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Coal Power Stations that Convert to Wood Pellets Supply Baseload and Peaking Power

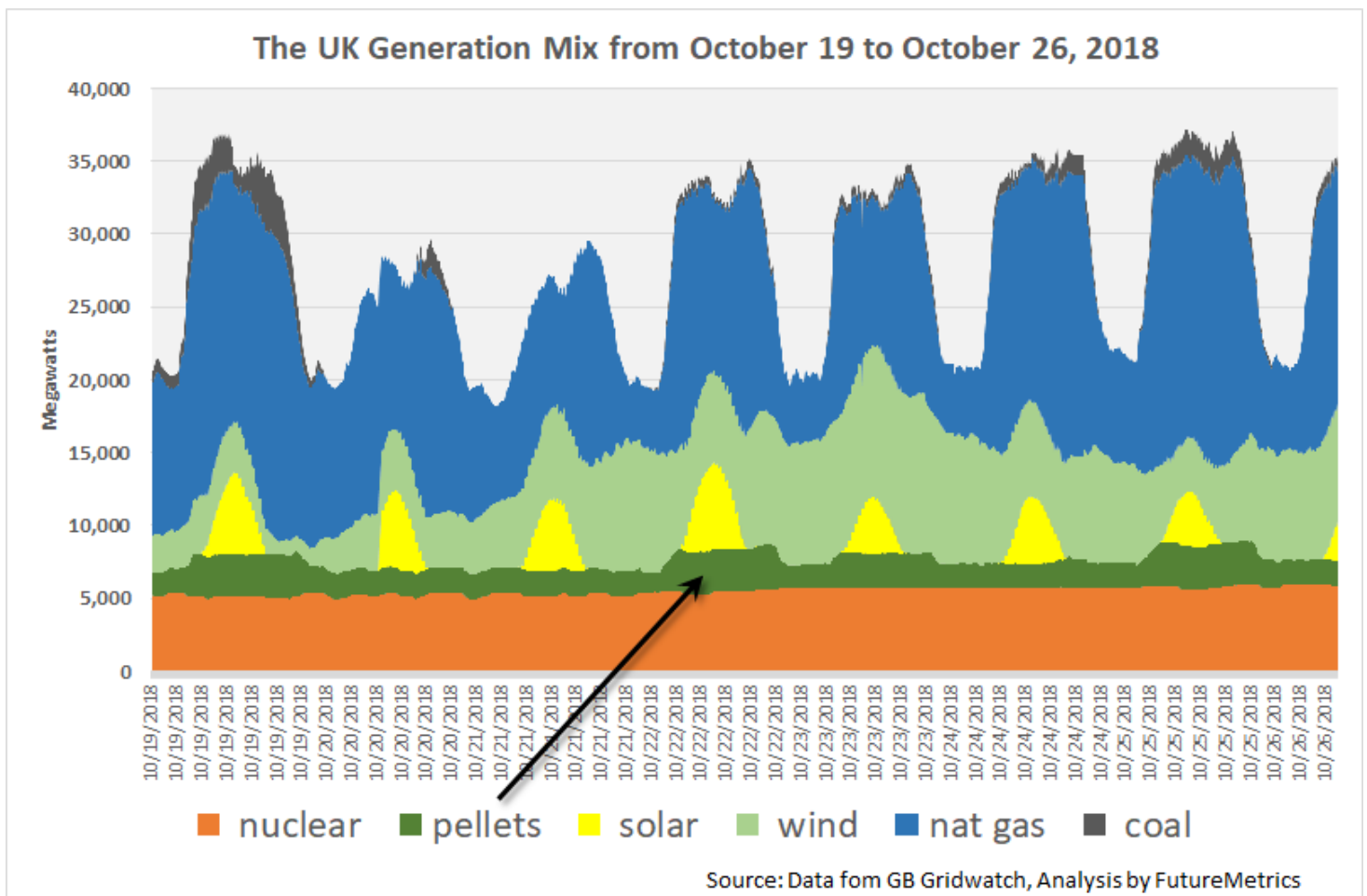
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By William Strauss, PhD

This very brief white paper illustrates why all countries, states, or provinces that are serious about lowering carbon emissions in the power generation sector should include the use of pellets as a replacement for coal in their portfolio for renewable generation.

[FutureMetrics](#) has published numerous white papers over the years about the efficacy of including pellet co-firing or full-firing in the menu of solutions for reducing CO₂ emissions in the power sector. FutureMetrics' white papers have also shown why pellet fuel is a low carbon solution. **This short paper shows a real-world example of how pellet fueled pulverized coal power stations can be part of the solution.**

The chart below is from this past week and shows the generation mix in England.





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Currently, most of the power generated from pellets in the UK is by [Drax Power](#). The Drax power station has six 645 megawatt units. Four of the six units are fully converted to use wood pellet fuel. The 396 megawatt [Lynemouth](#) power station has also been converted from coal to pellets.

In the chart above one can clearly see how the wind (light green) did not blow early in the week and, of course, the sun (yellow) never shines at night. **Furthermore, power generation by pellets is taking some of the peaking load which lowers the need to use the coal and natural gas.**

From Argus Direct on October 25, 2018:

Strong UK biomass output this month has pushed some combined-cycle gas turbines (CCGTs) out of the generation mix compared with last year, and UK utility Drax has been ramping up output during peak-load hours to capture higher prices. Biomass output has averaged 2.3GW so far this month.

Installed biomass capacity is around 1.1GW higher year on year because of the conversion from coal to biomass of the 645MW Drax unit 4 and the 396MW Lynemouth plant, taking total capacity to around 3.2GW.

Output from CCGTs has averaged 12.4GW, down from 13.5GW in October 2017.

This clearly demonstrates that using renewable low-carbon pellet fuel for power generation provides reliable on-demand baseload and peaking capacity.

This strategy is the only pathway for generating renewable thermal power that does not suffer from uncontrolled variability and intermittency.

For real-time data on the UK generation mix, click [HERE](#).

FutureMetrics is the leading global consultancy in the wood pellet sector. FutureMetrics provides information, analysis, operations guidance, due diligence services, and strategic advice to many of the world's leading companies who are in the wood pellet sector, or who are considering entering the sector.

FutureMetrics combines deep operational expertise, powerful sector focused financial modeling skills, and thought leading market and policy awareness.