- Environmental regulations are increasingly targeting air pollution generated from the combustion of fuel in vehicles, and stationary appliances.
- For businesses that fuel their process, space heating and vehicles with oil or coal, switching to (bio)LPG can present an immediate win. As well as lowering carbon emission, LPG can improve local air quality since it is a clean burning fuel that produces almost zero particulate matter when combusted.

This report focuses on the opportunities for fuel-switching to drive decarbonisation of industrial, agricultural and commercial sectors. The report outlines the benefit of switching to (bio)LPG across three European economies – the UK, France and Italy. Each economy is at different points in terms of their energy transition, mix of fuels in energy generation and their climate ambitions. The benefits of switching to LPG and bioLPG are succinctly described for each of these countries and highlights the versatility of LPG and bioLPG as a fuel source and decarbonisation driver.

### UK

- LPG is lower carbon than heating oil and coal. An eventual transition to bioLPG can almost completely decarbonise a businesses' operations.
- (Bio)LPG can drive decarbonisation of businesses in the UK, as the first major economy to legislate for a net-zero carbon economy by 2050.
- Reaching this target will require substantial emission reduction efforts across the UK economy, in a limited timeframe.
- LPG is one of the most cost-effective, fastest and easiest ways to lower emissions.
- Lowering emissions can drive business (CSR) value
- Off-grid businesses in the UK currently using oil, from rural pubs and hotels, to food processing facilities and warehouses can reduce their emissions immediately by switching to (bio)LPG. Businesses can benefit from this drive to decarbonise.

### FRANCE

- LPG can deliver significant operational benefits for businesses and industry in France as they transition from high carbon fossil fuels to lower carbon options.
- LPG is the most credible lower-carbon, clean-burning and cost-effective fuel source in rural, off-grid areas.
- LPG is a familiar, low-hassle and secure option for business
- Lowering emissions can drive business (CSR) value
- Switching to Liquid Petroleum Gas (LPG), a lower-carbon alternative to coal and oil, would enable businesses to lower their carbon footprint.
- Switching to LPG would also enable businesses to futureproof against the evolving energy transition as they could sustainably transition to bioLPG (renewable LPG) in the medium-to-longer term.
- This would help secure long-term competitiveness during the energy transition.

### ITALY

- Environmental regulations will become more stringent over time.
- LPG is a clean-burning alternative to heating oil and biomass that reduces the air quality impact of businesses and industries that switch to it.
- Commercial: LPG is a good direct replacement to oil heating in and suited to off-gas grid applications.
- Switching from oil to biomass in the commercial sector would lower carbon emissions but significantly worsen air quality.
- Industrial: LPG could replace oil consumption for direct heating at high temperature.
- Switching from oil to LPG would drastically reduce the impact associated with carbon emission and air pollution.