

| version number               | use / purpose   | date   | changes made   |
|------------------------------|---|--|--|
| Template CBA RIIO ED1 v1.xls | Initial draft RIIO-GD1 model issued for demo purposes                         |  | -  |
| Template CBA RIIO ED1 v2.xls | draft RIIO-ED1 model demonstrated during the CBA meeting held on the 19 March | 19/03/2013   | updated the model to reflect ED1 rather than GD1   |
| Template CBA RIIO ED1 v3.xls | Issued to DNOs to complete the 2 worked examples (leaking cable and QoS)      | 28/03/2013<br>03/04/2013   | updated to reflect discussions at the CBA meeting including straight line depreciation assumption for ED1, addition of fixed parameter assumptions for non-monetary items<br>re-issued on 3 April to correct CI/CML fixed data transpose error   |
| Template CBA RIIO ED1 v4.xls | final version of CBA spreadsheet to take into account worked examples         | 16/04/2013<br><br>29/04/2013<br>10/01/2014<br>10/01/2014<br>10/01/2014 | updated to reflect DNO feedback following completion of worked examples<br><br>main changes include:<br>- included baseline scenario worksheet<br>- removed VOLL as CI/CML method of monetising loss of supply was viewed as robust method<br>- amended the CO2 conversion factor associated with losses to take into account assumptions regarding future decarbonisation of electricity<br>- updated fixed data parameters to 2012/13 prices<br>removed ' <del>de-minimum</del> ' text in cell B9 of <i>Option summary</i> worksheet<br>Inserted clarification comment in cell C9 of the <i>Option 1</i> worksheet.<br>Clarified text in cell B1 of <i>Option summary</i> worksheet.<br>Clarified text in cell F26 of <i>Option summary</i> worksheet. |

Guidance for CBA spreadsheet model

| Tab               | Instructions   |
|-------------------|--|
| Option summary    | Provide a description of the stated aim / investment decision contained within this CBA analysis workbook, along with a list of options considered to meet the aim.<br>Also include here the short list of options contained within this workbook which have been fully costed and specify which option has been adopted following CBA and included in your business plan submission.              |
| Fixed data        | Enter pre-tax WACC and prices consistent with your business plan   |
| Baseline scenario | Enter costs and benefits associated with the baseline scenario. The baseline scenario represents status quo; that is the cost of business as usual in the absence of any investment intervention.<br>Where business as usual is not an option i.e. an investment intervention of some kind is required DNOs should chose the option with the lowest investment to represent the baseline scenario. |
| Working baseline  | Show any calculation used to derive the values in your baseline scenario   |
| Option 1          | Enter costs and benefits over and above the baseline scenario i.e. the marginal or incremental costs / benefits of the option being considered.<br>Enter capitalisation rates consistent with your business plan.  |
| Working 1         | Show any calculation used to derive the values in your CBA   |

Colour code:

|                      |
|----------------------|
| User populated cells |
| Fixed data           |
| Summation formula    |
| Other formula        |

The user should populate the light blue cells. All other cells are either fixed or auto-populated.

Enter costs / benefits in 2012/13 prices (£m).

Costs should be entered as negative values.

Benefits (i.e. avoided costs) should be entered a positive values.

Costs entered should correspond to values set out in company business plans i.e. should exclude RPEs and include ongoing efficiencies consistent with assumptions contained in your business plan submission.

Copy *Option 1 worksheet & workings 1* for each CBA option and label these *option 2 & workings 2* etc.

Where a 'do minimum option' exists, Option 1 should represent your 'do minimum' or 'reference scenario' e.g. do nothing, ongoing maintenance of existing asset or the option which requires the minimum investment .

Use the relevant *Workings worksheet* to demonstrate any calculation/information that can support the costs and benefits you have entered for each option. This is free fill and provides you with an opportunity to show additional underlying data you believe will assist Ofgem in evaluating/understanding your CBA.

Please highlight your chosen option by colouring the worksheet tab yellow.

To quantify loss savings between 185mm<sup>2</sup> and 300mm<sup>2</sup> Triplex for 11kV cables (from second leg of feeder downstream)

If investment is to replace an existing asset / asset class, please state the condition of the asset / asset class (if / as applicable)

[illegible]

| Option no. | Options considered                              | Decision | Comment  | For the chosen option only, provide detail of where CBA expenditure included in this CBA is reported in the BPDt pack. e.g. LV switchgear BPDt CV3 rows 15 to 22. | NPVs based on payback periods |          |          |          |          |  |
|------------|---|----------|--|---|-------------------------------|----------|----------|----------|----------|--|
|            |   |          |  |   | 8                             | 24 years | 32 years | 45 years | DNO view |  |
| 1          | 300mm <sup>2</sup> for all 11kV network feeders | Adopted  | To be considered as a design policy change as appears to be cost effective | Not reported directly in BPDt pack. These CBAs were used to quantify options for the Losses Strategy paper. Not licence specific                                  | -£0.16                        | -£0.10   | £0.04    | £0.11    |          |  |
| 2          |   |          |  |   |                               |          |          |          |          |  |
| 3          |   |          |  |   |                               |          |          |          |          |  |
| 4          |   |          |  |   |                               |          |          |          |          |  |
| 5          |   |          |  |   |                               |          |          |          |          |  |

If more options are costed, please copy Option 1 and workings 1 worksheets and add detail to the short list table above.

The diagram illustrates a 1000 bp DNA sequence with various annotations. The sequence is represented by a horizontal bar with positions 1 to 1000. Above the bar, several annotations are present:

- Gene Models:**
  - Gene1** (blue box) with exons 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814

<sup>1</sup> Includes all GHG not associated with losses e.g. SFG converted to tCO<sub>2</sub>e using Defra conversion factors  
<http://www.defra.gov.uk/publications/2012/05/30/bp13773-2012-ghg-conversion/>  
Where losses are entered in terms of MWh, the CO<sub>2</sub>e associated with those losses will be calculated based on an assumed GHG conversion factor. The tCO<sub>2</sub>e are monetised using DECC traded carbon values.  
All other GHG emissions not associated with losses should be entered in row 90 to avoid double counting.  
<sup>2</sup> <http://www.hse.gov.uk/risks/theory/slapcheck.htm>