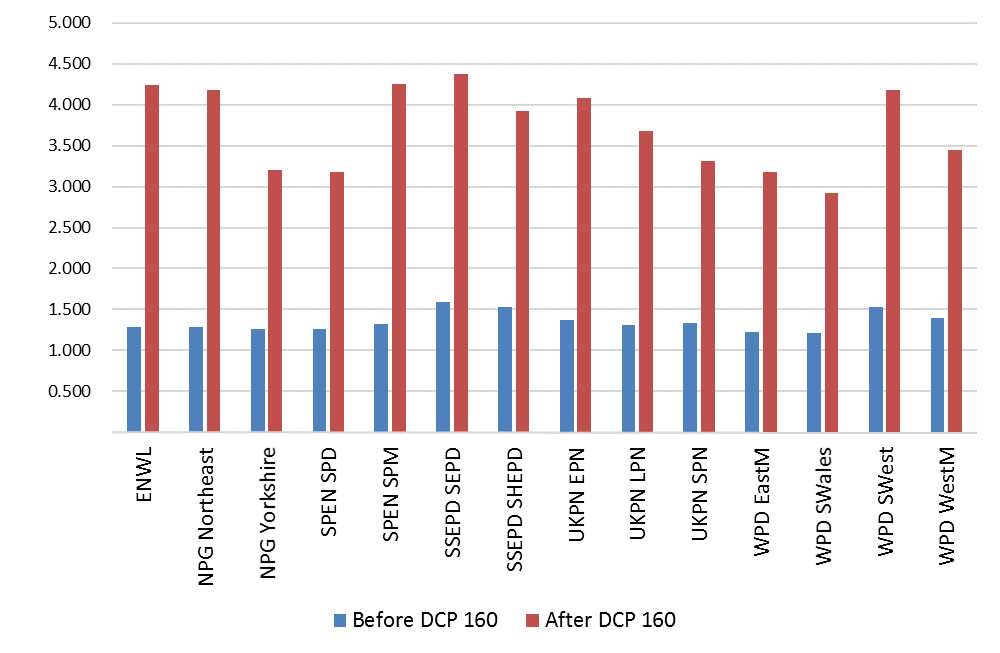
# Analysis of the impact of DCP 160

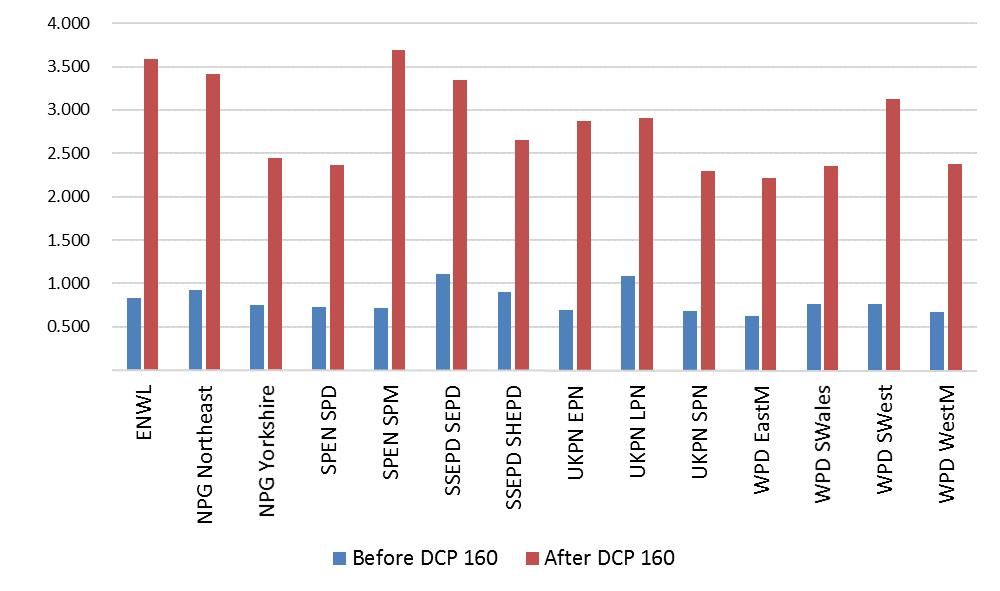
* 1. This document describes the impact on CDCM tariffs of a modelling change to implement a specification issued by the DCP 160 working group in January 2016.
  2. The reference version is a model produced for the DCUSA panel in November 2015 that includes DCP 227.
  3. The impact of the DCP 160 modelling change is seen on the following tariffs:
     1. Domestic Unrestricted
     2. Domestic Two Rate
     3. Small Non Domestic Unrestricted
     4. Small Non Domestic Two Rate
     5. LV Network Domestic
     6. LV Network Non Domestic Non-CT
     7. LV HH Metered
  4. DCP 160 also affects the LV Medium Non Domestic and HV Medium Non Domestic tariffs, but these tariffs are not likely to be used on 1 April 2018.
  5. For each of the tariffs listed above, except for the LV HH Metered tariff, an impact is seen on the fixed charge (p/MPAN/day). For the LV HH Metered tariff, an impact is on the capacity charge (p/kVA/day).
  6. The DCP 160 change predominantly affects the calculation of charges for NHH tariffs in two ways. The first is through its effect on the calculated average maximum demand (kVA) of customers on these tariffs. The second is through its effect on calculated diversity allowances at the LV network level. These two effects act in opposing directions on the fixed charge (p/MPAN/day). The combined effect is to typically increase the fixed charge for these tariffs.
  7. For the LV HH metered tariff, DCP 160 has the effect of reducing capacity charges (p/kVA/day) through its effect on calculated diversity allowances at the LV network level.
  8. Figure 1 shows the effect of DCP 160 on the average maximum demand (kVA) for the domestic and small non domestic tariffs.

Figure 1 Effect of DCP 160 on average maximum demand, kVA (table 3106) for domestic and small non-domestic tariffs



* 1. Figure 2 shows the effect of DCP 160 on the calculated LV diversity allowance (table 2609 in the reference model and table 2618 in the DCP 160 model).

Figure 2 Effect of DCP 160 on calculated LV diversity allowances (all tariffs)



## Impact on tariffs

* 1. Table 1 shows the impact of DCP 160 on the fixed charge for the Domestic Unrestricted, Domestic Two Rate and LV Network Domestic tariffs.

Table 1 Impact of DCP 160 on the fixed charge for the Domestic Unrestricted, Domestic Two Rate and LV Network Domestic tariffs

|  | **Baseline**  **Fixed charge p/MPAN/day** | **DCP 160**  **Fixed charge p/MPAN/day** | **Percentage change** |
| --- | --- | --- | --- |
| ENWL | 3.13 | 3.28 | + 4.79% |
| NPG Northeast | 4.89 | 5.31 | + 8.59% |
| NPG Yorkshire | 5.11 | 5.39 | + 5.48% |
| SPEN SPD | 5.15 | 5.45 | + 5.83% |
| SPEN SPM | 4.16 | 4.29 | + 3.13% |
| SSEPD SEPD | 3.04 | 3.36 | +10.53% |
| SSEPD SHEPD | 8.16 | 9.35 | +14.58% |
| UKPN EPN | 4.69 | 5.15 | + 9.81% |
| UKPN LPN | 4.07 | 4.80 | +17.94% |
| UKPN SPN | 4.51 | 4.86 | + 7.76% |
| WPD EastM | 3.12 | 3.55 | +13.78% |
| WPD SWales | 4.44 | 4.92 | +10.81% |
| WPD SWest | 4.66 | 5.04 | + 8.15% |
| WPD WestM | 3.90 | 4.41 | +13.08% |

* 1. Table 2 shows the impact of DCP 160 on the average revenue (£/MPAN) from the Domestic Unrestricted tariff.

Table 2 Impact of DCP 160 on the average revenue (£/MPAN) for the Domestic Unrestricted tariff

|  | **Baseline**  **£/MPAN** | **DCP 160**  **£/MPAN** | **Change**  **£/MPAN** |
| --- | --- | --- | --- |
| ENWL | 82.66 | 83.20 | + 0.55 |
| NPG Northeast | 91.17 | 92.71 | + 1.53 |
| NPG Yorkshire | 78.51 | 79.54 | + 1.02 |
| SPEN SPD | 95.34 | 96.43 | + 1.10 |
| SPEN SPM | 110.75 | 111.22 | + 0.47 |
| SSEPD SEPD | 95.25 | 96.42 | + 1.17 |
| SSEPD SHEPD | 139.88 | 144.23 | + 4.34 |
| UKPN EPN | 87.65 | 89.33 | + 1.68 |
| UKPN LPN | 68.59 | 71.25 | + 2.66 |
| UKPN SPN | 102.08 | 103.36 | + 1.28 |
| WPD EastM | 80.13 | 81.70 | + 1.57 |
| WPD SWales | 106.52 | 108.27 | + 1.75 |
| WPD SWest | 120.95 | 122.33 | + 1.39 |
| WPD WestM | 93.55 | 95.41 | + 1.86 |

* 1. Table 3 shows the impact of DCP 160 on the fixed charge for the Small Non Domestic Unrestricted and Small Non Domestic Two Rate tariffs.

Table 3 Impact of DCP 160 on the fixed charge for the Small Non Domestic Unrestricted and Small Non Domestic Two Rate tariffs

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Baseline**  **Fixed charge p/MPAN/day** | **DCP 160**  **Fixed charge p/MPAN/day** | **Percentage change** |
| ENWL | 3.13 | 3.28 | + 4.79% |
| NPG Northeast | 5.29 | 5.70 | + 7.75% |
| NPG Yorkshire | 5.45 | 5.73 | + 5.14% |
| SPEN SPD | 6.60 | 6.90 | + 4.55% |
| SPEN SPM | 5.35 | 5.48 | + 2.43% |
| SSEPD SEPD | 4.90 | 5.23 | + 6.73% |
| SSEPD SHEPD | 12.51 | 13.70 | + 9.51% |
| UKPN EPN | 5.05 | 5.50 | + 8.91% |
| UKPN LPN | 4.36 | 5.09 | +16.74% |
| UKPN SPN | 4.87 | 5.21 | + 6.98% |
| WPD EastM | 5.28 | 5.71 | + 8.14% |
| WPD SWales | 7.66 | 8.14 | + 6.27% |
| WPD SWest | 7.55 | 7.92 | + 4.90% |
| WPD WestM | 5.99 | 6.50 | + 8.51% |

* 1. Table 4 shows the impact of DCP 160 on the average revenue (£/MPAN) from the Small Non Domestic Unrestricted tariff.

Table 4 Impact of DCP 160 on the average revenue (£/MPAN) from the Small Non Domestic Unrestricted tariff

|  | **Baseline**  **£/MPAN** | **DCP 160**  **£/MPAN** | **Change**  **£/MPAN** |
| --- | --- | --- | --- |
| ENWL | 277.88 | 278.30 | + 0.42 |
| NPG Northeast | 282.18 | 283.68 | + 1.50 |
| NPG Yorkshire | 313.77 | 314.79 | + 1.02 |
| SPEN SPD | 398.63 | 399.73 | + 1.10 |
| SPEN SPM | 428.21 | 428.69 | + 0.47 |
| SSEPD SEPD | 260.18 | 261.39 | + 1.20 |
| SSEPD SHEPD | 545.47 | 549.67 | + 4.20 |
| UKPN EPN | 214.58 | 216.23 | + 1.64 |
| UKPN LPN | 179.74 | 182.40 | + 2.66 |
| UKPN SPN | 155.62 | 156.86 | + 1.24 |
| WPD EastM | 246.13 | 247.70 | + 1.57 |
| WPD SWales | 351.13 | 352.88 | + 1.75 |
| WPD SWest | 291.46 | 292.81 | + 1.35 |
| WPD WestM | 269.92 | 271.78 | + 1.86 |

* 1. Table 5 the impact of DCP 160 on the fixed charge for the LV Network Non-Domestic Non-CT tariff.

Table 5 Impact of DCP 160 on the fixed charge for the LV Network Non-Domestic Non-CT tariff

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Baseline**  **Fixed charge p/MPAN/day** | **DCP 160**  **Fixed charge p/MPAN/day** | **Percentage change** |
| ENWL | 3.13 | 3.28 | + 4.79% |
| NPG Northeast | 5.29 | 5.70 | + 7.75% |
| NPG Yorkshire | 5.45 | 5.73 | + 5.14% |
| SPEN SPD | 6.60 | 6.90 | + 4.55% |
| SPEN SPM | 5.35 | 5.48 | + 2.43% |
| SSEPD SEPD | 4.90 | 5.23 | + 6.73% |
| SSEPD SHEPD | 12.51 | 13.70 | + 9.51% |
| UKPN EPN | 5.37 | 5.82 | + 8.38% |
| UKPN LPN | 4.52 | 5.24 | +15.93% |
| UKPN SPN | 5.13 | 5.48 | + 6.82% |
| WPD EastM | 5.28 | 5.71 | + 8.14% |
| WPD SWales | 7.66 | 8.14 | + 6.27% |
| WPD SWest | 7.55 | 7.92 | + 4.90% |
| WPD WestM | 5.99 | 6.50 | + 8.51% |

* 1. Table 6 shows the impact of DCP 160 on the average revenue (£/MPAN) from the LV Network Non Domestic Non-CT tariff.

Table 6 Impact of DCP 160 on the average revenue (£/MPAN) from the LV Network Non Domestic Non-CT tariff

|  | **Baseline**  **£/MPAN** | **DCP 160**  **£/MPAN** | **Change**  **£/MPAN** |
| --- | --- | --- | --- |
| ENWL | 1,887.18 | 1,887.63 | + 0.44 |
| NPG Northeast | 1,559.02 | 1,560.51 | + 1.50 |
| NPG Yorkshire | 2,029.25 | 2,030.28 | + 1.02 |
| SPEN SPD | 2,235.66 | 2,236.75 | + 1.09 |
| SPEN SPM | 2,575.16 | 2,575.63 | + 0.47 |
| SSEPD SEPD | 950.17 | 951.37 | + 1.20 |
| SSEPD SHEPD | 2,208.98 | 2,213.26 | + 4.27 |
| UKPN EPN | 1,385.85 | 1,387.50 | + 1.64 |
| UKPN LPN | 780.22 | 782.85 | + 2.63 |
| UKPN SPN | 1,372.98 | 1,374.26 | + 1.28 |
| WPD EastM | 1,057.01 | 1,058.58 | + 1.57 |
| WPD SWales | 1,756.47 | 1,758.22 | + 1.75 |
| WPD SWest | 1,645.51 | 1,646.86 | + 1.35 |
| WPD WestM | 1,068.82 | 1,070.68 | + 1.86 |

* 1. Table 7 shows the impact of DCP 160 on the capacity charge for the LV HH Metered tariff. Capacity charges for the LV HH Metered tariff are lower across all DNO areas.

Table 7 Impact of DCP 160 on the capacity charge for the LV HH Metered tariff

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Baseline**  **Capacity charge p/kVA/day** | **DCP 160**  **Capacity charge p/kVA/day** | **Percentage change** |
| ENWL | 2.91 | 2.69 | – 7.56% |
| NPG Northeast | 1.76 | 1.33 | – 24.43% |
| NPG Yorkshire | 1.49 | 1.11 | – 25.50% |
| SPEN SPD | 2.41 | 2.03 | – 15.77% |
| SPEN SPM | 2.60 | 2.25 | – 13.46% |
| SSEPD SEPD | 2.41 | 2.09 | – 13.28% |
| SSEPD SHEPD | 5.55 | 4.44 | – 20.00% |
| UKPN EPN | 3.15 | 2.53 | – 19.68% |
| UKPN LPN | 3.87 | 3.35 | – 13.44% |
| UKPN SPN | 3.12 | 2.65 | – 15.06% |
| WPD EastM | 2.55 | 1.99 | – 21.96% |
| WPD SWales | 2.82 | 2.09 | – 25.89% |
| WPD SWest | 2.80 | 1.92 | – 31.43% |
| WPD WestM | 3.44 | 2.63 | – 23.55% |

* 1. Table 8 shows the impact of DCP 160 on the average revenue (£/MPAN) from the LV HH Metered tariff

Table 8 Impact of DCP 160 on the average revenue (£/MPAN) for the LV HH Metered tariff

|  | **Baseline**  **£/MPAN** | **DCP 160**  **£/MPAN** | **Change**  **£/MPAN** |
| --- | --- | --- | --- |
| ENWL | 4,394.87 | 4,284.80 | – 110.08 |
| NPG Northeast | 4,575.17 | 4,343.32 | – 231.85 |
| NPG Yorkshire | 4,221.75 | 4,044.74 | – 177.01 |
| SPEN SPD | 6,025.36 | 5,827.99 | – 197.37 |
| SPEN SPM | 4,711.70 | 4,578.11 | – 133.59 |
| SSEPD SEPD | 5,730.51 | 5,537.02 | – 193.49 |
| SSEPD SHEPD | 9,721.04 | 9,132.05 | – 588.99 |
| UKPN EPN | 4,922.39 | 4,577.76 | – 344.63 |
| UKPN LPN | 6,832.15 | 6,451.65 | – 380.50 |
| UKPN SPN | 5,680.86 | 5,427.61 | – 253.25 |
| WPD EastM | 5,016.73 | 4,733.51 | – 283.22 |
| WPD SWales | 7,110.83 | 6,742.80 | – 368.02 |
| WPD SWest | 4,840.53 | 4,502.60 | – 337.94 |
| WPD WestM | 4,462.91 | 4,140.22 | – 322.69 |