

14.00-14.45

# How decentralisation is already hitting your bottom line

An insight into how market shifts are affecting their business, what is coming down the track, and how they might benefit.



# Opportunities and threats Behind-the-Meter

Speaker:  
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## BTM load shifting value drivers:

### 1 Electricity cost savings

- Deployment of a BTM battery enables consumers to store cheap power overnight to avoid consumption from the grid during peak hours
- The optimal power/duration configuration of such an asset is highly dependent on the demand profile
- Value = (Peak prices - overnight prices) \* peak consumption

### 2 Network and CM charge savings

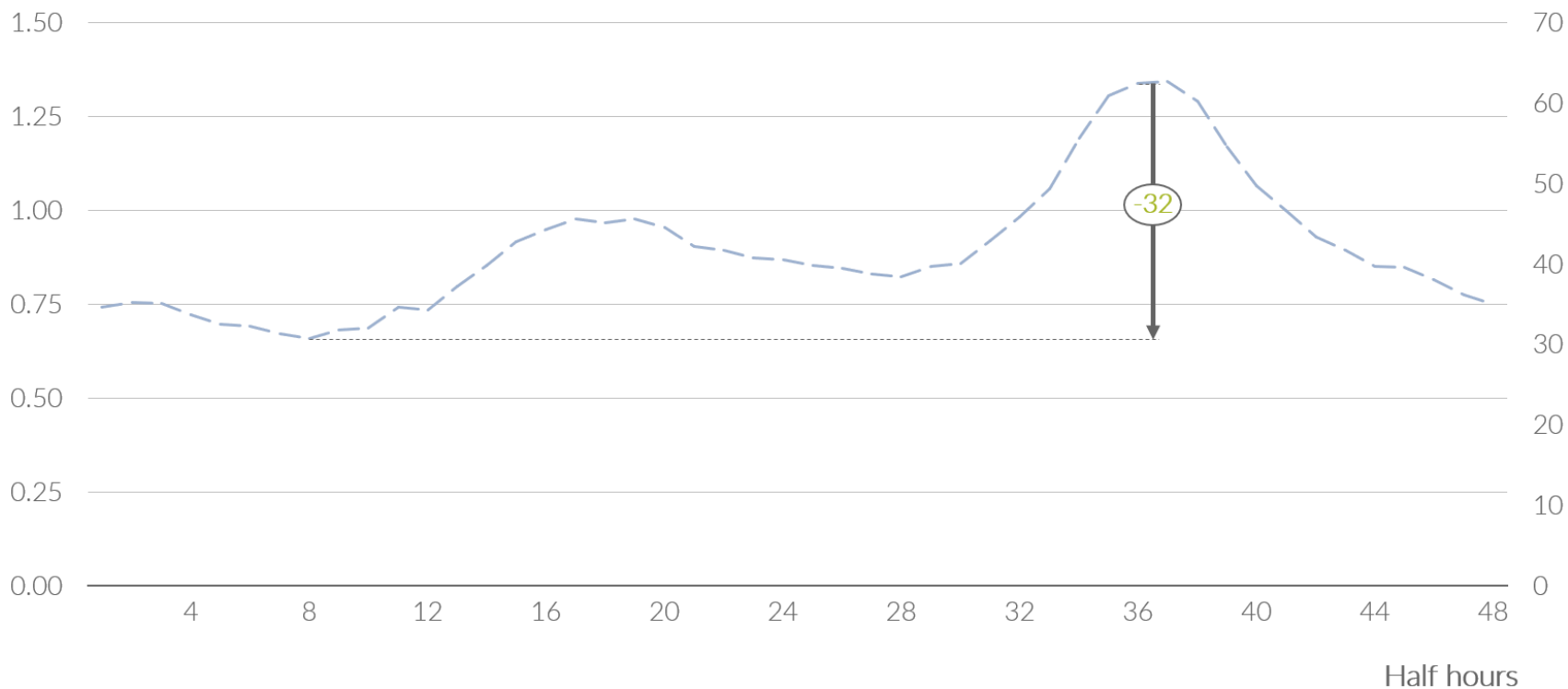
- There are three major cost savings to be accessed through reduction of demand during peak periods. They are CM Supplier payments, Triads and DUoS<sup>1</sup> red rates (See Appendix for charging methodology)
- Time-specific application of these three charges result in the amplification of intraday price peaks and troughs
- Value = CM supplier payment benefits + DUoS savings (Red - Green rate) + Triad avoidance benefits

# A BTM battery would enable access to cost savings with minimal impact on operations

Typical industrial demand profile  
Normalised to daily max<sup>1</sup>

— Wholesale price

Wholesale price  
£/MWh

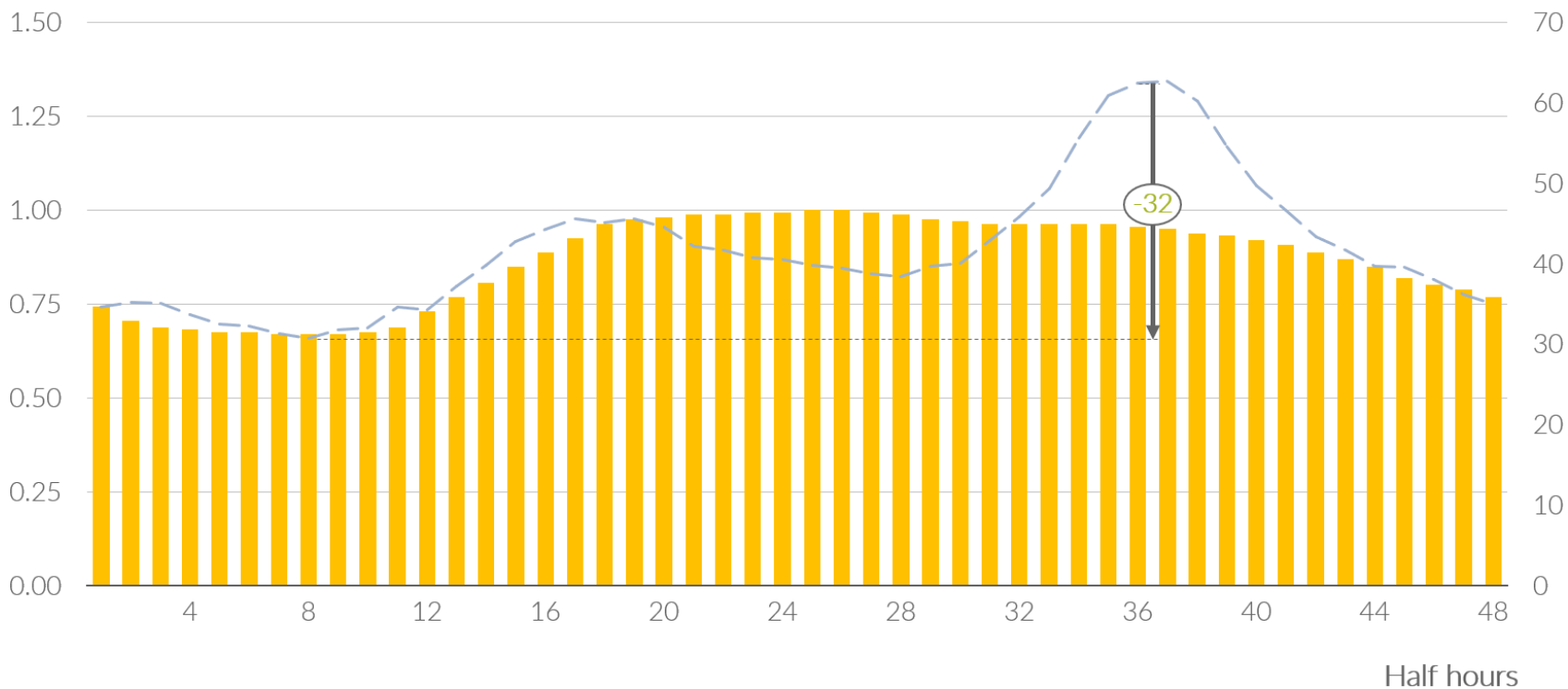


# A BTM battery would enable access to cost savings with minimal impact on operations

Typical industrial demand profile  
Normalised to daily max<sup>1</sup>

■ Initial grid consumption — Wholesale price

Wholesale price  
£/MWh

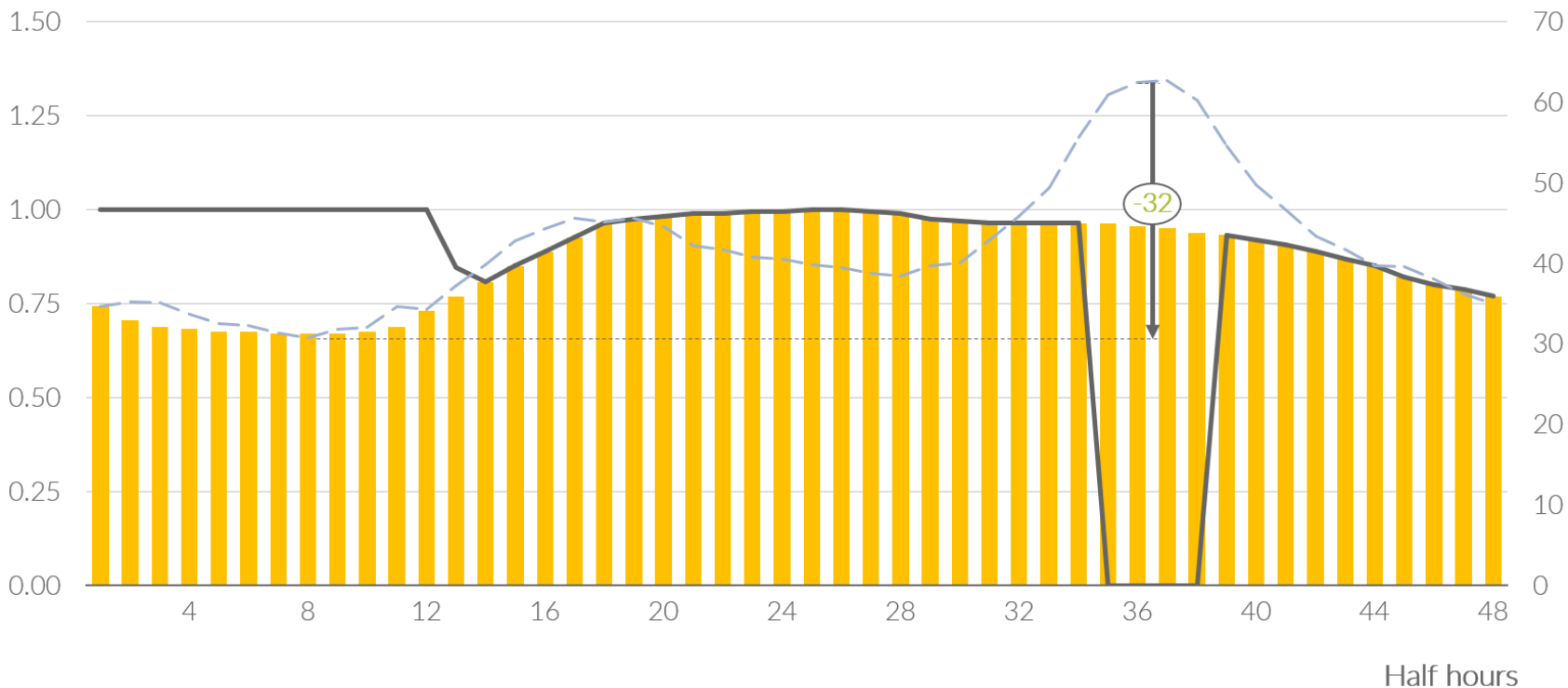


# A BTM battery would enable access to cost savings with minimal impact on operations

Typical industrial demand profile  
Normalised to daily max<sup>1</sup>

■ Initial grid consumption — Wholesale price  
— BTM grid consumption

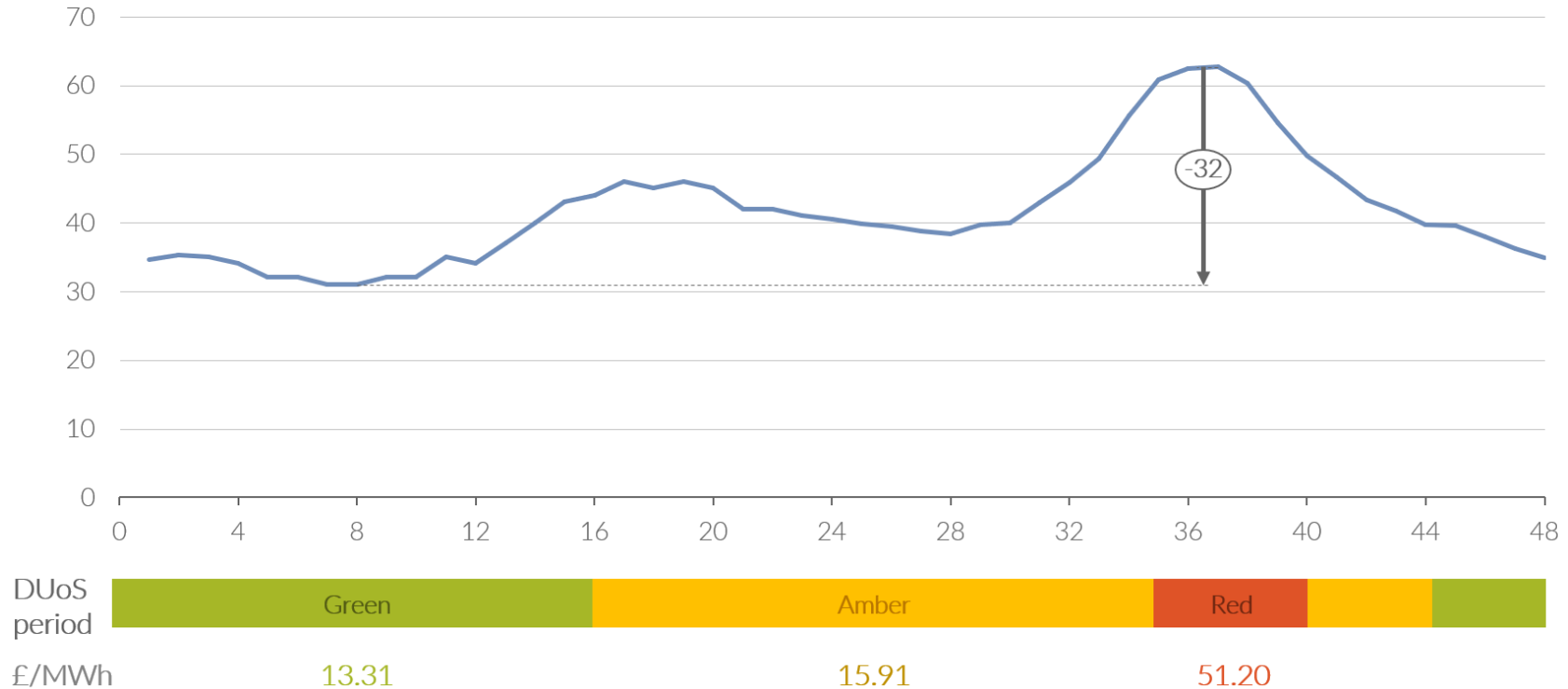
Wholesale price  
£/MWh



# Peak demand charges magnify peak to off-peak spreads, sharpening price signals for load shifting

Typical half-hourly price profile (South Wales, HV)  
£/MWh

Typical workday  
— Wholesale price



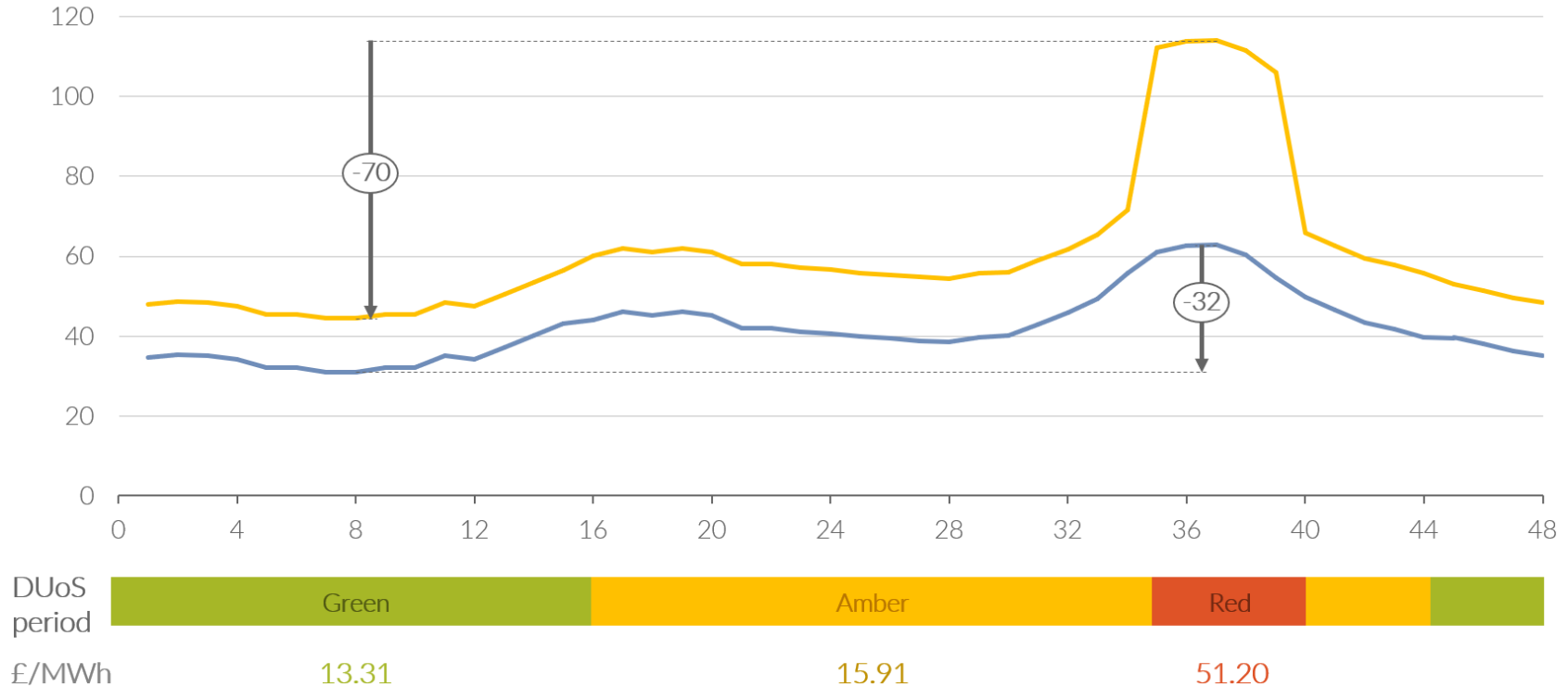
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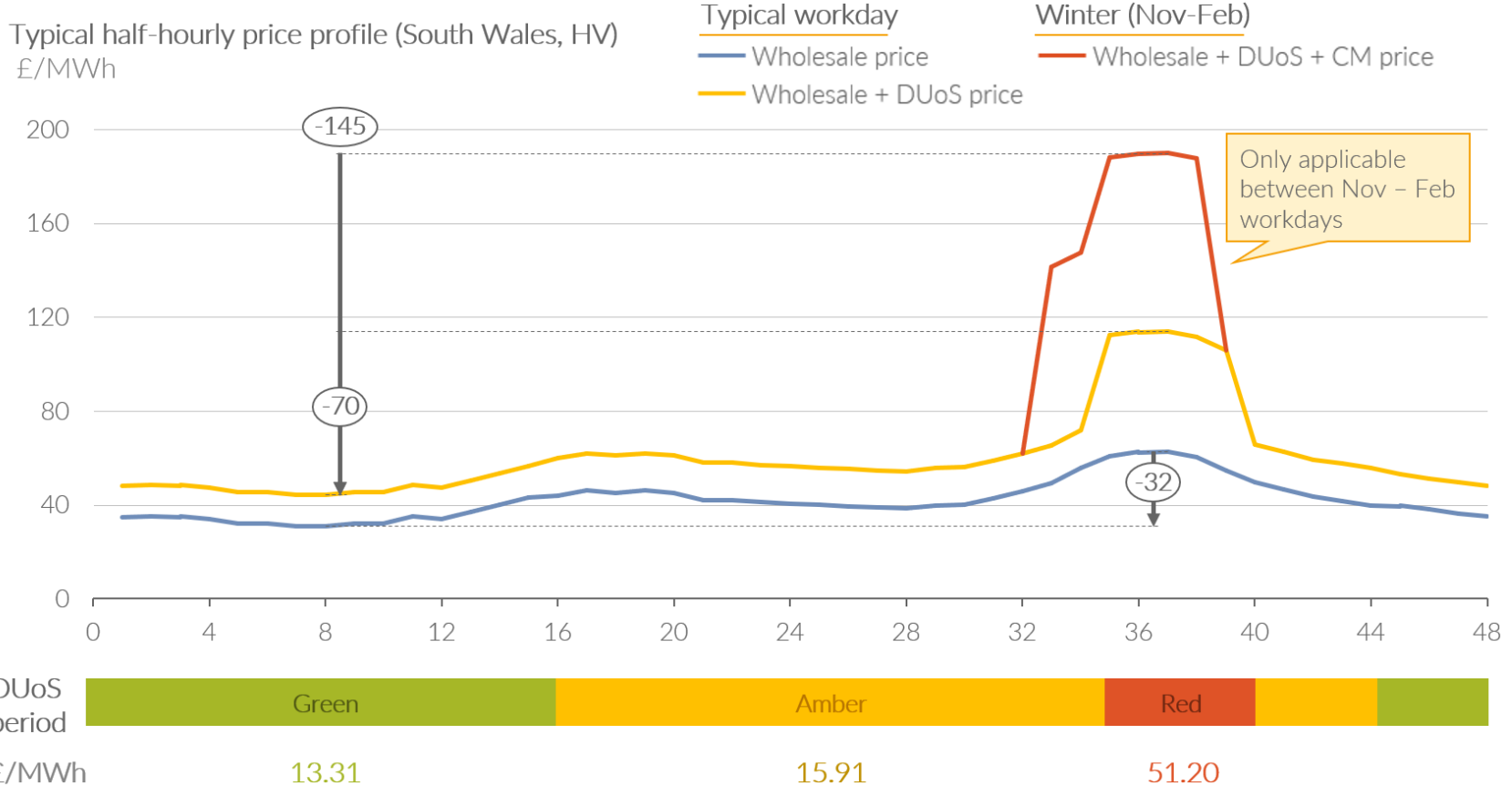
Wholesale price

Wholesale + DUoS price





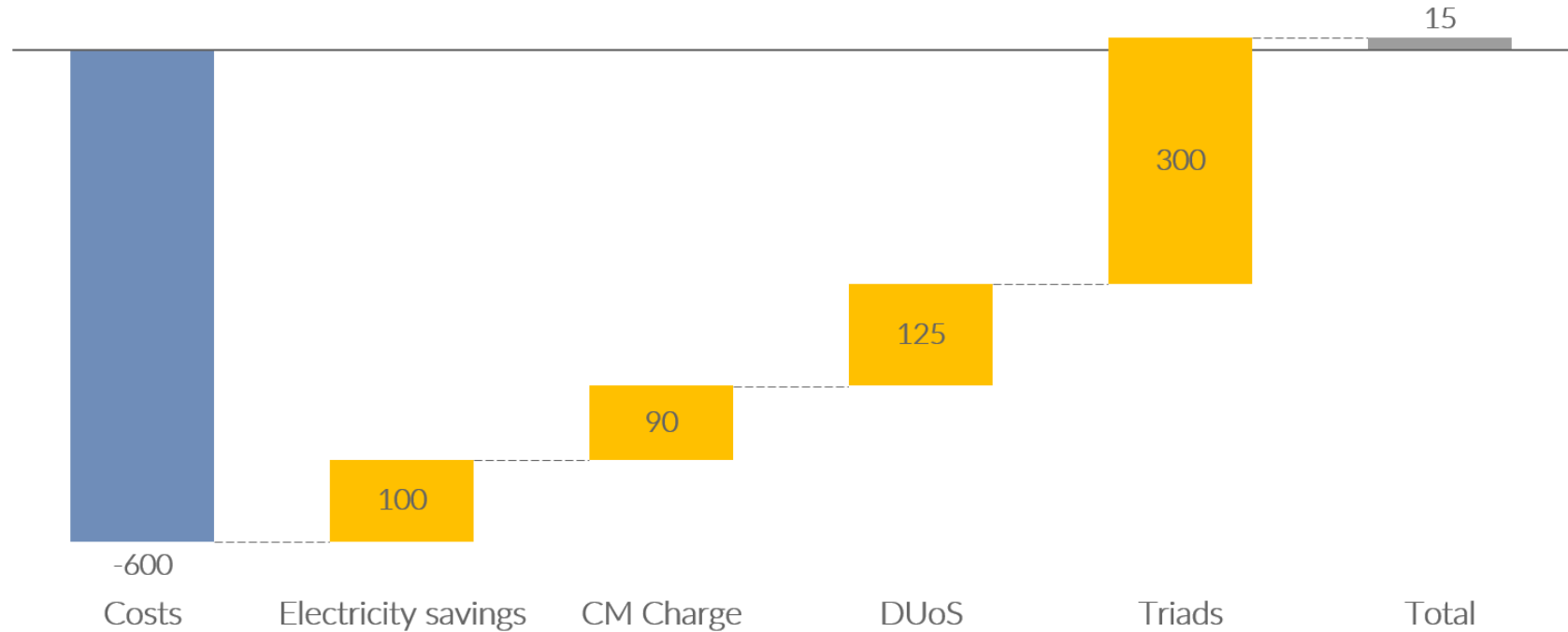
# Peak demand charges magnify peak to off-peak spreads, sharpening price signals for load shifting



# Deploying a BTM battery is economically viable even when discounting for uncertainties

Present value of revenues and costs (2020-2032),  
£/kW

■ Capex ■ Cost savings



## Recent developments have damaged near-term conditions for embedded projects, but opportunities for BTM assets remain strong

Recent developments have been difficult for flexible and embedded technologies

BTM assets have managed to avoid the bulk of reforms that have hurt embedded assets, with viable options available

Broad market moves look positive for BTM assets, with the move towards smarter, more flexible loads

However, this may change, with regulatory risk the biggest threat to current opportunities