



**EDB Information Disclosure Requirements
Information Templates
for
Schedules 11a–13**

| | |
|---|---------------------------|
| Company Name | Marlborough Lines Limited |
| Disclosure Date | 31 March 2017 |
| AMP Planning Period Start Date (first day) | 1 April 2017 |

Templates for Schedules 11a–13 (Asset Management Plan)
Template Version 4.1. Prepared 24 March 2015

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Company Name **Marlborough Lines Limited**
 AMP Planning Period **1 April 2017 – 31 March 2027**

SCHEDULE 11a: REPORT ON FORECAST CAPITAL EXPENDITURE

This schedule requires a breakdown of forecast expenditure on assets for the current disclosure year and a 10 year planning period. The forecasts should be consistent with the supporting information set out in the AMP. The forecast is to be expressed in both constant price and nominal dollar terms. Also required is a forecast of the value of commissioned assets (i.e., the value of RAB additions)
 EDBs must provide explanatory comment on the difference between constant price and nominal dollar forecasts of expenditure on assets in Schedule 14a (Mandatory Explanatory Notes).
 This information is not part of audited disclosure information.

| sch ref | | Current Year CY | CY+1 | CY+2 | CY+3 | CY+4 | CY+5 | CY+6 | CY+7 | CY+8 | CY+9 | CY+10 |
|---------|--|-----------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | for year ended | 31 Mar 17 | 31 Mar 18 | 31 Mar 19 | 31 Mar 20 | 31 Mar 21 | 31 Mar 22 | 31 Mar 23 | 31 Mar 24 | 31 Mar 25 | 31 Mar 26 | 31 Mar 27 |
| 9 | 11a(i): Expenditure on Assets Forecast | \$000 (in nominal dollars) | | | | | | | | | | |
| 10 | Consumer connection | 664 | 408 | 416 | 424 | 433 | 442 | 563 | 574 | 586 | 598 | 609 |
| 11 | System growth | - | - | - | - | - | - | 169 | 172 | 176 | 179 | 183 |
| 12 | Asset replacement and renewal | 4,170 | 6,375 | 6,971 | 6,473 | 6,603 | 7,287 | 7,433 | 7,581 | 7,733 | 7,888 | 8,045 |
| 13 | Asset relocations | 153 | 612 | 624 | 637 | 649 | 662 | 225 | 230 | 234 | 239 | 244 |
| 14 | Reliability, safety and environment: | | | | | | | | | | | |
| 15 | Quality of supply | 1,300 | 2,193 | 2,029 | 1,592 | 1,515 | 1,435 | 1,182 | 1,206 | 1,230 | 1,255 | 1,280 |
| 16 | Legislative and regulatory | - | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 59 | 60 | 61 |
| 17 | Other reliability, safety and environment | 827 | 765 | 780 | 796 | 812 | 828 | 563 | 574 | 586 | 598 | 609 |
| 18 | Total reliability, safety and environment | 2,127 | 3,009 | 2,861 | 2,441 | 2,381 | 2,319 | 1,802 | 1,838 | 1,875 | 1,912 | 1,950 |
| 19 | Expenditure on network assets | 7,114 | 10,404 | 10,872 | 9,975 | 10,067 | 10,710 | 10,192 | 10,396 | 10,604 | 10,816 | 11,032 |
| 20 | Expenditure on non-network assets | 929 | 1,250 | 1,274 | 1,300 | 1,326 | 1,352 | 1,633 | 1,666 | 1,699 | 1,733 | 1,768 |
| 21 | Expenditure on assets | 8,044 | 11,654 | 12,147 | 11,275 | 11,393 | 12,062 | 11,825 | 12,061 | 12,302 | 12,548 | 12,799 |
| 22 | | | | | | | | | | | | |
| 23 | plus Cost of financing | | | | | | | | | | | |
| 24 | less Value of capital contributions | | | | | | | | | | | |
| 25 | plus Value of vested assets | | | | | | | | | | | |
| 26 | | | | | | | | | | | | |
| 27 | Capital expenditure forecast | 8,044 | 11,654 | 12,147 | 11,275 | 11,393 | 12,062 | 11,825 | 12,061 | 12,302 | 12,548 | 12,799 |
| 28 | | | | | | | | | | | | |
| 29 | Assets commissioned | 8,044 | 11,654 | 12,147 | 11,275 | 11,393 | 12,062 | 11,825 | 12,061 | 12,302 | 12,548 | 12,799 |
| 30 | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | |
| 32 | | | | | | | | | | | | |
| 33 | | | | | | | | | | | | |
| 34 | | | | | | | | | | | | |
| 35 | | | | | | | | | | | | |
| 36 | | | | | | | | | | | | |
| 37 | | | | | | | | | | | | |
| 38 | | | | | | | | | | | | |
| 39 | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | |
| 41 | | | | | | | | | | | | |
| 42 | | | | | | | | | | | | |
| 43 | | | | | | | | | | | | |
| 44 | | | | | | | | | | | | |
| 45 | | | | | | | | | | | | |
| 46 | Subcomponents of expenditure on assets (where known) | | | | | | | | | | | |
| 47 | Energy efficiency and demand side management, reduction of energy losses | N/A | | | | | | | | | | |
| 48 | Overhead to underground conversion | N/A | | | | | | | | | | |
| 49 | Research and development | N/A | | | | | | | | | | |

Company Name **Marlborough Lines Limited**
 AMP Planning Period **1 April 2017 – 31 March 2027**

SCHEDULE 11a: REPORT ON FORECAST CAPITAL EXPENDITURE

This schedule requires a breakdown of forecast expenditure on assets for the current disclosure year and a 10 year planning period. The forecasts should be consistent with the supporting information set out in the AMP. The forecast is to be expressed in both constant price and nominal dollar terms. Also required is a forecast of the value of commissioned assets (i.e., the value of RAB additions)
 EDBs must provide explanatory comment on the difference between constant price and nominal dollar forecasts of expenditure on assets in Schedule 14a (Mandatory Explanatory Notes).
 This information is not part of audited disclosure information.

| sch ref | | Current Year CY | CY+1 | CY+2 | CY+3 | CY+4 | CY+5 | CY+6 | CY+7 | CY+8 | CY+9 | CY+10 |
|---------|--|-----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | for year ended 31 Mar 17 | 31 Mar 18 | 31 Mar 19 | 31 Mar 20 | 31 Mar 21 | 31 Mar 22 | 31 Mar 23 | 31 Mar 24 | 31 Mar 25 | 31 Mar 26 | 31 Mar 27 |
| 50 | | | | | | | | | | | | |
| 51 | | | | | | | | | | | | |
| 52 | | | | | | | | | | | | |
| 53 | Difference between nominal and constant price forecasts | \$000 | | | | | | | | | | |
| 54 | Consumer connection | - | 8 | 16 | 24 | 33 | 42 | 63 | 74 | 86 | 98 | 109 |
| 55 | System growth | - | - | - | - | - | - | 19 | 22 | 26 | 29 | 33 |
| 56 | Asset replacement and renewal | - | 125 | 271 | 373 | 503 | 687 | 833 | 981 | 1,133 | 1,288 | 1,445 |
| 57 | Asset relocations | - | 12 | 24 | 37 | 49 | 62 | 25 | 30 | 34 | 39 | 44 |
| 58 | Reliability, safety and environment: | | | | | | | | | | | |
| 59 | Quality of supply | - | 43 | 79 | 92 | 115 | 135 | 132 | 156 | 180 | 205 | 230 |
| 60 | Legislative and regulatory | - | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 9 | 10 | 11 |
| 61 | Other reliability, safety and environment | - | 15 | 30 | 46 | 62 | 78 | 63 | 74 | 86 | 98 | 109 |
| 62 | Total reliability, safety and environment | - | 59 | 111 | 141 | 181 | 219 | 202 | 238 | 275 | 312 | 350 |
| 63 | Expenditure on network assets | - | 204 | 422 | 575 | 767 | 1,010 | 1,142 | 1,346 | 1,554 | 1,766 | 1,982 |
| 64 | Expenditure on non-network assets | - | 25 | 49 | 75 | 101 | 127 | 183 | 216 | 249 | 283 | 318 |
| 65 | Expenditure on assets | - | 229 | 472 | 650 | 868 | 1,137 | 1,325 | 1,561 | 1,802 | 2,048 | 2,299 |
| 66 | | | | | | | | | | | | |
| 67 | | | | | | | | | | | | |
| 68 | 11a(ii): Consumer Connection | | | | | | | | | | | |
| 69 | Consumer types defined by EDB* | \$000 (in constant prices) | | | | | | | | | | |
| 70 | All | 664 | 400 | 400 | 400 | 400 | 400 | | | | | |
| 71 | | | | | | | | | | | | |
| 72 | | | | | | | | | | | | |
| 73 | | | | | | | | | | | | |
| 74 | | | | | | | | | | | | |
| 75 | *include additional rows if needed | | | | | | | | | | | |
| 76 | Consumer connection expenditure | 664 | 400 | 400 | 400 | 400 | 400 | | | | | |
| 77 | less Capital contributions funding consumer connection | - | - | - | - | - | - | | | | | |
| 78 | Consumer connection less capital contributions | 664 | 400 | 400 | 400 | 400 | 400 | | | | | |
| 79 | 11a(iii): System Growth | | | | | | | | | | | |
| 80 | Subtransmission | | | | | | | | | | | |
| 81 | Zone substations | | | | | | | | | | | |
| 82 | Distribution and LV lines | | | | | | | | | | | |
| 83 | Distribution and LV cables | | | | | | | | | | | |
| 84 | Distribution substations and transformers | | | | | | | | | | | |
| 85 | Distribution switchgear | | | | | | | | | | | |
| 86 | Other network assets | | | | | | | | | | | |
| 87 | System growth expenditure | - | - | - | - | - | - | | | | | |
| 88 | less Capital contributions funding system growth | - | - | - | - | - | - | | | | | |
| 89 | System growth less capital contributions | - | - | - | - | - | - | | | | | |
| 90 | | | | | | | | | | | | |

Company Name **Marlborough Lines Limited**
 AMP Planning Period **1 April 2017 – 31 March 2027**

SCHEDULE 11a: REPORT ON FORECAST CAPITAL EXPENDITURE

This schedule requires a breakdown of forecast expenditure on assets for the current disclosure year and a 10 year planning period. The forecasts should be consistent with the supporting information set out in the AMP. The forecast is to be expressed in both constant price and nominal dollar terms. Also required is a forecast of the value of commissioned assets (i.e., the value of RAB additions)
 EDBs must provide explanatory comment on the difference between constant price and nominal dollar forecasts of expenditure on assets in Schedule 14a (Mandatory Explanatory Notes).
 This information is not part of audited disclosure information.

sch ref

| | Current Year CY for year ended 31 Mar 17 | CY+1 31 Mar 18 | CY+2 31 Mar 19 | CY+3 31 Mar 20 | CY+4 31 Mar 21 | CY+5 31 Mar 22 |
|------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
| 91 | | | | | | |
| 92 | | | | | | |
| 93 | 11a(iv): Asset Replacement and Renewal | | | | | |
| | \$000 (in constant prices) | | | | | |
| 94 | 1,610 | 1,500 | 1,700 | 1,200 | 800 | 600 |
| 95 | 630 | 2,000 | 2,200 | 600 | 900 | 900 |
| 96 | 1,330 | 1,500 | 1,500 | 2,250 | 2,000 | 3,000 |
| 97 | 180 | 300 | 300 | 1,200 | 1,000 | 1,000 |
| 98 | 150 | 450 | 500 | 400 | 575 | 300 |
| 99 | 260 | 500 | 500 | 450 | 825 | 800 |
| 100 | 10 | | | | | |
| 101 | 4,170 | 6,250 | 6,700 | 6,100 | 6,100 | 6,600 |
| 102 | less | | | | | |
| 103 | Asset replacement and renewal less capital contributions | | | | | |
| 104 | 4,170 | 6,250 | 6,700 | 6,100 | 6,100 | 6,600 |

| | Current Year CY for year ended 31 Mar 17 | CY+1 31 Mar 18 | CY+2 31 Mar 19 | CY+3 31 Mar 20 | CY+4 31 Mar 21 | CY+5 31 Mar 22 |
|------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|
| 105 | | | | | | |
| 106 | | | | | | |
| 107 | 11a(v): Asset Relocations | | | | | |
| | \$000 (in constant prices) | | | | | |
| 108 | <i>Project or programme*</i> | | | | | |
| 109 | Underground conversions | 400 | 400 | 400 | 400 | 400 |
| 110 | Roading Authority Relocations | 105 | | | | |
| 111 | Forestry Relocations | | | | | |
| 112 | Other relocations | 49 | 200 | 200 | 200 | 200 |
| 113 | | | | | | |
| 114 | <i>*Include additional rows if needed</i> | | | | | |
| 115 | All other project or programmes - asset relocations | | | | | |
| 116 | Asset relocations expenditure | 153 | 600 | 600 | 600 | 600 |
| 117 | less | | | | | |
| 118 | Asset relocations less capital contributions | 153 | 600 | 600 | 600 | 600 |
| 119 | | | | | | |

| | Current Year CY for year ended 31 Mar 17 | CY+1 31 Mar 18 | CY+2 31 Mar 19 | CY+3 31 Mar 20 | CY+4 31 Mar 21 | CY+5 31 Mar 22 |
|------------|--|-------------------|-------------------|-------------------|-------------------|-------------------|
| 120 | | | | | | |
| 121 | | | | | | |
| 122 | 11a(vi): Quality of Supply | | | | | |
| | \$000 (in constant prices) | | | | | |
| 123 | <i>Project or programme*</i> | | | | | |
| 124 | SCADA | 130 | 250 | 250 | 200 | 200 |
| 125 | Network Automation | 93 | 750 | 700 | 600 | 500 |
| 126 | Generators | 7 | | | | |
| 127 | Digital Radio Network | 560 | 250 | 250 | 100 | 100 |
| 128 | Other | 510 | 900 | 750 | 600 | 500 |
| 129 | <i>*Include additional rows if needed</i> | | | | | |
| 130 | All other projects or programmes - quality of supply | | | | | |
| 131 | Quality of supply expenditure | 1,300 | 2,150 | 1,950 | 1,500 | 1,400 |
| 132 | less | | | | | |
| 133 | Quality of supply less capital contributions | 1,300 | 2,150 | 1,950 | 1,500 | 1,400 |
| 134 | | | | | | |

Company Name **Marlborough Lines Limited**
 AMP Planning Period **1 April 2017 – 31 March 2027**

SCHEDULE 11b: REPORT ON FORECAST OPERATIONAL EXPENDITURE

This schedule requires a breakdown of forecast operational expenditure for the disclosure year and a 10 year planning period. The forecasts should be consistent with the supporting information set out in the AMP. The forecast is to be expressed in both constant price and nominal dollar terms. EDBs must provide explanatory comment on the difference between constant price and nominal dollar operational expenditure forecasts in Schedule 14a (Mandatory Explanatory Notes). This information is not part of audited disclosure information.

| sch ref | | Current Year CY | CY+1 | CY+2 | CY+3 | CY+4 | CY+5 | CY+6 | CY+7 | CY+8 | CY+9 | CY+10 | |
|---------|--|-----------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--|
| | for year ended | 31 Mar 17 | 31 Mar 18 | 31 Mar 19 | 31 Mar 20 | 31 Mar 21 | 31 Mar 22 | 31 Mar 23 | 31 Mar 24 | 31 Mar 25 | 31 Mar 26 | 31 Mar 27 | |
| 9 | Operational Expenditure Forecast | \$000 (in nominal dollars) | | | | | | | | | | | |
| 10 | Service interruptions and emergencies | 2,220 | 816 | 832 | 849 | 866 | 883 | 901 | 919 | 937 | 956 | 975 | |
| 11 | Vegetation management | 2,180 | 1,836 | 1,821 | 1,804 | 1,786 | 1,767 | 1,802 | 1,780 | 1,757 | 1,793 | 1,768 | |
| 12 | Routine and corrective maintenance and inspection | 2,670 | 2,448 | 2,497 | 2,547 | 2,598 | 2,650 | 2,703 | 2,757 | 2,812 | 2,868 | 2,926 | |
| 13 | Asset replacement and renewal | 415 | 612 | 624 | 637 | 649 | 662 | 676 | 689 | 703 | 717 | 731 | |
| 14 | Network Opex | 7,485 | 5,712 | 5,774 | 5,837 | 5,899 | 5,962 | 6,081 | 6,145 | 6,210 | 6,334 | 6,400 | |
| 15 | System operations and network support | 4,080 | 3,060 | 3,121 | 3,184 | 3,247 | 3,312 | 3,378 | 3,446 | 3,515 | 3,585 | 3,657 | |
| 16 | Business support | 4,090 | 3,876 | 3,954 | 4,033 | 4,113 | 4,196 | 4,279 | 4,365 | 4,452 | 4,541 | 4,632 | |
| 17 | Non-network opex | 8,170 | 6,936 | 7,075 | 7,216 | 7,361 | 7,508 | 7,658 | 7,811 | 7,967 | 8,127 | 8,289 | |
| 18 | Operational expenditure | 15,655 | 12,648 | 12,849 | 13,053 | 13,260 | 13,470 | 13,739 | 13,957 | 14,177 | 14,461 | 14,689 | |
| 19 | | \$000 (in constant prices) | | | | | | | | | | | |
| 20 | for year ended | 31 Mar 17 | 31 Mar 18 | 31 Mar 19 | 31 Mar 20 | 31 Mar 21 | 31 Mar 22 | 31 Mar 23 | 31 Mar 24 | 31 Mar 25 | 31 Mar 26 | 31 Mar 27 | |
| 22 | Service interruptions and emergencies | 2,220 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | 800 | |
| 23 | Vegetation management | 2,180 | 1,800 | 1,750 | 1,700 | 1,650 | 1,600 | 1,600 | 1,550 | 1,500 | 1,500 | 1,450 | |
| 24 | Routine and corrective maintenance and inspection | 2,670 | 2,400 | 2,400 | 2,400 | 2,400 | 2,400 | 2,400 | 2,400 | 2,400 | 2,400 | 2,400 | |
| 25 | Asset replacement and renewal | 415 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | |
| 26 | Network Opex | 7,485 | 5,600 | 5,550 | 5,500 | 5,450 | 5,400 | 5,400 | 5,350 | 5,300 | 5,300 | 5,250 | |
| 27 | System operations and network support | 4,080 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 | |
| 28 | Business support | 4,090 | 3,800 | 3,800 | 3,800 | 3,800 | 3,800 | 3,800 | 3,800 | 3,800 | 3,800 | 3,800 | |
| 29 | Non-network opex | 8,170 | 6,800 | 6,800 | 6,800 | 6,800 | 6,800 | 6,800 | 6,800 | 6,800 | 6,800 | 6,800 | |
| 30 | Operational expenditure | 15,655 | 12,400 | 12,350 | 12,300 | 12,250 | 12,200 | 12,200 | 12,150 | 12,100 | 12,100 | 12,050 | |
| 31 | Subcomponents of operational expenditure (where known) | | | | | | | | | | | | |
| 32 | Energy efficiency and demand side management, reduction of energy losses | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| 34 | Direct billing* | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| 35 | Research and Development | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| 36 | Insurance | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | |
| 37 | * Direct billing expenditure by suppliers that direct bill the majority of their consumers | | | | | | | | | | | | |
| 38 | | | | | | | | | | | | | |
| 39 | | | | | | | | | | | | | |
| 40 | for year ended | 31 Mar 17 | 31 Mar 18 | 31 Mar 19 | 31 Mar 20 | 31 Mar 21 | 31 Mar 22 | 31 Mar 23 | 31 Mar 24 | 31 Mar 25 | 31 Mar 26 | 31 Mar 27 | |
| 41 | Difference between nominal and real forecasts | \$000 | | | | | | | | | | | |
| 42 | Service interruptions and emergencies | - | 16 | 32 | 49 | 66 | 83 | 101 | 119 | 137 | 156 | 175 | |
| 43 | Vegetation management | - | 36 | 71 | 104 | 136 | 167 | 202 | 230 | 257 | 293 | 318 | |
| 44 | Routine and corrective maintenance and inspection | - | 48 | 97 | 147 | 198 | 250 | 303 | 357 | 412 | 468 | 526 | |
| 45 | Asset replacement and renewal | - | 12 | 24 | 37 | 49 | 62 | 76 | 89 | 103 | 117 | 131 | |
| 46 | Network Opex | - | 112 | 224 | 337 | 449 | 562 | 681 | 795 | 910 | 1,034 | 1,150 | |
| 47 | System operations and network support | - | 60 | 121 | 184 | 247 | 312 | 378 | 446 | 515 | 585 | 657 | |
| 48 | Business support | - | 76 | 154 | 233 | 313 | 396 | 479 | 565 | 652 | 741 | 832 | |
| 49 | Non-network opex | - | 136 | 275 | 416 | 561 | 708 | 858 | 1,011 | 1,167 | 1,327 | 1,489 | |
| 50 | Operational expenditure | - | 248 | 499 | 753 | 1,010 | 1,270 | 1,539 | 1,807 | 2,077 | 2,361 | 2,639 | |

Company Name **Marlborough Lines Limited**
 AMP Planning Period **1 April 2017 – 31 March 2027**

SCHEDULE 12a: REPORT ON ASSET CONDITION

This schedule requires a breakdown of asset condition by asset class as at the start of the forecast year. The data accuracy assessment relates to the percentage values disclosed in the asset condition columns. Also required is a forecast of the percentage of units to be replaced in the next 5 years. All information should be consistent with the information provided in the AMP and the expenditure on assets forecast in Schedule 11a. All units relating to cable and line assets, that are expressed in km, refer to circuit lengths.

| sch ref | Asset condition at start of planning period (percentage of units by grade) | | | | | | | | | | |
|---------|--|----------------------------|---|-------|---------|---------|---------|---------|---------------|---------------------|--|
| | Voltage | Asset category | Asset class | Units | Grade 1 | Grade 2 | Grade 3 | Grade 4 | Grade unknown | Data accuracy (1-4) | % of asset forecast to be replaced in next 5 years |
| 7 | | | | | | | | | | | |
| 8 | | | | | | | | | | | |
| 9 | | | | | | | | | | | |
| 10 | All | Overhead Line | Concrete poles / steel structure | No. | 0.20% | 0.60% | 55.40% | 31.10% | 12.70% | 3 | 1.00% |
| 11 | All | Overhead Line | Wood poles | No. | 0.20% | 2.70% | 65.50% | 22.70% | 8.90% | 3 | 8.00% |
| 12 | All | Overhead Line | Other pole types | No. | 0.40% | 3.60% | 79.80% | 11.80% | 4.40% | 2 | 8.00% |
| 13 | HV | Subtransmission Line | Subtransmission OH up to 66kV conductor | km | 1.50% | 1.10% | 77.10% | 20.30% | | 3 | 3.00% |
| 14 | HV | Subtransmission Line | Subtransmission OH 110kV+ conductor | km | | | | | | N/A | |
| 15 | HV | Subtransmission Cable | Subtransmission UG up to 66kV (XLPE) | km | | | 100.00% | | | 3 | |
| 16 | HV | Subtransmission Cable | Subtransmission UG up to 66kV (Oil pressurised) | km | | | | | | N/A | |
| 17 | HV | Subtransmission Cable | Subtransmission UG up to 66kV (Gas pressurised) | km | | | | | | N/A | |
| 18 | HV | Subtransmission Cable | Subtransmission UG up to 66kV (PILC) | km | | | 100.00% | | | 3 | |
| 19 | HV | Subtransmission Cable | Subtransmission UG 110kV+ (XLPE) | km | | | | | | N/A | |
| 20 | HV | Subtransmission Cable | Subtransmission UG 110kV+ (Oil pressurised) | km | | | | | | N/A | |
| 21 | HV | Subtransmission Cable | Subtransmission UG 110kV+ (Gas Pressurised) | km | | | | | | N/A | |
| 22 | HV | Subtransmission Cable | Subtransmission UG 110kV+ (PILC) | km | | | | | | N/A | |
| 23 | HV | Subtransmission Cable | Subtransmission submarine cable | km | | | | | | N/A | |
| 24 | HV | Zone substation Buildings | Zone substations up to 66kV | No. | | 18.75% | 50.00% | 31.25% | | 4 | |
| 25 | HV | Zone substation Buildings | Zone substations 110kV+ | No. | | | | | | N/A | |
| 26 | HV | Zone substation switchgear | 22/33kV CB (Indoor) | No. | | | 61.60% | 38.40% | | 4 | |
| 27 | HV | Zone substation switchgear | 22/33kV CB (Outdoor) | No. | | | 78.57% | 21.43% | | 3 | |
| 28 | HV | Zone substation switchgear | 33kV Switch (Ground Mounted) | No. | | | | | | N/A | |
| 29 | HV | Zone substation switchgear | 33kV Switch (Pole Mounted) | No. | | | 84.52% | 15.48% | | 3 | |
| 30 | HV | Zone substation switchgear | 33kV RMU | No. | | | 100.00% | | | 3 | |
| 31 | HV | Zone substation switchgear | 50/66/110kV CB (Indoor) | No. | | | | | | N/A | |
| 32 | HV | Zone substation switchgear | 50/66/110kV CB (Outdoor) | No. | | | | | | N/A | |
| 33 | HV | Zone substation switchgear | 3.3/6.6/11/22kV CB (ground mounted) | No. | | | 77.17% | 22.83% | | 3 | |
| 34 | HV | Zone substation switchgear | 3.3/6.6/11/22kV CB (pole mounted) | No. | | | 39.78% | 60.22% | | 3 | |
| 35 | | | | | | | | | | | |

Company Name **Marlborough Lines Limited**
 AMP Planning Period **1 April 2017 – 31 March 2027**

SCHEDULE 12a: REPORT ON ASSET CONDITION

This schedule requires a breakdown of asset condition by asset class as at the start of the forecast year. The data accuracy assessment relates to the percentage values disclosed in the asset condition columns. Also required is a forecast of the percentage of units to be replaced in the next 5 years. All information should be consistent with the information provided in the AMP and the expenditure on assets forecast in Schedule 11a. All units relating to cable and line assets, that are expressed in km, refer to circuit lengths.

sch ref

| | | Asset condition at start of planning period (percentage of units by grade) | | | | | | | | | |
|---------|----------------|--|--|---------|---------|---------|---------|---------------|---------------------|--|--|
| Voltage | Asset category | Asset class | Units | Grade 1 | Grade 2 | Grade 3 | Grade 4 | Grade unknown | Data accuracy (1-4) | % of asset forecast to be replaced in next 5 years | |
| 36 | | | | | | | | | | | |
| 37 | | | | | | | | | | | |
| 38 | | | | | | | | | | | |
| 39 | HV | Zone Substation Transformer | Zone Substation Transformers | No. | | | 70.97% | 29.03% | | 4 | |
| 40 | HV | Distribution Line | Distribution OH Open Wire Conductor | km | 0.04% | 1.52% | 76.85% | 21.59% | | 3 | |
| 41 | HV | Distribution Line | Distribution OH Aerial Cable Conductor | km | | | | 100.00% | | 4 | |
| 42 | HV | Distribution Line | SWER conductor | km | 0.20% | 6.70% | 82.20% | 10.80% | 0.10% | 3 | |
| 43 | HV | Distribution Cable | Distribution UG XLPE or PVC | km | | 0.42% | 78.77% | 19.15% | 1.66% | 3 | |
| 44 | HV | Distribution Cable | Distribution UG PILC | km | | | 100.00% | | | 3 | |
| 45 | HV | Distribution Cable | Distribution Submarine Cable | km | | | | | N/A | | |
| 46 | HV | Distribution switchgear | 3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers | No. | | | 39.78% | 60.22% | | 3 | |
| 47 | HV | Distribution switchgear | 3.3/6.6/11/22kV CB (Indoor) | No. | | | 77.17% | 22.83% | | 3 | |
| 48 | HV | Distribution switchgear | 3.3/6.6/11/22kV Switches and fuses (pole mounted) | No. | | | 78.49% | 21.51% | | 3 | |
| 49 | HV | Distribution switchgear | 3.3/6.6/11/22kV Switch (ground mounted) - except RMU | No. | | | 100.00% | | | 3 | |
| 50 | HV | Distribution switchgear | 3.3/6.6/11/22kV RMU | No. | | 0.12% | 63.45% | 36.19% | 0.24% | 3 | |
| 51 | HV | Distribution Transformer | Pole Mounted Transformer | No. | | 3.62% | 83.43% | 12.33% | 0.62% | 3 | |
| 52 | HV | Distribution Transformer | Ground Mounted Transformer | No. | | 0.22% | 81.40% | 17.29% | 1.09% | 3 | |
| 53 | HV | Distribution Transformer | Voltage regulators | No. | | | 93.00% | 7.00% | | 4 | |
| 54 | HV | Distribution Substations | Ground Mounted Substation Housing | No. | | | | | N/A | | |
| 55 | LV | LV Line | LV OH Conductor | km | 0.20% | 2.60% | 72.40% | 24.80% | | 3 | |
| 56 | LV | LV Cable | LV UG Cable | km | | 0.90% | 69.51% | 24.73% | 4.86% | 3 | |
| 57 | LV | LV Streetlighting | LV OH/UG Streetlight circuit | km | | 0.43% | 78.05% | 17.75% | 3.77% | 3 | |
| 58 | LV | Connections | OH/UG consumer service connections | No. | | 0.50% | 3.70% | 62.50% | 33.30% | 3 | |
| 59 | All | Protection | Protection relays (electromechanical, solid state and numeric) | No. | | | 64.00% | 36.00% | | 4 | |
| 60 | All | SCADA and communications | SCADA and communications equipment operating as a single system | Lot | | | 90.00% | 10.00% | | 3 | |
| 61 | All | Capacitor Banks | Capacitors including controls | No. | | | | | N/A | | |
| 62 | All | Load Control | Centralised plant | Lot | | | 100.00% | | | 4 | |
| 63 | All | Load Control | Relays | No. | | | | | N/A | | |
| 64 | All | Civils | Cable Tunnels | km | | | | | N/A | | |

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SCHEDULE 12b: REPORT ON FORECAST CAPACITY

This schedule requires a breakdown of current and forecast capacity and utilisation for each zone substation and current distribution transformer capacity. The data provided should be consistent with the information provided in the AMP. Information provided in this table should relate to the operation of the network in its normal steady state configuration.

sch ref

7 12b(i): System Growth - Zone Substations

| 8 | | Current Peak Load (MVA) | Installed Firm Capacity (MVA) | Security of Supply Classification (type) | Transfer Capacity (MVA) | Utilisation of Installed Firm Capacity % | Installed Firm Capacity +5 years (MVA) | Utilisation of Installed Firm Capacity + 5yrs % | Installed Firm Capacity Constraint +5 years (cause) | Explanation |
|----|----------------------------------|----------------------------|-------------------------------------|--|----------------------------|---|--|--|---|---|
| 9 | <i>Existing Zone Substations</i> | | | | | | | | | |
| 9 | Leefield | 1 | 5 | n | 1 | 23% | 5 | 39.4% | No constraint within +5 years | Some load may be moved from Renwick |
| 10 | Linkwater | 4 | 5 | n | 1 | 75% | 5 | 72.9% | No constraint within +5 years | |
| 11 | Havelock | 2 | 5 | n-1 | 2 | 46% | 5 | 57.6% | No constraint within +5 years | |
| 12 | Nelson St | 14 | 17 | n-1 | 8 | 84% | 16.5 | 100.5% | No constraint within +5 years | Open point may need moving to transfer load to Springlands |
| 13 | Picton | 7 | 17 | n-1 | - | 44% | 16.5 | 45.8% | No constraint within +5 years | |
| 14 | Rai Valley | 2 | 3 | n-1 | 1 | 72% | 3 | 91.1% | No constraint within +5 years | |
| 15 | Redwoodtown | 9 | 17 | n-1 | 8 | 56% | 16.5 | 59.6% | No constraint within +5 years | |
| 16 | Renwick | 9 | 10 | n-1 | 5 | 91% | 10 | 109.0% | Transformer | Open point may need moving to transfer load to Leefield |
| 17 | Riverlands | 10 | 10 | n-1 | 8 | 105% | 10 | 161.4% | Transformer | Open point will need moving to transfer load to Cloudy Bay/Waters |
| 18 | Seddon | 6 | 10 | n-1 | 1 | 62% | 10 | 82.4% | Transformer | Open point may need moving to move load to Ward |
| 19 | Spring Creek | 4 | 5 | n-1 | 5 | 82% | 5 | 103.7% | Transformer | Open point may need moving to move load to Springlands |
| 20 | Springlands | 12 | 17 | n-1 | 10 | 72% | 16.5 | 60.0% | No constraint within +5 years | Some load may be moved from Spring Creek |
| 21 | Ward | 2 | 2 | n | 1 | 82% | 5 | 37.1% | No constraint within +5 years | Some load may be moved from Seddon |
| 22 | Waters | 6 | 17 | n-1 | 10 | 34% | 16.5 | 40.9% | No constraint within +5 years | Some load to be moved from Riverlands |
| 23 | Woodbourne | 8 | 10 | n-1 | 5 | 83% | 10 | 88.8% | No constraint within +5 years | |
| 24 | Cloudy Bay | 5 | 17 | n-1 | 5 | 33% | 17 | 35.8% | No constraint within +5 years | Some load to be moved from Riverlands |
| 25 | | | | | | - | | | | |
| 26 | | | | | | - | | | | |
| 27 | | | | | | - | | | | |
| 28 | | | | | | - | | | | |

¹ Extend forecast capacity table as necessary to disclose all capacity by each zone substation

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SCHEDULE 12C: REPORT ON FORECAST NETWORK DEMAND

This schedule requires a forecast of new connections (by consumer type), peak demand and energy volumes for the disclosure year and a 5 year planning period. The forecasts should be consistent with the supporting information set out in the AMP as well as the assumptions used in developing the expenditure forecasts in Schedule 11a and Schedule 11b and the capacity and utilisation forecasts in Schedule 12b.

sch ref

12c(i): Consumer Connections

Number of ICPs connected in year by consumer type

| | Number of connections | | | | | |
|---------------------------------------|-----------------------|------------|------------|------------|------------|------------|
| | Current Year CY | CY+1 | CY+2 | CY+3 | CY+4 | CY+5 |
| for year ended | 31 Mar 17 | 31 Mar 18 | 31 Mar 19 | 31 Mar 20 | 31 Mar 21 | 31 Mar 22 |
| <i>Consumer types defined by EDB*</i> | | | | | | |
| Domestic | 203 | 155 | 156 | 157 | 158 | 159 |
| Business | 26 | - | - | - | - | - |
| Large Commercial | 1 | - | 1 | - | 1 | - |
| Irrigation | 3 | - | - | 1 | - | - |
| Connections total | 233 | 155 | 157 | 158 | 159 | 159 |

*include additional rows if needed

Distributed generation

| | | | | | | |
|--|----|-----|-----|-----|-----|-----|
| Number of connections | 88 | 100 | 120 | 200 | 200 | 200 |
| Capacity of distributed generation installed in year (MVA) | | | | 1 | 1 | 1 |

12c(ii) System Demand

Maximum coincident system demand (MW)

| | Current Year CY | CY+1 | CY+2 | CY+3 | CY+4 | CY+5 |
|--|-----------------|-----------|-----------|-----------|-----------|-----------|
| for year ended | 31 Mar 17 | 31 Mar 18 | 31 Mar 19 | 31 Mar 20 | 31 Mar 21 | 31 Mar 22 |
| GXP demand | 70 | 70 | 71 | 71 | 71 | 72 |
| plus Distributed generation output at HV and above | 1 | 1 | 1 | 1 | 1 | 1 |
| Maximum coincident system demand | 71 | 71 | 72 | 72 | 72 | 73 |
| less Net transfers to (from) other EDBs at HV and above | - | - | - | - | - | - |
| Demand on system for supply to consumers' connection points | 71 | 71 | 72 | 72 | 72 | 73 |

Electricity volumes carried (GWh)

| | | | | | | |
|---|-------------|-------------|-------------|-------------|-------------|-------------|
| Electricity supplied from GXPs | 378 | 378 | 378 | 378 | 378 | 378 |
| less Electricity exports to GXPs | - | - | - | - | - | - |
| plus Electricity supplied from distributed generation | 16 | 17 | 17 | 17 | 18 | 18 |
| less Net electricity supplied to (from) other EDBs | | | | | | |
| Electricity entering system for supply to ICPs | 395 | 395 | 395 | 395 | 396 | 396 |
| less Total energy delivered to ICPs | 375 | 375 | 375 | 376 | 376 | 376 |
| Losses | 20 | 20 | 19 | 20 | 20 | 20 |
| Load factor | 63% | 64% | 63% | 63% | 63% | 62% |
| Loss ratio | 5.1% | 5.1% | 4.9% | 5.0% | 5.0% | 5.0% |

| | |
|----------------------------|------------------------------|
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| Network / Sub-network Name | |

SCHEDULE 12d: REPORT FORECAST INTERRUPTIONS AND DURATION

This schedule requires a forecast of SAIFI and SAIDI for disclosure and a 5 year planning period. The forecasts should be consistent with the supporting information set out in the AMP as well as the assumed impact of planned and unplanned SAIFI and SAIDI on the expenditures forecast provided in Schedule 11a and Schedule 11b.

| sch ref | | Current Year CY | CY+1 | CY+2 | CY+3 | CY+4 | CY+5 |
|---------|--|-----------------|-----------|-----------|-----------|-----------|-----------|
| | for year ended | 31 Mar 17 | 31 Mar 18 | 31 Mar 19 | 31 Mar 20 | 31 Mar 21 | 31 Mar 22 |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | SAIDI | | | | | | |
| 11 | Class B (planned interruptions on the network) | 65.0 | 65.0 | 65.0 | 65.0 | 65.0 | 65.0 |
| 12 | Class C (unplanned interruptions on the network) | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 |
| 13 | SAIFI | | | | | | |
| 14 | Class B (planned interruptions on the network) | 0.40 | 0.40 | 0.40 | 0.40 | 0.40 | 0.40 |
| 15 | Class C (unplanned interruptions on the network) | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 |