Matching physical and financial exposures – the ‘perfect’ hedge

Example:

- It is planned to buy 1 MW baseload at 30 GBP/MWh for the week 23-29 March
- 1 week future contract at 30 GBP/MWh is purchased
- With the beginning of the DA auctions for this week, price-independent bids for 1 MW/h are automatically submitted to EPEX SPOT (requires a pre-setup with EEX)
- The average DA spot price at EPEX in that week results at 31 GBP/MWh
- This would equal a loss of 1 GBP/MWh without the future contract
- However, that loss is offset due to the variation margin payments from the corresponding position in the week future contract, which will be finally settled at the average DA spot price at EPEX in that week at 31 GBP/MWh.
# Matching physical and financial exposures – the ‘perfect’ hedge

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- **Purchase price spot (DA) (GBP/MWh)**
  - Sep 19th: 32
  - Sep 20th: 29
  - Sep 23rd: 32
  - Sep 24th: 33
  - Sep 25th: 34
  - Sep 26th: 29
  - Sep 27th: 28
  - Avg. 31

- **Difference to plan (30GBP)**
  - Sep 19th: -2
  - Sep 20th: +1
  - Sep 23rd: -2
  - Sep 24th: -3
  - Sep 25th: -4
  - Sep 26th: +1
  - Sep 27th: +2

- **Number of MWh**
  - Sep 19th: 24
  - Sep 20th: 24
  - Sep 23rd: 24
  - Sep 24th: 24
  - Sep 25th: 24
  - Sep 26th: 24
  - Sep 27th: 24

- **Total difference to plan**
  - Sep 19th: -48
  - Sep 20th: +24
  - Sep 23rd: -48
  - Sep 24th: -72
  - Sep 25th: -96
  - Sep 26th: +24
  - Sep 27th: +48
  - Total: -168

- **Trade price Future (GBP/MWh)**
  - Sep 19th: 30

- **Settlement price Future (GBP/MWh)**
  - Sep 19th: 30.5
  - Sep 20th: 29.5
  - Sep 23rd: 30.5
  - Sep 24th: 29
  - Sep 25th: 30
  - Sep 26th: 30.5
  - Sep 27th: 31.5

- **Final settlement price Future (GBP/MWh)**
  - Sep 19th: 31

- **Change (GBP)**
  - Sep 19th: +0.5
  - Sep 20th: -1
  - Sep 23rd: +1
  - Sep 24th: -1.5
  - Sep 25th: +1
  - Sep 26th: +0.5
  - Sep 27th: +1
  - Total: -0.5

- **Contract volume (MWh)**
  - Sep 19th: 168
  - Sep 20th: 168
  - Sep 23rd: 168
  - Sep 24th: 168
  - Sep 25th: 168
  - Sep 26th: 168
  - Sep 27th: 168

- **Position (MW)**
  - Sep 19th: 1
  - Sep 20th: 1
  - Sep 23rd: 1
  - Sep 24th: 1
  - Sep 25th: 1
  - Sep 26th: 1
  - Sep 27th: 1

- **Variation margin (GBP)**
  - Sep 19th: +84
  - Sep 20th: -168
  - Sep 23rd: +168
  - Sep 24th: -252
  - Sep 25th: +168
  - Sep 26th: +84
  - Sep 27th: +168
  - Total: -84

- **Total difference**
  - Sep 19th: -168
  - Sep 20th: 0