

Market design to enable the net zero transition



Breakout Speakers

Market design to enable the Net Zero transition

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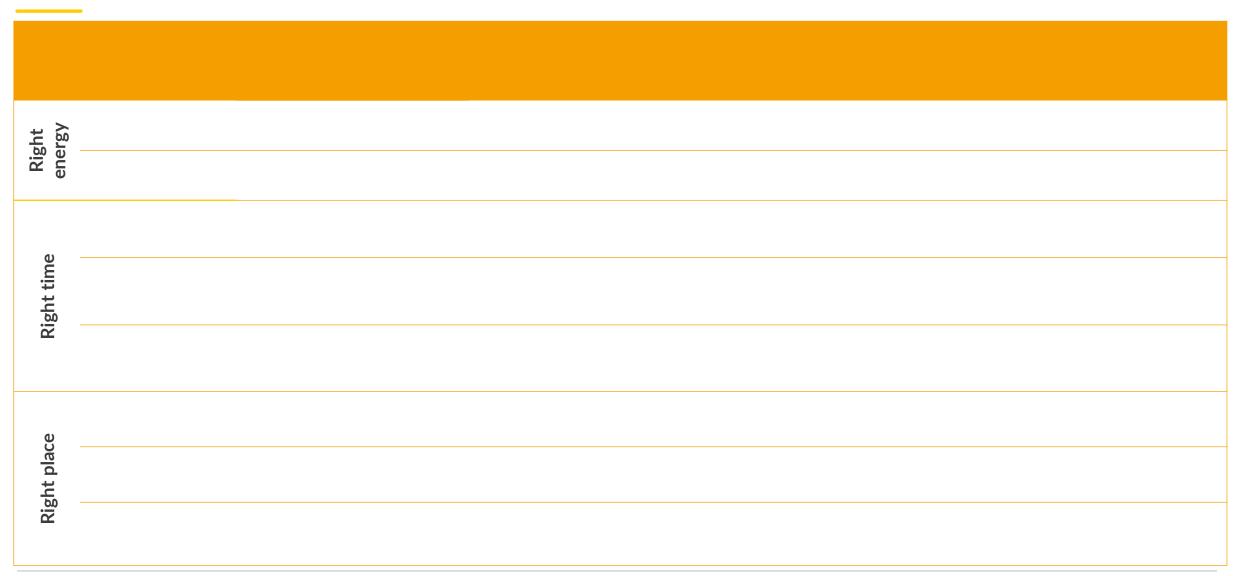
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In order for energy markets to function effectively, they need to deliver the "right energy, at the right time, in the right places"...





This objective is currently met through a number of existing market frameworks ...



| Effectiveness today in influencing market wide | | | |
|--|------------------------------------|----------|------------|
| | | Dispatch | Investment |
| Right energy | Carbon price | | |
| Rig | CfDs | | |
| | Wholesale market (SRMC pricing) | • | |
| Right time | Balancing and ancillary markets | • | |
| i <u>s</u> | Capacity Market | | |
| υ | TNUoS | | • |
| Right place | Balancing and ancillary markets | • | |
| Rig | DNO constraint management | • | |

Source: Aurora Energy Research

... but as we move towards Net Zero, these frameworks are likely to become less effective in driving the investment we need



| | Effectiveness today in influencing market wide | | | | Effectiveness in driving low carbon investment to deliver CB6 and Net Zero | Alternatives |
|-----------------|--|----------|------------|--------------------|--|---|
| | | Dispatch | Investment | | investment to deliver ebo and Net Zero | |
| Right energy | Carbon price | | | 1 | Effective initially if price is high enough; less effective as carbon emissions approach zero and gas sets price less often | Carbon CfDs |
| | CfDs | | | 1 | Challenges around negative pricing in high RES world = volume risk | Floor price model RAB |
| Right time | Wholesale market (SRMC pricing) | • | | 1 | Less SMRC in Net Zero world. RES price cannibalisation | CfDs / Carbon CfDs Demand turn up / PPAs |
| | Balancing and ancillary markets | • | | > | Reforms will open access to RES, but unlikely to be a major revenue stream and short duration. These markets alone may not stimulate investment in low carbon flexibility. | Longer-term ancillary contracts |
| | Capacity Market | | | 1 | Currently deploying unabated thermal – need to adapt to Net Zero world | Emissions limit in/outside CM Energy only market |
| Right place | TNUoS | | | 1 | Challenging if RES growth areas are network constrained | Locational pricing |
| | Balancing and ancillary markets | • | | \rightarrow | Not an efficient and transparent market to send locational signals | Locational pricing |
| | DNO constraint management | • | | 1 | Challenging if RES growth areas are network constrained | Locational pricing |

Source: Aurora Energy Research

Key questions for panel discussion:

Will the current market design deliver investment in zero carbon generation in the required timescales?

How will we incentivise enough capacity and flexibility to ensure security of supply?

How can we ensure that the system is operated efficiently with sufficient grid infrastructure in place?

How can we ensure consumers are protected and energy remains affordable?



Any further questions?

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