



HAWKINS WRIGHT

The Outlook for Wood Pellets

Demand, Supply, Costs and Prices

Regularly updated ten-year forecasts

A multi-client service...

AVAILABLE IMMEDIATELY

www.hawkinswright.com



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 over 34Mt in 2018.

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, 2020? How much capacity will need to be built to meet demand in 2028?
- 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, covering **Q1** and **Q3**, which will provide in-depth analyses of the market's short and medium-term prospects.
- Two Outlook update reports covering **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:

- Two in-depth Outlook Reports each year, covering Q1 and Q3
- Two Outlook update reports, covering Q2 and Q4
- A worldwide corporate licence to distribute the report within the subscriber's organisation
- The on-call support of Hawkins Wright consultants throughout the year, by phone or email
- One half-day workshop and customised presentation in London. (If a meeting is held elsewhere, travel and subsistence expenses will be charged at cost.)

I would like to subscribe to **The Outlook for Wood Pellets**

Name:

Title:

Company:

Postal address:

.....

City: Post Code/ZIP:

Country:

Telephone:

Email:

I understand that the reports and other materials provided by Hawkins Wright during the course of a subscription are confidential to subscribers and to their wholly-owned subsidiaries. I agree that all reasonable steps will be taken to safeguard this confidentiality in accordance with the Terms and Conditions set out overleaf.

In placing this order I consent to the use of my data in accordance with Hawkins Wright's privacy policy and terms & conditions. The privacy policy can be found at www.hawkinswright.com/privacy-policy.

Signature:

Please return this order to:

Hawkins Wright Ltd., 21/22 Station Point, 121 Sandycombe Road, Kew, Richmond, Surrey TW9 2AD, United Kingdom.

Email: post@hawkinswright.com,

Tel: **+44 20 8747 5840**

An invoice and payment instructions will be sent when your order is received. Payment may be made by bank transfer or credit card.



Terms & Conditions

1. The service

The Outlook for Wood Pellets service (the Outlook) is a service provided by Hawkins Wright Ltd. 21/22 Station Point, 121 Sandycombe Road, Richmond, Surrey, TW9 2AD United Kingdom. Tel: +44 (0)20 8747 5840, Email: post@hawkinswright.com

The Outlook service comprises a quarterly report, published four times a year, and an online service through a password protected area of our website to which subscribers are granted access.

Our obligation to you, the subscriber, is to publish four issues of the report during the course of an annual subscription and to maintain the online service, and your access to it, updating it within a reasonable timeframe.

All subscribers benefit from the telephone/email support of a Hawkins Wright consultant on matters concerning biomass and bioenergy markets. We will endeavour to respond to your request as soon as possible. Where information is readily available it will be provided at no charge. However, if your question is complex or if the information is not readily available, we reserve the right to charge for the consultancy time required. No chargeable work will be undertaken without your prior consent.

2. Copyright

All parts of the Outlook service are protected by international copyright laws. By subscribing you agree to use the service in a way that does not infringe these laws. Except as described below, no part of the report or website may be reproduced or transmitted or shared with a third party in any form or by any means, electronic or mechanical, in whole or in part. No text, logo, graphic, sound or image may be copied or re-transmitted unless expressly permitted in writing by Hawkins Wright Ltd. (These prohibitions are without limitation to the legal rights of Hawkins Wright Ltd.)

However, subscribers may distribute the reports, and any text, graphic or data from the website, within their own company or organisation (including wholly-owned subsidiaries). When distributing such material, subscribers will ensure that all recipients are aware of our Terms and Conditions, particularly those concerning our copyright.

When the subscriber is a trade association or a similar organisation that works on behalf of its members, the reports may only be distributed within the headquarters of the association and must not be shared with the members.

A trade association or a financial institution may include extracts from the Outlook in its own market/industry analyses that it distributes to its members or clients, subject to a "fair dealing" test.

For guidance about the meaning of "fair dealing"

please see the definition used by the UK's *Intellectual Property Office* here: www.gov.uk/guidance/exceptions-to-copyright#fair-dealing. If in any doubt about whether the intended use of the copyright material constitutes "fair dealing", the subscriber agrees to discuss its intentions with Hawkins Wright in advance.

3. Security and passwords

The password-protected area of the Hawkins Wright website is confidential to subscribers. In order to log on when you visit the site, you will need to use the user name and password which is issued to you.

You are solely responsible for the security and proper use of your password(s), which should be kept confidential at all times and not disclosed to any other person, either within or outside your company or organisation. You must notify us immediately if you believe that your password is known to someone else or if it may be used in an unauthorised way.

4. Payments and refunds

All subscriptions are payable in advance and will be for a minimum of one year unless otherwise agreed. Refunds for the unexpired portion of a cancelled subscription are not normally given other than if it can be shown that we have failed to deliver the service described in Paragraph 1.

5. Your data

We will process any personal data which you provide to us in accordance with UK data protection legislation.

The security of your data is extremely important to us. Access to your company and personal data is only provided to our staff. We do not pass information about you to any third parties. We will not use your email address for any purpose other than to contact you about your subscription or other Hawkins Wright services that we believe may be of interest to you.

7. Disclaimer

We make every effort to ensure that the information we provide is accurate and complete, but some of the information is supplied to us by third parties and we are not able to verify the accuracy or completeness of that information.

We do not accept any liability arising from any inaccuracy or omission in any of the information provided by the Outlook service or any liability in respect of information supplied by you or any other person.

The information supplied by the Outlook service is provided only for legitimate commercial purposes. It is not to be used in legal or anti-trust actions against others.

We reserve the right to alter these Terms & Conditions at any time, but we will give you fair warning of any changes that may materially affect the service that we provide to you.