# Press

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## Subsidy-free renewables set to revolutionise energy market, with €180 billion renewables investment opportunity across NW Europe

- Subsidy-free renewables already investible in many parts of Europe, and on cusp of breakthrough in Britain
- Potential for 18GW of subsidy-free renewables by 2030 in GB alone, and over 60 GW across North-West Europe
- €180bn investment opportunity in North-West Europe by 2030, of which €64bn is in subsidy-free projects
- Growth of renewables presents a threat for owners of baseload thermal technologies and a huge boost for investment in flexible assets
- Allowing subsidy-free renewables to bid for contracts in capacity market is a "game changer"

New research from Aurora Energy Research, and a key theme at today's Spring Forum, the firm's annual gathering of senior industry leaders, highlights the startlingly huge prize available to investors from the growth of subsidy-free renewables. Aurora's analysis reveals an investment opportunity in the region of €180 billion across North West Europe (GB, Germany, France, Ireland, the Netherlands and Belgium). The growth of renewables has profound implications for the growth of the market and future policy development.

Mateusz Wronski, Aurora's keynote speaker at this year's Forum, highlights the significance for the GB market alone:

"Back in 2010 at the start of the Electricity Market Reform process in GB, few would have imagined that by 2018 we would be talking about a subsidy-free future for renewables. Yet, this is where we have arrived, and our research highlights clearly the enormous prize and potential in the market, not only in GB but across Europe. This will be a true game changer for the energy industry and policy makers, with a knock-on effect on baseload technologies as well as flexible generation."

The past couple of years have seen the continuation of remarkable cost declines for renewables. Since the beginning of 2017 there have been landmark developments in the subsidy-free space in Europe. Subsidy-free projects have emerged in both Dutch and German offshore wind auctions. Sweden has recently seen a landmark 650MW Power Purchase Agreement (PPA)-backed onshore

wind project delivered by GE and the Green Investment Group. In Britain the first projects have also emerged, with subsidy-free solar projects from Anesco and plans for subsidy-free wind by RES.

Aurora's research also sets out the main factors that could boost project economics and make individual investment cases stack up sooner. Factors included: de-risking through corporate, utility or industrial PPAs, revenue-stacking, and savings and additional revenues from co-deployment of batteries. Aurora also predicts that further cost reductions together with the expected increase in commodity prices, will lead to "grid parity" in GB for solar and onshore wind in early 2020s, and for offshore wind possibly in late 2020s or in the 2030s.

The rise of subsidy-free renewables is a BIG deal for renewables investors with up to 18GW potentially by 2030 in GB alone, and over 60GW across North-West Europe. As Wronski explains, "the nature of this investment is fundamentally different too. It is merchant risk and hence investors have to understand their exposure to power price, and to the complex set of market drivers that shape the power price, including commodity prices, but also deployment of RES and the amount of flexibility on the system."

Aurora has analysed these risks across several markets, including most recently the German market. By quantifying these risks and understanding how they interact, it is possible to establish a "Worst-Case Scenario" – a benchmark for renewables capture price to use in debt financing and PPAs, which are critical in unlocking the investment opportunity. Apart from power prices, to successfully develop projects, investors will also have to understand how batteries can help reduce the costs of balancing, and how to maximise the revenue-stacking opportunities available.

There are also huge implications for investors in other technologies. Subsidy-free renewables will negatively impact the utilisation and profitability of baseload power generators such as nuclear and gas CCGTs but boost the business case for flexible assets such as peakers, batteries and demand response.

Aurora has also examined the implications for future policy. Allowing subsidy-free renewable to participate in capacity markets can bring forward the subsidy-free date by up to five years. Opening up balancing and ancillary services markets would also provide additional upside. Subsidy-free CfDs could indeed be a "game-changer," says Wronski, "providing a bridge before a deeper PPA market emerges." These policy implications were previously highlighted in Aurora's landmark cross-industry report 'The new economics of offshore wind'.

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**Aurora Insights**
'Managing Merchant Risk in Renewables' March 2018. View Report.
'Capacity Market 2018: Results, implications and potential policy reform' March 2018. View Report.
'The New Economics of Offshore Wind.' View Report.

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**Notes to editors**
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