**CfD supplier obligation worked examples of levy options**

Fully Fixed

2015/16

In 2015/16 total CfD payments are forecast to be £500m and the size of the reserve fund (RF) is £169m. Based on a forecast demand of 100 TWh, this leads to a levy rate of £5.00/MWh and a RF rate of £1.69/MWh.

CfD payments were £94m higher than forecast, therefore the levy was £94m in deficit, which was covered through the reserve fund. This leaves a closing balance in the RF of £75m.

2016/17

In 2016/17 total CfD payments are forecast to be £600m and the forecast size of the reserve fund (RF) is £203m. The RF balance from the previous year is netted off the 16/17 requirement meaning required payment is actually £128m. Based on a forecast demand of 100 TWh this leads to a levy rate of £6.00/MWh and a RF rate of £1.28/MWh. All suppliers pay the same rate.

CfD payments in 16/17 were £113m pounds lower than forecast, therefore the levy was £113m in surplus. This leaves a closing balance in the RF of £316m.

2017/18

In 2017/18 total CfD payments are forecast to be £700m and the size of the reserve fund (RF) is £236m. The RF balance from the previous year is netted off the 16/17 requirement meaning required RF payment is actually £0m. This means the counterparty has £80m surplus over what is required for the reserve fund. This surplus is used to reduce the levy rate for the year. Based on a forecast demand of 100 TWh this leads to a levy rate of £6.219/MWh (reduced from £7.00/MWh) and a RF rate of £0.00/MWh.

Market share

In 2015/16 there are two suppliers (1 & 2) with equal market share, they each pay £84m into the reserve fund. In 2016/17 market share changes with Supplier 1 now owning 60% of the market and Supplier 2, 40%. As the RF balance from 2015/16 is carried forward collectively both suppliers pay the same RF £/MWh rate for 2016/17. In reality Supplier 2 benefits as they would pay £9m less than they would if there was a differentiated rate and Supplier 1 pays £10m more as would happen under the £/MWh example below.

Fully fixed data

Please note all figures are illustrative only and do not represent actual payments.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Row** |  | **Fully' fixed proposal** | | |
|  | **2015/16** | **2016/17** | **2017/18** |
| 1 | Central CFD payment forecast (£m) | 500 | 600 | 700 |
| 2 | Forecast electricity supply (TWh) | 100 | 100 | 100 |
| 3 | SO levy (£/MWh) | 5.00 | 6.00 | 6.21 |
| 4 | Reserve Fund size (£m) | 169 | 203 | 236 |
| 5 | Previous year reserve fund reconciliation (£m)[[1]](#footnote-1) | - | 94 | -113 |
| 6 | Change in size of reserve fund (£m)[[2]](#footnote-2) | 169 | 34 | 34 |
| 7 | Required payments in to reserve fund (£m)[[3]](#footnote-3) | 169 | 128 | -79 |
| 8 | RF levy (£/MWh)[[4]](#footnote-4) | 1.69 | 1.28 | 0.00 |
| 9 |  |  |  |  |
| 10 | Actual electricity supply (TWh) | 100 | 100 | 100 |
| 11 | Actual CFD payments (£m) | 594 | 488 | 753 |
| 12 | SO payments surplus/deficit (£m) | -94 | 113 | -53 |
| 13 |  |  |  |  |
| 14 | Supplier 1 electricity supply (TWh) | 50 | 60 | 60 |
| 15 | Supplier 1 market share | 50% | 60% | 60% |
| 16 | Supplier 1 levy payments (£m) | 250 | 360 | 372.75 |
| 17 | Supplier 1 RF payments (£m) | 84 | 77 | 0 |
| 18 | Supplier 1 share of actual CFD payments (£m) | 297 | 293 | 452 |
| 19 |  |  |  |  |
| 21 | Supplier 2 electricity supply (TWh) | 50 | 40 | 40 |
| 22 | Supplier 2 market share | 50% | 40% | 40% |
| 23 | Supplier 2 levy payments (£m) | 250 | 240 | 249 |
| 24 | Supplier 2 RF payments (£m) | 84 | 51 | 0 |
| 26 | Supplier 2 share of actual CFD payments (£m) | 297 | 195 | 301 |
| 27 |  |  |  |  |
| 28 | Supplier 1 "fair" share of payments (£m)[[5]](#footnote-5) | 84 | 67 | -47 |
| 29 | Supplier 1 actual payments (£m) | 84 | 77 | 0 |
| 30 | Supplier 2 "fair" share payments (£m) | 84 | 60 | -32 |
| 31 | Supplier 2 actual RF payments (£m) | 84 | 51 | 0 |

£/MWh rate with reserve fund rollover

2015/16

In 2015/16 total CfD payments are forecast to be £500m and the size of the reserve fund (RF) is £169m. There are two suppliers in the market with an equal share of the market.

Based on a forecast demand of 100 TWh, this leads to a levy rate of £5.00/MWh and a RF rate of £1.69/MWh.

CfD payments were £94m higher than forecast, therefore the levy was £94m in deficit, which was covered through the reserve fund. This leaves a closing balance in the RF of £75m.

2016/17

In 2016/17 total CfD payments are forecast to be £600m and the size of the reserve fund (RF) is £203m. Based on a forecast demand of 100 TWh this leads to a levy rate of £6.00/MWh.

Each supplier’s reserve fund balance from the previous year is netted off their individual requirements for 16/17. Market share for 16/17 has changed with Supplier 1 owning 60% of the market and Supplier 2 owning 40% of the market.

Supplier payments in to the reserve fund are calculated as follows:

* A share of the levy surplus/deficit (i.e. forecasted minus actual CFD payments, based on the previous year’s market share)
* A share of the increase in the size of the reserve fund, based on a forecast of market share in the upcoming year.

Supplier 1 owes 50% of the levy deficit from 15/16, equal to £47m. It also owes 60% of the £34m increase in the size of the reserve fund, equal to £20m. The Counterparty therefore divides £67m by 60TWh to give an RF rate of £1.12/MWh

Supplier 2 also owes £47m from the 15/16 levy deficit, whilst its share of the increase in reserve fund size is £14m. The Counterparty therefore divides £60m by 40TWh to give a RF rate of £1.51/MWh.

CfD payments in 16/17 were £112m pounds lower than forecast, therefore the levy was £112m in surplus. This leaves a closing balance in the RF of £317m.

2017/18

In 2017/18 total CfD payments are forecast to be £700m and the size of the reserve fund (RF) is £236m. Based on a forecast demand of 100 TWh this leads to a levy rate of £7.00/MWh. The closing RF balance is £81m higher than required for the following year this surplus is paid out to suppliers, based on the previous year’s market share.

Market share has remained the same with Supplier 1 owning 60% of the market and Supplier 2 owning 40% of the market.

Supplier 1 is owed 60% of the levy surplus from 15/16, equal to £49m. It also owes 60% of the £34m increase in the size of the reserve fund, equal to £20m. The Counterparty therefore deducts £20m from £49m to give a £29m payback to Supplier 1.

Supplier 2 is owed 40% of the levy surplus, equal to £32m, whilst its share of the increase in reserve fund size is £14m. The Counterparty therefore deducts £14m from £32m giving a payback of £18m.

£/MWh rate with reserve fund rollover data

Please note all figures are illustrative only and do not represent actual payments.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Row** |  | **£MWh rollover reconciliation** | | |
|  | **2015/16** | **2016/17** | **2017/18** |
| 1 | Central CFD payment forecast (£m) | 500 | 600 | 700 |
| 2 | Forecast electricity supply (MWh) | 100 | 100 | 100 |
| 3 | SO levy (£/MWh) | 5.00 | 6.00 | 7.00 |
| 4 | Reserve Fund size (£m) | 169 | 203 | 236 |
| 5 | Previous year reconciliation payments (£m)[[6]](#footnote-6) | - | 94 | -113 |
| 6 | Change in size of reserve fund (£m) | 169 | 34 | 34 |
| 7 | Required payments in to reserve fund (£m) | 169 | 128 | -79 |
| 8 |  |  |  |  |
| 9 | Supplier 1 forecast electricity supply (TWh) | 50 | 60 | 60 |
| 10 | Supplier 1 forecast market share | 50% | 60% | 60% |
| 11 | Suppler 1 reserve fund reconciliation (£m) | - | 47 | -68 |
| 12 | Supplier 1 RF payments due (£m) | 84 | 67 | -47 |
| 13 | Supplier 1 RF levy rate (£/MWh)[[7]](#footnote-7) | 1.69 | 1.12 | -0.79 |
| 14 |  |  |  |  |
| 15 | Supplier 2 forecast electricity supply (TWh) | 50 | 40 | 40 |
| 16 | Suppler 2 forecast market share | 50% | 40% | 40% |
| 17 | Supplier 2 reserve fund reconciliation (£m) | - | 47 | -45 |
| 18 | Supplier 2 RF payments due (£m) | 84 | 60 | -32 |
| 19 | Supplier 2 RF levy rate (£/MWh) | 1.69 | 1.51 | -0.79 |
| 20 |  |  |  |  |
| 21 | Actual electricity supply (TWh) | 100 | 100 | 100 |
| 22 | Actual CFD payments (£m) | 594 | 488 | 753 |
| 23 | SO payments surplus/deficit (£m) | -94 | 113 | -53 |
| 24 | Closing RF balance (£m) | 75 |  |  |
| 25 |  |  |  |  |
| 26 | Supplier 1 electricity supply (TWh) | 50 | 60 | 60 |
| 27 | Supplier 1 levy payments (£m) | 250 | 360 | 420 |
| 28 | Supplier 1 RF payments (£m) | 84 | 67 | -47 |
| 29 | Supplier 1 end of year RF balance (£m) | 38 | 172 | 93 |
| 30 |  |  |  |  |
| 31 | Supplier 2 electricity supply (TWh) | 50 | 40 | 40 |
| 32 | Supplier 2 levy payments (£m) | 250 | 240 | 280 |
| 33 | Supplier 2 RF payments (£m) | 84 | 60 | -32 |

In-year adjustments

2015/16

In 2015/16 total CfD payments are forecast to be £500m with quarterly payments of £125m. Maximum size of the reserve fund (RF) for the year is £169m. There are two suppliers in the market with an equal share of the market.

Based on a forecast demand of 100 TWh, this leads to a levy rate of £5.00/MWh. Reserve fund payments are made as a lump sum at the start of each quarter and are forecast 3 months in advance. The Counterparty forecasts the RF required for the first quarter as £17m. Supplier 1 and 2 pay £8.5m each at the start of Q1.

The counterparty forecasts the required amount for the RF in the second quarter as £34m. CfD payments in Q1 were £9m higher than forecast, therefore the levy was £9m in deficit, which was covered through the reserve fund. This leaves a closing balance in the RF of £8m. Suppliers are therefore required to pay a further £26m in total, which is £13m each at the start of Q2.

The counterparty forecasts the required amount for the RF in the third quarter as £36m. CfD payments in Q2 were £19m higher than forecast, therefore the levy was £19m in deficit, which was covered through the reserve fund. This leaves a closing balance in the RF of £15m. Suppliers are therefore required to pay £21m in total, a further £10.5m each at the start of Q3.

The counterparty forecasts the required amount for the RF in the fourth quarter as £45m. CfD payments in Q3 were £28m higher than forecast, therefore the levy was £28m in deficit, which was covered through the reserve fund. This leaves a closing balance in the RF of £8m. Suppliers are therefore required to pay a further £37m in total, which is £18.5m each at the start of Q4.

Total RF payments for 2015/16 were £101m.

This continues into the following year, with Q4 of 2015/16 rolling over to Q1 2016/17.

In-year adjustment data

Please note all figures are illustrative only and do not represent actual payments.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Row** |  | **2015/16** | | | | | **2016/17** | | | | |
|  | **1** | **2** | **3** | **4** | ***Total/ average*** | **1** | **2** | **3** | **4** | ***Total/ average*** |
| 1 | Central CFD payment forecast (£m) | 125 | 125 | 125 | 125 | ***500*** | 150 | 150 | 150 | 150 | ***600*** |
| 2 | Reserve Fund size (£m) | 17 | 34 | 36 | 45 | ***131*** | 20 | 32 | 43 | 54 | ***149*** |
| 3 | Change in size of reserve fund (£m) | 17 | 17 | 2 | 9 | ***-*** | -25 | 11 | 11 | 11 | ***-*** |
| 4 |  |  |  |  |  |  |  |  |  |  |  |
| 5 | Required payments in to RF (£m) | 17 | 26 | 21 | 38 | ***101*** | 13 | 23 | 34 | 45 | ***114*** |
| 6 | Forecast electricity supply (TWh) | 25 | 25 | 25 | 25 | ***100*** | 25 | 25 | 25 | 25 | ***100*** |
| 7 | SO levy (£/MWh) | 5 | 5 | 5 | 5 | ***5*** | 6 | 6 | 6 | 6 | ***6*** |
| 8 |  |  |  |  |  |  |  |  |  |  |  |
| 9 | Actual CFD payments (£m) | 134 | 144 | 153 | 163 | ***594*** | 161 | 173 | 184 | 195 | ***713*** |
| 10 | Actual electricity supply (TWh) | 25 | 25 | 25 | 25 | ***100*** | 25 | 25 | 25 | 25 | ***100*** |
| 11 | SO levy surplus/deficit (£m) | -9 | -19 | -28 | -38 | ***-*** | -11 | -23 | -34 | -45 | ***-*** |
| 12 | RF closing balance (£m) | 8 | 15 | 8 | 8 | ***-*** | 9 | 9 | 9 | 9 | ***-*** |
| 13 |  |  |  |  |  |  |  |  |  |  |  |
| 14 | Supplier 1 electricity supply (TWh) | 12.5 | 12.5 | 12.5 | 12.5 | ***50*** | 15 | 15 | 15 | 15 | ***60*** |
| 15 | Supplier 1 market share | 50% | 50% | 50% | 50% | ***50%*** | 60% | 60% | 60% | 60% | ***60%*** |
| 16 | Supplier 1 SO levy payments (£m) | 63 | 63 | 63 | 63 | ***250*** | 90 | 90 | 90 | 90 | ***360*** |
| 17 | Supplier 1 RF payments (£m) | 8 | 13 | 10 | 19 | ***51*** | 4 | 14 | 20 | 27 | ***65*** |
| 18 | Supplier 1 share of CFD payments (£m) | 67 | 72 | 77 | 81 | ***297*** | 97 | 104 | 110 | 117 | ***428*** |
| 19 | Supplier 1 SO payment balance (£m) | -5 | -9 | -14 | -19 | ***-47*** | -7 | -14 | -20 | -27 | ***-68*** |
| 20 |  |  |  |  |  |  |  |  |  |  |  |
| 21 | Supplier 2 electricity supply (TWh) | 12.5 | 12.5 | 12.5 | 12.5 | ***50*** | 10 | 10 | 10 | 10 | ***40*** |
| 22 | Supplier 2 market share | 50% | 50% | 50% | 50% | ***50%*** | 40% | 40% | 40% | 40% | ***40%*** |
| 23 | Supplier 2 SO levy payments (£m) | 63 | 63 | 63 | 63 | ***250*** | 60 | 60 | 60 | 60 | ***240*** |
| 24 | Supplier 2 RF payments (£m) | 8 | 13 | 10 | 19 | ***51*** | 9 | 9 | 14 | 18 | ***49*** |
| 25 | Supplier 2 share of CFD payments (£m) | 67 | 72 | 77 | 81 | ***297*** | 65 | 69 | 74 | 78 | ***285*** |
| 26 | Supplier 2 SO payment balance (£m) | -5 | -9 | -14 | -19 | ***-47*** | -5 | -9 | -14 | -18 | ***-45*** |

1. Based on row 12 [↑](#footnote-ref-1)
2. Change in row 4 from one year to next [↑](#footnote-ref-2)
3. sum of rows 5 and 6 [↑](#footnote-ref-3)
4. Row 7 divided by row 2 [↑](#footnote-ref-4)
5. Equal to the previous years market share multiplied by reserve fund reconciliation plus the current years market share multiplied by the change in reserve fund size [↑](#footnote-ref-5)
6. Based on row 23 [↑](#footnote-ref-6)
7. This model involves different levy rates for different suppliers [↑](#footnote-ref-7)