



The global market for palm kernel shells (PKS)

An overview of the trade of PKS used for energy generation

A multi-client study

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Why this report is needed

Palm kernel shells (PKS) have long been an important source of energy, primarily used by palm oil mills to fuel their operations. For over ten years Europe has imported PKS for use in cofiring and dedicated biomass-fired power and CHP plants, albeit in relatively small volumes. However, it has been the rapid growth of biomass use in Japan and South Korea, supported by subsidy schemes introduced in 2012, which has increased the importance of PKS. The further expansion of biomass-fired power and CHP generation in Japan and South Korea over the next decade will therefore drive continued growth in PKS demand.

Until now the trade of PKS for energy has been opaque and hard to track. Supply has seemed plentiful, but at times perhaps unreliable. Can supply volumes keep pace with the expected demand, and how much PKS is demonstrably sustainable? In this report we have sought to shed new light onto this growing market.

Summary of the report's contents:

Introduction to the PKS market

- An introduction to the PKS market, including varieties, market characteristics and specification.

PKS demand

- Country profiles of key markets for PKS in both Europe and Asia and the policy drivers fuelling demand.
- A list of operational and planned projects in South Korea and Japan.
- The outlook for PKS demand in Asia, including forecasts out to 2023.

PKS supply regions

- A breakdown of factors which influence both PKS supply and availability in the key supply countries of Malaysia and Indonesia.
- Estimates of current PKS production by country and forecasts of Malaysian and Indonesian supply out to 2030.

PKS costs & prices

- PKS cost drivers and analysis of historical price trends.
- PKS price forecast out to 2030.

Who should read this report?

This report will be essential reading for all companies with exposure to the global PKS trade, including energy generators, PKS suppliers, biomass traders, palm oil plantation owners and producers, investors, shipping companies, financial institutions, energy regulators and policy makers.

Questions answered...

- » What is PKS and where is it produced?
- » What is the outlook for PKS demand in Europe and Asia?
- » What does the pipeline of new PKS-fired power plants look like?
- » Where are potential supplies of PKS located?
- » What is the outlook for PKS production?
- » What key factors will influence the production and availability of PKS supply?
- » What would the introduction of sustainability requirements do to potential supply availability?
- » What is the role of trading houses in the market?
- » What affects the costs of PKS production?
- » How might PKS prices evolve over the next ten years?



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- » **Wood Chips for Energy** - a study on the emerging seaborne wood chip for energy market
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