Distribution Loss Factors

2024 – 2025 Financial Year (Public Report)

February 2024

Asset Planning & Performance







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Introduction

The National Electricity Rules require that Distribution Network Service Providers (DNSPs) obtain the approval of the Australian Energy Regulator (AER) as the regulator for distribution loss factors (DLFs) for the Endeavour Energy network. This report nominates the DLFs for Endeavour Energy's electrical distribution network for the 2024/25 financial year.

The methodology used in this calculation are described in Endeavour Energy's publication *Methodology Report Determination of Distribution Loss Factors* dated 3 February 2023 (the Report). The AER requires that distribution loss factors should be calculated for site-specific major customers, while loss factors for each tier of the network should be provided to calculate the losses attributable to the remainder of the customers.

As required by the Report, the proposed DLFs are "forward-looking" and use both demand and energy forecast data as provided by Endeavour Energy's Forecasting & Planning, and Finance sections for the 2024/25 fiscal year. References in this document to 'last financial year' refer to 2022/23 and references to 'next financial year' refer to 2024/25.



Results & Commentary





Tariff customers

Table 1 – Distribution loss factors for tariff customers

	202	3/24	202	4/25	Effective	
Network level ^{1,3}	Effective section loss factor	Cumulative loss factor ²	Effective section loss factor	Cumulative loss factor ²	section loss factor changes	Cumulative loss factor changes
132 kV network	1.0025	1.0025	1.0028	1.0028	0.03%	0.03%
Transmission substation	1.0032	1.0072	1.0030	1.0076	-0.02%	0.03%
Sub- transmission network	1.0048	1.0116	1.0049	1.0121	0.01%	0.05%
Zone substation	1.0048	1.0118	1.0044	1.0114	-0.04%	-0.04%
HV distribution network	1.0043	1.0162	1.0048	1.0164	0.05%	0.01%
Distribution substation	1.0321	1.0502	1.0297	1.0479	-0.22%	-0.22%
LV distribution network	1.0145	1.0691	1.0112	1.0624	-0.33%	-0.63%

Notes

- 1. All loss factors quoted in the above table are given as 1 + the % loss of energy delivered at that level of the network, whether to customers at that level, or to lower levels.
- 2. In this study section loss factors do not add numerically to give cumulative loss factors because of compounding and network configuration.
- 3. An allowance for theft losses of 0.5% of total sales has been made.

An examination of the results indicates that the proposed cumulative 2024/25 DLF differ slightly from results obtained in previous years, with significant changes at the distribution substation and LV distribution network levels. Endeavour provides the following commentary regarding the changes in effective section loss factor changes:

- Increased transmission substation losses could be driven by a decrease in embedded generation in the sub-transmission network, and increased loads without any new transmission substation transformers.
- Increased HV distribution network losses are driven by increased loss load factors due to average loads seen at zone substations decreasing whilst peak loads are increasing.
- Decreased zone substation losses could be attributed to increased residential PV generation causing reverse power flow at zone substations.
- Decreased losses within distribution substation and LV distribution network levels could be attributed to increased residential PV generation combined with decreasing generation at all other network levels. Total cumulative network losses at these levels are reduced as the power is both generated and consumed locally.

The calculation of the above loss factors is set out in Appendix A. The billed energy data used as the basis of the Report is contained in Appendix B.



Site-specific customers

In accordance with the National Electricity Rules, all customers with an average energy consumption of greater than 40 GWh and/or 10 MW demand have had site-specific loss factors calculated. Embedded generators with a peak output of greater than 10 MW have also had loss factors calculated.

requalifies for a site-specific customer in this years DLF and also also qualifies due to meeting the consumption threshold.

Due to the large volume of data produced from the load flow calculations, the derivation of these values is not provided in this report. However, the calculations are available for examination, should this be required. The results are summarised in the following tables:

Table 2 - Location specific loss factors for customers with consumption greater than 40 GWh p.a. and/or a maximum demand greater than 10 MW

Site-specific customers	NMI/s	2023/24 Ioss factor	2024/25 Ioss factor	Change	Comments on change
	4310857952	1.0167	1.0194	0.27%	
	4310866743	1.0082	1.0087	0.05%	
	4310942441	1.0062	1.0062	0.00%	
	4311028276 4311028297 4311246109 4311246110	1.0137	1.0149	0.12%	
	4311061116 4311061119	1.0062	1.0064	0.02%	
	4311063041 4311063042	1.0098	1.0099	0.01%	
	4311139903	-	1.0186		
	4311159207	1.0055	1.0058	0.04%	
	4311168207	1.0044	1.0043	-0.01%	
	4311204547 4311204594 4311339343 4311339344	1.0086	1.0094	0.08%	



Site-specific customers	NMI/s	2023/24 loss factor	2024/25 loss factor	Change	Comments on change
	4311339345 4311340412				
	4311206443 4311173727	1.0040	1.0051	0.11%	
	4311251697 4311297310	1.0007	1.0022	0.15%	
	4311271253 4311271260	1.0013	1.0015	0.02%	
	4311275493	1.0109	1.0092	-0.17%	
	4311322991 4311322992	1.0068	1.0078	0.10%	
	4311371172 4311371951	1.0000	1.0000	0.00%	
	NEEE000003	1.0102	1.0104	0.01%	
	NEEE000005	1.0130	1.0136	0.07%	
	NEEE000006	1.0364	1.0321	-0.42%	
	NEEE000014	1.0116*	1.0081	N/A	
	NEEE000046	1.0036	1.0040	0.05%	
	NEEE000049	1.0160	1.0152	-0.09%	
	NEEE000066	1.0312	1.0325	0.13%	
	NEEE000506	1.0092	1.0133	0.41%	
	NEEE000758 NEEE000759	1.0148	1.0105	-0.43%	
	NEEE000760 NEEE000762 NEEE000764 NEEE000766 NEEE000768	1.0183	1.0175	-0.08%	
	NEEE000881	1.0076	1.0072	-0.04%	



Site-specific customers	NMI/s	2023/24 loss factor	2024/25 loss factor	Change	Comments on change
	NEEE001591	1.0110	1.0099	-0.10%	
	NEEE001656	1.0036	1.0040	0.04%	
	NEEE001892	1.0149	1.0147	-0.02%	
	NEEE004639	1.0108	1.0116	0.08%	
	NEEE005219	1.0077	1.0078	0.02%	
	NEEEW00001 NEEEW00002	1.0032	1.0033	0.00%	
	NEEEW04150 NEEEW04151 NEEEW04152 NEEEW04153 NEEEW04154	1.0076	1.0090	0.14%	
	NEEEW04511 NEEEW04512 NEEEW04513 NEEEW04514	1.0044	1.0037	-0.06%	

Note:

* - Customer did not qualify for a site specific DLF and a generic DLF was applied



Site-specific embedded generators

The DLFs for the major embedded generators are as shown below. The methodology for the calculation of these DLFs is based on the difference in losses in the network between the conditions where the generator is operating and not operating over an annual cycle, relative to the energy sent out by the generator over the same period.

The applicable DLFs for embedded generators can have either positive or negative benefits depending on the level of generation and how much of the local generation is consumed locally. When the local generation is consumed locally, overall losses are reduced. However, overall losses incurred in the network increase if the local generation exceeds local load for significant periods during the year. Note that for generators, a DLF less than 1.000 corresponds to an increase in losses when the generators are connected to the network.

Site-specific embedded generators	NMI/s	2023/24 loss factor	2024/25 loss factor	Change	Comments on change
	NEEE000748	0.9937	0.9957	0.2%	
	NEEE000749	1.0236	1.0217	-0.2%	
	NEEE000750	1.0122	1.0145	0.2%	
	4310951391	0.9994	0.9996	0.0%	
	4311422627	0.9926	0.9980	0.5%	

Table 3 – Location specific loss factors for embedded generators with peak generation greater than 10 MW



Reconciliation of forecast and actual losses





As required by the Rules, a reconciliation of forecast and actual losses has been carried out. This involved taking the complete billing data set for the last financial year and comparing the losses incurred with those estimated by the calculations carried out previously for that year. A summary comparison between the actual losses as calculated from the billing data and the losses predicted by calculation at the macro level is shown in Table 4 below. A reconciliation using the proposed DLFs for the relevant year are shown in Table 5.

Details of this calculation for the 2022/23 financial year are contained in Appendix B.

Financial year	Forecast loss (kWh)	Actual loss (kWh)	Difference (kWh)	Energy distributed (kWh)	Forecast error as % of energy distributed
2014/15	620,376,428	672,024,439	-51,648,011	16,127,500,731	-0.32%
2015/16	644,002,105	693,554,014	-49,551,909	16,645,596,945	-0.30%
2016/17	672,024,439	673,002,628	-978,189	16,739,660,930	-0.01%
2017/18	693,554,014	784,053,584	-90,499,570	16,639,359,421	-0.54%
2018/19	673,002,628	783,907,002	-110,904,374	16,758,896,351	-0.66%
2019/20	715,801,176	750,188,080	-34,386,904	16,511,359,434	-0.21%
2020/21	783,907,002	735,934,929	47,972,073	16,716,870,093	0.29%
2021/22	750,188,080	735,905,423	14,282,657	16,711,340,936	0.09%
2022/23	735,934,929	739,782,428	-3,847,500	16,883,000,000	-0.02%

Table 4 – Reconciliation of forecast to actual losses at macro level

Financial year	Forecast loss (kWh)	Actual loss (kWh)	Difference (kWh)	Energy distributed (kWh)	Forecast error as % of energy distributed
2016/17	811,986,066	673,002,628	138,983,438	16,739,660,930	0.83%
2017/18	786,334,666	784,053,584	2,281,082	16,639,359,421	0.01%
2018/19	783,544,563	783,907,002	-362,439	16,758,896,351	0.00%
2019/20	765,491,446	750,188,080	15,303,366	16,511,359,434	0.09%
2020/21	853,091,551	735,934,929	117,156,622	16,716,870,093	0.70%
2021/22	795,245,393	735,905,423	59,339,970	16,711,340,936	0.36%
2022/23	811,613,082	739,782,428	71,830,654	16,883,000,000	0.43%

Note that the 2022/23 financial year is the last complete set of available billing data.



Appendices





Appendix A – Calculation of loss factors

			Aver	age Series Losses	(MW)				Av. Shunt Losses (MW)		Total Average	Average
Load / Generator Group General Network Loads (small HV customers and zone loads)	13.8770	Transmission 4.0562	1.3053	Subtrans. 4.6491	ZS 4.3914	7.20	Dist Sub LV 9.92 14.09	1.2551	ZS 2.5462	Dist Sub 30.07	Losses (MW) 79.489	Load (MW) 1476.797
Avg BSP Supplied power in Power Factory (from Series Losses tab)	1976.7					Formulas that nee	eds checking					
Forecast BSP supplied load	1864.0					Formula that migh	nt need checking					
						Formula that migh Might be required	t need checking					
		Load Flow Correction	0.9430			mgnt be required						
					Section Loss	Cum Loss						
	Average Power Su	pplied by each	Cum. Loss	Residual Losses	Factor	Factor						
Network Level	(MVO	(kka)	(EVb)	(LVD)	*	×						
Total System load (from BSP's)	1864.0	16,328,460,104	(*=1)	(***))								
less site specific customers		4,373,722,323										
less losses allocated to site specific customers	0.0	52,000,305										
Energy available to general pool		11,902,071,395										
less 66kV direct connections bypass (including bypass losses)	157.8	1,382,760,591										
total losses in 132kV network	3.7	32,847,276	32,847,276	654,268,767	0.2812%							
less 132/11k// 75 hypass (including hypass losses)	507.2	4 442 964 748										
less unallocated 132kV customer loads		8 482 197										
Energy available to Transmission Substations		7,228,617,248	54,451,607	632,664,436	0.2998%	0.7555%						
less unallocated TS losses	2.5	21,604,331										
Energy into Subtransmission Network (33/66KV) less unallocated 33/66kV line losses	43	37 749 957	92,201,564	594,914,479	0.4950%	1,2090%						
iess unallocated 33kV and 66kV major customer loads		222,754,378	150 253 909	536 863 337	0 440.79/	1 14000						
add back 132/11kV ZS bypass	507.2	4,442,964,748	130,233,000	530,002,237	0.440776	1.1400%						
add back 66kV direct connections bypass	157.8	1,382,760,591										
less unallocated ZS losses		NV 052 242										
Backet MITHER MARKET IN A MARKET REPORT OF A MA	0.0	105.463.498										
Energy into High Voltage Distribution Network	6.6	105,463,498 13,065,924,704	213,290,294	473,825,749	0.4842%	1.6382%						
Add embedded generation at HV	0.0	105,463,498 13,065,924,704 16,576,931	213,290,294	473,825,749	0.4842%	1.6382%						
Less energies on construction et work losses less energies of the construction of the	7.2	105,463,498 13,065,924,704 16,576,931 63,036,488	213,290,294	473,825,749	0.4842%	1.6382%						
Less minoculies of visualinité contraction to ESE Energy into High Voltage Distribution Network Add embedded generation at HV less unallocated distribution network losses less generation consumption less unallocated 111V and 221V HVC's	7.2	105,463,498 13,065,924,704 16,576,931 63,036,488 890,133,562	213,290,294	473,825,749	0.4842%	1.6382%						
Energy into High Voltage Distribution Network AdJ embedde generation at IV less unalocated distribution network losses less generation consumption less unalocated 111/V and 22X/ HVC's Energy into Distribution Substations	7.2	105,463,498 13,065,924,704 16,576,931 63,036,488 890,133,562 12,129,331,585	213,290,294	473,825,749	0.4842%	4.7853%						
Energy into High Voltage Distribution Network Add emedded generation at I/V bes unalkoaded distribution relevant bases bes unalkoaded distribution relevant tess unalkoaded 111V and 220V IV/V's Energy into Distribution Substations add embedded generation at distribution substations bes distribution tandformer losses	7.2	105,463,498 13,065,924,704 16,576,931 63,036,488 890,133,562 12,129,331,585 350,373,237	213,290,294 563,663,531	473,825,749 123,452,512	0.4842%	1.6382% 4.7853%						
Ces unitscalar (V count of the second of the	7.2	105,463,498 13,065,924,704 16,576,931 63,036,488 890,133,562 12,129,331,585 350,373,237 1,379,467,149	213,290,294 563,663,531	473,825,749 123,452,512	0.4842%	1.6382% 4.7853%						
Exergy into High Voltage Distribution Network Add ersholding deneration at IV less unalocated distribution network losses less generation consumption less unalocated 111/v and 220V HVC's Energy into Distribution Substations add embedded generation at distribution substations less distribution transformer losses less IV Customers connected to Dist Sub Energy into Low Okitage Distribution Network	7.2	30,002,403,498 10,665,924,704 16,576,931 63,036,488 890,133,562 12,129,331,585 350,373,237 1,379,467,149 10,399,491,198	213,290,294 563,663,531 687,116,043	473,825,749 123,452,512	0.4842% 2.9746% 1.1204%	1.6382% 4.7853% 6.2360%						
Acceptly into High Voltage Distribution Network Add emedded generation at I/V bes unalocated distribution relevant to the same transmission of the	40.0	105,463,498 13,065,924,704 16,576,931 63,036,488 890,133,562 12,129,331,585 350,373,237 1,379,467,149 10,399,491,198 654,269,762 11,053,760,960	213,290,294 563,663,531 687,116,043	473,825,749 123,452,512	0.4842% 2.9746% 1.1204%	1.6382% 4.7853% 6.2360%						
Energy into High Voltage Distribution Network Add embedde generation at IV less unallocated distribution network losses less generation consumption less unallocated 111/v and 220/ HVC's Energy into Distribution Substations add embedded generation at distribution substations less distribution maintomer losse distribution Network Add PV generation Total IN LV Network Customers (ind unmetered)		30,052,453,458 105,463,458 13,065,924,704 16,576,931 63,036,488 890,133,562 12,129,331,585 350,373,237 1,379,467,149 10,399,491,198 654,269,762 11,053,760,960 10,934,194,464	213,290,294 563,663,531 687,116,043	473,825,749 123,452,512	0.4842%	1.6382% 4.7853% 6.2360%						
benergy into High Votage Distribution Ketwork Ada strabdod penetation antwork tosses tess generation consumption tess unalocated distribution network tosses tess generation consumption tess unalocated 111V and 220V HVC's Energy into Distribution Substations add embedded generation at distribution substations tess distribution transformer losses tess 1V customers connected to Dist Sub Energy into Low Otage Distribution Network Add PV generation Total # LV Hervork Customers (incl unmetered) Bewarence for the fit on 55% of the lable	40.0	00,002,453,459 105,463,459 13,065,924,704 16,576,931 63,036,488 890,133,562 12,129,331,585 350,373,237 1,379,467,149 10,399,491,198 654,269,762 11,053,760,960 10,934,194,464	213,290,294 563,663,531 687,116,043	473,825,749 123,452,512	0.4842% 2.9746% 1.1204%	1.6382% 4.7853% 6.2360%						
Exergy into High Voltage Distribution Ketwork Add errebedde generation at IV less unalocated distribution network losses less generation consumption errery winto Distribution Substations add errebedder generation at destination substations bes LV clusterers connected to Dis Us Energy into Low Voltage Distribution Network Add PV generation Total N LV lettwork (substances (incl unmetered) Adiswance for thet @ 0.5% of total sales	40.0	3002,143 10,463,498 10,665,924,70 16,576,931 63,036,488 890,133,562 12,129,331,565 12,129,331,565 13,037,327 1,379,467,149 10,399,491,198 65,259,762 11,053,760,960 10,334,194,464 84,415,000	213,290,294 563,663,531 667,116,043 0.75%	473,825,749 123,452,512 % of low votage sa	0.4842% 2.9746% 1.1204%	1.6382% 4.7853% 6.2360%						
Exergy into High Voltage Distribution Network Add erholded generation at IV Iss sublacated distribution network losses less generation consumption less unallocated distribution substations add enhedded generation at distribution substations less distribution Substations less distribution Voltage Distribution Network Errery into Low Voltage Distribution Network Total IN I LV Network Clustomers (incl unmetered) Allowance for thet @ 0.5% of total sales	40.0	00005148 10065024704 165756331 63,036,488 690,133,562 350,337,237 1,379,467,149 10,393,441,198 654,259,752 11,053,766,960 10,334,154,464 84,415,000 123,452,512	213,290,294 563,663,531 667,116,043 0.75%	473,825,749 123,452,512 % of low voltage sa	0.4842% 2.9746% 1.1204%	1.6382% 4.7853% 6.2360%						
Energy into High Voltage Distribution Network Add embodies grieration in twork losses loss generation costumption less unalocated 11% and 22% HVC's Energy into Distribution Substations add embodded generation at distribution substations less distribution transformer losses less LV Customers connected to Dist Sub Energy into Low Voltage Distribution Network Add PV generation Total N LV Hetwork Customers (incl unmetered) Allowance for theit @ 0.5% of total sales LV Losses LV Losses	40.0	105,463,496 13,066,524,704 116,576,331 63,056,482 8890,133,562 13,729,313,885 356,372,327 1,379,467,149 1,379,467,149 13,57,600,890,752 11,053,760,960 10,334,194,484 84,415,000 123,452,512	213,290,294 563,663,531 687,116,043 0.75%	473,825,749 123,452,512 % of low votage sa	0.4842% 2.9746% 1.1204% Ies	1.6362% 4.7853% 6.2360%		Forecast (DL	FY) to Metering Data (DLE FY-2) Fristing SS2 Inovt	correction		
Exergy into High Voltage Distribution Network AdJ erhöded generation at IV less unalocated distribution network losses less generation consumption less unalocated distribution substations add erhöded generation at distribution substations add erhöden and at distribution substations add erhöded generation at a substation at the substations add erhöded generation at a substation at the substations add erhöded generation at a substation at the substations add erhöded generation at a substation at the substations add erhöded generation at a substation at the substatio	40.0	105,463,498 10,665,524,704 16,576,931 63,036,483 890,133,565 310,233,1585 350,373,237 1,779,467,149 10,393,469,149 64,269,762 10,533,194,194 64,269,762 10,533,194,194 84,415,000 123,452,512 16,328,460,104	213,290,294 563,663,531 687,116,043 0.75%	473,825,749 123,452,512 % of low votage sa	0.4842% 2.9746% 1.1204%	1.6382% 4.7853% 6.2360%		Forecast (DLF Forecast SP) 16,323.460,104	FY) to Metering Data (DLE FY-2) Existing BSP Input 15,267-24,532	correction Difference 1,031,217,572		
Exergy rinch High Voltage Distribution Ketwork Add strahold generation at IV Iss unablocated distribution network losses Iss generation consumption Iss unablocated distribution advant losses Iss distribution advantations add embedded generation at distribution substations Iss distribution strahott and starbution substations Iss distribution functions add embedded generation at distribution substations Iss distribution Voltage Distribution Substations Iss distribution Voltage Distribution Network Add PY generation Total It LV Herver Customers (Incl unmetered) Allowance for thet @ 0.5% of total sales LV Losses Calculation of Overall System Losses Scaded Genry in	40.0	105,453,45 13,065,924,724 18,576,931 63,005,493 19,135,952 12,129,331,585 12,129,331,585 13,037,237 1,375,467,149 10,939,481,484 654,269,752 11,053,760,960 10,934,194,484 84,415,000 123,452,512 16,228,460,104 2,225,539,388	213,290,294 563,663,531 667,116,043 0.75%	473,825,749 123,452,512 % of low votage sa	0.4842% 2.9746% 1.1204% kes	1.6382% 4.7853% 6.2360%		Forecast (DLI Forecast SP 16.328,460,104	FY) to Metering Data (0LE FY-2) Existing BSP Input 15:297.242,532 0.577	correction Difference 1,031,217,572		
Exergy into High Votage Distribution Ketwork Add erthodde generation at IV less unallocated distribution network losses less generation cativut losses add erthodde add add add add add add add add add	40.0	105,453,465 13,065,5242,704 15,576,931 16,576,931 16,576,931 16,576,931 16,372,931,582 12,729,467,149 13,734,467,149 14,952,760,950 10,934,194,464 84,415,000 123,452,512 16,352,460,104 2,225,539,886 13,500,455,249 4,372,722,373	213,290,294 563,663,531 687,116,043 0.75%	473,825,749 123,452,512 % of low votage sa	0.4842% 2.9746% 1.1204%	1.6382% 4.7853% 6.2360%		Forecast (DLF Forecast BSP 16,328,460,104	FY) to Metering Data (DLF FY-2) Existing BSP Input 15,297 24,552 0,937	correction Difference 1,031,217,572		
Exergy rinch High Voltage Distribution Network Add ersheddig operation at IVV Iss unalocated distribution network losses Iss generation consumption Iss unalocated distribution subtactions add embedded generation at distribution subtactions Total in LV Letwork Customers (incl unmetered) Allowance for thetl @ 0.5% of total sales LV Losses Calculation of Overall System Losses Scaded Genergy in Scaded Genergy to allocated customers Ste specific customers	40.0	105,453,45 13,065,524,704 15,576,931 63,035,453 63,035,453 12,729,471,49 10,939,451,498 654,269,762 11,033,452,459,762 10,033,143,468 84,415,000 123,452,512 16,328,460,104 2,325,539,866 15,340,465,249 4,373,722,333 52,666,385	213,290,294 563,663,531 687,116,043 0,75%	473,825,749 123,452,512 % of low votage sa	0.4842% 2.9746% 1.1204%	1.6382% 4.7853% 6.2360%		Forecast (DLF Forecast SP 16,328,460,104	FY) to Metering Data (DLF FY-2) Existing BSP Input 15,297 242532 0.937 New SS	correction Difference 1,031,217,572		
Exergy rinch High Voltage Distribution Ketwork Add erthedde generation at IV less unalocated distribution network losses bes generation consumption less unalocated distribution sobstations add ertheddes generation at destinen substations add ertheddes generation at destinen substations bes LV clusters connected to Dis Us Energy into Low Voltage Distribution Network Add PV generation Total Ri LV letwork Calationers (incl unmetered) Adlowance for thet @ 0.5% of total sales LV LV letwork of Overall System Losses Scaled Every In Scaled Biel Energy to unalocated customers Scaled Every In Scaled Biel Energy Losses Scaled Generation In Scaled Biel Energy Losses Scaled Comments In In Scaled Biel Energy Losses Scaled Comments In In Scaled Biel Energy Losses Scaled Comments In Scaled Biel Energy Losses Scaled Comments In Scaled Biel Energy Losses Scaled Comments In Scaled Biel Energy Losses Scaled Scale Scale Scale In Scale Scale Scal	40.0	105,453,45 13,065,524,704 13,055,524,704 16,576,331 15,305,42 10,233,452 10,233,452 10,239,441,198 65,259,750,960 10,934,194,464 84,415,000 123,452,512 16,252,460,104 2,225,539,986 13,540,495,249 4,377,722,323 5,266,335 5,271,46,012 14,012 14,012 15,026,460,104 13,540,495,249 14,225,539,986 13,540,495,249 14,225,539,986 13,540,495,249 14,225,539,986 13,540,495,249 14,225,539,986 13,540,495,249 14,225,539,986 13,540,495,249 14,225,539,986 13,540,495,249 14,225,539,986 13,540,495,249 14,225,539,986 13,540,495,249 14,225,539,986 13,540,495,249 14,225,539,986 13,540,495,249 14,225,539,986 13,540,495,249 14,225,539,986 13,540,495,249 14,225,539,986 13,540,495,249 14,245,540 14,245,540 14,245,540 14,245,540 14,245,540 14,245,540 14,245,540 14,245,540 14,245,540 14,245,540 14,245,540 14,245,540 14,245,540 14,245,540 15,445,540 14,245,540 14,245,540 14,245,540 14,245,540 14,245,540 14,245,540 14,245,540 14,245,540 14,245,540 14,245,540 14,245,540 14,450,540 14,450,540 14,450,540 14,450,540 14,450,540 14,450,540 14,450,540 14,450,540 14,450,540 14,450,540 14,450,540 14,450,540 14,450,540 14,450,540 14,450,540 14,450,540 14,450,540 14,450,	213,290,294 563,663,531 667,116,043 0.75%	473,825,749 123,452,512 % of low votage as	0.4842% 2.9746% 1.1204% Ies	1.6362% 4.7853% 6.2360%		Forecast (DL) Forecast SP 16:328,460,104	FY) to Metering Data (D.E. FY-2) Existing SSP Input 15,297,242,552 0.937 New SS	correction Difference 1,031,217,572		
Exergy into High Votage Distribution Ketwork AdJ erhöddig deneration at IV less unalocated distribution network losses less generation consumption ess unalocated distribution substations add erhöddig generation at distribution substations add erhödded generation at distribution substations add erhödded generation at distribution substations add erhödded generation at distribution substations bergy into Low Votage Distribution Network Add PV generation (Stations) Total in LVV Letwork Customers (incl unmetered) LV Letwork Customers (incl unmetered) Calculation of Overall System Losses Scaded Energy in Scaded Generation in Scaded Genergy in Scaded Genergy to unalocated customers Ste specific customers Energy Losses ablocation sets specific customers Total Losses (undurg sets pacefor customers)	40.0	105,453,46 106,457,40 10,576,931 50,056,428 090,133,562 10,279,331,585 10,299,41,98 65,269,762 10,359,467,169 10,359,461,198 64,415,000 122,452,512 16,226,466,104 2,325,539,686 15,3540,465,249 15,3540,465,465,465,465,465,465,465,465,465,465	213,290,294 563,663,531 667,116,043 0,75%	473,825,749 123,452,512 % of low voltage sa	0.4842% 2.9746% 1.1204%	1.6382% 4.7853% 6.2360%		Forecast (DLF Forecast BSP 16,328,460,104	FY) to Metering Data (DLF FY-2) Existing BSP Input 15,287 242,532 0.937 New SS	correction Difference 1,031,217,572		
Exerginition High Voltage Distribution Network Add serbiddig deneration at IV less unalocated distribution network losses less generation consumption less unalocated distribution substations add embedded generation at distribution substations add embedded generation at distribution substations less distribution Voltage Distribution substations less distribution Voltage Distribution Network Add PP generation TV Voltage Control Network Add PP generation LV Hetwork Customers (incl unmetered) Advance for thet@ 0.5% of total sales LV Losses Calculation of Overall System Losses Scaed Genergion Scaed	40.0	105,453,46 105,453,46 10,576,931 16,576,931 16,576,931 16,376,948 809,133,562 12,429,331,885 350,373,227 1,373,467,149 10,393,491,198 654,269,762 11,053,760,980 10,934,194,484 84,415,000 12,3452,512 16,328,460,104 14,232,559,989 13,540,455,289,389 13,540,455,289 13,540,455,289,389 13,540,455,289 13,540,455,289 13,540,455,289 13,540,455,289 13,540,455,289 13,540,455,289 13,540,455,289 13,540,455,289 13,540,455,289 13,540,455,289 13,540,455,289 13,540,455,289 13,540,455,289 13,540,455,289 13,540,455,289 13,540,455,289 13,540,455,289 13,576,451 14,777,22,225 15,777,29,772 14,777,29,722 15,777,29,772 15,777,29,772 15,777,29,772 15,777,29,772 15,777,29,772 15,777,29,772 15,777,772 15,777,29,772 15,777,29,772 15,777,29,772 15,777,29,772 15,777,29,772 15,777,29,772 15,777,29,772 15,777,29,772 15,777,29,772 15,777,29,772 15,777,29,772 15,777,29,772 15,777,29,772 15,772,772 15,777,29,772 15,777,29,772 15,777,29,772 15,777,29,772 15,7772 15,777,29,777 15,777,29,777 1	213,290,294 563,663,531 667,116,043 0.75%	473,825,749 123,452,512 % of low voltage as	0.4842% 2.9746% 1.1204%	1.6382% 4.7853% 6.2360%		Forecast (DLF Forecast SP 16,328,460,104	FY) to Metering Data (0LF FY-2) Existing BSP Input 15,297,242,532 0.937 New SS	correction Difference 1.031.217.572		

Appendix B – Billed energy data for 2022/23 financial year

Energy Imports	
Summary - Energy Imports	kWh
TransGrid - All BSP	15,297,242,532
Embedded Generators	2,325,539,896
Sunpower - included in "Embedded Generators" Total	-
Total Imports kWh	17,622,782,428
Embedded Generators breakdown	kWh
Landfill Gas	54,920,730
Non-Renewable	1,613,807,587
Provide py to be on the	CEC 044 570
Renewable - PV, Hydro & Wind	656,811,579
Decommissioned	0
Total Embedded Generation	2,325,539,896
Energy Exports	
Consumption Data based on WAPC	kWh
Total Poard Popart	16 882 000 000
Dom & Cld	5 970 787 155
Domestic	5 051 350 297
Controlled Load	771,466,024
NSW Solar Bonus Scheme	147,970,834
Commercial	1,761,747,138
General Supply Non TOU	1,629,115,751
General Supply TOU	23,348,798
Unmetered -	109,282,589
Industrial	9,150,465,707
Low Voltage TOU Demand	3,549,909,748
High Voltage TOLL Demand	
	1,651,600,014
Subtransmission TOU Demand	1,651,600,014 2,631,886,179
Subtransmission TOU Demand Bulk & Inter-distributor Transfer	1,651,600,014 2,631,886,179 1,317,069,765
Subtransmission TOU Demand Bulk & Inter-distributor Transfer	1,651,600,014 2,631,886,179 1,317,069,765
Subtransmission TOU Demand Bulk & Inter-distributor Transfer Reconciliation (Finance) Total Board Report as per TM1 (before corrections for solar and IDT)	1,651,600,014 2,631,886,179 1,317,069,765
Subtransmission TOU Demand Bulk & Inter-distributor Transfer Reconciliation (Finance) Total Board Report as per TM1 (before corrections for solar and IDT) NSW Solar Bonus Scheme	1,651,600,014 2,631,886,179 1,317,069,765 18,348,040,599 (147,970.834)
Subtransmission TOU Demand Bulk & Inter-distributor Transfer Reconciliation (Finance) Total Board Report as per TM1 (before corrections for solar and IDT) NSW Solar Bonus Scheme Bulk & Inter-distributor Transfer	1,651,600,014 2,631,886,179 1,317,069,765 18,348,040,599 (147,970,834) (1,317,069,765)

Existing and Potential Site Specific Customers	
High Voltage TOU Demand	1,651,600,014
N29 - HV TOLI Demand	1 227 900 215
Sub Transmission TOIL Demand	2,631,886,179
	2,001,000,110
N39 - ST TOU Demand	1,323,139,206
Bulk & Inter-distributor Transfer	1,317,069,765
Bulk & Inter-distributor Transfer	1,317,069,765 1,317,069,765 Existing Site Specific DLF Customer current DLF No longer Eligible for Site Specific DLF
Bulk & Inter-distributor Transfer	1,317,069,765 1,317,069,765 Existing Site Specific DLF Customer current DLF No longer Eligible for Site Specific DLF New Site Specific DLF Customer



Subtract site specifics from HV TOU Demand (N29) Tariff	
N29 Tariff Consumption without site specifics in year to reconcile	994,939,679
Subtract site specifics from Subtransmission TOU Demand (N39) Tariff	
N39 Tariff Consumption without site specifics in year to reconcile	113,989,765

N53 Tariff Consumption without site specifics in current year 50,600,802 Total of all LV customers (including all unmeterd) 11,282,444,041 Total of all HV customers (excluding site specifics) 995,597,060 Total of all ST Customers (excluding site specifics) 231,236,575 Total energy consumption of all site specifics in current year >40Gwh or >10MW 4,373,722,323 Cross Check Total Consumption 16,883,000,000 Difference 0 Unallocated 132kV customers (energy) kWh 8,482,197 HV Customers Connected Directly to TS 0 Unallocated 33kv and 66kV customers (energy) kWh 222,754,378 HV Customers Connected Directly to Zone Sub HHVT 105,463,498 HV Customers Connected into HV network HHVL 890,133,562 LV Customers connected directly to Distribution Sub HLVT 1,379,467,149 LV Customers connected into the LV network HLVL * excludes unmetered 9,793,694,303 Unmetered LV Supplies 109,282,589 Site Specifics from above 4,373,722,323 16,883,000,000 **Cross Check total Consumption** 0 Total Energy in 17,622,782,428 Total Billed Energy 16,883,000,000 Actual Losses (last Financial Year) 739,782,428 Overall losses as a function of Energy Imports 4.20% Overall losses as a function of Energy Sales 4.38% Allowance for Theft (0.5% of total sales) 84,415,000 Theft as a % of low voltage sales (s4.3 of report) 0.75% General Customers Billed (Total Billed less Site Specific Customers) 12,509,277,677 Energy in incl Generation 17.622.782.428 Site Specifics 4,373,722,323 Overall Losses Energy In less General Customers Billed + CRP 739,782,428 Overall Loss factor as a function of Billed Energy 4.38% Forecast Losses for 2022/23 (From that year's DLF report) 735,934,929 Loss Difference -3,847,500 Error as % of Energy Distributed -0.02%



Subtract site specifics from N53 Tariff

DLF HISTORICAL RECONCILIATION

	Customers Type		Actual Sales	DLF applied in	DLF x Sales
	7		Gwh	2022/23	Gwh
1	Site specific customers	4310857952		1.0170	
2		4310866743		1.0086	
3		4310942441		1.0040	
4		4311159207		1.0055	
5		4311168207		1.0040	
6		4311275493		1.0096	
7		4311028276, 4311028297, 4311246109, 4311246110		1.0146	
8		4311061116, 4311061119		1.0064	
9		4311340412, 4311204547, 4311204594, 4311339343, 4311339344, 4311339345		1.0082	
10		4311206443, 4311173727		1.0040	
11		4311251697, 4311297310		1.0011	
12		4311265997, 4311265950		1.0055	
13		4311271253, 4311271260		1.0010	
14		4311322991, 4311322992		1.0062	
15		4311371172, 4311371951		1.0000	
16		NEEE000003		1.0107	
17		NEEE000005		1.0135	
18		NEEE000006		1.0390	
19		NEEE000014		1.0079	
20		NEEE000046		1.0036	
21		NEEE000049		1.0155	
22		NEEE000066		1.0279	
23		NEEE000506		1.0144	
24		NEEE000/58, NEEE000/59		1.0134	
25		NEEE000/60, NEEE000/62, NEEE000/64, NEEE000/66, NEEE000/68		1.0181	
26		NEEE000881		1.0040	
27		NEEE001591		1.0071	
28		NEEE001656		1.0036	
29		NEEE001892		1.0130	
30		NEEE004039		1.0107	
31				1.0072	
32				1.0029	
24		NEEEW04130, NEEEW04131, NEEEW04132, NEEEW04133, NEEEW04134		1.0072	
- 34		TOTAL S Site creating austemark	4 318 986	1.0042	4 370 185
-		TO TAES Site specific customers	4,510.500		4,370.103
	NON Site Specific Customers	132 kV Network	8 482	1 0025	8 504
	Non one opeomo oustomers	Transmission Substation	0.000	1.0069	0.000
		Subtransmission Network	237 044	1 0114	239 743
		Zone Substation	105 463	1.0116	106 688
		High Voltage Distribution Network	930 403	1.0162	945 479
		Distribution Substation	1379 467	1 0493	1447 454
		Low Voltage Distribution Network	9793 694	1.0680	10459 817
		Unmetered	109 283	1 0680	116 716
		TOTALS NON Site specific customers	12,563,837		13.324.401
			,		
			GWh		
		Actual Purchases	17,622.782		
		Billed Sales	16,883.000		
		Actual Losses	739.782		
		Reconciled Purchases	17,694.586		
		Reconciled Losses	811.586		
		Loss Error	71.804		
		Error as a % of Actual Purchases	0.41%		
		Error as a % of Actual Sales	0.43%		
		Error as a % of Losses	9.71%		
		Error as a % of Actual Sales (correcting sales)	0.43%		



Appendix C – Calculation of losses for HV distribution network

Load ■Bus Ro. (writin the ■ Transmission Substation ■ LLF floos tool fact:: Peak Load (WF) Looses (WF) ≤ Abtochary, 25 2ABD111A, D Mount Teny 15 0.01556245 1.04.027019 Abtochary, 25 2AABD111A, D Mount Teny 15 0.01556245 1.04.027019 Appn 25 2AAPD111A, D Mount Teny 15 0.01566245 0.027039 Appn 25 2AAPD111A, D Mount Teny 15 0.0159617 0.025034 Appn 25 2AAPD111A, D Sydney West 15 (BSP) 0.144901334 107.2682449 0.001596 Beatmas, Junction 25 2EEEU11A, LD Finafa Lam 15 0.0179501 27.084279 0.001596 Beatmas, Tarz 220EEA11A, LD Katooma Paper 15 (BSP) 0.22933456 124.42238 0.001596 Beacharas, Tarz 221667411A, LD Katooma Paper 15 (BSP) 0.22933456 124.42238 0.001596 Beacharas, Tarz 221667411A, LD Katooma Paper 15 (BSP) 0.24933456 124.5228 0.001596 Beacharas, Tarz 220EOL11A, LD Stataoma TS 0.15982397 164.5239460 0.002974					Series Losses at	Distribution
Abbothamy 25 2ABB011A_LD Leepool BSP 0.07412223 22.08 801364 0.01146 Andon Park 25 2AMBA11A_LD Macarhun 615 (BSP) 0.118200176 21.5 272.03 0.02577 Ambanek 25 2AMBA11A_LD Macarhun 615 (BSP) 0.118200176 21.5 272.03 0.02579 Appin 25 2AMPA11A_LD Sydney West 13 (BSP) 0.14947134 0.025491 0.025491 Baukham 10is 1NW 2BALLTIA_LD Sydney West 13 (BSP) 0.249487197 95.6621768 0.025491 Baukham 10is 1NW 2BALLTIA_LD Sydney West 13 (BSP) 0.147040221 97.7164733 0.001308 Berma Junctions 27 2BERINTIA_D Sydney West 13 (BSP) 0.167446221 197.716733 0.001308 Berma Junctions 27 2BERINTIA_D Sydney West 13 (BSP) 0.12298306 6.4728496 0.003956 Berma Junctions 27 2BELANTIA_D Warmon 15 0.167146251 97.7124474 0.033746 Beny 25 2BOANTIA_D Warmon 15 0.16795646 7274496 0.003754 Beny 25 2BOANTIA_D Warmon 15	Load	Bus No. (within the 💌	Transmission Substation	LLF (loss load facto 🝸	Peak Load (kW 💌	Losses (MW) 💌
Alben Park 25 2ALB111*LD Mount Terry 15 0	Abbotsbury ZS	2ABBO11A_LD	Liverpool BSP	0.074129235	230.8801365	0.017115
Anabaralis 25 2440BA114_LD Meardhur 66 T5 (BSP) 0.116200705 214.92128 0.025271 Appen 25 244PA114_LD Lewrpool TS 0.104841263 0.025291 Appen 25 244PA114_LD Lewrpool TS 0.104841263 0.025491 Baulham His T16V 284A8571 0.024465787 0.024465787 0.024465787 Baulham His T16V 284A85787 0.047056213 277.0043783 0.001398 Berrina Junction ZS 28ER114_LD Disnahawn TS 0.167446261 197.707533 0.030166 Blackmann F1a ZS 28FEA114_LD Kateomina Nucht 198 0.115169564 0.017238 0.0001398 Bondarg ZS 28F004114_LD Sheahawn TS 0.115169564 0.017239 0.00735 Bondarg ZS 28F004114_LD Sheahawn TS 0.1153894738 1.0254614 0.027445 Bondarg ZS 28F004114_LD Sheahawn TS 0.1153894738 1.0039456 0.027453 Bondarg ZS 28F004114_LD Baulhawn TS 0.1455809 1.44647419 0.027456 Bonodarg ZS <td< td=""><td>Albion Park ZS</td><td>2ALBI11*_LD</td><td>Mount Terry TS</td><td>0.09545545</td><td>434.6266784</td><td>0.041487</td></td<>	Albion Park ZS	2ALBI11*_LD	Mount Terry TS	0.09545545	434.6266784	0.041487
Arace Vilage ZS 24/42/41 Lueppol TS 0.1044/246 24/94/246 24/94/246 24/94/246 24/94/246 24/94/246 22/94/01 Andel Park ZS 24/401/D11/L D Sydney West TS (BSP) 0.144/96133 0.02/2030 Berlman Hit 11W 24/94/D11/L D Sydney West TS (BSP) 0.144/96134 0.92/94/3753 0.001308 Berlman Junction ZS 2/26/84/11/L D Sydney West TS (BSP) 0.167/44263 0.27/93/353 0.001308 Blackmans Filt ZS 2/26/84/11/L D Sydney West TS (BSP) 0.167/44264 0.030316 Blackman ZS 2/26/84/11/L D Mount Figure TS (BSP) 0.167/44265 0.666744 0.001220 Blackman ZS 2/26/04/11/L D Mount Figure TS (BSP) 0.151/94624 0.001220 0.012208 0.0217/948 0.001220 0.0127/94 0.001220 0.0127/94 0.002472 0.0127/94 0.001220 0.0217/94 0.001220 0.0217/94 0.00127 0.001200 0.001200 0.001200 0.0127/94 0.00127 0.00127 0	Ambarvale ZS	2AMBA11A_LD	Macarthur 66 TS (BSP)	0.116200705	217.5272128	0.025277
Appen 2S 2APPHTIA_LD Macathur 66 TS (BSP) 0.14491334 172.662319 0.022491 Baukham Hill 11V 2001011 DD Sydney West TS (BSP) 0.1411037 201201301 0.064001 Baukham Hill 11V 200111 DD Sydney West TS (BSP) 0.16144261 197.070733 0.03108 Barry ZS 20FERN11A_LD Farina Junction St 0.16744261 197.0733 0.03108 Barry ZS 20FERN11A_LD Kaacomba Noth TS 0.122980326 146.7651733 0.03106 Blackheath ZS 20FERN11A_LD Kaacomba Noth TS 0.122980326 245.622038 0.003136 Blackhard ZS 20FUN11A_LD Shaahawan TS 0.1187062371 80.31714 60.033764 Bornadeny ZS 20FUN11A_LD Shaahawan TS 0.1187062371 80.4511797 0.024001 Bornadeny ZS 20FUN11A_LD Nacathur TS (BSP) 0.112098026 0.027818 0.003935 Bornadeny ZS 20FUN11A_LD Nacathur TS (BSP) 0.112092174 40.603735 0.027814 Bornadeny ZS	Anzac Village ZS	2ANZA11A_LD	Liverpool TS	0.108404286	249.4246253	0.027039
Andel Park 25 2440L11*LD Synthey West 15 (154*) 0.25445787 0.85007176 0.02439 Berlina Aunction 25 25558114.LD Synthey West 15 (154*) 0.14714331 0.90705313 0.017383 0.017289 <t< td=""><td>Appin ZS</td><td>2APPI11A_LD</td><td>Macarthur 66 TS (BSP)</td><td>0.144961334</td><td>172.6692819</td><td>0.025030</td></t<>	Appin ZS	2APPI11A_LD	Macarthur 66 TS (BSP)	0.144961334	172.6692819	0.025030
Buildham Hill 11W 2040ary Wear 15 (BSP) 0.1071531 202703135 0.007398 Berrinz Jancston Z 2055111A LD Shaahawa TS 0.107765112 27.003755 0.00396 Berry ZS 205511A LD Shaahawa TS 0.107766312 146.7851741 0.00396 Backmans Fill ZS 20541A LD Kaaomah North TS 0.192983398 92.1065743 0.00396 Blackhash ZS 20541A LD Shaahawa TS 0.151368544 6.0727496 0.003956 Bonndary ZS 20501A11A LD Shaahawa TS 0.1513062473 100.451197 0.033764 Bonndary ZS 20501M11A LD Shaahawa TS 0.153024736 152.656014 0.022162 Borndary ZS 20501V11A LD Farlax Lane TS 0.13030716 164.867491 0.0271782 Borndary ZS 20501V11A LD Macrituri TS (GSP) 0.24040728 154.867491 0.027182 Borndary ZS 20501V11A LD Macrituri TS (GSP) 0.24040728 154.867491 0.027182 Borndary ZS 2050114 LD Macrituri TS (GSP) 0.24199171 0	Arndell Park ZS	2ARND11*_LD	Sydney West TS (BSP)	0.294485787	86.56021786	0.025491
Balancia Units Line 2014 Difference Difference Difference Berry ZS Difference	Roull(hom Hills 11k)/		Sudpour Mont TS (BCD)	0 107116227	363 7603340	0.055007
Description Description <thdescription< th=""> <thdescription< th=""></thdescription<></thdescription<>	Baukham Hills 11kv		Sydney West TS (DSP)	0.10/11033/	352.7503340	0.000007
Back-hamb, S. ZBE/LATIA, LD Moont Piper 15 ((BSP) 0.20193345 (He) 151/14 0.001516 Back-hamb, Z.S ZBELATTA, LD Warmono TS 0.19463908 95, 01663715 0.1913306 Back-hamb, Z.S ZBELATTA, LD Warmono TS 0.15116864 66, 7274496 0.003935 Bonnylog, Z.S ZBOMATIA, LD Shoalhaven TS 0.15136864 66, 7274496 0.02345 Bowsbowing, Z.S ZBOMATIA, LD Blacktown TS 0.14033509 140823506 0.05336 Bowsbowing, Z.S ZBOWRITA, LD Blacktown TS 0.14033509 14082356 0.05936 Bowsbowing, Z.S ZBOWRITA, LD Blacktawn TS (BSP) 0.44033509 14082424 0.022778 Buil Stat ZBINTIA, LD Macanthur TS (BSP) 0.140577119 158, 142415 0.022778 Buil Stat ZDEVIDIA, LD Winsyard TS (BSP) 0.11057119 158, 140247 0.02378 Buil Stat ZDEVIDIA, LD Winsyard TS (BSP) 0.110576 142, 2411824 0.002372 Caburanta, ZS ZDAMBITA, LD Guildord TS	Berny 7S	2BERD11A_LD	Shoalbayon TS	0.047050215	21.00043133	0.001300
Backhadt 25. 28HEA HA, LO Katoontak Neth, TS 0 99446399 992-1066716 0 0 Botng 2S 28LANTA, LO Sthaalawan TS 0 12298926 264 52018 0 <td>Blackmans Flat 7S</td> <td></td> <td>Mount Dipor TS (BSD)</td> <td>0.107440201</td> <td>146 7851744</td> <td>0.030516</td>	Blackmans Flat 7S		Mount Dipor TS (BSD)	0.107440201	146 7851744	0.030516
Baskand ZS 28LAX11A_LD Warmon TS 0 0.12298326 15.6 0.01134 D Borlong ZS 200/011A_LD Shoalawam TS 0.117062397 10.041179 0.033744 Bornyrigg ZS 250/0411A_LD Blackmann TS 0.137062397 10.041179 0.033744 Bows Bowing ZS 250/0411A_LD Blackmann TS 0.14003309 114.0612456 0.059350 Bows Bowing ZS 280/0V8111_LD Impletum BSP 0.14003309 114.0612456 0.059350 Bows Bowing ZS 280/0V8111_LD Fairdx-Lane TS 0.150376119 158.140245 0.05370 Bowl ZS 280/0V8111_LD Macantur TS (ISP) 0.12037241 262.411426 0.00227 Bolia Vita ZS 291/1022A, LD Biror TS 0.1407187 0.150376119 158.102266 0.01287 Bolia Vita ZS 291/1022A, LD Biror TS 0.145772465 1.422411820 0.00277 Cabramata ZS 20AMB11_LD Paint TS 0.161787 14.0022512 0.012282 Cabramata ZS 20AMB11_LD Paint	Blackheath 7S		Katoomba North TS	0.108/63998	92 10666745	0.018280
Bolog 25 BOL0114_LD Shadhwan TS 0.1511696-4 65, 7279496 0.00933 Bornadery 25 BOMAITA_LD Shadhwan TS 0.153084736 152, 550614 0.023453 Bornadery 25 ZDONNITA_LD Wast Lverpool TS 0.14505297 184, 451797 0.033754 Bows Dowing 25 ZDONNITA_LD Ingeburn BSP 0.143010741 465, 3783661 0.089868 Bows Dowing 25 ZBOWNTIA_LD Macanthur TS (BSP) 0.143010741 465, 3783661 0.089868 Bringely 25 ZBNINTAL_DD Macanthur TS (BSP) 0.1460717426 1.42641 0.00277 Bella XIst 25 ZBVISTAL_DD Vineyard TS (BSP) 0.145172455 1.426744624 0.00207 Carabratat 25 ZCARFITAL_DD Guidford TS 0.127174255 1.426744624 0.00207 Carabratat 25 ZCARFITAL_DD Guidford TS 0.127174255 1.426741624 0.00207 Carabratat 25 ZCARFITAL_DD Carabratat 25 0.145172455 1.4267416424 0.00207 Carabratat 25 ZCARFITAL_DD Carabratat 25	Blavland 7S		Warrimoo TS	0.122998326	254 522038	0.031306
Bernwigz 25 260M4114_LD Shaahaveen TS 0.187062297 189.4511797 0.03374 Berselay Park 25 2600S114_LD Blacktown TS 0.15384736 152.550614 0.023463 Bowe Bowing 25 2600WB11_LD Blacktown TS 0.144055809 140.655809 0.021782 Bowe Bowing 25 2600WB11_LD Faraka Lane TS 0.13010741 465.3738661 0.028786 Bowe Bowing 25 2690WF11_LD Macarthur TS (BSP) 0.245000728 159.44215 0.027781 Bull 25 269VL022A_LD Wineyard TS (BSP) 0.75937248 262.411526 0.04570 Bylong 25 264MP11_LD Penth TS 0.25110115 6.5183306 0.03361 Cambellours 25 2CAMB114_LD Penth TS 0.10716475 199.4002512 0.02782 Carambellours 25 2CAM114_LD Lewropol TS 0.22923297 27.85896 0.039861 Carambellours 25 2CAM114_LD Lewropol TS 0.127825 0.094099 0.094099 Caramar 25 2CAS1114_LD Lewropol TS 0.127365661 1	Bolong 7S	2BOLO11A LD	Shoalbaven TS	0.151158654	65 7279496	0.009935
Bennying 25 200NH11A LD West Lverpool TS 0.153804736 152 550014 0.022463 Bowslay Park Z2 200WB111 LD Inglebum BSP 0.41606557 14.0602556 0.058360 0.0453712266 0.0453712266 0.0453712266 0.0453712266 0.0453712266 0.0453712266 0.0453712266 0.0453712266 0.0453712266 0.0453712266 0.013661 0.013661 0.013661 0.013661 0.013661 0.013661 0.013661 0.013661 0.0	Bomaderry 7S	2BOMA11A LD	Shoalhaven TS	0 187052397	180 4511797	0.033754
Bossley/Park 25 200SS114_D Blacknown TS 0.140635809 14.96.85809 Bow Bowing 25 200WR11_A_D Faraka Lane TS 0.19310/41 14.96.85809 0.047502 Bownell 25 200WR11_A_D Faraka Lane TS 0.19310/41 14.96.45.378.3661 0.098966 Bownell 25 200WR11_D D Macarthur TS (BSP) 0.242004728 31.94.069713 0.077591 Bull 25 200UR11_D D Bull Mits 25 200UR1226 0.044570 0.0425724 22.44114.226 0.042570 Bylong 25 204V1022A_D Unitry TS (BSP) 0.176475 15.9464328 0.00277 Cambeiltown 25 2CAMP11_L D Penth TS 0.15776476 14.926414624 0.002762 Cambeiltown 25 2CAMP11_L D Cambeiltown 65 TS 0.22992327 22.86700542 0.024859 0.039869 Cambeiltown 25 2CAMP11_L D Cambeiltown 75 S 0.122146522 15.0968619 0.018916 Caramar 25 2CAMP11_A LD Liverpol TS 0.125276766 11.9968719 0.018916 Caramar	Bonnyrigg ZS	2BONN11A LD	West Liverpool TS	0.153804736	152 5506014	0.023463
Bow Bowing ZS 2DOWB111_LD Inglebum BSP 0.415066557 140.6029566 0.06380 Bringely ZS 2BRIN114_LD Macarbur TS (BSP) 0.246004728 315.408713 0.077591 Bull ZS 2BRIN114_LD Macarbur TS (BSP) 0.246004728 1242416 0.023781 Bell X1st ZS 2BVIS114_LD Unreyand TS (BSP) 0.172897248 1.422416 0.002077 Carburdap Park ZS 2CAMB114_LD Guidford TS 0.251180115 5.183286 0.013861 Cambidge Park ZS 2CAMB114_LD Guidford TS 0.2521180115 5.181286 0.013861 Caraley Vale ZS 2CAMP114_LD Guidford TS 0.252251053 12618449 0.004512 Caraley ZS 2CAMP114_LD Carlingford TS 0.1532073676 122.861703 0.016891 Casale Hill ZS 2CASP114_LD Lheropon TS 0.123746526 122.861703 0.006894 Casale Vale ZS 2CAMP114_LD Lheropon TS 0.13361453 560.51542402 0.075745 Casale Vale ZS 2CAPER114_LD Newpon TS 0.13363978<	Bosslev Park ZS	2BOSS11A LD	Blacktown TS	0.140635809	154,8857491	0.021782
Bowal 28 2DOWN114_LD Franks: Law TS 0.19310741 465.3783961 0.098968 Bringely 28 2BRIN114_LD Macadhur 15 (GSP) 0.24004728 315.40241 0.0077991 Bull Z15 2BUL114_LD Bellambi TS 0.16037813 20241722 0.045370 Bylong 25 2BV1022A_LD Illiord TS 0.145172452 0.046370 0.00207 Cambridge Park 25 2CAMB114_LD Guidford TS 0.251180115 65.183296 0.0027869 Cambridge Park 25 2CAMB114_LD Macantur 617 (GSP) 0.1071671 412.291199 0.0027869 Cambridge Park 25 2CAMP111_LD Macantur 617 (GSP) 0.1905761 412.291199 0.078699 Canato H11 Z5 2CAR114_LD Caulog175 0.122736764 412.891199 0.08489 Caula 25 2CAR114_LD Caulog175 0.122736764 1.2281793 0.018919 Caula 25 2CAR114_LD Linerpool TS 0.1325452116 0.6489991 0.049499 Caula 25 2CAR114_LD Harwineshory TS 0.135545612 0.022827	Bow Bowing ZS	2BOWB11* LD	Ingleburn BSP	0.415066557	140.6029556	0.058360
Bringely ZS 2BRINITA LD Macarthur TS (BSP) 0.246004728 315.468713 0.077591 Bellar Vista ZS 2BVISTIA LD Vineyand TS (BSP) 0.17289748 24241522 0.045370 Bellar Vista ZS 2BVISTIA LD Vineyand TS (BSP) 0.17289748 1.40000077 Cabranata ZS 22048114.LD Guidford TS 0.251180115 5.1813286 0.013861 Cambridge Park ZS 220481114.LD Deniating TS 0.1916175 1.9405212 0.021862 Cambridge Park ZS 220481114.LD Guidford TS 0.222251053 3.761848994 0.09489 Carley Vale ZS 220481114.LD Guidford TS 0.222251053 3.761848994 0.09489 Casular ZS 220481114.LD Guidford TS 0.15271675 123.86173 0.018911 Carley Vale ZS 20481114.LD Heingroot TS 0.132716756 123.86173 0.018911 Caramar ZS 20481114.LD Heingroot TS 0.13635376 689420867 0.040409 Caramar ZS 20481114.LD Heingroot TS 0.1366433 0.05745 0	Bowral ZS	2BOWR11A LD	Fairfax Lane TS	0.19310741	465.3783661	0.089868
Bull ZS 2BULL114_LD Bellamba TS 0.15037619 156.142415 0.023761 Bella Vista ZS 2BVIS114_LD Vineyand TS (GSP) 0.12897248 222.411526 0.046370 Guahamata ZS 220ABR114_LD Pennth TS 0.251180115 65.1632366 0.00207 Cambolitowa ZS 220AMP111_LD Macantur 66 TS (GSP) 0.1905761 412.2611891 0.002486 Caramou ZS 220AMP114_LD Lowpool TS 0.229922397 252.7600542 0.068116 Caramou ZS 220AMP114_LD Carlingford TS 0.229922397 252.7600542 0.068119 0.018949 Caramar ZS 220APT11A_LD Carlingford TS 0.152736756 123.861790 0.018949 Caralor ZS 220APT11A_LD Lawpool TS 0.13659378 689.40987 0.04409 Carador ZS 220APT11A_LD Hawkesbury TS 0.13659378 689.40987 0.04499 Carador ZS 220APT11_LD Lawpool TS 0.146199577 54.64380173 0.028621 Carador ZS 20CMR11A_LD Macurin Unit TS 0.	Bringelly ZS	2BRIN11A LD	Macarthur TS (BSP)	0.246004728	315.4058713	0.077591
Bella Vista ZS 2EWS11A_LD Wineyad TS (BSP) 0.17287748 262.4115226 0.043570 Cabranata ZS 2CABB11A_LD Buildford TS 0.145172455 1.426741624 0.000207 Carbindge Park ZS 2CAMB111_LD Peninh TS 0.110716475 194.002512 0.021562 Camby Vale ZS 2CAMP111_LD Likeropol TS 0.229922397 252.57.600542 0.068115 Caranar ZS 2CARS111A_LD Cainingford TS 0.12216232 1.52.95.77.601542 0.098195 Castla Hill ZS 2CAS111A_LD Cainingford TS 0.1237.6756 1.23.961703 0.0189191 Castla Hill ZS 2CAS111A_LD Likerpol TS 0.136353776 689.4209677 0.94099 Cawdor ZS 2CAMP11A_LD Likerpol TS 0.136353776 689.4209677 0.94099 Carwdor ZS 2CAMP11A_LD Likerpol TS 0.13635378 689.4209677 0.94069 Carwdor ZS 2CAMP11A_LD Likerpol TS 0.1364433 518.386422 0.03037 Carwdor ZS 2CORR11A_LD Bellamb TS 0.1364433	Bulli ZS	2BULL11A LD	Bellambi TS	0.150378119	158.142415	0.023781
Bylong Zs 28YL022Å LD Ilford TS 0.44577245 1.426741624 0.000077 Carbamata ZS 2CAMB11A LD Guildior TS 0.251180115 55.183286 0.013861 Cambellown ZS 2CAMB11A LD Macathur 66 T5 (BSP) 0.1016751 14122591389 0.078669 Canley Vie ZS 2CAMR11A LD Califyrin 75 0.22922377 252.7500642 0.68115 Carsara ZS 2CARS111A LD Califyrin 75 0.12346576 1.23.861703 0.098489 Castle Hill ZS 2CAS111A LD Califyrin 75 0.15359378 669.420967 0.048919 Castle All ZS 2CAS111A LD Liverpoil TS 0.15359378 669.420967 0.048091 Castle All ZS 2CAWD11A LD Heypean 375 0.15359378 669.420967 0.048091 Careatorox ZS 2CHER11* LD Vierpean 375 0.15350378 669.420967 0.048091 Careatorox ZS 2CHER11* LD Vierpean 375 0.15350453 0.02227 0.049814 Careatorox ZS 2CHER11* LD Vierpean 375 0.15350453 <td< td=""><td>Bella Vista ZS</td><td>2BVIS11A LD</td><td>Vineyard TS (BSP)</td><td>0.172897248</td><td>262.4115226</td><td>0.045370</td></td<>	Bella Vista ZS	2BVIS11A LD	Vineyard TS (BSP)	0.172897248	262.4115226	0.045370
Cabramata ZS 2CABR11A_LD Guiddhor TS 0.251180115 65.8183286 0.013861 Cambridge Pair ZS 2CAMP111_LD Macarthur 66 T5 (GSP) 0.1907611 412.2691399 0.072652 Cambridge Pair ZS 2CAMP111_LD Liverpool TS 0.229922397 252.7600542 0.098165 Cararama ZS 2CARR11A_LD Guiddhort TS 0.252902397 252.7600542 0.0981815 Cararama ZS 2CARS111A_LD Leirrepool TS 0.152716766 123.861703 0.018391 Casula ZS 2CARS111A_LD Leirrepool TS 0.135221345 666.01542402 0.098409 Cawdor ZS 2CAHP11A_LD Ivrepool TS 0.135221345 566.01542402 0.028052 Corrimal ZS 2CHP11A_LD Livrepool TS 0.1350433 518.389422 0.028052 Corrimal ZS 2CORR11A_LD Bellamb TS 0.1350433 518.389422 0.030387 Cubura ZS 2CORR11A_LD Bellamb TS 0.135044533 518.389422 0.030387 Cubura ZS 2CORR11A_LD Bellamb TS 0.135646433	Bylong ZS	2BYLO22A LD	llford TS	0.145172455	1.426741624	0.000207
Cambridge Park 2S 2CAMB11A_LD Pennth TS 0.10746475 198.4002512 0.021262 Campbellioum ZS 2CAMP111_D Macantur 66 TS (BSP) 0.1905761 142.2691389 0.078669 Carnaruar ZS 2CARN11A_LD Cuidendr TS 0.252251053 276.916494 0.019818 Caraturar ZS 2CASU11A_LD Cuidendr TS 0.15278756 123.861703 0.019818 Casula ZS 2CASU11A_LD Hawkesbury TS 0.153539376 689.42097 0.0988719 0.019819 Casula ZS 2CANU11A_LD Hawkesbury TS 0.153549376 619.4202 0.017545 Caremont Meanue ZS 2CMH211A_LD Niezyand TS (BSP) 0.204901289 111.4064223 0.022027 Chreinon Avenue ZS 2CMH211A_LD Niezyand TS (BSP) 0.1330463 119.266434 0.020902 Carambor ZS 2CMH211A_LD Delambi TS 0.15304633 179.266434 0.020902 Carambor ZS 2CMR11A_LD Delambi TS 0.13330463 199.266434 0.020802 Carambor ZS 2CMR11A_LD Delambi TS	Cabramatta ZS	2CABR11A LD	Guildford TS	0.251180115	55.1833286	0.013861
Campbellioum ZS 2CAMP11*_LD Macanthur 65 (BSP) 0.1905/f1 412.2891389 0.078669 Canley Vale ZS 2CAR11A_LD Liverpool TS 0.22992397 252 7600422 0.058115 Carley Vale ZS 2CART1A_LD Curigrouf TS 0.152736756 123.861703 0.018918 Casula ZS 2CASU11A_LD Liverpool TS 0.152736756 123.861703 0.018918 Casula ZS 2CANUT1A_LD Havkresbury TS 0.135221345 560.1542402 0.075745 Cardnor XS 2CHW11A_LD Liverpool TS 0.135291345 560.1542402 0.075745 Chenton Avenue ZS 2CHER11*_LD Liverpool TS 0.13502138 516.369422 0.069205 Carminal ZS 2CMRA11A_LD Mount Druit TS 0.1350443 518.369422 0.069205 Carminal ZS 2CORR11A_LD Bellambi TS 0.173693168 343.4666232 0.03037 Carlaura ZS 2CMRA11A_LD Bellambi TS 0.173693168 349.3011869 0.88504 Carlaura ZS 2CMRA11A_LD Bellambi TS 0.173693168	Cambridge Park ZS	2CAMB11A LD	Penrith TS	0.10716475	198.4002512	0.021262
Canley Vale ZS 22ANL11A_LD Liverpool TS 0.22923297 252 7600.542 0.058115 Caramar ZS 22ARR11A_LD Guildford TS 0.152736766 123.061703 0.019818 Casula ZS 22ASU11A_LD Liverpool TS 0.152736766 123.061703 0.019818 Casula ZS 22ASU11A_LD Hawkesbury TS 0.135339376 0.29902144 0.019818 Casula ZS 22ANU11A_LD Hawkesbury TS 0.135349376 0.019812 0.019818 Carword ZS 2CHER111_D Vineyard TS (BSP) 0.24901289 111.4064223 0.022827 Chreinon Avenue ZS 2CMER11A_LD Meant TS 0.15336463 113.9246432 0.052926 Carametorok ZS 2CMER11A_LD Bellambi TS 0.15346433 179.2866434 0.020902 Carametorok ZS 2CORR11A_LD Pennit TS 0.01987368 313.456622 0.030367 Cultura ZS 2CURA111A_LD Pennit TS 0.01987368 314.456622 0.030367 Carametorok ZS 2CORA11A_LD Springhill TS 0.119973768 37	Campbelltown ZS	2CAMP11*_LD	Macarthur 66 TS (BSP)	0.1905761	412.2691389	0.078569
Carramz ZS 2CARR11A_LD Guideford TS 0.25221053 37.61848994 0.009489 Castle Hill ZS 2CAST11A_LD Liverpool TS 0.152736766 123.81703 0.018918 Castla ZS 2CASU11A_LD Liverpool TS 0.136253786 689.40987 0.09409 Cattai ZS 2CAW11A_LD Neyean 33 TS 0.136253186 669.40987 0.09409 Cawdor ZS 2CHEP11A_LD Vineyand TS (DSP) 0.20491289 111.4064253 0.022827 Chreinon Avenue ZS 2CHEP11A_LD Wenyand TS (DSP) 0.16190577 518.369422 0.006824 Carramot Meadows ZS 2CMEA11A_LD Bellambi TS 0.15646433 179.366434 0.020052 Crainet ZS 2CMEA11A_LD Bellambi TS 0.017363168 491.3014662 0.03387 Carlubra ZS 2CMEA11A_LD Bellambi TS 0.017363168 491.3014662 0.03387 Carlubra ZS 2CMEA11A_LD Syninghill TS 0.173633168 491.3014662 0.03387 Carlubra ZS 2DARK11A_LD Syninghill TS 0.173633168	Canley Vale ZS	2CANL11A_LD	Liverpool TS	0.229923297	252.7600542	0.058115
Castle IMI ZS 2CASU114, LD Carlingford TS 0.15236756 123.861703 0.016918 Casula ZS 2CASU114, LD Hawkesbury TS 0.13214552 150.568719 0.016591 Cartia ZS 2CAMU11A, LD Hawkesbury TS 0.135221345 660.154202 0.076745 Chenton Avenue ZS 2CHER11*, LD Vineyard TS (BSP) 0.24901289 111.4064253 0.022827 Chipping Notron ZS 2CHER11*, LD Liverpool TS 0.133504633 158.36942 0.069205 Carametoxok ZS 2CORR11A, LD Bellambi TS 0.1335046433 179.266513 0.030367 Culbura ZS 2CORR111*, LD West Tomerong TS 0.179376186 491.3011690 0.085336 Darlo ZS 2DAP211*, LD West Tomerong TS 0.0199757816 0.00031 0.038600 Darlo ZS 2DAP211*, LD Sydney West TS (BSP) 0.1101973578 0.02227725 0.057646 Dundas ZS 2DON111*, LD Carlingford TS 0.139944076 220.0227725 0.057646 Dundas ZS 2DON111*, LD Sydney West TS (BSP)	Carramar ZS	2CARR11A_LD	Guildford TS	0.252251053	37.61848994	0.009489
Casula ZS 2CASU11A_LD Liverpool TS 0.124522 160.968719 0.04009 Cattai ZS 2CANT11A_LD Hawkesbury TS 0.136539378 689.42097 0.04009 Cawdor ZS 2CAWD11A_LD Nepean 33 TS 0.1362321345 560.1542402 0.075745 Cheriton Avenue ZS 2CHEP114_LD Vineyard TS (BSP) 0.24901289 111.4064253 0.028824 Caraemont Meadows ZS 2CMEH114_LD Mount Druit TS 0.1350463 518.369422 0.068824 Caraemont XS 2CMR114_LD Bellambi TS 0.15646483 111496 0.06836 Calubura ZS 2CMR1114_LD Bellambi TS 0.0173693168 491.301496 0.038500 Dartos Forest ZS 2DARX111_LD Springhill TS 0.01975768 377.5456434 0.020852 Donoside ZS 2DDON111_LD System YB (BSP) 0.136450175 0.0384501 0.0390870 Danside ZS 2DDON111_LD System YB (BSP) 0.136450175 0.022827265 0.07546 Danside ZS 2DDON111_LD Caringford TS 0.122827325	Castle Hill ZS	2CAST11A_LD	Carlingford TS	0.152736756	123.861703	0.018918
Cattai ZS 2CATT11A_LD Hawkesbury TS 0.13523378 669-42987 0.094009 Cawdor ZS 2CAW011A_LD Nepean 33 TS 0.13522134 560.1542402 0.075745 Cheinton Avenue ZS 2CHER11*_LD Liverpool TS 0.016190577 54.68800173 0.008854 Claremort Meadows ZS 2CMRA11A_LD Bellambi TS 0.1350463 518.364422 0.065205 Cranebrook ZS 2CORR111_LD Bellambi TS 0.109684309 334.4566222 0.030387 Culbura ZS 2CORR111_LD West Tomerong TS 0.101973578 377.5455433 0.0308500 Darkes Forest ZS 2DAPX11*_LD Springhill TS 0.101973578 377.5455433 0.038500 Darkes Forest ZS 2DOND111*_LD Sydney West TS (BSP) 0.110161847 620.2227825 0.07546 Dundas ZS 2DUND11*_LD Sydney West TS (BSP) 0.13944078 280.0214441 0.039469 East Richmond ZS 2ECHX11A_LD Pennth TS 0.12924792 647.6753635 0.075425 East Richmond ZS 2DUND11*_LD Sydney West TS	Casula ZS	2CASU11A_LD	Liverpool TS	0.123146522	150.9688719	0.018591
Cawdor ZS 2CAWD11A_LD Nepearl 33 TS 0.135221345 560.1542402 0.075745 Cheption Avenue ZS 2CHER111*LD Liverpool TS 0.24901028 11114064253 0.028827 Claremont Meadows ZS 2CMEA11A_LD Mount Druit TS 0.1350463 518.369422 0.0689205 Corrinal ZS 2CORR11A_LD Bellambi TS 0.156464833 1179.2665434 0.028052 Calubura ZS 2CULB11*LD West Tomerong TS 0.13690168 491.3011689 0.038336 Calubura ZS 2CULB1*LD Springhill TS 0.01497576 6.87751918 0.038030 Darkes Forest ZS 2DARK11A_LD Springhill TS 0.01497576 6.87751918 0.00031 Darkes Forest ZS 2DON111*LD Caringford TS 0.139944078 260.0214841 0.039187 Eastern Creek ZS 2EDMO11*LD Caringford TS 0.12807925 647.6753535 0.0749239 Eastern Creek ZS 2EDMO11*LD Denham Court TS 0.12808309 30.4492999 0.057968 Fairfield ZS 2FEIE11A_LD Penrith TS	Cattai ZS	2CATT11A_LD	Hawkesbury TS	0.136359378	689.420987	0.094009
Cheriton Avenue ZS 2CHER11*_LD Vineyard TS (BSP) 0.24901289 111.4064253 0.022827 Chipping Notron ZS 2CMIP114 LD Liverpool TS 0.1619057 54.6800173 0.008854 Claremont Meadows ZS 2CORR11A, LD Bellambi TS 0.1506464833 179.2865434 0.028052 Cornaetrook ZS 2CORN11A_LD Bellambi TS 0.190645463 34.466232 0.030387 Culbura ZS 2CULB11*_LD West Tomerong TS 0.110173758 377.4545433 0.038500 Dapto ZS 2DAPX11*_LD Symphili TS 0.110173758 377.4545433 0.038500 Dandsz ZS 2DON11A_LD Sydney West TS (BSP) 0.11061847 52.02227825 0.057546 Dundas ZS 2DON11*_LD Carlingford TS 0.13844078 280.0214841 0.039187 Easten Creek ZS 2EDMO11*_LD Sydney West TS (BSP) 0.1384501103 167.242405 0.064606 Edmondson Park ZS 2EDMO11*_LD Penith TS 0.128267295 647.6753655 0.0742393 0.057968 Fairfield ZS 2FFIE11A_LD <td>Cawdor ZS</td> <td>2CAWD11A_LD</td> <td>Nepean 33 TS</td> <td>0.135221345</td> <td>560.1542402</td> <td>0.075745</td>	Cawdor ZS	2CAWD11A_LD	Nepean 33 TS	0.135221345	560.1542402	0.075745
Chipping Norton ZS 2 CHIP11A_LD Liverpool TS 0.16199577 54.68800173 0.008854 Claremont Meadows ZS 2 COMEATIA_LD Bellambi TS 0.156464833 179.2866434 0.028052 Crament Meadows ZS 2 CORR111_LD Pennth TS 0.090854369 334.4566232 0.030387 Culbura ZS 2 CULS111_LD Vest Tomerong TS 0.175933168 441.3011869 0.085336 Darkes Forest ZS 2 DAR211*_LD Springhill TS 0.046475711 6.897751194 0.038500 Darkes Forest ZS 2 DON11A_LD Sydney West TS (BSP) 0.11061847 520.2227825 0.057546 Dundsa ZS 2 DON114_LD Carlingford TS 0.139944078 260.0214841 0.039187 Eastern Creek ZS 2 ECRN11A_LD Mydney West TS (BSP) 0.384610103 157.242405 0.07423 Emu Plains ZS 2 EDMO11*_LD Denham Court TS 0.128083609 326.8905063 0.041869 Eastern Creek ZS 2 ECRN11A_LD Sydney West TS (BSP) 0.38426128 238.4459098 0.03203 East Richmond ZS 2 ER	Cheriton Avenue ZS	2CHER11*_LD	Vineyard TS (BSP)	0.204901289	111.4064253	0.022827
Claremont Meadows 2S 20MEAT1A_LD Mount Druit TS 0.13350463 518.369422 0.065205 Cramet2S 2CORR114_LD Dellambi TS 0.156464833 179.2865434 0.020052 Carborok ZS 2CAN111*_LD Penrith TS 0.1090854369 334.4566232 0.030387 Culburra ZS 2CULB11*_LD West Tomerong TS 0.173693168 491.3011869 0.085336 Darkes Forest ZS 2DARK11A_LD Bellambi TS 0.004547571 6.897751918 0.000001 Doonside ZS 2DOON11*_LD Sydney West TS (BSP) 0.11061847 7.520227825 0.057464 Dundaz ZS 2DON11*_LD Sydney West TS (BSP) 0.132061303 157.242405 0.060460 Edmondson Park ZS 2EDMO11*_LD Penrith TS 0.122083509 326.8905063 0.041869 East Richmond ZS 2EMUP11A_LD Springhill TS 0.128083509 326.8905063 0.041869 Fairfield ZS 2FIE11A_LD Guidford TS 0.262582976 164.5163197 0.043199 Figuree ZS 2FIE11A_LD Mount Tierry TS	Chipping Norton ZS	2CHIP11A_LD	Liverpool TS	0.16190577	54.68800173	0.008854
Corrinal ZS 2CORR11A_LD Bellambi TS 0.156464833 179.2865434 0.02052 Cranebrook ZS 2CRAN11*_LD Penrith TS 0.09064369 334.456622 0.030367 Culburra ZS 2DURE11*_LD Springhill TS 0.101973578 377.5455433 0.038600 Darkes Forest ZS 2DAPZ11*_LD Springhill TS 0.004547571 6.89775118 0.000031 Donside ZS 2DAON114_LD Sydney West TS (BSP) 0.11061847 520.2227825 0.057546 Dundas ZS 2EDMO11*_LD Cartingford TS 0.13944078 280.021441 0.039187 Eastern Creek ZS 2ECRK11A_LD Sydney West TS (BSP) 0.384501103 157.242405 0.060460 Edmondson Park ZS 2EDMUP114_LD Penrith TS 0.12803509 326.8905063 0.041869 East Richmond ZS 2ERIC11A_LD Hawkesbury TS 0.1885/2056 307.4032993 0.057968 Gerningorg ZS 2FIET11A_LD Guildford TS 0.26282976 104.5163197 0.043199 Figifield ZS 2FIET11A_LD Morut Terry TS	Claremont Meadows ZS	2CMEA11A_LD	Mount Druitt TS	0.13350463	518.369422	0.069205
Cranebrook ZS 20CRAN11*_LD Pennth TS 0.090864369 334.4566232 0.030387 Cublura ZS 20ULB1*_LD West Tomerong TS 0.173693168 491.301169 0.085366 Dapto ZS 2DAPZ11*_LD Springhill TS 0.101973578 377.5456433 0.038500 Darkes Forest ZS 2DARK11A_LD Bellambi TS 0.0044547571 6.897751918 0.00031 Dundas ZS 2DUND11*_LD Carlingford TS 0.139944078 280.0214841 0.039187 Eastern Creek ZS 2ECRK11A_LD Sydney West TS (BSP) 0.344501103 157.242405 0.060460 Edmondson Park ZS 2EDM011*_LD Denham Court TS 0.12267925 6.477.675363 0.07423 Emu Plains ZS 2ERIC11A_LD Hawkesbury TS 0.188572056 307.4032993 0.057668 Fairfield ZS 2FIFE11A_LD Guidford TS 0.262582976 164.6163197 0.043199 Figuree ZS 2GERN11A_LD Springhill TS 0.1286872056 307.4032993 0.057668 Gerningong ZS 2GERN11A_LD Regeninill ESP	Corrimal ZS	2CORR11A_LD	Bellambi TS	0.156464833	179.2865434	0.028052
Culbura 2S 2CULE11*_LD West Tomerong IS 0.17393166 491.3011899 0.085.336 Dapto ZS 2DAPZ11*_LD Springhill TS 0.011973578 377.5456433 0.038500 Darkes Forest ZS 2DARK11A_LD Bellambi TS 0.004547571 6.897751916 0.000301 Doonside ZS 2DUND11*_LD Carlingford TS 0.139944078 280.0214841 0.039187 Eastern Creek ZS 2ECRK11A_LD Sydney West TS (BSP) 0.34501103 157.242405 0.060460 Edmondson Park ZS 2EMUP11A_LD Penrith TS 0.122627925 647.6753635 0.079423 Emu Plains ZS 2ERIC11A_LD Hawkesbury TS 0.188572056 307.4032993 0.057968 East Richmond ZS 2FIGT11A_LD Guidford TS 0.262682976 164.5163197 0.043199 Figtree ZS 2FIGT1A_LD Mount Terry TS 0.17229953 30.04742578 0.005866 Glennore Park ZS 2GLEN11A_LD Mount Terry TS 0.117249518 34.04724578 0.005866 Glenorie ZS 2GLEO11A_LD Hawkesbury TS	Cranebrook ZS	2CRAN11*_LD	Penrith IS	0.090854369	334.4566232	0.030387
Dapto 2S DAPA 211°LD Springmin TS 0.1019/3676 377.545843 0.038900 Darkes Forest ZS DDAKK11A_LD Bellambi TS 0.004547571 6.897751918 0.000031 Donside ZS 2DOON114_LD Sydney West TS (BSP) 0.11061847 520.2227825 0.057546 Dundas ZS 2DOND11*_LD Carlingford TS 0.139944078 280.0214841 0.039187 Eastern Creek ZS 2ECRK11A_LD Sydney West TS (BSP) 0.384501103 167.242405 0.060460 Edmodson Park ZS 2EMUP114_LD Denham Court TS 0.122627925 647.6753653 0.079423 Emu Plains ZS 2EMUP11A_LD Penrith TS 0.188570266 307.4032933 0.057968 Fairfield ZS 2FFIE11A_LD Guildford TS 0.262582976 164.5163197 0.043199 Figtree ZS 2FIE11A_LD Mount Terry TS 0.138246128 30.04724578 0.005866 Glennore Park ZS 2GLE011A_LD Hawkesbury TS 0.16184828 90.5507797 0.014655 Granville ZS 2GLE011A_LD Hawkesbury TS	Culburra ZS	2CULB11*_LD	West Tomerong IS	0.1/3693168	491.3011869	0.085336
Darkes Profest 2.5 2DARK TIA_LD Deliaintbi TS 0.004947571 6.697731916 0.00031 Donsnide ZS 2DOON11A_LD Sydney West TS (BSP) 0.11061847 520.2227825 0.057546 Dundas ZS 2DUND11*_LD Carlingford TS 0.139944078 280.0214841 0.039187 Eastern Creek ZS 2ECRK11A_LD Sydney West TS (BSP) 0.384501103 157.242405 0.060460 Edmondson Park ZS 2EDMUP11A_LD Denham Court TS 0.122672925 647.6753635 0.041869 East Richmond ZS 2ERIC11A_LD Hawkesbury TS 0.188572056 307.4032993 0.057968 Fairfield ZS 2FFIE11A_LD Guidford TS 0.262582976 164.5163197 0.043199 Figtre ZS 2FIGT11A_LD Mount Terry TS 0.172299538 34.04724578 0.0055666 Glennore Park ZS 2GLEN11A_LD Regentville BSP 0.064705215 331.4048332 0.021444 Glensodia ZS 2GLEO11A_LD Hawkesbury TS 0.11678427 470.8332784 0.055077979 0.014655 Glessodia ZS 2	Dapto 25	2DAPZ11"_LD	Springhill 15	0.1019/35/8	377.5455433	0.038500
Double 2000N0114_LD Sydney West TS (BSP) 0.1106184 520/227625 0.037346 Dundas ZS 200N0114_LD Carlingford TS 0.13944078 280.0214841 0.039187 Eastern Creek ZS 2ECRK11A LD Sydney West TS (BSP) 0.384501103 157.242405 0.060460 Edmondson Park ZS 2EDM011*_LD Denham Court TS 0.122627925 647.6753635 0.079423 Emu Plains ZS 2EMUP11A_LD Penrith TS 0.128083509 326.8995063 0.041869 East Richmond ZS 2ERIC11A_LD Guidford TS 0.128083509 326.8995063 0.041869 Fairfield ZS 2FFIE11A_LD Guidford TS 0.128282976 164.5163197 0.043199 Fighree ZS 2FIG111A_LD Springhill TS 0.139246128 238.4459098 0.033203 Gerningong ZS 2GERN11A_LD Regmbile BSP 0.064705215 331.404832 0.021444 Glenorie ZS 2GLEO11A_LD Hawkesbury TS 0.16184828 90.5507797 0.014655 Glossodia ZS 2GLEO11A_LD Hawkesbury TS <t< td=""><td>Darkes Forest 25</td><td></td><td>Bellambi 15 Suda su Wash TS (BSD)</td><td>0.004547571</td><td>0.09//51910</td><td>0.000031</td></t<>	Darkes Forest 25		Bellambi 15 Suda su Wash TS (BSD)	0.004547571	0.09//51910	0.000031
Dandas ZS 20000111_LD Calmington 13 0.13934076 2000214041 0.0393107 Eastern Creek ZS 2CCRV11A_LD Sydney West TS (BSP) 0.348401103 167.242405 0.006400 Edmondson Park ZS 2EDMO11*_LD Denham Court TS 0.122627925 647.6753635 0.079423 Emu Plains ZS 2EMUP11A_LD Penrith TS 0.128083509 326.8905063 0.041869 East Richmond ZS 2ERIC11A_LD Guidford TS 0.262582976 164.5163197 0.043199 Fairfield ZS 2FFIE11A_LD Springhill TS 0.13924128 238.4459098 0.033203 Gerningong ZS 2GER111A_LD Mount Terry TS 0.172299538 34.04724578 0.005866 Glenorie ZS 2GLOS11B_LD Hawkesbury TS 0.1618428 90.55077979 0.014655 Glossodia ZS 2GLOS11B_LD Hawkesbury TS 0.116781277 470.8332784 0.054985 Grarwille ZS 2GRAN11A_LD Holroyd TS (BSP) 0.266713796 95.52110404 0.025477 Gresystanes ZS 2GREY11A_LD Blacktown TS	Dundan 75	2DUUND11* LD	Cardinatord TS	0.11001047	220.2227025	0.030197
Lasteni Creek 2.3 2LCKNN14_LD Sydney West TS (DSF) 0.304301103 157.242403 0.000400 Edmondson Park ZS 2EDM011*_LD Denham Court TS 0.122627925 647.6753635 0.079423 Emu Plains ZS 2ERIC11A_LD Penrith TS 0.128083609 326.8905063 0.041869 East Richmond ZS 2ERIC11A_LD Guildford TS 0.262582976 164.5163197 0.043199 Figfree ZS 2FIGT11A_LD Springhill TS 0.139246128 238.4459098 0.033203 Gerringong ZS 2GERR11A_LD Mount Terry TS 0.172299538 34.04724578 0.005866 Glennore Park ZS 2GLEO11A_LD Regentville BSP 0.064705215 331.404832 0.024144 Glenorie ZS 2GLEO11A_LD Hawkesbury TS 0.116781277 470.8332784 0.054985 Granville ZS 2GREY11A_LD Holroyd TS (BSP) 0.266713796 95.52110444 0.025477 Gresystanes ZS 2GREY11A_LD Blacktown TS 0.116781277 470.8332784 0.054985 Grarwille ZS 2GREY11A_LD Blackto	Eastern Creek 7S		Sudnov West TS (BSD)	0.135544070	167 242405	0.053107
Ldminusoin Fairk 2D ZEDMO TI_LD Deminant Count TS 0.122021923 041.013333 0.014125 Emu Plains ZS ZEMUP11A_LD Penrith TS 0.128083509 326.8905063 0.041869 East Richmond ZS ZERIC11A_LD Hawkesbury TS 0.188572056 307.4032993 0.057968 Figtree ZS ZFIGT11A_LD Springhill TS 0.262582976 164.5163197 0.043199 Figtree ZS ZFIGT11A_LD Mount Terry TS 0.139246128 238.4459098 0.033203 Gerningong ZS 2GERR11A_LD Mount Terry TS 0.172299538 34.04724578 0.005866 Glenorie ZS 2GLEO11A_LD Hawkesbury TS 0.16184828 90.55077979 0.014655 Glossodia ZS 2GLOS11B_LD Hawkesbury TS 0.116781277 470.8332784 0.052477 Gresstanes ZS 2GREY11A_LD Blacktown TS 0.141481608 135.1804308 0.019126 Hartley Vale ZS 2HART11A_LD Mount Piper TS (BSP) 0.140880246 6.583415831 0.000927 Harelbrok ZS 2HAZE11A_LD Bellambi TS <td>Edmondson Dark 7S</td> <td>2EDMO11* LD</td> <td>Denham Court TS</td> <td>0.304501105</td> <td>647 6753635</td> <td>0.000400</td>	Edmondson Dark 7S	2EDMO11* LD	Denham Court TS	0.304501105	647 6753635	0.000400
Ennor Hand 20 Extinit Number Other Name Other Name <tho< td=""><td>Emu Plains 7S</td><td>2EMUP11A LD</td><td>Penrith TS</td><td>0.122027525</td><td>326 8905063</td><td>0.041869</td></tho<>	Emu Plains 7S	2EMUP11A LD	Penrith TS	0.122027525	326 8905063	0.041869
East Richmond ZS 2ERIC11A_LD Hawkesbury TS 0.188572056 307.4032993 0.067968 Faiffield ZS 2FFIET11A_LD Guildford TS 0.262582976 164.5163197 0.043199 Figtree ZS 2FIGT11A_LD Springhill TS 0.132246128 238.4459098 0.033203 Gerringong ZS 2GERR11A_LD Mount Terry TS 0.172299538 34.04724578 0.005866 Glennore Park ZS 2GLEO11A_LD Regentville BSP 0.064705215 331.4048332 0.021444 Glenorie ZS 2GLEO11A_LD Hawkesbury TS 0.16184828 90.55077979 0.014655 Glossodia ZS 2GLEO311B_LD Hawkesbury TS 0.116781277 470.8332784 0.054985 Granville ZS 2GRAN11A_LD Holroyd TS (BSP) 0.266713796 95.52110404 0.022477 Grasstanes ZS 2GREY11A_LD Mount Piper TS (BSP) 0.14148108 135.1804308 0.019126 Hartley Vale ZS 2HART11A_LD Mount Piper TS (BSP) 0.140880246 6.633415831 0.000927 Hazebrook ZS 2HAZE11A_LD Bella			- on all to	0.12000000	020.0000000	0.041000
Fairfield ZS 2FFIE11A_LD Guildford TS 0.262582976 164.5163197 0.043199 Figtree ZS 2FIGT11A_LD Springhill TS 0.139246128 238.4459098 0.033203 Gerningong ZS 2GERR11A_LD Mount Terry TS 0.172299538 34.04724576 0.005866 Glennore Park ZS 2GLEN11A_LD Regentville BSP 0.064705215 331.4048332 0.021444 Glenorie ZS 2GLEO11A_LD Hawkesbury TS 0.16184828 90.55077979 0.014655 Glossodia ZS 2GLOS11B_LD Hawkesbury TS 0.16184828 90.552110040 0.025477 Granville ZS 2GREX11A_LD Holroyd TS (BSP) 0.266713796 95.52110040 0.025477 Greystanes ZS 2GREX11A_LD Blacktown TS 0.141481608 135.1804308 0.019126 Hartley Vale ZS 2HART11A_LD Mount Piper TS (BSP) 0.140880246 6.583415831 0.000927 Hazelbrook ZS 2HAZE11A_LD Bellambi TS 0.22505066 98.20402494 0.022101 Hinchinbrook ZS 2HINC11A_LD West Liverpool TS	East Richmond ZS	2ERIC11A_LD	Hawkesbury TS	0.188572056	307.4032993	0.057968
Figtree ZS 2FIGT11A_LD Springhill TS 0.139246128 238.4459098 0.033203 Geringong ZS 2GERR11A_LD Mount Terry TS 0.172299538 34.04724578 0.005866 Glenmore Park ZS 2GLEN11A_LD Regentville BSP 0.064705215 331.4048332 0.021444 Glenorie ZS 2GLEO11A_LD Hawkesbury TS 0.16184828 90.55077979 0.014655 Glossodia ZS 2GLOS11B_LD Hawkesbury TS 0.116781277 470.8332784 0.054985 Granville ZS 2GRAN11A_LD Holroyd TS (BSP) 0.266713796 95.52110404 0.025477 Greystanes ZS 2GREY11A_LD Blacktown TS 0.141481008 135.1804308 0.019126 Hartley Vale ZS 2HAZE11A_LD Mount Piper TS (BSP) 0.140880246 6.6583415831 0.000927 Hazelbrook ZS 2HAZE11A_LD Lawson TS 0.150294733 73.32867142 0.011021 Hinchinbrook ZS 2HINC11A_LD West Liverpool TS 0.071505072 616.3341802 0.044071 Holroyd ZS 2HOLR11A_LD Blacktown TS <td>Fairfield ZS</td> <td>2FFIE11A_LD</td> <td>Guildford TS</td> <td>0.262582976</td> <td>164.5163197</td> <td>0.043199</td>	Fairfield ZS	2FFIE11A_LD	Guildford TS	0.262582976	164.5163197	0.043199
Gerringong ZS 2GERR11A_LD Mount Terry TS 0.172299538 34.04724578 0.005866 Glennore Park ZS 2GLEN11A_LD Regentville BSP 0.064705215 331.4048332 0.021444 Glenorie ZS 2GLEO11A_LD Hawkesbury TS 0.16184828 90.55077979 0.014655 Glossodia ZS 2GLOS11B_LD Hawkesbury TS 0.116781277 470.8332784 0.054985 Granville ZS 2GRAN11A_LD Holroyd TS (BSP) 0.266713796 95.52110404 0.025477 Greystanes ZS 2GREY11A_LD Blacktown TS 0.141481608 135.1804308 0.019126 Hartley Vale ZS 2HART11A_LD Mount Piper TS (BSP) 0.140880246 6.583415831 0.000927 Hazelbrook ZS 2HAZE11A_LD Lawson TS 0.150294733 73.32867142 0.011021 Helensburgh ZS 2HINC11A_LD Bellambi TS 0.22505066 98.20402494 0.022101 Hinchinbrook ZS 2HINC11A_LD West Liverpool TS 0.071505072 616.3341802 0.044071 Holroyd ZS 2HOR11A_LD West Liverpool	Figtree ZS	2FIGT11A_LD	Springhill TS	0.139246128	238.4459098	0.033203
Glenmore Park ZS 2GLEN11A_LD Regentville BSP 0.064705215 331.4048332 0.021444 Glenorie ZS 2GLEO11A_LD Hawkesbury TS 0.16184828 90.55077979 0.014655 Glossodia ZS 2GLOS11B_LD Hawkesbury TS 0.116781277 470.8332784 0.054985 Granville ZS 2GRAN11A_LD Holroyd TS (BSP) 0.266713796 95.52110404 0.025477 Greystanes ZS 2GREY11A_LD Blacktown TS 0.141481608 135.1804308 0.019126 Hartley Vale ZS 2HART11A_LD Mount Piper TS (BSP) 0.140880246 6.583415831 0.000927 Hazelbrook ZS 2HAZE11A_LD Lawson TS 0.150294733 73.32867142 0.011021 Helensburgh ZS 2HALE11A_LD West Liverpool TS 0.22505066 98.20402494 0.022101 Hinchinbrook ZS 2HINC11A_LD West Liverpool TS 0.014347526 299.1368944 0.042919 Holroyd ZS 2HORE11*_LD West Liverpool TS 0.317312648 100.6924341 0.031951 Horsley Park ZS 2HORS11A_LD Mou	Gerringong ZS	2GERR11A_LD	Mount Terry TS	0.172299538	34.04724578	0.005866
Glenorie ZS 2GLE011A_LD Hawkesbury TS 0.16184828 90.55077979 0.014655 Glossodia ZS 2GLOS11B_LD Hawkesbury TS 0.116781277 470.8332784 0.054985 Granville ZS 2GRAN11A_LD Holroyd TS (BSP) 0.266713796 95.52110404 0.025477 Greystanes ZS 2GREY11A_LD Blacktown TS 0.141481608 135.1804308 0.019126 Hartley Vale ZS 2HART11A_LD Mount Piper TS (BSP) 0.140880246 6.583415831 0.000927 Hazelbrook ZS 2HAZE11A_LD Lawson TS 0.150294733 73.32867142 0.011021 Helensburgh ZS 2HLE11A_LD Bellambi TS 0.22505066 98.20402494 0.022101 Hinchinbrook ZS 2HINC11A_LD West Liverpool TS 0.011505072 616.3341802 0.044071 Holroyd ZS 2HOR11A_LD West Liverpool TS 0.14347526 299.1368944 0.042919 Horsley Park ZS 2HORS11A_LD Mount Druitt TS 0.159882483 207.4093989 0.03161 Huntingwood ZS 2HUNT11A_LD Sydney West TS	Glenmore Park ZS	2GLEN11A_LD	Regentville BSP	0.064705215	331.4048332	0.021444
Glossodia ZS 2GLOS11B_LD Hawkesbury TS 0.116781277 470.8332784 0.054985 Granville ZS 2GRAN11A_LD Holroyd TS (BSP) 0.266713796 95.52110404 0.025477 Greystanes ZS 2GREY11A_LD Blacktown TS 0.141481608 135.1804308 0.019126 Hartley Vale ZS 2HART11A_LD Mount Piper TS (BSP) 0.140880246 6.583415831 0.000927 Hazelbrook ZS 2HAZE11A_LD Lawson TS 0.150294733 73.32867142 0.011021 Helensburgh ZS 2HELE11A_LD Bellambi TS 0.22505066 98.20402494 0.022101 Hinchinbrook ZS 2HINC11A_LD West Liverpool TS 0.071505072 616.3341802 0.044071 Holroyd ZS 2HOLR11A_LD Blacktown TS 0.14347526 299.1368944 0.042919 Homepride ZS 2HOME11*_LD West Liverpool TS 0.317312648 100.6924341 0.031951 Horsley Park ZS 2HORS11A_LD Mount Druitt TS 0.159882483 207.4093989 0.033161 Huntingwood ZS 2HUNT11A_LD Sydney West	Glenorie ZS	2GLEO11A_LD	Hawkesbury TS	0.16184828	90.55077979	0.014655
Granville ZS 2GRAN11A_LD Holroyd TS (BSP) 0.266713796 95.52110404 0.025477 Greystanes ZS 2GREY11A_LD Blacktown TS 0.141481008 135.1804308 0.019126 Hartley Vale ZS 2HART11A_LD Mount Piper TS (BSP) 0.140880246 6.583415831 0.000927 Hazelbrook ZS 2HAZE11A_LD Lawson TS 0.150294733 73.32867142 0.011021 Helensburgh ZS 2HELE11A_LD Bellambi TS 0.22505066 98.20402494 0.022101 Hinchinbrook ZS 2HINC11A_LD West Liverpool TS 0.071505072 616.3341802 0.044071 Holroyd ZS 2HOLR11A_LD Blacktown TS 0.14347526 299.1368944 0.042919 Homepride ZS 2HOME11*_LD West Liverpool TS 0.317312648 100.6924341 0.031951 Horsley Park ZS 2HORS11A_LD Mount Druitt TS 0.159882483 207.4093989 0.033161 Huntingwood ZS 2HUNT11A_LD Sydney West TS (BSP) 0.210906338 361.0247639 0.076142 Huskisson ZS 2HUSK11A_LD West	Glossodia ZS	2GLOS11B_LD	Hawkesbury TS	0.116781277	470.8332784	0.054985
Greystanes ZS 2GREY11A_LD Blacktown TS 0.141481608 135.1804308 0.019126 Hartley Vale ZS 2HART11A_LD Mount Piper TS (BSP) 0.140880246 6.5683415831 0.000927 Hazelbrook ZS 2HAZE11A_LD Lawson TS 0.150294733 73.32867142 0.011021 Hazelbrook ZS 2HAZE11A_LD Bellambi TS 0.22505066 98.20402494 0.022101 Hinchinbrook ZS 2HINC11A_LD Bellambi TS 0.071505072 616.3341802 0.044071 Holroyd ZS 2HOLR11A_LD Blacktown TS 0.14347526 299.1368944 0.042919 Homepride ZS 2HOKS11A_LD West Liverpool TS 0.317312648 100.6924341 0.031951 Horsley Park ZS 2HORS11A_LD Mount Druitt TS 0.159882483 207.4093989 0.033161 Huntingwood ZS 2HUNT11A_LD Sydney West TS (BSP) 0.210906338 361.0247639 0.076142 Hustisson ZS 2HUSK11A_LD West Tomerong TS 0.180179035 286.6612339 0.051650 Ilford Hall ZS 2ILFH11A_LD Ilford T	Granville ZS	2GRAN11A_LD	Holroyd TS (BSP)	0.266713796	95.52110404	0.025477
Hartley Vale 2S 2HAR111A_LD Mount Piper IS (BSP) 0.140880246 6.583415831 0.000927 Hazelbrook ZS 2HAZE11A_LD Lawson TS 0.150294733 73.32867142 0.011021 Helensburgh ZS 2HELE11A_LD Bellambi TS 0.22505066 98.20402494 0.022101 Hinchinbrook ZS 2HINC11A_LD West Liverpool TS 0.071505072 616.3341802 0.044071 Holroyd ZS 2HOLR11A_LD Blacktown TS 0.14347526 299.1368944 0.042919 Homepride ZS 2HOKS11A_LD West Liverpool TS 0.317312648 100.6924341 0.031951 Horsley Park ZS 2HORS11A_LD Mount Druitt TS 0.159882483 207.4093989 0.033161 Huntingwood ZS 2HUNT11A_LD Sydney West TS (BSP) 0.210906338 361.0247639 0.076142 Huskisson ZS 2HUSK11A_LD West Tormerong TS 0.180179035 286.6612339 0.051650 Ilford Hall ZS 2ILFH11A_LD Ilford TS 0.202565869 12.90618945 0.002614 Inner Harbour ZS 2INNE11A_LD S	Greystanes ZS	2GREY11A_LD	Blacktown IS	0.141481608	135.1804308	0.019126
Hazelbrook ZS 2HAZE11A_LD Lawson TS 0.150294733 73.3286/142 0.011021 Helensburgh ZS 2HELE11A_LD Bellambi TS 0.22505066 98.20402494 0.022101 Hinchinbrook ZS 2HINC11A_LD West Liverpool TS 0.071505072 616.3341802 0.044071 Holroyd ZS 2HOLR11A_LD Blacktown TS 0.14347526 299.1368944 0.042919 Homepride ZS 2HORS11A_LD West Liverpool TS 0.317312648 100.6924341 0.031951 Horsley Park ZS 2HORS11A_LD Mount Druitt TS 0.15982483 207.4093989 0.033161 Huntingwood ZS 2HUNT11A_LD Sydney West TS (BSP) 0.210906338 361.0247639 0.076142 Huskisson ZS 2HUSK11A_LD West Tomerong TS 0.180179035 286.661239 0.0051650 Ilford Hall ZS 2ILFH11A_LD Springhill TS 0.202565869 12.90618945 0.002614 Inner Harbour ZS 2IAMB11A_LD Springhill TS 0.159251604 3.566665232 0.000568 Jamberoo ZS 2JAMB11A_LD Mount Terr	Hartley Vale ZS	2HARI11A_LD	Mount Piper TS (BSP)	0.140880246	6.583415831	0.000927
Heitensburgh ZS ZHELE TIA_LD Beilambris 0.22305060 36.20402494 0.022101 Hinchinbrook ZS 2HINC11A_LD West Liverpool TS 0.071505072 616.3341802 0.044071 Holroyd ZS 2HOLR11A_LD Blacktown TS 0.14347526 299.1368944 0.042919 Homepride ZS 2HOME11*_LD West Liverpool TS 0.317312648 100.6924341 0.031951 Horsley Park ZS 2HORS11A_LD Mount Druitt TS 0.159882483 207.4093989 0.033161 Huntingwood ZS 2HUNT11A_LD Sydney West TS (BSP) 0.210906338 361.0247639 0.076142 Huskisson ZS 2HUSK11A_LD West Tomerong TS 0.180179035 286.6612339 0.051650 Ilford Hall ZS 2ILFH11A_LD Ilford TS 0.202565869 12.90618945 0.002614 Inner Harbour ZS 2IAMB11A_LD Springhill TS 0.159251604 3.566665232 0.000568 Jamberoo ZS 2JAMB11A_LD Mount Terry TS 0.1736424 30.02368366 0.005213 Jasper Rd ZS 2JASP11A_LD Baulkham H	Hazelbrook ZS	2HAZE11A_LD	Lawson 15 Dellambi TO	0.150294733	/3.3286/142	0.011021
Hinchinbrook 2S ZHINCTIA_LD West Liverpool TS 0.071505072 616.3341802 0.044071 Holroyd ZS 2HOLR11A_LD Blacktown TS 0.14347526 299.1368944 0.042919 Homepride ZS 2HOME11*_LD West Liverpool TS 0.317312648 100.6924341 0.031951 Horsley Park ZS 2HORS11A_LD Mount Druitt TS 0.159882483 207.4093989 0.033161 Huntingwood ZS 2HUNT11A_LD Sydney West TS (BSP) 0.210906338 361.0247639 0.076142 Huskisson ZS 2HUSK11A_LD West Tomerong TS 0.180179035 286.6612339 0.051650 Ilford Hall ZS 2ILFH11A_LD Ilford TS 0.202565869 12.90618945 0.002614 Inner Harbour ZS 2INNE11A_LD Springhill TS 0.159251604 3.566665232 0.000568 Jamberoo ZS 2JAMB11A_LD Mount Terry TS 0.1736424 30.02368366 0.005213 Jasper Rd ZS 2JASP11A_LD Baulkham Hills TS 0.130310426 220.6431187 0.028752 Jordan Springs ZS 2JORD11A_LD P	Helensburgh 25	2HELETTA_LD	Bellambi 1S	0.22505066	98.20402494	0.022101
Homepride ZS 2HOLRTIA_LD Blacktown rs 0.14347526 239,1366944 0.042919 Homepride ZS 2HOME11*_LD West Liverpool TS 0.317312648 100.6924341 0.031951 Horsley Park ZS 2HORS11A_LD Mount Druitt TS 0.159882483 207.4093989 0.033161 Huntingwood ZS 2HUNT11A_LD Sydney West TS (BSP) 0.210906338 361.0247639 0.076142 Huskisson ZS 2HUSK11A_LD West Tomerong TS 0.180179035 286.6612339 0.051650 Ilford Hall ZS 2ILFH11A_LD Ilford TS 0.202565869 12.90618945 0.002614 Inner Harbour ZS 2IAMB11A_LD Springhill TS 0.159251604 3.566665232 0.000568 Jamberoo ZS 2JAMB11A_LD Mount Terry TS 0.1736424 30.02368366 0.005213 Jasper Rd ZS 2JASP11A_LD Baulkham Hills TS 0.130310426 220.6431187 0.028752 Jordan Springs ZS 2JORD11A_LD Penrith TS 0.09366902 277.5010782 0.025993	Hinchinbrook 25		Plaakteurn TS	0.071505072	010.3341002	0.044071
Horseprice ZS ZHOWE HT_LD West Everypoint's 0.317312040 100.0924341 0.031951 Horsley Park ZS 2HORS11A_LD Mount Druitt TS 0.159882483 207.4093989 0.033161 Huntingwood ZS 2HUNT11A_LD Sydney West TS (BSP) 0.210906338 361.0247639 0.076142 Huskisson ZS 2HUSK11A_LD West Tomerong TS 0.180179035 286.6612339 0.051650 Iford Hall ZS 2ILFH11A_LD Ilford TS 0.202665869 12.90618945 0.002614 Inner Harbour ZS 2INNE11A_LD Springhill TS 0.159251604 3.566666232 0.000568 Jamberoo ZS 2JAMB11A_LD Mount Terry TS 0.1736424 30.02368366 0.005213 Jasper Rd ZS 2JORD11A_LD Baulkham Hills TS 0.130310426 220.6431187 0.028752 Jordan Springs ZS 2JORD11A_LD Penrith TS 0.09366902 277.5010782 0.025993	Homoprido 79	2HOLK HA_LD	Most Liverpool TS	0.1434/526	233.1366344	0.031051
Hustingwood ZS 2HUNT11A_LD Sydney West TS (BSP) 0.159602403 207.4033969 0.033161 Hustingwood ZS 2HUNT11A_LD Sydney West TS (BSP) 0.210906338 361.0247639 0.076142 Hustisson ZS 2HUSK11A_LD West Tomerong TS 0.180179035 286.6612339 0.051650 Iford Hall ZS 2ILFH11A_LD Ilford TS 0.202565869 12.90618945 0.002614 Inner Harbour ZS 2IJNNE11A_LD Springhill TS 0.159251604 3.566665232 0.000568 Jamberoo ZS 2JAMB11A_LD Mount Terry TS 0.1736424 30.02368366 0.005213 Jasper Rd ZS 2JORD11A_LD Baulkham Hills TS 0.130310426 220.6431187 0.028752 Jordan Springs ZS 2JORD11A_LD Penrith TS 0.09366902 277.5010782 0.025993	Horelov Dark 7S	2HORS114 LD	Mount Druitt TS	0.31/31/040	207 4003090	0.031931
Huskisson ZS ZHORT HA_LD Sydney West 15 (DSP) 0.2 10500300 301.0247033 0.076142 Huskisson ZS 2HUSK11A_LD West 10 (DSP) 0.180179035 286.6612339 0.051650 Ilford Hall ZS 2ILFH11A_LD Ilford TS 0.202565869 12.90618945 0.002618 Inner Harbour ZS 2INNE11A_LD Springhill TS 0.159251604 3.566665232 0.000568 Jamberoo ZS 2JAMB11A_LD Mount Terry TS 0.1736424 30.02368366 0.005213 Jasper Rd ZS 2JASP11A_LD Baulkham Hills TS 0.130310426 220.6431187 0.028752 Jordan Springs ZS 2JORD11A_LD Penrith TS 0.09366902 277.5010782 0.025993	Huntingwood 7S		Sydney West TS (RSD)	0.10002403	361 0247620	0.033101
Ilford Hall ZS 2ILGRTTA_LD West fullering TS 0.100175059 200.0012339 0.001830 Ilford Hall ZS 2ILFH11A_LD Ilford TS 0.202565869 12.90618945 0.002648 Jamberoo ZS 2IAMB11A_LD Springhill TS 0.159251604 3.566665232 0.000568 Jasper Rd ZS 2JASP11A_LD Baulkham Hills TS 0.130310426 220.6431187 0.028752 Jordan Springs ZS 2JORD11A_LD Penrith TS 0.09366902 277.5010782 0.025993	Huskisson 7S		West Tomerong TS	0.210900330	286 6612320	0.070142
Inner Harbour ZS ZINNETIA_LD Springhill TS 0.159251604 3.56665232 0.002614 Jamberoo ZS ZIAMB11A_LD Mount Terry TS 0.1736424 30.02368366 0.005213 Jasper Rd ZS ZJASP11A_LD Baulkham Hills TS 0.130310426 220.6431187 0.028752 Jordan Springs ZS ZJORD11A_LD Penrith TS 0.09366902 277.5010782 0.025993	llford Hall 7S	211551K11A_LD	llford TS	0.202565869	12 906189/6	0.002614
Jamberoo ZS ZJAMB11A_LD Mount Terry TS 0.1736424 30.02368366 0.005213 Jasper Rd ZS ZJASP11A_LD Baulkham Hills TS 0.130310426 220.6431187 0.028752 Jordan Springs ZS ZJORD11A_LD Penrith TS 0.09366902 277.5010782 0.025933	Inner Harbour 7S	2INNE11A LD	Springhill TS	0 159251604	3 5666665232	0.000568
Jasper Rd ZS ZJASP11A_LD Baulkham Hills TS 0.130310426 220.6431187 0.028752 Jordan Springs ZS ZJORD11A_LD Penrith TS 0.09366902 277.5010782 0.025993	Jamberoo ZS	2JAMB11A LD	Mount Terry TS	0 1736424	30 02368366	0.005213
Jordan Springs ZS 2JORD11A_LD Penrith TS 0.09366902 277.5010782 0.025993	Jasper Rd ZS	2JASP11A LD	Baulkham Hills TS	0.130310426	220.6431187	0.028752
	Jordan Springs ZS	2JORD11A_LD	Penrith TS	0.09366902	277.5010782	0.025993



Kandos 7S	2KAND22A LD	llford TS	0 272922275	120 0066405	0 032752
Kangaroo Valley ZS	2KANG11A_LD	Shoalhaven TS	0.170546719	58,56232853	0.009988
Katoomba ZS	2KATO11A LD	Katoomba North TS	0.281324804	169.9984968	0.047825
Kellvville ZS	2KELL11A LD	Sydney North TS (BSP)	0.069544451	179.8417419	0.012507
Kembla Grange ZS	2KEMB11A LD	Springhill TS	0.104669474	283.0641837	0.029628
Kemps Creek ZS	2KEMP11A_LD	West Liverpool TS	0.254969381	1724 620228	0.439725
Kenny Street ZS	2KENN11A LD	Springhill TS	0.234214767	25.42574424	0.005955
Kenthurst ZS	2KHUR11A LD	Sydney North TS (BSP)	0.0792891	447,4720902	0.035480
Kiama ZS	2KIAM11C LD	Mount Terry TS	0.142079195	143.6171368	0.020405
Kingswood ZS	2KING11* LD	Penrith TS	0.181198681	557 3345176	0.100988
Kentlyn ZS	2KLYN11A LD	Macarthur 66 TS (BSP)	0 175277476	231 5971356	0 040594
Kurrajong 7S	2KURR11A LD	Hawkesbury TS	0 155715279	384 8812124	0.059932
Leabons Lane ZS	2LEAB11A LD	Blacktown TS	0.250546495	92,97078946	0.023294
Lennox 7S	2LENN11A_LD	Camellia TS	0.27336106	78 60341836	0 021487
Lithgow ZS	21 ITH11A I D	Wallerawang TS (BSP)	0 267408416	553 13159	0 147912
Liverpool 11kV	2LIV711A LD	Liverpool TS	0 291385977	225 5190135	0.065713
Luddenham 7S	2LUDD11A_LD	Regentville BSP	0 147183699	530 9780474	0 078151
Macquarie Fields 7S	2MACQ11A LD	Ingleburn BSP	0 194825231	214 9091743	0 041870
Maldon ZS	2MALD11A LD	Nepean 66 TS	0 151265403	585 2439493	0.088527
Mamre 7S	2MAMR11* LD	Sydney West TS (BSP)	0 273412793	809 5617366	0.221345
Marayong ZS	2MARA11* LD	Blacktown TS	0.271877359	245 3804504	0.066713
Meadow Flat 7S	2MFL Δ11Δ LD	Wallerawang TS (BSP)	0.263725327	21 00571019	0.005540
Minto 7S	2MINT11* LD	Indeburn BSP	0.235618643	477 7057938	0 112556
Mittagong 7S	2MITT11A LD	Fairfay Lane TS	0.147271356	7/9 0/72387	0.110313
Moorebank 7S	2MOOR114 LD		0.283589116	57 02332582	0.016171
Moorebank 20			0.20300110	51.VE33E30E	0.010171
Moss Vale 7S	2MOSS114 LD	Fairfax Lane TS	0 223625881	333 9/21158	0 074678
Mount Ouslay 7S	2MTOU11A LD	Bellambi TS	0.201842856	96 33276466	0.019444
Munderie Park 7S	2MUNG22A LD	Vineyard TS (BSD)	0.07353129	479 6973077	0.035273
Narollan 7S	2NIADE11* LD	Nopoon 66 TS	0.104475993	702 4302485	0.073387
North Eastorn Crook 79		Sudnov West TS (BSD)	0.260277458	FE 60544863	0.013307
Noncan 11kV		Noncon 66 TS	0.065466065	453 8421027	0.014475
Newton 79		Rigeletown TS	0.000400000	403.0421027	0.023711
Nethmond 79		Baulkham Hills TS	0.219327437	124.2000050	0.021242
Nourra 78		Shealbayan TS	0.203350015	05.275110	0.055555
North Parrametta 79		Holroyd TS (RSD)	0.200310030	164 6617104	0.037995
North Dishmand 79		Houlogu TS (DSP)	0.230141219	222.0760050	0.037095
North Richmond 23		Revelopment Hills TC	0.134905000	333.2702232	0.044901
North Warrange 70		Daukriam Hills 15	0.10010074	110.5/0033/	0.022073
North Wallagenes 70	ZNWARTIA_LD	Regentitile DSP	0.131041545	400.000/000	0.004321
North Wollongong 25	ZINWOLTTA_LD	Springhill 15	0.222230404	55.40196263	0.012312
Dakdale 25	ZUAKDTIA_LD	Nepean 33 TS	0.092666761	00.07331340	0.000180
Ine Oaks ZS	ZUAKSTIA_LD	Nepean 33 TS	0.120085716	246.1520018	0.029559
Oran Park 25		Macarthur TS (BSP)	0.059574363	1442.213192	0.005919
Parkiea 23		Outes Harbour TO	0.000001403	404.7 100000	0.039090
Port Central 25		Outer Harbour 15	0.230153432	12.24430025	0.010027
Pennin Tiky		Regentville BSP	0.2/149/240	100.7254201	0.049066
Port Kembla 25		Springhill 15	0.2156/15/	215.2124603	0.046456
Portiand 25	ZPLANTIA_LD	Wallerawang TS (BSP)	0.147360805	16.68406346	0.002459
Plumpton 25	2PLUMITIA_LD	Mount Drutt 15	0.148485161	280.8051548	0.041695
Prestons ZS	2PRESTIA_LD	VVest Liverpool 15	0.000446707	297.1794917	0.020115
Prospect 25	ZPRUSTIA_LD	Blacktown 15	0.220446727	1/6.89/15/1	0.038996
Quakers Hill 25		Sydney West TS (DSP)	0.124512407	200.7221907	0.035700
Quarries 25		Blacktown 15	0.141793203	132.4053663	0.016/74
Ringwood 25	ZRINGTTA_LD	Fairfax Lane TS	0.198987271	383.2150163	0.076255
Riversione ZS	ZRIVETT_LU	Fairfay Lang TO	0.160287584	141.2156/51	0.022035
Robertson 25	2ROBE11A_LD	Fairfax Lane 15	0.233134467	138.1783449	0.032214
Rooty Hill 25	2K00111*_LD	Sydney West IS (BSP)	0.162898158	292.2547972	0.047608
Rosenili ZS	ZRUSETIA_LD	Camella 15	0.399493394	459.5293489	0.183579
Russell Vale 25	2RUSS11*_LD	Bellambi 15	0.150738002	162.4153053	0.024482
Rydalmere ZS	2RYDA11*_LD	Carlingford TS	0.219113662	232.1246168	0.050862
Schotields ZS	2SCH011*_LD	Vineyard TS (BSP)	0.079880185	891.3533371	0.071201
Seven mills ZS	ZSEVETT LD	Dauiknam Hills TS	0.175800332	05.46090848	0.011508
South Granville 25	2SGRATIA_LD		0.16185998	125.9094059	0.020380
Sheinarbour ZS	ZSHELTIA_LD	Wount Terry IS	0.147485862	453.2940331	0.006854
Sherwood ZS	2SHER11A_LD	Guildford IS	0.13145821	112.735588	0.014820
South Erskine Park ZS	ZSERSZZA_LD	Sydney West IS (BSP)	0.864308472	72.33293048	0.062518
South Leppington ZS	2SLEP11A_LD	Macarthur TS (BSP)	0.070740521	345.1903667	0.024419
South Marsden Park ZS	ZSIMAR11*_LD	Vineyard TS (BSP)	0.190476622	315.4564325	0.000044
Smithfield ZS	2SMIT11^LD		0.153882507	193.7436841	0.029814
South Nowra ZS	2SNOW11A_LD	vvest Tomerong TS	0.199430245	212.51/5/16	0.042382
Springwood ZS	2SPRW11*_LD	Warrimoo TS	0.1/6204003	335.3259021	0.059086
St Marys 2S	2STMA11A_LD	Mount Druitt IS	0.122776296	306.3192069	0.037609
Sussex Inlet ZS	2505511*_LD	vvest Tomerong IS	0.1/838/08/	112.9139358	0.020142
South Windsor ZS	ZSWINTIA_LD	Hawkesbury IS	0.210077283	577.9649033	0.121417
South vvollongong ZS	25WUL11A LD	Springhill TS	0.266408625	65.08959103	0.01/340



Tahmoor ZS	2TAHM11A_LD	Nepean 66 TS	0.165575506	579.8781857	0.096014
Tomerong ZS	2TOME11A_LD	West Tomerong TS	0.126891013	596.349905	0.075671
Ulladulla ZS	2ULLA11C LD	Dapto BSP	0.163070246	817.8511715	0.133367
Unanderra ZS	2UNAN11* LD	Springhill TS	0.322915216	42.65576153	0.013774
Warilla ZS	2WARI11A_LD	Mount Terry TS	0.125955265	131.0303859	0.016504
West Castle Hill ZS	2WCAS11* LD	Vineyard TS (BSP)	0.14031213	254.7632761	0.035746
Wentworth Falls ZS	2WENT11A_LD	Katoomba North TS	0.218715	84.48538776	0.018478
Werrington ZS	2WERR11A_LD	Mount Druitt TS	0.294956219	281.0834731	0.082907
Westmead ZS	2WESM11A_LD	Baulkham Hills TS	0.352262973	130.9093406	0.046115
Wetherill Park ZS	2WETH11* LD	Sydney West TS (BSP)	0.387931307	77.82174395	0.030189
Whalan ZS	2WHAL11A_LD	Mount Druitt TS	0.203041536	160.0270313	0.032492
Wilton ZS	2WILT11A_LD	Nepean 66 TS	0.081249216	77.24310273	0.006276
Windsor ZS	2WIND11A_LD	Hawkesbury TS	0.120466578	348.6181106	0.041997
Wisemans ZS	2WISE11A_LD	Hawkesbury TS	0.20765652	266.5452102	0.055350
West Liverpool 11kV	2WLIZ11A_LD	West Liverpool TS	0.152462815	229.2060263	0.034945
Wombarra ZS	2WOMB11A_LD	Bellambi TS	0.152500996	152.5846687	0.023269
Woodpark ZS	2WOOD11A_LD	Guildford TS	0.332558608	58.33703393	0.019400
West Parramatta ZS	2WPAM11A_LD	Holroyd TS (BSP)	0.230581646	93.23985423	0.021499
West Pennant Hills ZS	2WPEN11A_LD	Carlingford TS	0.0939077	113.364538	0.010646
West Wetherill Park 11kV	2WWET11A_LD	Sydney West TS (BSP)	0.266556385	132.7076025	0.035374
West Wollongong ZS	2WWOL11* LD	Springhill TS	0.163139337	109.3924343	0.017846
Yatte Yattah ZS	2YATT11A_LD	West Tomerong TS	0.122755111	164.8086016	0.020231
Yennora ZS	2YENN11A_LD	Guildford TS	0.263063362	99.72349017	0.026234



Marsden Park ZS	2MARS11A LD	Vineyard TS (BSP)	0.089003104	336.1838391	0.029921
North Leppington ZS	2NLEP11A LD	Macarthur TS (BSP)	0.167634477	177.3025515	0.029722
Mananala Dark 7S		Macathur && TS (RSD)	0.048113451	3 661338187	0.000171
Box Hill ZS	2BOXH11A LD	Vineyard TS (BSP)	0.204901289	0	0.000000
Calderwood ZS	2CALD11 LD	Mount Terry TS	0.101886443	14.81018043	0.001509



Appendix D – Calculation of losses for distribution substations

				Avg full	Avg full		Series			No load	
Rating	No. in	Total Losses		series	series	Utilisation	per tfr	Total Series	No load	loss per	Total No Load
(kVA)	service	(MW)	Assumed LLF	loss %	loss kW	Factor	(kW)	Loss (MW)	Loss %	tfr (kW)	Losses (MW)
0	4		0.21	1.50%	0	50.00%	-	-	0.50%	0	0.0000
3	0		0.21	1.50%	0.045	50.00%	0.00	-	0.50%	0.015	0.0000
5	76	0.0022	0.21	1.50%	0.075	50.00%	0.00	0.00030	0.50%	0.025	0.0019
6	0		0.21	1.50%	0.09	50.00%	0.00	-	0:50%	0.03	0.0000
8	0		0.21	1.50%	0.1125	11.00%	0.00	-	0:50%	0.0375	0.0000
10	558	0.0342	0.21	1.50%	0.15	60.00%	0.01	0.00633	0.50%	0.05	0.0279
12	1	0.0001	0.21	1.50%	0.18	60:00%	0.01	0.00001	0.50%	0.06	0.0001
15	357	0.0328	0.21	1.50%	0.225	60.00%	0.02	0.00607	0.50%	0.075	0.0268
16	416	0.0408	0.21	1.50%	0.24	60.00%	0.02	0.00755	0.50%	0.08	0.0333
20	10	0.0012	0.21	1.20%	0.24	65.00%	0.02	0.00021	0.50%	0.1	0.0010
23	7	0.0031	0.21	1.29%	0.276	81.00%	0.04	0.00027	0.50%	0.115	0.0008
25	3558	0:5577	0.21	1.20%	0.3	71.00%	0.03	0.11300	0.50%	0.125	0.4448
30	1	0.0002	0.21	1,20%	0.36	60.00%	0.03	0.00003	0.50%	0.15	0.0002
50	1143	0.3325	0.21	1.20%	0.6	57.00%	0.04	0.04679	0.50%	0.25	0.2858
55	0		0.21	1.20%	0.66	54.60%	0.04	-	0.40%	0.22	0.0000
58	6	0.0017	0.21	1.20%	0.696	60.00%	0.05	0.00032	0.40%	0.232	0.0014
63	1720	0.5442	0.21	1,20%	0.756	63.70%	0.06	0.11080	0.49%	0.252	0.4334
75	5	0.0019	0.23	1.20%	0.9	60.00%	0.07	0.00037	0.40%	0.3	0.0015
100	2731	1.3566	0.23	1.20%	1.2	59.20%	0.10	0.26416	0:40%	0.4	1.0924
110	1	0.0004	0.23	1.10%	1.21	54.70%	0.08	0.00008	0.30%	0.33	0.0003
150	381	0.2377	0.23	1,10%	1.65	\$7,70%	0.17	0.06627	0:30%	0.45	0.1715
160	135	0.0845	0.23	1.10%	1.76	60.00%	0.15	0.01967	0.30%	0.48	0.0648
200	2695	2.1244	0.23	1.10%	2.2	61.00%	0.19	0.50742	0.30%	0.6	1.6170
220	0		0.23	1.00%	2.2	61.00%	0.19	-	0:30%	0.66	0.0000
250	749	0.7933	0.23	1.00%	2.5	73.30%	0.31	0.23140	0.30%	0.75	0.5618
260	1	0.0009	0.23	1.00%	2.6	63.10%	0.24	0.00024	0.25%	0.65	0.0007
300	3461	3,6423	0.23	1.00%	3	66.20%	0.30	1.04657	0:25%	0.75	2.5958
315	3242	3.4219	0.23	0.95%	2.9925	62:40%	0.27	0.86885	0.25%	0.7875	2.5531
400	1502	1.8113	0.23	0.95%	3.8	48,54%	0.21	0.30930	0.25%	1	1.5020
500	7167	11.4043	0.23	0.90%	4.5	57.42%	0.34	2.44536	0.25%	1.25	8.9588
600	46	0.0807	0.23	0:90%	5.4	45.35%	0.26	0.01175	0,25%	1.5	0.0690
750	242	0.5383	0.23	0.90%	6.75	47.44%	0.35	0.08456	6.25%	1.875	0.4538
800	26	0.0661	0.23	0,90%	7.2	57,13%	0.54	0.01405	0.25%	2	0.0520
910	0		0.23	0:90%	8.19	52:19%	0.51	-	0.25%	2.275	0.0000
1000	2732	10.2092	0.23	0.90%	9	77.30%	1.24	3.37917	0.25%	2.5	6.8300
1500	607	2.6559	0.23	0.90%	13.5	44.88%	0.63	0.37963	6.25%	3.75	2.2763
2000	3	0.0188	0.23	0.90%	18	55.00%	1.25	0.00376	0.25%	5	0.0150
2500	0		0.23	0.90%	22.5	52.36%	1.42	-	0.25%	6.25	0.0000
5000	0		0.23	0.90%	27	55.00%	1.88	-	0.25%	7.5	0.0000
10000	0	.	0.23	0.90%	45	56.21%	3.27	-	0:25%	12.5	0.0000
10000	0		0.23	0.90%	90	28.93%	3.14	-	0.25%	25	0.0000
Iotal	33583	39.9969						9.9243			30.07



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