**Western Power Distribution (South Wales) - HIDAM**

**Asset Value Impacts - High Level**

The total asset cost of the HIDAM that was modelled to represent Western Power Distribution (South Wales) network has decreased by 25% from £527m to £397m when compared to the previous 500 MW model that was used.

The greatest value changes range from -£40m to £1m at across the various voltage levels. The maximum change is at the 132kV and the HV network level with a £40m reduction. The smallest change is at 132kV/HV network level with an increase of £0.8m.



Despite the overall reduction in model costs, generally the percentage split of assets across the model has not changed significantly. Asset costs from the HV network level downwards accounted for 60.9% of costs in the present 500MW model and in HIDAM 61.6%.

**Brief Commentary on asset value changes**

* 132kV – Total length of underground cable and overhead line calculated in HIDAM is significantly less than that in the present model and consequently costs are reduced.
* 132kV/EHV –The total cost has increased due to re-allocation of some other costs from network levels above and below in line with HIDAM guidance notes and new methodology.
* EHV – Total length of underground cable and overhead line calculated in HIDAM is significantly less than that in the present model and consequently costs are reduced.
* EHV/HV – The total cost has decreased as some costs have been moved into the HV network level again in line with HIDAM guidance notes and new methodology.
* 132kV/HV - The total cost has increased due to re-allocation of some other costs from network levels above and below in line with HIDAM guidance notes and new methodology.
* HV – The cost has reduced because the modelled length of HV circuit has reduced by 8%, however switchgear costs have increased to reflect change in methodology. Also some costs have been moved from the 132kV/HV and EHV/HV levels to this level.
* HV/LV – Total number of HV/LV substations is much lower than that in the existing model and is biased towards larger rated transformers in HIDAM. This is due to relying on recent network extensions rather than reference to the existing transformer population profile.
* LV – Total modelled LV cable length has decreased and resulted in a reduction in costs.

In populating the HIDAM for the DCUSA working group it was not possible in all cases to apply costs retrospectively to all assets and present day values have been used. Also where reference has been made to relying on data for network extensions over the past 5 years in some cases assumptions have had to be made.

Note: Commentary is based on April 13. The Impact assessment has been uplifted by 2.17% for RPI for April 14.