



HAWKINS WRIGHT

The Outlook for Wood Pellets

Demand, Supply, Costs and Prices

Regularly updated ten-year forecasts

A multi-client service...

AVAILABLE IMMEDIATELY

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The Outlook for Wood Pellets

The wood pellet industry remains a fast-growing market, offering a unique set of opportunities and challenges for stakeholders along the supply chain. The wood pellet market is experiencing consistent year-on-year growth, with global consumption reaching 29Mt in 2016.

The drivers and the structures of the two principal sectors – large-scale industrial (power, CHP and district heating) and smaller-scale heating (residential and commercial heating) – are quite distinct. The heating market is highly fragmented and seasonal, with several hundreds of thousands of individual consumers – mainly in Europe and the north-eastern states of the US – each using a few tonnes, or tens of tonnes, of pellets every year. In comparison, the industrial pellet market is highly concentrated and less seasonal. Just a few large European utilities – and recently some Asian ones too – currently account for the vast majority of global demand. Each utility requires hundreds of thousands, or even millions, of tonnes delivered in shipload volumes throughout the year.

The use of wood pellets to generate industrial-scale heat and power is being driven by, above all, government policies that aim to curtail emissions of greenhouse gases and increase the output of renewable energy. Conversely, using pellets to heat residential and commercial buildings is often encouraged by government environmental policies, but it can be a self-justifying economic activity even if government incentives are absent. Demand for heating pellets is mainly driven by, among other things: the price of competing heating fuels, typically heating oil and bottled gas; economic activity, which drives the installation of new boilers and stoves; the weather, which determines annual demand per installation; and by the robustness of local fuel supply chains, which influences consumer confidence in pellets as a reliable heating fuel.

The industry has not been unaffected by recent crises in the wider energy complex. Growth trajectories in the industrial sector have been curtailed by inconsistent political sentiment and challenging power generation economics. Meanwhile the heating market has been afflicted by a combination of the oil price crash, which damaged the economics of pellets against competing fuels, and also by warm winters which have suppressed demand. This led to oversupply in the market and subsequent economic challenges further up the supply chain. A move to increased consolidation on the supply side has now begun, and the pipeline of new pellet mill projects has noticeably slowed.

Nevertheless, the market is forecast to continue its development, with distinct opportunities arising in both traditional and new regions – particularly in Asia – as nations adopt targets to increase the deployment of renewables and reduce emissions. South Korea and Japan already have ambitious climate targets in place, while wide-reaching policies such as the global Paris Agreement are paving the way for further growth. Supply chains are also developing quickly in Asia, Eastern Europe and Russia to serve growing markets.



The need for this multi-client service

The Outlook for Wood Pellets addresses the similarities and differences between the various pellet sectors, identifying areas of growth and opportunity for both existing stakeholders and new players. The wood pellet market is evolving rapidly in terms of demand and supply, market structure and the number and type of participants. There is therefore a need for a regularly-updated service that tracks these trends and rigorously analyses their implications. The purpose of the service is to help subscribers answer the following questions, amongst others:

- How might changes in global renewable energy and climate policy influence wood pellet demand over the next five and ten years? In which countries and end-use sectors are the prospects brightest?
- Given the current status of projects to build new wood pellet capacity, how likely is it that there will be sufficient supply to meet demand in, say, 2018? How much capacity will need to be built to meet demand in 2026?
- How are regional cost competitive advantages and disadvantages changing and how might this influence the flow of trade? Where is port capacity being built to handle the expected growth in trade?
- What are the long- and short-run marginal costs of wood pellet supply? Where is my pellet mill positioned on the industry cost curve?
- What is the wood pellet-paying capability (WPC) of European utilities that are supported by different policy mechanisms? How sensitive is the WPC to changes in variables such as electricity prices, exchange rates, conversion efficiencies, load factors, freight rates etc.
- How are wood pellet prices likely to develop over the next five years? Might there be a change in the price differential of industrial and heating pellet prices? Does this present an arbitrage opportunity for a trader?

The scope of the Outlook service

The cost of the Outlook for Wood Pellets service is **£6,000 per year** (or the equivalent in US dollars or euro). Subscribers to the Outlook for Wood Pellets will receive the following reports and services during the course of an annual subscription:

- Two full Outlook Reports, published in **Q1** and **Q3**, which will provide in-depth analyses of the market's short and medium-term prospects.
- Two Outlook update reports published in **Q2** and **Q4**, which will comprise a commentary on recent market developments and revised demand/supply modelling, cost curves and price forecasts.
- One half-day workshop and presentation hosted by the authors on request. This presents an opportunity for the subscriber's management to discuss the Outlook's conclusions with the authors. The workshop can take the form of a face-to-face meeting (in London) or a conference call.
- The on-call support of Hawkins Wright consultants throughout the year, by phone or email.



The analysis underpinning the Outlook Service includes...

- **The economic and policy background**

Relevant global, regional and national energy and climate policy developments. Macro-economic developments including, for example: economic activity, energy and carbon markets, freight markets, exchange rates and capital markets.

- **The outlook for wood pellet demand**

Comprehensive wood pellet demand analysis. Data is segmented by region, by key country and by end-use sector. The forecasting methodology uses demand scenarios and Monte Carlo techniques to model uncertainty around central forecasts.

- **The outlook for wood pellet supply**

Hawkins Wright maintains a database of wood pellet plants and projects. The status of investments to increase wood pellet production capacity (and any known reductions in capacity) is monitored. Wood fibre availability and other factors that may influence wood pellet supply capability in each region are analysed.

- **The demand/supply balance and the outlook for trade**

The balance between wood pellet demand and supply is tracked. Deficits in this context are interpreted as unmet demand, i.e. the demand for which supply has yet to be identified. The implications for the flow of trade are analysed.

- **The outlook for the costs of wood pellet supply**

Trends in the principal factors driving the cost of wood pellet supply in each region are monitored, namely: wood fibre; electricity; diesel; inland freight; ocean freight; exchange rates and finance costs.

Outputs include weighted average regional long-run and short-run marginal costs of supply (broken down by cost element) on an ex-mill, FOB port and CIF port basis. Long-run and short-run marginal cost curves are also calculated and presented.

- **The outlook for wood pellet prices**

The demand, supply and cost analyses are combined to generate estimates of long- and short-run marginal costs of wood pellet supply. These are used to inform our forecasts of industrial and residential/commercial heating pellet prices.

Differentials between current and forecast prices of industrial and heating pellets will be analysed as will the implications for material flows between industrial and heating markets.



Order form

The annual cost of a subscription to The Outlook for Wood Pellets service is **£6,000** (or the equivalent in US dollars or euro). A subscription to the Outlook for Wood Pellets service includes:

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