

# Argus White Paper

## Argus looks ahead with new LPG analytics service



Argus Consulting Services has this month launched a new service — Argus LPG Analytics — which offers, through an LPG Annual, a 10-year forward view of global pricing, supply and demand fundamentals, as well as an annual in-depth analysis of the markets in key countries, with an extensive database and spreadsheets for every country and every region. Below is an excerpt from the introduction to the Annual, looking at supply and demand fundamentals. For more information please contact [info@argusmedia.com](mailto:info@argusmedia.com).

Rising global LPG production and consumption appears relatively assured for the next decade, but we forecast that the marked structural length in supply — a feature of the market since 2014 — will peak in 2020 at 12.3mn t, before easing and becoming a 1.1mn t supply shortage in 2027.

This structural oversupply must balance, meaning that we forecast LPG to price to clear — especially during seasonally driven periods of low demand.

### Market balance

Our supply and demand model does not attempt to assign the net surplus to specific countries or sectors, and focuses instead on the impact on price. We note that in clearing the market, higher consumption or lower production than our forecast must ensue to balance the market.

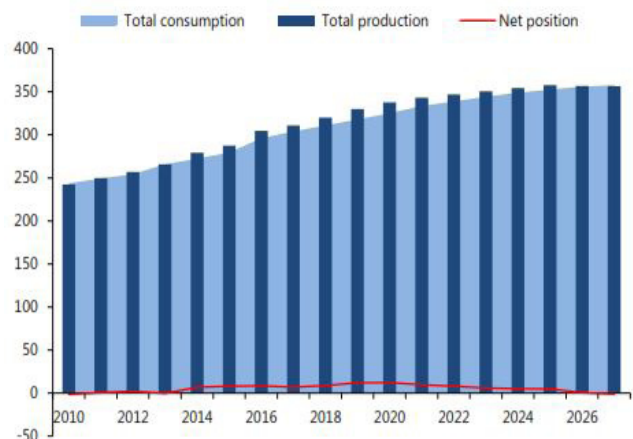
We forecast global LPG production to increase to almost 360mn t/yr from around 300mn t last year — principally reflecting continuing rises in

US shale gas development — as the US retains its position as the world’s dominant LPG exporter. US LPG production in our forecast peaks at more than 86mn t in 2025, but begins to decline over the next two years, dropping to 83.4mn t/yr by 2027.

Global LPG demand will rise sharply, climbing to around 360mn t in 2027 from just under 300mn t last year. And strong Asia-Pacific demand will continue to be the key catalyst for the surge in consumption.

The long-haul market’s importance in shipping term supply from the US to Asia-Pacific will persist over the decade, even if spot price arbitrage conditions look unfavourable — as has happened over the past two years.

World LPG production and consumption 2010-27 mn t



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Asia-Pacific will ultimately continue to need US supply as much as US producers need Asia-Pacific demand, especially from China, Japan and South Korea. European petrochemicals buyers will still need US LPG, as will importers in Latin American.

**Big demand**

Demand growth over the forecast period will mainly come from two sectors — residential and petrochemicals.

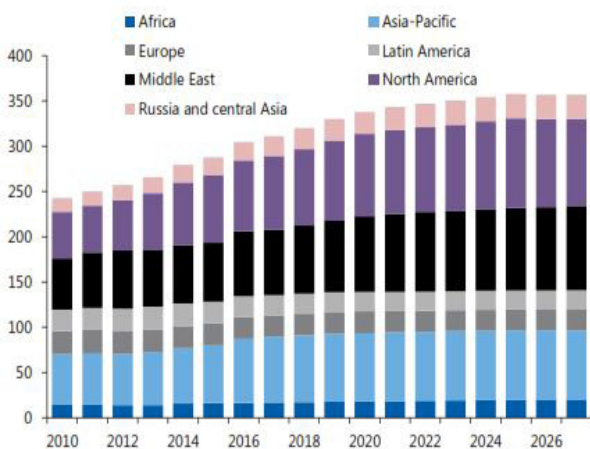
In Europe, North America and Latin America, residential demand is likely to stay flat or fall slightly. But the Asia Pacific markets are a different matter. India and China were the drivers in the past decade, and this should continue to 2027.

Indian demand growth has underpinned a wave of import and pipeline infrastructure projects — and these are needed to extend the reach of LPG as a cooking fuel to replace the use of biomass and wood in rural areas. This is a concept that enjoys strong government backing and has considerable further upside potential.

Further contractions in some of the mature residential markets, especially in Europe, look inevitable given the competitive threat of natural gas and renewable energy.

But there are plenty of untapped markets, particularly in southeast Asia, that could see demand growth.

*World LPG production by region 2010-27* mn t

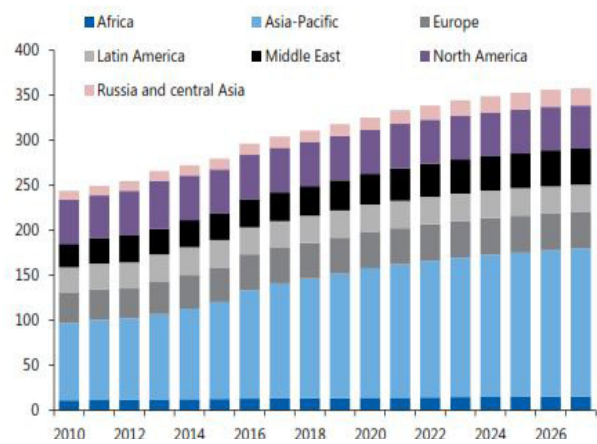


Petrochemicals demand is likely to grow to around 106mn t in 2027 from 81mn t last year. Petrochemicals projects in development across the world aim to run on cheap NGL, despite recent

attention on the build-up of China’s propane dehydrogenation capacity.

We forecast further demand growth in the autogas sector, especially in areas where development has been rapid in recent years. Autogas markets in smaller central Asian and CIS countries have started to grow in the past five years. Ukraine in particular has such strong demand for autogas that it changed regional trade routes last year.

*World LPG consumption by region 2010-27* mn t



**Autogas growth**

Autogas growth in new markets is always vulnerable to changes in government taxation policies, or excise duty status, and consumption can sharply contract when the price at the pump is no longer favourable compared with gasoline and diesel.

And autogas remains vulnerable to the more stringent specifications for conventional fuels gasoline and diesel, and — as has occurred in Australia — a withering in support from car manufacturers, which stop producing new LPG powered models.

And LPG’s status as a clean energy source has always been debatable to a certain extent, given that LPG is a fossil fuel derived from oil and gas production.

But restraints on greenhouse gas emissions in the wake of the Paris climate agreement and clean air strategies are far from unified on a global level and demand for LPG looks unlikely to fade in the face of increasing clean energy use.

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Even in Europe, where the EU emissions strategy is one of the most rigorous, LPG's easy transportability means that it has found a defensible niche as an off-grid energy source.

We have tended to adopt a conservative view in our demand growth forecast for the main continent with untapped demand potential — Africa, especially sub-Saharan Africa. LPG would seem to be a natural fit for sub-Saharan countries facing major deforestation and environmental degradation as a result of too much use of firewood and charcoal as a household cooking fuel.

But expanding LPG use in sub-Saharan Africa is no easy matter, given a lack of infrastructure investment and underdeveloped road networks in some of the poorest, but most heavily populated countries in the world.

### Governance issues

Poor governance, inadequate enforcement of safety regulations and the growth in black markets are significant barriers to private-sector investment. We consequently forecast African LPG consumption to rise by 2.6mn t/yr to 2027, compared with last year.

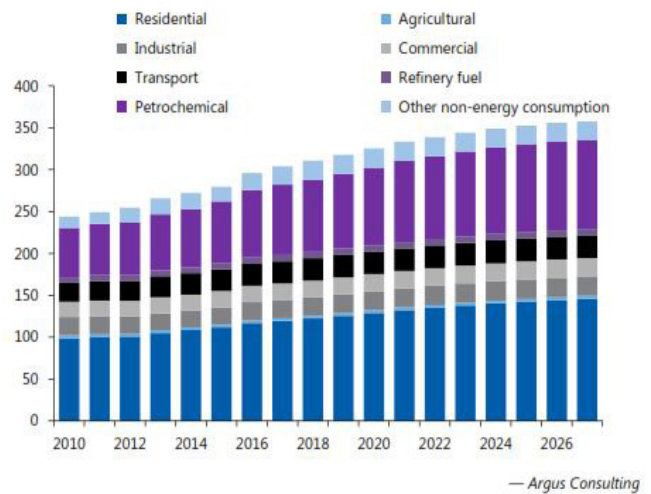
Trade flows linking continents were only possible after the development of the global LPG shipping fleet. A surge in construction of very large gas carriers over the past three years has resulted in a sharp fall in freight rates.

Our LPG Annual does not forecast freight rates, but it is clear that additional long-haul shipping capacity will be needed, given demand projections. LPG cannot flow from production hubs to import terminals without carriers. A steady increase in freight rates is consequently expected from the low levels that prevailed in 2015 and 2016.

Increased scrappage post-2020 is likely to offer some support.

World LPG consumption by sector 2010-27

mn t



### Argus Analytics - LPG Service

*LPG fundamentals and international prices: A 10 year forward view*

The service includes:

- Global and regional fundamentals from 2010-2027
- In-depth analysis of the markets in key countries
- An extensive database and spreadsheets for every country and every region
- Historical and forecast prices from 2010-2027
- An annual hard copy analytical report with accompanying analysis, commentary and justification

### Contact us for a demonstration:



[argusmedia.com/consulting](https://argusmedia.com/consulting)



+44 (0) 20 7780 4200



[info@argusmedia.com](mailto:info@argusmedia.com)

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