Pöyry Management Consulting is releasing its 2015 edition of the Global Pellet Market Report. This will provide in-depth analysis of supply and demand dynamics in the Atlantic and Asia Pacific industrial pellet markets, relevant regulatory and policy mechanisms, in-depth econometric analysis of the industrial pellet market and the modelling of market price scenarios going forward to 2030. Additionally, it will give an overview of current sustainability regulations, the impact of the growing convergence with premium pellet markets, and recent developments in the black pellet sector.

BACKGROUND AND INTRO

The industrial pellet market has shown steady growth since Pöyry published its last edition of the Global Pellet Market Report in 2013. Annual demand is expected to reach around 14 million tonnes in 2015, up from 7.2 million tonnes in 2013. Several new large scale industrial pellet mills have been commissioned, mainly in North America, to meet the growing demand in the European and Asian markets.

The UK and Denmark are clearly dominating demand in the industrial pellet market in Europe, while South Korea showed a remarkably quick uptake of demand reaching 1.8 million tonnes in 2014 and became the main consumer of wood pellets in Asia Pacific. Demand from South Korea is expected to reach similar demand levels in 2015. Japan on the other hand has not met market expectations and pellet import volumes are still low.

Despite this continuing market growth, pellet mill developers had to endure a series of delays on the demand side and market developments over the last two years were not always favourable. This had a noticeable effect on pellet mill projects that are being developed by producers that do not have a proven track record in the industry, and a number of development projects were consequently abandoned.

We have also observed some consolidation on the supply side with, for example, Enviva acquiring Green Circle and Graanul acquiring Latgran. The 5 largest producers of industrial pellets now represent 47% of the total global supply potential.

The US Southeast with its unique combination of attractive low cost fibre supply, a highly efficient forestry market, excellent infrastructure and a secure investment climate clearly remains the key pellet supply region for the European market, and 45% of the global industrial pellet production capacity is located in this region. The majority of announced pellet mill projects can also be found in this region, sometimes raising concerns from existing wood processing industries over long-term fibre availability.

Despite occasional shipments of pellets from North America to South Korea, North American suppliers have not been able to establish South Korea as a new long-term offtake market. Current price levels for deliveries into South Korea have reached lows of USD 122 per tonne CIF which does not present a viable opportunity for North American suppliers. Lower cost suppliers from Southeast Asia, especially from Vietnam, were quick to establish pellet production capacity and secure market share in South Korea, even though it is a well-known fact in the industry that current price levels are not sustainable, not even for Vietnamese suppliers. Price levels for deliveries into South Korea will have to rebalance, potentially offering North American suppliers a new market opportunity.

Several US based industrial pellet producers have also achieved EN Plus certification, enabling them to access the European premium pellet market. It is our view that this development is largely driven by a desire to diversify their offtake portfolio and to offset weaker than expected demand in the industrial pellet market. It is yet to be seen if producers can really develop a viable business model for premium pellets.
It would still be premature to see this as a sign of a true convergence of these still largely separate market segments.

Developers of black pellet projects continue with their efforts, with Zilkha, Solvay and Arbaflame being the industry leaders. Solvay and Zilkha are commissioning their first commercial scale facilities and are hopeful of proving the viability of their concepts on an industrial scale. Arbaflame have reached an advanced planning stage for a large-scale facility, pending financing. Market penetration of this emerging sector of the pellet industry is still very low and the future is unclear as investors and off-takers first want to see the viability and cost effectiveness of these technologies proven in large-scale production facilities.

Generally, the level of uncertainty in the global pellet market is still high due to a combination of several factors, including:

- Outstanding political decisions and regulatory hurdles, for example the revised energy strategy and policy in Japan, the rumoured cap on biomass co-firing in South Korea, budget allocation for the incentive scheme in the Netherlands, pending EU State Aid Approval for RWE Lynemouth and Drax’s Unit No. 1 in the UK
- Preference of policy makers for other renewable energy technologies that are considered as offering better carbon saving potential and better opportunities for production cost reductions in the long run
- Ongoing discussions regarding the sustainability of using wood pellets for energy production and acceptable ways of proving sustainability
- Availability (and reliability) of sufficient government funding to provide required support for large scale bioenergy projects focusing on wood pellets as fuel
- Strategic decision making of utilities having to deal with increasingly uncertain energy markets in Europe and tight balance sheets
- Currency exchange rates
- The availability of finance and its requirements for return and security

Despite these repeated setbacks and disappointments over the last two years, the industrial pellet market still holds attractive potential for further growth, provided that outstanding political decisions go in the right directions, so that announced and planned power plant investments can be realised and drive future market growth.

The high level of uncertainty in the global industrial pellet market, the wide range of possible future demand scenarios, and the multitude of interacting market drivers make it necessary to understand the global pellet market and its dynamics in detail to be able to make well informed investment and strategic decisions in this industry.

Pöyry is the consultancy of choice for all players along the wood to energy value chain and we have combined and integrated our long-standing expertise in the forest and biomass industry, with our world class engineering capabilities and our in-depth insights and modelling capabilities in the energy sector to create Wood to Fuel ‘W2F’, the only econometric market model available for the industrial pellet market.

W2F is a market optimisation model, clearing the market on a yearly basis by finding the lowest cost supply solution, based on the supply cost of all existing mills as well as planned mills that are expected to come online in any given year. In years where there is a shortfall of supply, or where new ‘unplanned’ capacity could result in a lower supply cost the model has the option of building generic mills, provided they would be able to operate within the market for at least 10 years. By finding the lowest cost supply solution for each year the model subsequently fulfills as much market demand for industrial pellets as possible, based on the pellet paying capability of individual consumers, and each year the point at which supply and demand meet sets the pellet price, providing long-term pellet price projections for the market. The Atlantic Basin market and Asia Pacific are fully integrated in our modelling and we also consider the demand impact from premium pellet markets so that we are able to offer a truly global model for the industrial pellet market.

The results from our global pellet price modelling clearly show that price levels are set to increase if demand grows as expected in our central scenario, since meeting this new additional demand will require the development of most of the currently planned production capacity. However, we have also identified a very real risk of market prices coming down markedly from 2025/2026 onwards when most pellet mills are expected to have repaid their initial capital investment and will be able to bid into the market at their marginal cost. The expected exit of almost all UK pellet burning capacity in 2027 will result in a further depression of the global pellet market with demand levels falling to 2.5 million tonnes per year in the UK, unless other as yet unforeseen policy developments mitigate this market contraction.

Market participants and investors along the entire forest to power value chain need to understand these market dynamics and the consequences for their projects in detail to ensure long-term profitability.
A comprehensive review of the current state of the industrial pellet market in the Atlantic Basin and Asia Pacific, including an overview of existing pellet supply capacity and demand on a plant by plant basis.

Overview of announced and planned industrial pellet mill projects worldwide.

Analysis and overview of raw material availability for pellet production in key supply regions (US Southeast, Canada West, Canada East, Brazil, NW-Russia, Baltics, Vietnam, Malaysia, Indonesia and Australia).

Description of relevant policy and financial incentive schemes for large-scale industrial utilisation of wood pellets for energy generation.

Assessment of likely future demand scenarios for pellet consumption in Europe and Asia Pacific based on a bottom up approach, analysing plans of individual power stations in the context of the availability of financial incentive schemes.

Assessment of detailed aggregated demand curves on an annual basis for the European and Asia Pacific markets, based on an in-depth assessment of power station economics, dispatch patterns and Pöyry’s electricity price curves.

Detailed assessment of short- and long-run production cost and supply cost curves for industrial pellets covering the period 2015 to 2035, considering expected demand development, availability of existing capacity and supply cost economics.

Overview of premium pellet markets in Europe and analysis of the likely impact of growing demand in premium pellet markets on demand in the industrial pellet market.

Econometric Pellet Market Modelling - Pellet price curves for three distinct market scenarios derived from “W2F”, Pöyry’s econometric market model for the global industrial pellet market, covering the period 2015 to 2035.

Review of sustainability requirements in Europe and Asia Pacific, and overview of available certification schemes.

Review of black pellet production technologies and key developers in the market, including Pöyry’s view on the future development of this new market segment.
SUBSCRIBERS OF OUR GLOBAL PELLET REPORT INCLUDES:
- Energy utilities
- Financial investors
- Pellet producers
- Trading houses
- Port operators and logistics providers
- Technology developers
- Policy makers

WHAT IS INCLUDED?
- Full annual report – The Global Pellet Market 2015
- Three quarterly update supplements presenting and discussing latest market developments and providing updated pellet price curves
- Excel files containing key data presented in charts, e.g. price curves, pellet supply & demand data, etc.
- One half-day workshop and presentation of report in Pöyry’s London offices, or via video / conference call

Pöyry is an international consulting and engineering company. We serve clients globally across the energy and industrial sectors and locally in our core markets. We deliver strategic advisory and engineering services, underpinned by strong project implementation capability and expertise. Our focus sectors are power generation, transmission & distribution, forest industry, chemicals & biorefining, mining & metals, transportation, water and real estate sectors. Pöyry has an extensive local office network employing about 6,000 experts.