

2021/22 Loss Factor Report

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Contents

1. Introduction	1
2. Basis for Calculation	2
2.1 Transmission loss factors.....	2
2.2 Average distribution loss factors	2
2.3 Individual distribution loss factors.....	2
3. Applicable Reference Services.....	4
4. Transmission Loss Factors	5
5. Average Distribution Loss Factors	11
6. Individual Distribution Loss Factors	13
7. Explanation for Changes in Loss Factors	21
7.1 Transmission loss factors.....	21
7.2 Individual distribution loss factors.....	21
Appendix A Individual Transmission Loss Factors by NMI.....	20
Appendix B Individual Distribution Loss Factors by NMI.....	24
Appendix C Extinct Loss Factor Codes	34

1. Introduction

This report details the loss factors calculated for the 2021/22 financial year as required by section 2.27 of the Market Rules.

To comply with the obligations under section 2.27 of the Market Rules Western Power has:

- Recalculated all transmission loss factors.
- Recalculated all average distribution loss factors.
- Recalculated all individual distribution loss factors for customers with a CMD greater than 7,000 kVA.
- Recalculated all individual distribution loss factors for customers with a CMD between 1,000 and 7,000 kVA located greater than 10 km from the electrically closest substation.
- Recalculated the individual distribution loss factors for customers with a CMD between 1,000 and 7,000 kVA located less than 10 km from the electrically closest substation, where an individual distribution loss factor has been elected by the associated retailer.
- Recalculated all individual distribution loss factors for distribution connected generation customers.

2. Basis for Calculation

Western Power calculates loss factors in accordance with the Market Procedure for Determining Loss Factors (the Market Procedure). The following sections provide further detail on the methodology used by Western Power in calculating loss factors.

2.1 Transmission loss factors

Western Power has calculated the transmission loss factors in accordance with section 4.1 of the Market Procedure using the software package T-price.

2.2 Average distribution loss factors

The methodology calculates the average distribution loss factors by:

- Determining losses within the zone substation transformers.
- Determining HV feeder losses.
- Determining distribution transformer losses.
- Determining LV feeder losses (allowing separately for residential and commercial losses).
- Western Power allocates the average distribution losses based on the usage of the various components of the network. An appropriate basis for this allocation is the reference services (offered in Western Power's access arrangement) and in accordance with the Market Procedure Western Power has determined an average loss factor for relevant reference services.

2.3 Individual distribution loss factors

Western Power calculates the individual distribution loss factors in accordance with section 4.2 of the Market Procedure.

The methodology used to calculate the individual distribution loss factors uses the formulae and methodology detailed in Schedule 4 of the Electricity Distribution Regulations 1997.¹ Schedule 4 of the Electricity Distribution Regulations 1997 is reproduced below:

- | | |
|-----|--|
| 1. | To calculate the loss factor for a distribution connection which is an exit point a corporation must follow the following steps: |
| (a) | the corporation must determine the line losses assuming the distribution connection was not there and assuming feeder maximum load; |
| (b) | the corporation must determine the line losses assuming only the distribution connection was there and assuming feeder maximum load; |
| (c) | the corporation must determine the total line losses assuming all the distribution connections are there (including the distribution connection for which the loss factor is being determined) and assuming feeder maximum load; |

¹ For sites supplied from multiple feeders the distribution loss factor has been determined as if the load is evenly split across the feeders. The resultant distribution loss factor is the average of the calculated distribution loss factors.

- (d) the corporation must allocate a share of the total line losses calculated under step (c) to the distribution connection for which the loss factor is being determined based on the ratio of the result of step (b) and the sum of the results of steps (a) and (b);
- (e) the corporation must calculate the loss factor for the distribution connection by applying the following formula:

$$LF_{Exit} = 1 + \frac{A}{B}$$

where —

- A (in kW) is the share of the total line losses allocated to the distribution connection under step (d);
- B (in kW) is the contract maximum demand for the distribution connection.

2. To calculate the loss factor for a distribution connection which is an entry point a corporation must follow the following steps:

- (a) the corporation must determine the line losses assuming the distribution connection was not there and assuming feeder maximum load;
- (b) the corporation must determine the total line losses assuming all the distribution connections are there (including the distribution connection for which the loss factor is being determined) and assuming feeder maximum load;
- (c) the corporation must calculate the loss decrease or increase for the distribution connection for which the loss factor is being determined by subtracting the result of step (b) from the result of step (a);
- (d) the corporation must calculate the loss factor for the distribution connection by applying the following formula:

$$LF_{Entry} = 1 + \frac{A}{B}$$

where —

- A (in kW) is the loss increase or decrease calculated for the distribution connection under step (c);
- B (in kW) is the declared sent-out capacity for the distribution connection.

3. Applicable Reference Services

The Market Procedure requires Western Power to define a subset of reference services as ‘Applicable Reference Services’. The following table details the reference services that will be allocated to ‘applicable reference services’ from 1 July 2021.

3.1 Applicable Reference Services

AA4 Reference services that are ‘Applicable Reference Services’
A1 – Anytime Energy (Residential) Exit Service
A2 – Anytime Energy (Business) Exit Service
A3 – Time of Use Energy (Residential) Exit Service
A4 – Time of Use Energy (Business) Exit Service
A5 – High Voltage Metered Demand Exit Service
C5 – High Voltage Metered Demand Bi-directional Service
A6 – Low Voltage Metered Demand Exit Service
C6 – Low Voltage Metered Demand Bi-directional Service
C1 – Anytime Energy (Residential) Bi-directional Service
C2 – Anytime Energy (Business) Bi-directional Service
C3 – Time of Use (Residential) Bi-directional Service
C4 – Time of Use (Business) Bi-directional Service
A12 – 3 Part Time of Use Energy (Residential) Exit Service
C9 – 3 Part Time of Use Energy (Residential) Bi-directional Service
A13 – 3 Part Time of Use Energy (Business) Exit Service
C10 – 3 Part Time of Use Energy (Business) Bi-directional Service
A14 – 3 Part Time of Use Demand (Residential) Exit Service
C11 – 3 Part Time of Use Demand (Residential) Bi-directional Service
A15 – 3 Part Time of Use Demand (Business) Exit Service
C12 – 3 Part Time of Use Demand (Business) Bi-directional Service
A16 – Multi Part Time of Use Energy (Residential) Exit Service
C13 – Multi Part Time of Use Energy (Residential) Bi-directional Service
A17 – Multi Part Time of Use Energy (Business) Exit Service
C14 – Multi Part Time of Use Energy (Business) Bi-directional Service

4. Transmission Loss Factors

Western Power has calculated the following transmission loss factors for the 2021/22 financial year.

Table 4.1 - Transmission Loss Factors

TLF Code	Description	Applied in 2020/21	To apply in 2021/22
TAPA	Alcoa Pinjarra (Alcoa)	1.0093	1.0109
TAPL	Alcoa Pinjarra (Alinta)	1.0074	1.0101
TBLB	Bluewaters	1.0000	1.0004
TBLS	Boulder (SCE)	1.1330	1.1396
TKRA	Karara Three Springs	1.0380	1.0251
TLWA	Landwehr (Alinta)	1.0117	1.0107
TMBA	Mumbida Wind Farm	0.9388	0.9310
TMDP	Merredin Power Station	1.0002	0.8965
TMGS	Greenough River Solar Farm	0.9906	0.9483
TMSK	Mason Road (KPP)	1.0279	1.0333
TOLA	Oakley (Alinta)	1.0152	1.0147
TSAV	Transmission SWIN Average	1.0333	1.0312
TUAV	Transmission Urban Average	1.0400	1.0377
TWKG	West Kalgoorlie GTs	1.0724	1.0758
TWOJ	Worsley (Joint Venture)	0.9760	0.9752
TWOW	Worsley (Worsley)	0.9764	0.9752
WAFM	Australian Fused Materials	1.0314	1.0339
WAKW	Kwinana Alcoa	1.0300	1.0336
WALB	Albany	1.0628	1.0622
WAMT	Amherst	1.0428	1.0428
WAPM	Australian Paper Mills	1.0453	1.0467
WARK	Arkana	1.0399	1.0346
WBCH	Beechboro	1.0413	1.0364
WBCT	Balcatta	1.0407	1.0351
WBDE	Baandee	1.0540	1.0447
WBDP	Binningup Desalination Plant	1.0158	1.0159
WBEC	Beckenham	1.0298	1.0273
WBEL	Belmont	1.0338	1.0312

TLF Code	Description	Applied in 2020/21	To apply in 2021/22
WBGM	Boddington Gold Mine	1.0109	1.0115
WBWF	Badgingarra Wind Farm	0.9752	0.9744
WBHK	Broken Hill Kwinana	1.0338	1.0359
WBIB	Bibra Lake	1.0396	1.0418
WBKF	Black Flag	1.1549	1.1604
WBLD	Boulder	1.1373	1.1451
WBNP	Beenup	1.0316	1.0297
WBNY	Bounty	1.0781	1.0730
WBOD	Boddington	1.0098	1.0105
WBPM	British Petroleum	1.0372	1.0430
WBSI	Marriott Road Barrack Silicon Smelter	1.0145	1.0138
WBSN	Busselton	1.0579	1.0525
WBTN	Bridgetown	1.0143	1.0131
WBTY	Bentley	1.0348	1.0318
WBUH	Bunbury Harbour	1.0091	1.0073
WBYF	Byford	1.0372	1.0372
WCAP	Capel	1.0487	1.0424
WCAR	Carrabin	1.1005	1.0904
WCBP	Mason Road CSBP	1.0290	1.0313
WCCL	Cockburn Cement Ltd	1.0303	1.0295
WCCT	Cockburn Cement	1.0328	1.0324
WCGW	Collgar Windfarm	0.9920	0.9761
WCKN	Clarkson	1.0382	1.0327
WCKT	Cook Street	1.0421	1.0380
WCLN	Clarence Street	1.0395	1.0375
WCLP	Coolup	1.0178	1.0174
WCOE	Collie	1.0160	1.0142
WCOL	Collier	1.0402	1.0388
WCPN	Chapman	1.0158	1.0004
WCPS	Collie PWS	0.9959	0.9937
WCTE	Cottesloe	1.0441	1.0425

TLF Code	Description	Applied in 2020/21	To apply in 2021/22
WCUN	Cunderdin	1.0883	1.0798
WCVE	Canning Vale	1.0312	1.0289
WDTN	Darlington	1.0404	1.0360
WDUR	Durlacher	1.0088	0.9939
WEDD	Edmund Street	1.0426	1.0433
WEDG	Edgewater	1.0405	1.0338
WEMD	Emu Downs	0.9881	0.9848
WENB	Eneabba	1.0248	1.0502
WFFD	Forrestfield	1.0390	1.0332
WFRT	Forrest Ave	1.0433	1.0392
WGGV	Golden Grove	1.0556	1.0412
WGNI	Glen Iris	1.0270	1.0247
WGNL	Gosnells	1.0331	1.0319
WGNN	Newgen Neerabup	1.0350	1.0314
WGTN	Geraldton	1.0088	0.9939
WHAY	Hay Street	1.0411	1.0362
WHBK	Henley Brook	1.0428	1.0393
WHFS	Hadfields	1.0418	1.0359
WHZM	Hazelmere	1.0355	1.0305
WJDP	Joondalup	1.0394	1.0334
WJTE	Joel Terrace	1.0422	1.0388
WKAT	Katanning	1.0554	1.0551
WKDA	Kalamunda	1.0416	1.0368
WKDL	Kewdale	1.0325	1.0300
WKDN	Kondinin	1.0317	1.0280
WKDP	Kwinana Desalination Plant	1.0303	1.0320
WKEL	Kellerberrin	1.0640	1.0489
WKEM	Kemerton PWS	1.0108	1.0099
WKMC	Cataby Kerr McGee	1.0150	1.0079
WKMK	Kerr McGee Kwinana	1.0264	1.0312
WKMM	Muchea Kerr McGee	1.0322	1.0253

TLF Code	Description	Applied in 2020/21	To apply in 2021/22
WKND	Kwinana Donaldson Road (Western Energy)	1.0266	1.0350
WKOJ	Kojonup	1.0306	1.0297
WKPS	Kwinana PWS	1.0255	1.0333
WLDE	Landsdale	1.0421	1.0372
WMAG	Manning Street	1.0428	1.0372
WMBR	Mt Barker	1.0711	1.0693
WMCR	Medical Centre	1.0458	1.0425
WMDN	Maddington	1.0323	1.0302
WMDY	Munday	1.0379	1.0324
WMED	Medina	1.0356	1.0377
WMER	Merredin	1.0424	1.0364
WMGA	Mungarra GTs	1.0097	1.0011
WMHA	Mandurah	1.0383	1.0407
WMIL	Milligan Street	1.0407	1.0345
WMJP	Manjimup	1.0206	1.0193
WMJX	Midland Junction	1.0365	1.0311
WMLG	Malaga	1.0378	1.0322
WMOR	Moora	1.0425	1.0321
WMOY	Morley	1.0423	1.0362
WMPS	Muja PWS	1.0000	1.0000
WMRR	Marriot Road	1.0126	1.0119
WMRV	Margaret River	1.1131	1.1172
WMSF	Merredin Solar Farm	1.0435	0.9897
WMSR	Mason Road	1.0290	1.0314
WMSS	Meadow Springs	1.0374	1.0400
WMUC	Muchea	1.0350	1.0288
WMUL	Mullaloo	1.0409	1.0399
WMUR	Murdoch	1.0280	1.0255
WMYR	Myaree	1.0485	1.0514
WNBH	North Beach	1.0430	1.0378
WNGK	NewGen Kwinana	1.0220	1.0223

TLF Code	Description	Applied in 2020/21	To apply in 2021/22
WNGN	Narrogin	1.0214	1.0193
WNOR	Northam	1.0587	1.0542
WNOW	Nowgerup	1.0336	1.0268
WNPH	North Perth	1.0430	1.0393
WOCN	O'Connor	1.0479	1.0496
WOPK	Osborne Park	1.0412	1.0349
WPBY	Padbury	1.0433	1.0379
WPCY	Piccadilly	1.1348	1.141
WPIC	Picton	1.0075	1.0054
WPJR	Pinjar	1.0274	1.0229
WPKS	Parkeston	1.1234	1.1322
WPLD	Parklands	1.0330	1.0335
WPNJ	Pinjarra	1.0266	1.0276
WRAN	Rangeway	1.0142	0.9938
WRGN	Regans	1.0245	1.0168
WROH	Rockingham	1.0357	1.0386
WRTN	Riverton	1.0310	1.0286
WRVE	Rivervale	1.0335	1.0312
WSFT	South Fremantle	1.0393	1.0313
WSNR	Southern River	1.0341	1.0331
WSNX	Southern Cross	1.0843	1.0875
WSPK	Shenton Park	1.0431	1.0402
WSRD	Sutherland	1.0418	1.0385
WSUM	Summer St	1.0409	1.0372
WSVY	Sawyers Valley	1.0449	1.0394
WTLA	Tianqi Lithium	1.0278	1.0326
WTSG	Three Springs	1.0288	1.0157
WTTS	Tate Street	1.0330	1.0308
WWAG	Wagin	1.0610	1.0600
WWAI	Waikiki	1.0402	1.0436
WWCL	Western Collieries	0.9918	0.9913

TLF Code	Description	Applied in 2020/21	To apply in 2021/22
WWDN	Wembley Downs	1.0475	1.0453
WWDW	Warradarge Wind Farm	1.0288	0.9952
WWEL	Welshpool	1.0331	1.0305
WWGA	Wangara	1.0407	1.0351
WWGP	Wagerup	0.9919	0.9935
WWKT	West Kalgoorlie	1.1393	1.1430
WWLN	Willetton	1.0309	1.0291
WWMG	Western Mining	1.0317	1.0330
WWNO	Wanneroo	1.0364	1.0293
WWNT	Wellington Street	1.0426	1.0384
WWSD	Westralian Sands	1.0143	1.0189
WWUN	Wundowie	1.0637	1.0587
WWWF	Walkaway Windfarm	0.9355	0.9258
WYCP	Yanchep	1.0362	1.0308
WYDW	Yandin Wind Farm	1.0288	1.0070
WYER	Yerbillon	1.0957	1.0959
WYKE	Yokine	1.0422	1.0365
WYLN	Yilgarn	1.0724	1.0711

5. Average Distribution Loss Factors

Western Power has calculated the following average distribution loss factors for the 2021/22 financial year based on the Market Procedure:

Table 5.1 - Average Distribution Loss Factors

Customer Segment	Applicable Reference Services	DLF Code	Applied in 2020/21	To apply in 2021/22
Residential	A1 - Anytime Energy (Residential)	QRT1	1.0672	1.0491
	A3 - Time of Use Energy (Residential)			
	C1 – Anytime Energy (Residential) Bi-directional			
	C3 – Time of Use Energy (Residential) Bi-directional			
	A12 - 3 Part Time of Use Energy (Residential)			
	A14 - 3 Part Time of Use Demand (Residential)			
	A16 - Multi Use Part Time of Use Energy (Residential)			
	C9 - 3 Part Time of Use Energy (Residential) Bi-Directional			
	C11 - 3 Part Time of Use Demand (Residential) Bi-Directional			
	C13 - Multi Use Part Time of Use Energy (Residential) Bi-Directional			
Small Business	A2 - Anytime Energy (Business)	QRT2	1.0519	1.0435
	A4 - Time of Use Energy (Business)			
	C2 – Anytime Energy (Business) Bi-directional			
	C4 – Time of Use Energy (Business) Bi-directional			
	A13 - 3 Part Time of Use Energy (Business)			
	A15 - 3 Part Time of Use Demand (Business)			
	A17 - Multi Use Part Time of Use Energy (Business)			
	C10 - 3 Part Time of Use Energy (Business) Bi-directional			
	C12 - 3 Part Time of Use Demand (Business) Bi-directional			
	C14 - Multi Use Part Time of Use Energy (Business) Bi-directional			
Medium Business High Voltage	A5 - High Voltage Metered Demand	QRT5	1.0210	1.0184
	C5 - High Voltage Metered Demand Bi-Directional			
	A6 - Low Voltage Metered Demand	QRT6	1.0456	1.0417

Medium Business Low Voltage	C6 - Low Voltage Metered Demand Bi-Directional			
Zone Substation Connected	A7 - High Voltage Contract Maximum Demand (Zone Substation Connected)	QR7Z	1.0055	1.0055
	Zone Substation Connections	QZSC	1.0055	1.0055
Transmission Connected (No DLF)		QNLF	1.0000	1.0000
Notional Wholesale Meter		QNWM	1.0600	1.0488
Distribution System Wide Average Loss Factor		QAVG	1.0492	1.0437

6. Individual Distribution Loss Factors

Western Power has calculated the following individual distribution loss factors for the 2021/22 financial year.

DLF code QHGM was previously QBMB, the DLF code change was requested due to the change in business name. The DLF value for 2020/21 is as reported for the previous QBMB code.

Table 6.1 - Individual Distribution Loss Factors

DLF Code	Description	Applied in 2020/21	To apply in 2021/22
QAAL	AIR LIQUIDE AUSTRALIA LIMITED	1.0104	1.0102
QAHU	OAHU MANAGEMENT PTY LTD	1.0093	1.0091
QALL	ALBEMARLE LITHIUM PTY LTD		1.0129
QALM	ALBEMARLE LITHIUM PTY LTD		1.0127
QALP	ALBEMARLE LITHIUM PTY LTD		1.0126
QANF	ANDERSON WIND FARM	1.0244	0.9985
QAPI	AUSTRALASIAN PROPERTY INVESTMENTS LTD		1.0089
QARG	PADDINGTON GOLD MINE	1.007	1.0224
QASA	ALLOY STEEL AUSTRALIA (INT) PTY LTD	1.0078	1.0097
QAWF	ALBANY WIND FARM	0.9757	0.9908
QBBP	BRICKWORKS BUILDING PRODUCTS PTY LTD (GREENBUSHES)		1.0271
QBBW	BREMER BAY WIND FARM	1.3643	1.2833
QBCB	BUNBURY CENTREPOINT SHOPPING CENTRE INVESTMENT TRUST	1.0082	1.0081
QBFB	BLAIR FOX PTY LTD	1.0071	1.0031
QBGC	BGC (AUSTRALIA) PTY LTD	1.0082	1.0107
QBGM	BGM MANAGEMENT COMPANY PTY LTD	1.0184	1.059
QGBP	BGC (AUSTRALIA) PTY LTD	1.0062	1.0063
QBGQ	BGC (AUSTRALIA) PTY LTD	1.0303	1.064
QBKR	BRADKEN RESOURCES PTY LTD	1.0072	1.0055
QBKS	DOD - CAMPBELL BKS		1.0184
QBMA	TIANYE SXO GOLD MINING PTY LTD	1.0917	1.1153
QBNB	BGC (AUSTRALIA) PTY LTD	1.0162	1.0177
QBOC	BOC LIMITED	1.0072	1.0095

DLF Code	Description	Applied in 2020/21	To apply in 2021/22
QBPA	SOUTHERN PORTS AUTHORITY PORT OF BUNBURY	1.0087	1.0077
QBTF	INVESTA NOMINEES (2) PTY LTD AND COMMONWEALTH SUPERANNUATION CORPORATION	1.0079	1.0113
QBUL	CO OPERATIVE BULK HANDLING LTD	1.0351	1.0359
QBUR	BURSWOOD NOMINEES LIMITED	1.0064	1.0079
QBUS	BURSWOOD NOMINEES LIMITED	1.0073	1.0062
QCAS	CASTELLI NOMINEES PTY LTD	1.0188	1.0380
QCBC	COCKBURN CEMENT LIMITED	1.1125	1.0666
QCBH	CO OPERATIVE BULK HANDLING LTD	1.0507	1.0689
QCEB	IKEA PTY LTD		1.0091
QCEM	COCKBURN CEMENT LIMITED		1.0081
QCEN	SCENTRE SHOPPING CENTRE MANAGEMENT (WA) PTY LTD	1.0075	1.0111
QCMA	TRONOX MINING AUSTRALIA LIMITED	1.053	1.0369
QCMT	COCKBURN CEMENT LIMITED	1.0172	1.0184
QCPC	CALARDU PERTH CITY WEST & GERALD HARVEY	1.0073	1.0083
QCPU	CBUS PROPERTY PTY LTD	1.0082	1.0061
QCSW	TRONOX MINING AUSTRALIA LIMITED	1.0113	1.0111
QCTE	A RICHARDS PTY LTD	1.0206	1.0153
QCUT	THE TRUSTEE FOR COSTA UNIT TRUST		1.0087
QDCS	CASUARINA PRISON	1.0089	1.0089
QDER	DEPT OF ENVIRONMENT REGULATION	1.0135	1.0199
QDFM	DEXUS FUNDS MANAGEMENT LIMITED	1.0085	1.0081
QDOD	DOD - HMAS STIRLING	1.0111	1.0151
QDOF	DEPARTMENT OF FINANCE		1.0149
QDSX	DEXUS FUNDS MANAGEMENT LIMITED	1.0097	1.0093
QDTO	DATO HOLDINGS PTY LTD	1.0076	1.0085
QDVC	DAVID JONES PTY LTD	1.009	1.0091
QDWF	DENMARK COMMUNITY WINDFARM LTD	1.3433	1.3155
QDWL	DARWILL PTY LTD	1.0125	1.0124
QDXE	DEXUS FUNDS MANAGEMENT LIMITED	1.0116	1.0114

DLF Code	Description	Applied in 2020/21	To apply in 2021/22
QEAP	EQUINIX AUSTRALIA PTY LTD	1.0076	1.0077
QEMO	EDNA MAY OPERATIONS PTY LTD EDNA MAY GOLD MINE		1.0679
QEPF	ENVIRO PIPES PTY LTD	1.0059	1.0128
QEPH	ENVIRO PIPES PTY LTD	1.0056	1.0056
QERD	EVERGREEN REALTY PTY LTD	1.008	1.0074
QESC	VICINITY CENTRES PM PTY LTD ELLENBROOK SHOPPING CENTRE		1.0097
QFER	FAR EAST RIVERSIDE (PERTH) PTY LTD	1.008	1.0091
QFFM	WESTERN AREAS LTD	1.1409	1.1612
QFIE	BENALE PTY LIMITED		1.0667
QFLM	LA MANCHA RESOURCES AUST PTY LTD	1.0059	1.0556
QFUJ	FUJITSU AUSTRALIA LIMITED	1.0075	1.0051
QFUR	FURMANITE AUSTRALIA PTY LTD	1.0163	1.0203
QGDI	GDI NO.44 PTY LTD AFT GDI NO.44 TRUST	1.0084	1.0107
QGLG	DEPARTMENT OF LOCAL GOVERNMENT SPORT AND CULTURAL INDUSTRIES	1.0149	1.016
QGMC	CRAIG MOSTYN & CO PTY LTD	1.0055	1.0055
QGMM	GOLDEN MILE MILLING PTY LTD	1.012	1.0135
QGRI	GRIFFIN COAL (THE GRIFFIN COAL MINING COMPANY PTY LTD)	1.0394	1.0519
QGTS	VICINITY CENTRES PM PTY LTD		1.0109
QGWF	GEORGE WESTON FOODS LIMITED	1.0069	1.0072
QGWL	GEORGE WESTON FOODS LIMITED		1.0145
QHEL	HEALTH SCOPE PTY LTD	1.0265	1.0265
QHFM	LACTALIS AUSTRALIA PTY LTD	1.0371	1.058
QHGM	HANKING GOLD MINING PTY LTD	1.0398	1.0248
QHHC	VICINITY CENTRES PM PTY LTD HALLS HEAD CENTRAL		1.0068
QHLG	WASTE GAS RESOURCES PTY LTD	1.0042	1.0054
QHMP	FMR INVESTMENTS PTY LTD	1.0731	1.0725
QHVI	HARVEY BEED	1.1397	1.1823
QIEW	INGHAMS ENTERPRISES PTY LTD	1.0091	1.0101

DLF Code	Description	Applied in 2020/21	To apply in 2021/22
QIRL	ILUKA RESOURCES LTD	1.0655	1.0467
QIRN	IMAGE RESOURCES NL	1.0672	1.1044
QISH	ISPT PTY LTD	1.0077	1.0097
QISP	ISPT PTY LTD	1.007	1.0004
QISU	ISPT PTY LTD	1.0088	1.0091
QJAN	JANDAKOT AIRPORT HOLDINGS		1.0142
QJOE	CARGILL MALT ASIA PACIFIC PTY LTD (WA)	1.0159	1.0091
QKBG	NORTHERN STAR (KANOWNA) LIMITED	1.0878	1.1103
QKEM	KEMERTON SILICA SAND PTY LTD	1.1335	1.0709
QKEY	KEYSBROOK LEUCOXENE PTD LTD	1.0075	1.0221
QKUD	NORTHERN STAR (HBJ) PTY LTD	1.0273	1.0241
QKWF	VERVE ENERGY	1.1031	1.0703
QLEH	LEGION ENERGY PTY LTD	1.0058	1.0055
QLES	LENDLEASE PROPERTY MANAGEMENT	1.0109	1.008
QLGA	LANDFILL GAS & POWER PTY LTD	1.0213	1.0259
QLGC	LANDFILL GAS & POWER PTY LTD	1.0077	1.028
QLGD	LANDFILL GAS & POWER PTY LTD	1.0055	1.0055
QLGE	LEGION ENERGY PTY LTD	1.0176	1.0084
QLHT	HAWAIIAN INVESTMENTS PTY LTD	1.0092	1.0088
QLJS	LENDLEASE PROPERTY MANAGEMENT	1.0078	1.0069
QLMR	EVOLUTION MINING (MUNGARRI) PTY LTD	1.091	1.1053
QLPG	FAR EAST HARBOUR TOWN PTY LTD	1.0135	1.0127
QLPM	LENDLEASE PROPERTY MANAGEMENT	1.0096	1.0094
QLSP	LENDLEASE PROPERTY MANAGEMENT	1.0245	1.0349
QMAR	MILNE AGRIGROUP PTY LTD	1.0092	1.0089
QMBW	MT BARKER POWER COMPANY	1.0305	1.0369
QMEE	SCENTRE SHOPPING CENTRE MANAGEMENT (WA) PTY LTD	1.0075	1.0083
QMGS	VICINITY CENTRES PM PTY LTD	1.0062	1.008
QMHP	MIDPOINT HOLDINGS PTY TD	1.0095	1.0096
QMIC	TRONOX PIGMENT BUNBURY LTD	1.0257	1.0061
QMID	CAPITARY NO.3 PTY LTD		1.0155

DLF Code	Description	Applied in 2020/21	To apply in 2021/22
QMIE	CAPITARY NO.3 PTY LTD		1.0132
QMIL	MILNE AGRIGROUP PTY LTD	1.0078	1.0078
QMIR	MIRVAC REAL ESTATE PTY LTD	1.0102	1.0104
QMMP	MRS MACS PTY LIMITED		1.0195
QMPM	METRO POWER COMPANY PTY LTD	1.0109	1.0192
QMRE	MIRVAC REAL ESTATE PTY LTD		1.0055
QMRS	MURDOCH RETIREMENT SERVICES PTY LTD	1.0087	1.0081
QMRV	MURDOCH UNIVERSITY	1.0075	1.0081
QMTD	METCASH TRADING LIMITED	1.0101	1.009
QNEW	NEWMONT POWER PTY LTD	1.0523	1.1019
QNHP	NARROGIN HAY PTY LTD		1.0367
QPAG	PADDINGTON GOLD MINE	1.0476	1.0983
QPEA	LANDFILL MANAGEMENT SYSTEMS	1.0159	1.0161
QPEB	ASSET MANAGER AGL NATIONAL ASSETS	0.9966	1.0128
QPED	LANDFILL MANAGEMENT SYSTEMS	1.0159	1.0306
QPER	PERPETUAL TRUSTEE COMPANY LIMITED	1.0079	1.0071
QPLA	PLANTATION ENERGY AUSTRALIA PTY LTD	1.0425	1.0249
QPMP	OVATO PRINT PTY LTD	1.0112	1.0109
QPTA	PUBLIC TRANSPORT AUTHORITY OF WESTERN AUSTRALIA	1.0106	1.0079
QPTB	PUBLIC TRANSPORT AUTHORITY OF WESTERN AUSTRALIA		1.0061
QPTD	PUBLIC TRANSPORT AUTHORITY OF WESTERN AUSTRALIA		1.0103
QPWA	PRIMEWEST (AUSTRALIA PLACE) PTY LTD	1.0075	1.0069
QPWQ	PWQ PTY LTD ATF QUADRANT SUB TRUST	1.0062	1.0071
QRCS	VICINITY CENTRES PM PTY LTD ROCKINGHAM CITY SHOPPING CENTRE	1.0083	1.0082
QRPH	EAST METROPOLITAN HEALTH SERVICE	1.0102	1.0107
QRRR	DOD - RAAF PEARCE	1.1379	1.1164
QRUT	THE TRUSTEE FOR RANSBURG UNIT TRUST		1.0128
QSAD	SCENTRE SHOPPING CENTRE MANAGEMENT (WA) PTY LTD	1.0057	1.0102

DLF Code	Description	Applied in 2020/21	To apply in 2021/22
QSAP	W A SPECIALTY ALLOYS PTY LTD	1.0067	1.007
QSER	SERCO AUSTRALIA PTY LIMITED	1.0223	1.0431
QSGJ	ST JOHN OF GOD HEALTH CARE - MIDLAND	1.0081	1.008
QSIT	SUEZ RECYCLING & RECOVERY PTY LTD	1.0057	1.0151
QSJG	ST JOHN OF GOD HEALTH CARE INCORPORATED	1.0167	1.0151
QSIM	ST JOHN OF GOD HEALTH CARE INCORPORATED	1.0066	1.0056
QSJO	ST JOHN OF GOD HEALTH CARE INCORPORATED	1.0105	1.0106
QSMH	SOUTH METROPOLITAN HEALTH SERVICE	1.0098	1.0125
QSMP	ST MARTINS PROPERTIES AUSTRALIA	1.0094	1.0055
QSMR	SOUTHERN METROPOLITAN REGIONAL COUNCIL	1.0055	1.0056
QSPB	SPB (AUST) PTY LTD & QIC CM PTY LTD	1.0073	1.0111
QSPO	DOWNER EDI SERVICES PTY LTD	1.0086	1.0073
QSPP	BOOKITJA PTY LTD & IBA NORTHAM SOLAR PTY LTD & NORTHAM SOLAR FARM A PTY LTD	0.9984	0.9928
QSPS	STOCKLAND PROPERTY MANAGEMENT PTY LTD	1.0074	0.9905
QSPT	DOWNER EDI SERVICES PTY LTD	1.007	1.007
QSPW	STOCKLAND PROPERTY MANAGEMENT PTY LTD	1.0116	1.0115
QSRP	SUMMIT RURAL (WA) PTY LTD		1.0077
QTAL	TALISON LITHIUM AUSTRALIA PTY LTD	1.0594	1.0651
QTCG	TESLA GERALDTON PTY LTD	1.0102	0.9938
QTCK	TESLA KEMERTON PTY LTD	1.0029	1.0031
QTCL	TELSTRA CORPORATION LTD	1.0276	1.0218
QTCM	TELSTRA CORPORATION LTD	1.0068	1.0179
QTCN	TESLA NORTHAM PTY LTD	1.0055	0.9884
QTES	TESLA CORPORATION MANAGEMENT PTY LTD	1.0134	0.9975
QTIF	LEGION ENERGY PTY LTD	1.0093	1.0112
QTMA	TRONOX PIGMENT BUNBURY LTD		1.0055
QTSS	THORNIE SQUARE SHOPPING CENTRE PTY LTD		1.0202
QVIC	VICINITY CENTRES PM PTY LTD	1.0165	1.0082
QVID	VICINITY CENTRES PM PTY LTD WARWICK GROVE	1.0184	1.0183
QVLW	VERSACOLD LOGISTICS WA		1.0321

DLF Code	Description	Applied in 2020/21	To apply in 2021/22
QVVM	V&V WALSH MEAT PROCESSORS & EXPORTERS	1.0107	1.0165
QWAA	WESTERN AUSTRALIA CRICKET ASSOCIATION		1.0095
QWAC	PERTH AIRPORT PTY LTD		1.0082
QWAD	PERTH AIRPORT PTY LTD		0.9999
QWAN	WESTERN AREAS LTD	1.1064	1.1064
QWAS	WESTERN AUSTRALIAN SPORTS CENTRE TRUST	1.0068	1.0055
QWBE	WESBEAM PTY LTD	1.0122	1.0127
QWCB	WATER CORPORATION	1.0139	1.0032
QWCD	WATER CORPORATION		1.0184
QWCE	WATER CORPORATION	1.0063	1.0063
QWCG	WATER CORPORATION		1.0368
QWCI	WATER CORPORATION	1.0122	1.0139
QWCJ	WATER CORPORATION	1.0061	1.0064
QWCK	WATER CORPORATION	1.0083	1.0077
QWCL	WATER CORPORATION	1.0094	1.0009
QWCM	WATER CORPORATION	1.0162	1.0131
QWCO	WATER CORPORATION	1.0316	1.0664
QWCP	WATER CORPORATION		1.0165
QWCR	WATER CORPORATION		1.013
QWCT	WATER CORPORATION		1.0184
QWCV	WATER CORPORATION		1.0182
QWCW	WATER CORPORATION	1.0368	1.0322
QWCX	WATER CORPORATION		1.0057
QWCY	WATER CORPORATION		1.0108
QWCZ	WATER CORPORATION		1.0071
QWDB	WATER CORPORATION	1.0131	1.0054
QWDE	WATER CORPORATION	1.0139	1.0058
QWDK	WATER CORPORATION	1.0139	1.0162
QWGS	VICINITY CENTRES PM PTY LTD VICINITY GALLERIA SITE 1	1.0144	1.0151
QWHF	WEST HILLS FARM P/L	1.0597	1.0403
QWLT	WESTERN LIBERTY GROUP PTY LTD	1.0066	1.007

DLF Code	Description	Applied in 2020/21	To apply in 2021/22
QWMD	FLETCHER BUILDING (AUSTRALIA) PTY LTD - LAMINEX GROUP PTY LTD	1.038	1.055
QWSI	VICINITY CENTRES PM PTY LTD	1.0341	1.0382

7. Explanation for Changes in Loss Factors

In accordance with clause 2.21(b)ii of the Market Procedure Western Power is required to provide an explanation for any changes of more than 0.025 in any transmission or distribution loss factors when compared to the previous year.

In general, loss factors increase with demand at a node and decrease with increasing generation at a node. Loss factors can also be affected by changes in network configuration.

7.1 Transmission loss factors

Loss factors for the transmission network are calculated based on half hour data for the whole system over the whole year. Individual transmission loss factors are not only affected by the quantity of usage at a node but also the time the usage occurs and being a meshed network, they are also affected by usage at other nearby nodes.

Table 7.1 is a list of the transmission loss factors that moved by more than 0.025 in 2021/22. As described above, specific reasons for the movements are difficult to determine.

Contributing factors to the volatility at the following locations include the low generation output at Merredin Power Station. Greenough River Solar Farm increased their generation capacity and output. Significant load decrease at Eneabba. Merredin Solar Farm and Warradarge Wind Farm was previously calculated using estimated data, this year actual data has been used.

Table 7.1 - Transmission Loss Factors changed by more than 0.025

TLF Code	Description	Applied in 2020/21	To apply in 2021/22	Change
TMDP	Merredin Power Station	1.0002	0.8965	-0.1037
TMGS	Greenough River Solar Farm	0.9906	0.9483	-0.0423
WENB	Eneabba	1.0248	1.0502	0.0254
WMSF	Merredin Solar Farm	1.0435	0.9897	-0.0538
WWDW	Warradarge Wind Farm	1.0288	0.9952	-0.0336

7.2 Individual distribution loss factors

Table 7.2 is a list of the distribution loss factors that moved by more than 0.025 in 2021/22.

Table 7.2: Distribution Loss Factor changed by more than 0.025

NMI	Customer	DLF variance	Explanation
8001000125	KEMERTON SILICA SAND PTY LTD	-0.0626	Reconductoring has resulted in changes to losses. Load distribution changes during feeder peak effects losses.
8001000345	Harvey Beef	0.0426	Large change to feeder peak
8001000357	WATER CORPORATION	0.0348	Change in feeder peak Change in CMD

NMI	Customer	DLF variance	Explanation
8001000428	COCKBURN CEMENT LIMITED	-0.0459	Large change to feeder peak
8001000745	PADDINGTON GOLD PTY LIMITED	0.0507	Other HV customer on feeder usage change by ~1 MVA
8001000998	NEWMONT POWER PTY LTD	0.0496	Other HV customers on feeder change by 1 MVA Another HV customer CMD change by ~2MVA.
8001020092	BGM MANAGEMENT COMPANY PTY LTD	0.0406	Large change to feeder peak
8002013336	VERVE ENERGY	-0.0328	DSOC changed
8002016529	DENMARK COMMUNITY WINDFARM LTD	-0.0278	On a large feeder with >300km of line
8002016682	Bremer Bay Windfarm	-0.0810	Load distribution changes during feeder peak on a 180km feeder
8002034918	LA MANCHA RESOURCES AUST PTY LTD	0.0497	Network reconfiguration with HV customers transferring to other feeders
8002067264	BGC (AUSTRALIA) PTY LTD	0.0337	Large change to feeder peak
8002148204	ANDERSON WIND FARM	-0.0259	On a large feeder with >300km of line
8002316600	Image Resources NL	0.0372	Large change to feeder peak

Appendix A

Individual Transmission Loss Factors by NMI

A.1 Individual Transmission Loss Factors by NMI

The following NMIs are for customers connected directly to the transmission system along with the transmission loss factor code Western Power has assigned.

Table 7.3 - Transmission Loss Factors by NMI

NMI	TLF Code
8001000116	WBHK
8001000118	WKMK
8001000126	WWMG
8001000127	WWMG
8001000128	WWMG
8001000129	WCCL
8001000279	WPKS
8001000291	WAFM
8001000347	WEDG
8001000499	TMSK
8001000500	TMSK
8001000616	WKMM
8001000640	WWCL
8001000641	WWCL
8001000646	WGGV
8001000659	WKMC
8001000732	TAPA
8001000733	WAKW
8001000736	WCBP
8001000741	TBLS
8001000743	TWOW
8001000744	TWOJ
8001000764	WSUM
8001000776	WWSD
8001000954	TAPA
8001001007	WWGP
8001001211	WWWF

NMI	TLF Code
8001001212	WWWF
8001016070	WBEC
8001018020	WKEM
8001018021	WKEM
8001018932	TAPL
8001019478	TWOW
8001019484	WEMD
8001019485	WEMD
8001019487	WKDP
8001019590	TOLA
8001019784	TLWA
8001019785	TLWA
8001019790	WPLD
8001019791	WGNI
8002013337	TBLB
8002013343	WNGK
8002013364	WMPS
8002013365	WKPS
8002013366	WCPS
8002013368	WPJR
8002013369	WKPS
8002013370	WGTN
8002013371	TWKG
8002013372	WMGA
8002013375	WBGM
8002013379	WKMK
8002013796	TBLB
8002014313	WPKS
8002015326	WGNN
8002016124	WKND
8002016403	WCGW
8002016404	WCGW

NMI	TLF Code
8002016407	TWOW
8002016415	WBSI
8002016416	WBSI
8002016417	WBSI
8002016491	TKRA
8002016504	WKPS
8002016505	WKPS
8002016506	TMGS
8002016510	TMDP
8002016519	TMBA
8002016571	WNOW
8002016585	WSRD
8002112635	WBDP
8002016652	WBWF
8002016665	WYDW
8002016666	WMSF
8002016668	WWDW

Appendix B

Individual Distribution Loss Factors by NMI

B.1 Individual Distribution loss factors by NMI

The individual distribution loss factors calculated for the 2021/22 financial year are associated with the following NMIs.

Table 7.4 - Individual Distribution Loss Factors by NMI

NMI	DLF Code	Required or Optional ²
8001000107	QCSW	Optional
8001000117	QCMT	Optional
8001000121	QTAL	Required
8001000122	QPEB	Required
8001000125	QKEM	Required
8001000130	QCEM	Required
8001000158	QLGA	Required
8001000234	QLGD	Required
8001000259	QWDB	Optional
8001000261	QRT5	Optional
8001000265	QGWF	Optional
8001000267	QGWL	Optional
8001000269	QKUD	Required
8001000270	QMID	Optional
8001000274	QBGp	Optional
8001000280	QWCB	Optional
8001000281	QWDK	Required
8001000282	QWCE	Optional
8001000284	QWCW	Required
8001000286	QAAL	Optional
8001000287	QFFM	Required
8001000294	QGMM	Optional
8001000298	QSAP	Optional
8001000325	QWMD	Required
8001000329	QBPA	Required

² Individual distribution loss factors have been assessed as either required or optional in accordance with section 3.2.5 of the Market Procedure. The calculation of optional distribution loss factors is at the cost of the retailer.

NMI	DLF Code	Required or Optional ²
8001000332	QWCP	Optional
8001000333	QDOD	Optional
8001000345	QHVI	Required
8001000357	QWCO	Required
8001000359	QHGM	Required
8001000366	QDWL	Optional
8001000379	QRT5	Optional
8001000391	QDOF	Optional
8001000394	QSJM	Optional
8001000414	QBKR	Optional
8001000421	QCMT	Optional
8001000428	QCBC	Required
8001000438	QMMP	Optional
8001000451	QHMP	Required
8001000463	QCUT	Optional
8001000493	QARG	Required
8001000506	QSMH	Optional
8001000507	QSMH	Optional
8001000514	QMIE	Optional
8001000515	QMIE	Optional
8001000516	QMRY	Optional
8001000517	QMRY	Optional
8001000519	QSMP	Optional
8001000520	QSMP	Optional
8001000527	QWCT	Optional
8001000528	QWCT	Optional
8001000529	QRT5	Optional
8001000530	QRT5	Optional
8001000533	QWAC	Optional
8001000534	QWAC	Optional
8001000535	QVIC	Optional
8001000536	QVIC	Optional

NMI	DLF Code	Required or Optional ²
8001000539	QFIE	Required
8001000557	QPWA	Optional
8001000558	QPWA	Optional
8001000559	QPWQ	Optional
8001000560	QPWQ	Optional
8001000561	QDVC	Optional
8001000562	QDVC	Optional
8001000563	QFER	Optional
8001000564	QFER	Optional
8001000565	QMIR	Optional
8001000566	QMIR	Optional
8001000573	QPER	Optional
8001000574	QPER	Optional
8001000577	QGDI	Optional
8001000578	QGDI	Optional
8001000579	QERD	Optional
8001000580	QERD	Optional
8001000589	QDFM	Optional
8001000590	QDFM	Optional
8001000591	QSPO	Optional
8001000592	QSPO	Optional
8001000598	QCPC	Optional
8001000599	QCPC	Optional
8001000623	QWCK	Optional
8001000624	QWCK	Optional
8001000642	QTCL	Required
8001000650	QWBE	Optional
8001000651	QWBE	Optional
8001000652	QBUR	Optional
8001000653	QBUR	Optional
8001000665	QRPH	Optional
8001000666	QRPH	Optional

NMI	DLF Code	Required or Optional ²
8001000667	QLJS	Optional
8001000668	QLJS	Optional
8001000669	QKUD	Required
8001000670	QKUD	Required
8001000673	QMEE	Optional
8001000674	QMEE	Optional
8001000675	QVID	Optional
8001000676	QVID	Optional
8001000677	QWGS	Optional
8001000678	QWGS	Optional
8001000679	QBCB	Optional
8001000680	QBCB	Optional
8001000681	QMGS	Optional
8001000682	QMGS	Optional
8001000687	QRCS	Optional
8001000688	QRCS	Optional
8001000691	QRT5	Optional
8001000692	QRT5	Optional
8001000693	QRT5	Optional
8001000694	QRT5	Optional
8001000695	QSAD	Optional
8001000696	QSAD	Optional
8001000697	QMTC	Optional
8001000698	QMTC	Optional
8001000703	QBTF	Optional
8001000704	QBTF	Optional
8001000705	QTMA	Required
8001000706	QMIC	Required
8001000707	QAWF	Required
8001000708	QAWF	Required
8001000713	QAPI	Optional
8001000714	QAPI	Optional

NMI	DLF Code	Required or Optional ²
8001000738	QLGC	Required
8001000745	QPAG	Required
8001000756	QGTS	Optional
8001000766	QGMC	Optional
8001000780	QCBH	Required
8001000781	QRT5	Optional
8001000789	QSJO	Optional
8001000790	QWCG	Required
8001000792	QJOE	Optional
8001000819	QBKS	Optional
8001000824	QKBG	Required
8001000831	QTCM	Optional
8001000839	QTCM	Optional
8001000860	QSIG	Optional
8001000863	QRRRA	Required
8001000864	QBGC	Optional
8001000875	QPMP	Optional
8001000876	QRT5	Optional
8001000878	QWAN	Required
8001000916	QPEA	Required
8001000998	QNEW	Required
8001001009	QBMA	Required
8001001046	QVLW	Optional
8001001110	QTIF	Optional
8001001128	QSIG	Optional
8001002178	QLGE	Optional
8001002482	QDOF	Optional
8001002551	QLHT	Optional
8001002905	QAHU	Optional
8001003155	QCEN	Optional
8001003397	QGLG	Optional
8001003492	QTSS	Optional

NMI	DLF Code	Required or Optional ²
8001003787	QBNB	Required
8001005378	QLPG	Optional
8001005622	QWCR	Optional
8001005733	QMAR	Optional
8001006005	QWAA	Optional
8001006363	QWCM	Optional
8001006864	QSER	Required
8001007323	QNHP	Optional
8001007896	QRT5	Optional
8001008047	QWCI	Optional
8001008631	QDCS	Required
8001008755	QISU	Optional
8001009577	QBUL	Required
8001009720	QDOF	Optional
8001010090	QPTA	Optional
8001010318	QESC	Optional
8001010862	QDTO	Optional
8001011208	QLSP	Optional
8001011585	QIEW	Optional
8001011671	QDSX	Optional
8001011818	QRT5	Optional
8001012213	QSRP	Optional
8001012464	QCTE	Optional
8001013036	QRT6	Optional
8001013234	QDXE	Optional
8001014079	QRT5	Optional
8001014469	QHEL	Optional
8001014755	QMIL	Optional
8001014850	QSMR	Optional
8001015658	QBBP	Required
8001016752	QRUT	Required
8001016838	QWCV	Optional

NMI	DLF Code	Required or Optional ²
8001017024	QASA	Optional
8001017152	QWSI	Optional
8001017284	QGRI	Required
8001017512	QSPT	Optional
8001018080	QPED	Required
8001019433	QHLG	Required
8001019556	QMHP	Optional
8001020053	QWCD	Optional
8001020092	QBGM	Required
8001020102	QLPM	Optional
8001259738	QMRS	Optional
8001790061	QCAS	Required
8001988953	QWLT	Optional
8001993169	QSPW	Optional
8002002527	QCEB	Optional
8002006139	QRT5	Optional
8002008582	QLES	Optional
8002013336	QKWF	Required
8002016087	QCPU	Optional
8002016406	QWCZ	Optional
8002016408	QMBW	Required
8002016420	QTES	Required
8002016499	QWHF	Required
8002016507	QTCG	Required
8002016508	QTCK	Required
8002016509	QTCN	Required
8002016529	QDWF	Required
8002016562	QWAD	Required
8002016563	QWAD	Required
8002016580	QHFM	Required
8002016638	QDOD	Optional
8002016648	QWCJ	Optional

NMI	DLF Code	Required or Optional ²
8002016649	QSPP	Required
8002016650	QMPM	Required
8002016651	QTAL	Required
8002016682	QBBW	Required
8002019353	QRT5	Optional
8002027039	QISP	Optional
8002027040	QISP	Optional
8002034918	QFLM	Required
8002035499	QJAN	Optional
8002049183	QDER	Required
8002049586	QSPB	Optional
8002050616	QRT6	Optional
8002055189	QSIT	Required
8002057792	QPLA	Required
8002067264	QBGQ	Required
8002073940	QCPU	Optional
8002081338	QFUJ	Optional
8002085923	QEMO	Required
8002106501	QWCX	Optional
8002109233	QWCJ	Optional
8002118572	QEPF	Optional
8002119358	QVVM	Optional
8002141398	QJAN	Optional
8002148204	QANF	Required
8002162137	QWCS	Optional
8002163613	QLEH	Optional
8002166160	QCMA	Required
8002174244	QSJM	Optional
8002182945	QEAP	Optional
8002183852	QLES	Optional
8002191360	QLMR	Required
8002204305	QMRE	Optional

NMI	DLF Code	Required or Optional ²
8002206185	QBOC	Required
8002209093	QWAS	Optional
8002214497	QSGJ	Optional
8002220353	QWCY	Optional
8002221497	QFUR	Required
8002227231	QAAL	Optional
8002227767	QAAL	Required
8002247735	QKEY	Required
8002250697	QBUS	Optional
8002250698	QBUS	Optional
8002256750	QHHC	Optional
8002256973	QWCL	Optional
8002263036	QSPS	Optional
8002269579	QBFB	Required
8002276877	QRT5	Optional
8002288743	QEPH	Optional
8002292810	QWAS	Optional
8002293689	QPTB	Optional
8002293690	QPTD	Optional
8002315825	QMGS	Optional
8002316600	QIRN	Required
8002317197	QISH	Optional
8002319360	QIRL	Required
8002320406	QDOD	Optional
8002324711	QWDE	Optional
8002350127	QALL	Required
8002350828	QALM	Required
8002350829	QALP	Required
8002355633	QVVM	Optional

Appendix C

Extinct Loss Factor Codes

C.1 Extinct Loss Factor Codes

The following loss factor codes have not been recalculated for the 2021/22 financial year.

Table 7.5 - Individual Distribution Loss Factors

DLF code	Reason for not being calculated
QAMP	Not requested by retailer
QBMB	Requested DLF code name change to QHGM
QBMF	Not requested by retailer
QBNE	Not eligible for consideration
QCBK	Not requested by retailer
QCHP	Not requested by retailer
QGES	Not requested by retailer
QGRA	Not requested by retailer
QHAL	Not eligible for consideration
QHRO	Not eligible for consideration
QIRE	Not eligible for consideration
QKNV	Not eligible for consideration
QNFM	Not requested by retailer
QNXD	Not requested by retailer
QPAN	Not requested by retailer
QPEN	Not eligible for consideration
QPIA	Not requested by retailer
QPIB	Not requested by retailer
QVCF	Not requested by retailer
QVPL	Not requested by retailer
QWFL	Not requested by retailer
QBGB	Average value applied
QISM	Average value applied
QLNL	Average value applied
QSJB	Average value applied
QWCS	Average value applied
QWHS	Average value applied

Table 7.6: Individual Transmission Loss Factors

Loss Factor Code	Reason not calculated
WMWR	Substation has been decommissioned
WNED	Substation has been decommissioned
WTLN	Substation has been decommissioned
WVPA	Substation is inactive