
ARTICLE

# Rising Energy Prices May Shock the Bottom Line of Colocation Providers

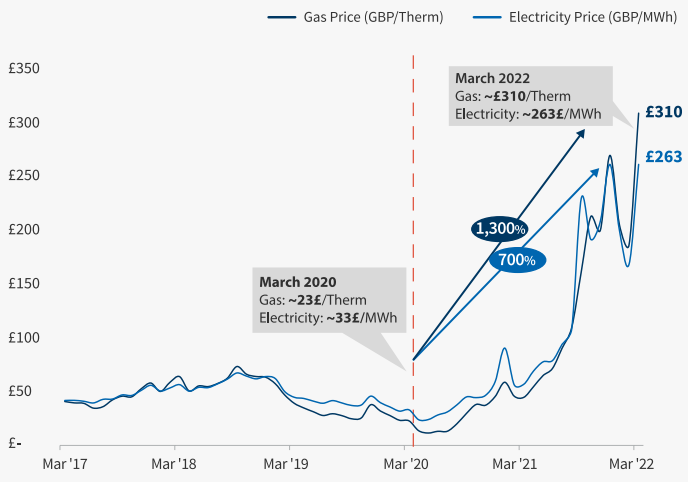
## Trends that first appeared in the UK could be precursors to price increases worldwide

A multitude of factors combined to impact energy prices in the UK and EU, and those factors provide important lessons about energy price considerations for data center owners and operators throughout the world. This short article examines why high energy prices are impacting certain colocation providers and what steps data center operators might take to mitigate the risk of increasing energy prices.

Based on our analysis, after many years of low and stable energy prices, five key factors combined into a perfect storm to drive up electricity prices in the UK and EU.

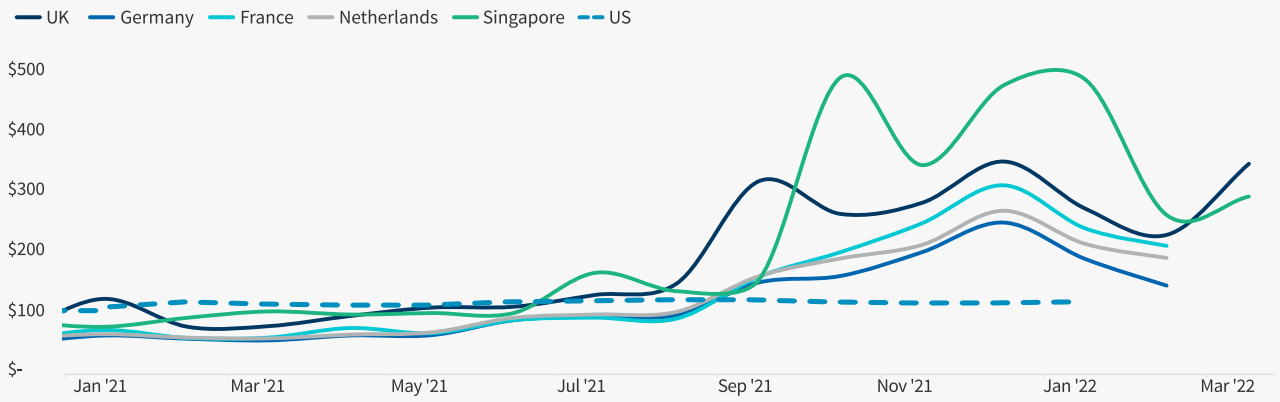
1. **Depleted natural gas storage levels:** A cold 2020-21 winter led to suppressed storage levels in the summer and fall
2. **Chinese energy demand surged:** Fewer shipments of liquified natural gas ("LNG") coming into UK and EU ports
3. **A fire forced the closure of one of the UK's largest power cables coming from France:** Further crippled energy supply into the UK, as UK has only ~1% of total natural gas storage of all of EU
4. **OFGEM price caps and legacy policies:** UK regulatory body enables price cap changes bi-annually; lasting regulatory changes from 2014 increased total competitors, many of which are now being paralyzed as energy prices have become volatile
5. **Russian restriction of gas exports to the EU:** Additional upward pricing pressure due to heavy EU reliance on Russian gas imports

**Figure 1 – Gas & Electricity Prices: Day Ahead Contracts (Spot Rates) – Monthly Avg. (GBP £)**

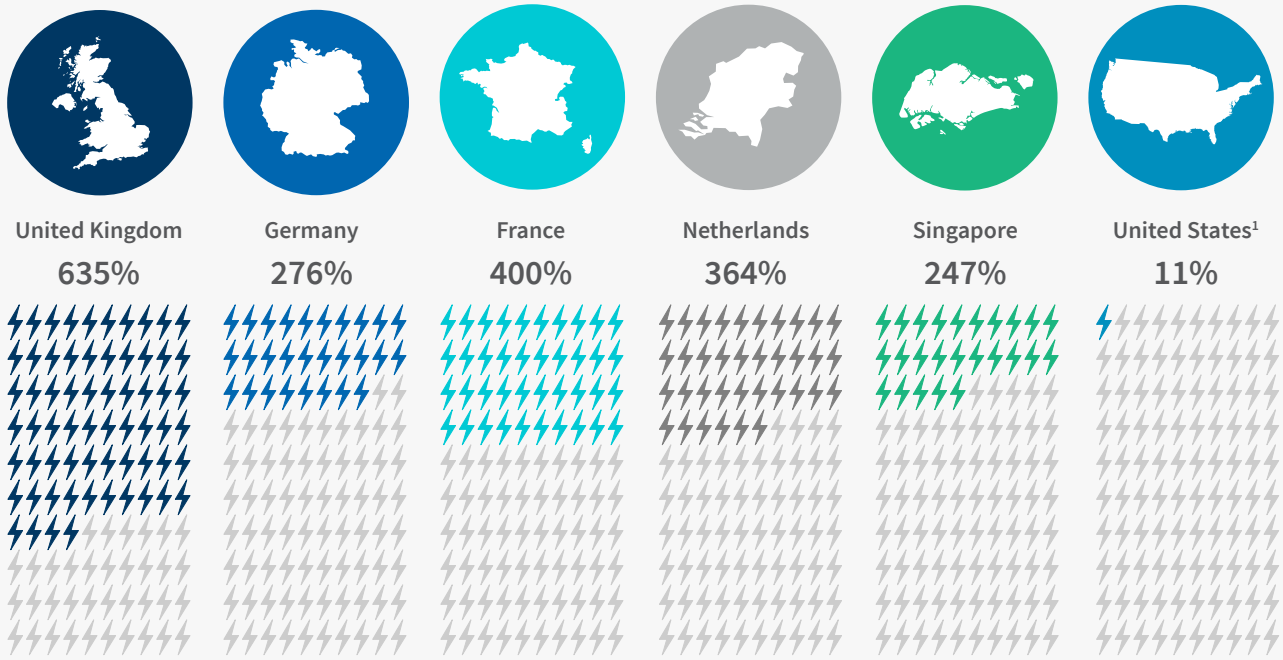


Data center providers that utilize all-in customer pricing models, which are predominately used in the retail colocation segment, bear the cost of rising energy prices. Providers that focus more on wholesale and hyperscale customer segments are better insulated from volatile energy prices, as customer contracts are typically based on metered power that can be passed through to the customer. The chart below shows that the UK, France, Germany and other countries have suffered significant electricity price increases during the last nine months. Singapore also experienced more than a 2x increase. The USA, meanwhile, was substantially insulated from electricity price increases experience in Europe. However, with inflation ticking higher, US colocation providers should evaluate their risk mitigation strategies to help insulate the effects of rising electricity prices.

**Figure 2 – Electricity Prices, Monthly Average Day Ahead Spot Rates ($/MWh)**




Percent Increase in Energy Prices by Data Center Market



Retail colocation providers can see quick deterioration in bottom-line metrics as energy prices increase.

1. In a stable energy market, all-in and metered pricing are competitive; the same cost for power is passed through to the retail colocation provider in equal amounts.
2. As energy prices increase, metered power customers see monthly power cost increases while all-in customers remain unaffected.
3. Retail colocation providers bear the direct impact of rising power costs from all-in customers.
4. Metered pricing can lead to increased customer churn during times of rising energy prices, whereas all-in pricing results in customer stability but bottom-line degradation for the provider.

## All-in Colocation Pricing[1]

- Customer contracts lock in total pricing
- Providers are forced to absorb additional costs and price increases
- Colocation providers can hedge energy contracts to mitigate large pricing swings and ultimately protect their bottom line

## Metered Power Pricing

- Customer contracts are NOT inclusive of power costs
- Providers with large customers using metered power are better insulated from price spikes, but customers feel the pain
- As with all-in contracts, providers should appropriately hedge for power price swings to aid in softening pass-through costs to the customer

### Example of an energy price spike and the impact to the bottom line

| Previous Invoice | | All-in Pricing | Metered Pricing |
|---|---|---|---|
| **Sample Customer** | | | |
| Power | | | $28 |
| Space | | | $147 |
| Customer Invoice | 1 | **$175** | **$175** |
| **Data Center Provider** | | | |
| Power Cost | | $28 | $28 |
| Retail Colo Provider Bottom-Line Impact | | $147 | $147 |
| *Power Margin %* | | *84%* | *84%* |

| Invoice Post-Energy Price Increases | | All-in Pricing | Metered Pricing |
|---|---|---|---|
| **Sample Customer** | | | |
| Power | | | $448 |
| Space | | | $147 |
| Customer Invoice | 2 | **$175** | **$595** |
| **Data Center Provider** | | | |
| Power Cost | | $448 | $448 |
| Retail Colo Provider Bottom-Line Impact | | **$(273)** | $147 |
| *Power Margin %* | 3 | ***(156)%*** | *25%* |

| Delta | | All-in Pricing | Metered Pricing |
|---|---|---|---|
| Retail Colo Provider Bottom-Line Impact | | **$(420)** | **$ -** |
| *Power Margin %* | 4 | *(240)%* | *(59)%* |

Depending on their location and revenue mix, retail colocation providers face varying degrees of turbulence for the near future:

- Retail colocation providers in the UK are currently the most significantly impacted.
- Pricing contract structure matters: elevated energy prices can impact profitability or flow directly to customers.
- Energy independence is a core focus for governments, as sanctions have begun to constrain natural gas markets (renewable energy is looking more appealing).
- Average prices are increasing as supply is constrained and demand peaks.
- Many providers were recently caught off guard, and it is too late to mitigate pricing risks (recent Sungard UK administration filing is an example).

In an environment of rising energy costs, remedies or defenses are not extensive for these colocation providers.

### Offense & Defense

Utilize hedging contracts to protect from the risk of upswings and downswings in energy prices

### Customer Contracts

Structure new customer contracts and renewals to allow for the pass-thru of some amount of price increases

### Green Era

Embrace ESG in feasible steps and rationalize the energy footprint, especially in markets where power efficiency is typically a concern

## What to do?

The is no magic bullet or one size fits all approach to mitigating energy price increases on data centers. As mentioned, retail colocation-based revenue using all-in contracts will fare much worse than wholesale- and hyperscale-focused data centers, which typically use metered price contracts.

Key elements and questions to consider when evaluating the vulnerability to energy price increases in data centers regardless of where they are located include:

### Pricing

- What is the delta between the prices customers are charged for power and what they ultimately use?
- What is the optimal mix of all-in pricing vs. metered power contracts to reduce risk?
- What are the best approaches to utilize to reduce pricing-related churn, specifically when costs are rising?

### Energy Costs

- What percentage of energy costs in all-in price contracts are hedged?
- What are the most effective and cost-efficient methods to decrease energy consumption in all facilities?
- Are you being compensated for the risk when investing more to improve data center PUEs in markets with volatile energy prices?

### Risk/Return

- Will there be opportunity for U.S. providers to expand their international footprints after the current fallout?

### ESG

- What is the best way or ways to implement ESG measures into current facilities while maintaining growth plans?

### Sources

**Figure 1:** FTI Consulting; OFGEM - UK Energy Regulatory Body; Zenergi.co.uk; https://www.theguardian.com (UK Energy Crisis)
**Figure 2:** FTI Consulting, OFGEM - UK Energy Regulatory Body; Zenergi.co.uk, Ember EU Price Tracker – https://ember-climate.org/data/data-tools/europe-power-prices, Singapore Price History- https://www.emcsg.com/marketdata/priceinformation#priceDataView; (1) Represents average retail price for electricity across the lower 48 United States

**1)** "All-in" Colocation Pricing refers to a contracted pricing model that is inclusive of various costs like rent, power, space and more.

**JIVA JAGTAP**
Senior Managing Director
+1 303. 689.8822
jiva.jagtap@fticonsulting.com

**LUKE BRALY**
Managing Director
+1 303.689.8840
luke.braly@fticonsulting.com

**KALY TRUPP**
Senior Director
+1 303.689.8881
kaly.trupp@fticonsulting.com

**NOLAN COX**
Consultant
+1 303.689.8866
nolan.cox@fticonsulting.com