

Projected chargeable quantities

Orion adjusted it's pricing basis from 1 April 2009 and for the quantities affected, this spreadsheet provides our estimated historical quantities (on the new basis) for the period to 31 March 2009. Thereafter, quantities reflect actual chargeable quantities.

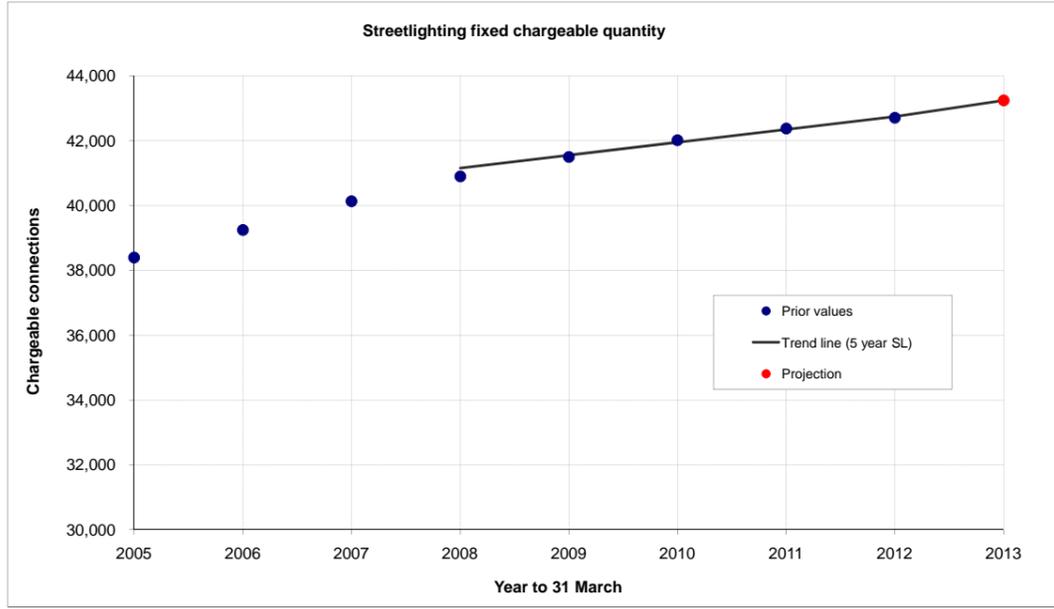
Components		Estimated 04/05	Estimated 05/06	Estimated 06/07	Estimated 07/08	Estimated 08/09	Actual 09/10	Actual 10/11	Actual 11/12	Original Projection 11/12	Updated Projection 12/13 where available as at Aug 2012, in red	Projection notes (2012/13 budget projections)
Streetlighting connections												
Fixed charge	Connections	38,399	39,245	40,135	40,896	41,500	42,016	42,375	42,707	42,939	43,248	5 year linear trend on monthly num
Peak charge (peak period demand)	kW	2,730	3,000	2,271	2,787	1,990	2,736	1,971	2,274	2,351	2,352	5 year average (varies based on morning/ evening)
Volume charge												
Working weekdays (7am - 9pm)	MWh	3,241	3,328	3,889	3,390	3,290	3,301	3,309	3,279	3,068	3,252	Simple 5 year linear trend
Nights, weekends and holidays	MWh	22,173	22,405	22,926	23,731	22,532	22,757	22,900	22,810	22,618	22,504	Simple 5 year linear trend
General Connections												
Peak charge (peak period demand)	kW	414,626	437,684	466,538	479,290	471,481						Simple 5 year linear trend - using the original projection for 11/12 with a reduction of 7% for the reduction in load
<i>Allowing for additional estimated 2.9MW response from HOR and SPN load management not undertaken during observation period</i>												
Volume charge												
Working weekdays (7am - 9pm)	MWh	982,940	999,562	1,031,331	1,021,961	1,056,117	1,082,974	1,033,761	974,117	1,070,266	1,000,022	Simple 5 year linear trend - using the original projection
Nights, weekends and holidays	MWh	1,195,614	1,192,348	1,229,876	1,228,087	1,252,408	1,275,326	1,207,887	1,139,712	1,254,610	1,158,986	
Low power factor charge	kVAr	101	101	101	101	101	0	0	0	0	0	Assume no customers have this a
<i>No history of quantities - assume level and consistent with threshold adjustment calculations</i>												
Irrigation connections												
Capacity charge	kW	55,033	56,493	59,549	61,278	62,766	68,609	69,213	70,446	68,541	70,446	Assume same as current year - will be some new irrigators but also expect
<i>Based on historical connections database query of eligible irrigation connections</i>												
Volume charge												
Working weekdays (7am - 9pm)	MWh	43,087	50,481	37,627	56,049	63,920	58,440	66,719	54,359	67,416	59,723	Simple 5 year linear trend
Nights, weekends and holidays	MWh	73,941	89,879	72,377	104,020	109,647	103,755	117,920	95,063	116,124	103,188	Simple 5 year linear trend
Rebates												
Power factor correction rebate	kVAr	20,124	23,105	24,296	25,029	26,094	27,293	27,387	27,530	28,367	28,555	Simple 5 year linear trend
Interruptibility rebate	kW	25,129	27,220	39,299	36,083	37,785	38,763	39,510	40,964	40,284	42,067	Simple 5 year linear trend
<i>Adjusting for old TIP category to receive their interruptibility rebate separately</i>												
Major customer connections & Embedded networks												
Fixed charge												
Fixed (Standard connections)	Connections	390	395	395	395	410						
Fixed (Secondary connections)	Connections	18	18	17	17	17	408	416	366	416	357	Based on quantities billed YTD (A)
Dedicated Equipment	By item (\$000)	1,287	1,301	1,298	1,299	1,719	17	16	14	16	14	Based on quantities billed YTD (A)
Peak charge (control period demand)	kVA	112,189	122,361	122,589	118,251	115,943						Based on quantities billed YTD (Apr to June) and
<i>Adjusting to add extra 1.737 kVA (factored) to total for winter assessment of HOR and SPN major connections</i>												
Capacity charge	kVA	204,723	212,142	212,413	209,390	211,683	212,797	210,496	201,250	228,322	197,105	Based on quantities billed YTD (Apr to June) and
Assessed capacity distribution	kVA	216,077	225,859	226,819	223,645	225,594	227,952	223,165	201,210	227,017	191,689	continuation
Assessed capacity transmission	kVA											
Large capacity connections (Synlait)												
Distribution charge												
Administration	kVA						4,800.0	3,057.8	3,445.0	5,800	5,800	5,800
Asset Charge	kVA						40.95%	34.68%	26.35%	34.3%	5,800	5,800
Transmission charge												
Interconnection charge (winter)	kVA						8.9	607.3	926.8	2,864	958.5	1,922.5
Interconnection charge (summer)	kVA						2978.4	3,057.8	3,445	5,800	3,753.5	2,986.9
Use of transmission connection assets	kVA						7.40%	4.21%	4.16%	7.79%	2,701.8	2,986.9
Large capacity connections (Fonterra)												
Distribution charge												
Administration	kVA											4,500
Use of distribution assets	kVA											4,500
Transmission charge												
Interconnection charge (winter)	kVA											500.0
Interconnection charge (summer)	kVA											4,000.0
Use of transmission connection assets	kVA											4,000.0
Export and generation												
Real power distribution component	kW	3,171.1	2,277.4	3,747.1	4,036.3	3,241.2	3,129.8	2,649.2	2,104.2	2,649.2	2,376.7	Average of last two years
Reactive power distribution component	kVAr	1,681.0	2,250.7	2,516.8	2,544.7	2,216.9	1,936.8	1,710.3	1,127.0	2,001.0	1,418.7	Average of last two years
Real power transmission component	kW	3,171.1	2,277.4	3,747.1	4,036.3	3,241.2	3,129.8	3,942.0	3,050.1	3,942.0	3,496.0	Average of last two years
Generation credits	kWh	na	na	8,262	40,721	65,423	357,450	307,554	422,808	359,264	256,000	Known gen credit customers over 40 hours (half the 80 to 100 hour control period) at 9 retailers (including EASH) + 14 direct (no charge to
Miscellaneous												
Monthly invoice charge	Invoices/year	423	432	408	384	384	384	336	324	336	276	
Non chargeable projections												
Major customer GXP volumes												
Peak period contribution	kW	122,519	129,583	130,117	131,552	131,836	119,050	123,343	90,459	129,031	92,156	Consistent with measured rel
Working weekdays (7am - 9pm)	MWh	439,111	456,971	444,591	442,413	446,947	438,938	419,566	371,764	425,262.0	373,322	Simple 5 year linear trend
Nights, weekends and holidays	MWh	434,175	443,073	443,937	445,151	437,520	428,950	418,436	378,215	432,412.0	375,768	Simple 5 year linear trend
Large Capacity GXP volumes												
Peak period contribution	kW						510	721	686	989	704	Synlait's unchanged, Fonterra
Working weekdays (7am - 9pm)	MWh						3,889	6,292	7,059	8,541	9,014	Last years Synlait factored up
Nights, weekends and holidays	MWh						5,699	8,435	10,203	12,059	13,119	Last years Synlait factored up
gives Network total GXP volumes												
Peak period contribution	kW	539,875	570,267	598,926	613,629	605,817	592,360	610,724	540,085	611,992	571,679	
Working weekdays (7am - 9pm)	MWh	1,468,379	1,510,342	1,517,438	1,523,813	1,574,163	1,589,945	1,530,414	1,412,060	1,575,026	1,455,553	
Nights, weekends and holidays	MWh	1,725,903	1,747,705	1,769,116	1,800,989	1,827,806	1,839,223	1,777,346	1,647,859	1,838,883	1,687,602	

CPP Resulting growth % (by "demand group" IM 5.4.8(5)(c))

2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	Avg growth for category over period
1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	0.9%
-0.6%	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%	
-0.6%	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%	
-0.6%	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%	
0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	
0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	
1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	
1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	
1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	
1.7%	1.4%	1.4%	2.1%	0.8%	0.0%	
0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
1.0%	1.0%	0.5%	0.8%	1.9%	0.0%	
1.2%	0.9%	0.4%	0.9%	1.1%	0.0%	
1.0%	1.0%	0.5%	0.8%	1.9%	0.0%	
0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.2%
100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
1.0%	1.0%	0.5%	0.8%	1.9%	0.0%	
1.0%	1.0%	0.5%	0.8%	1.9%	0.0%	
1.0%	1.0%	0.5%	0.8%	1.9%	0.0%	
0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%

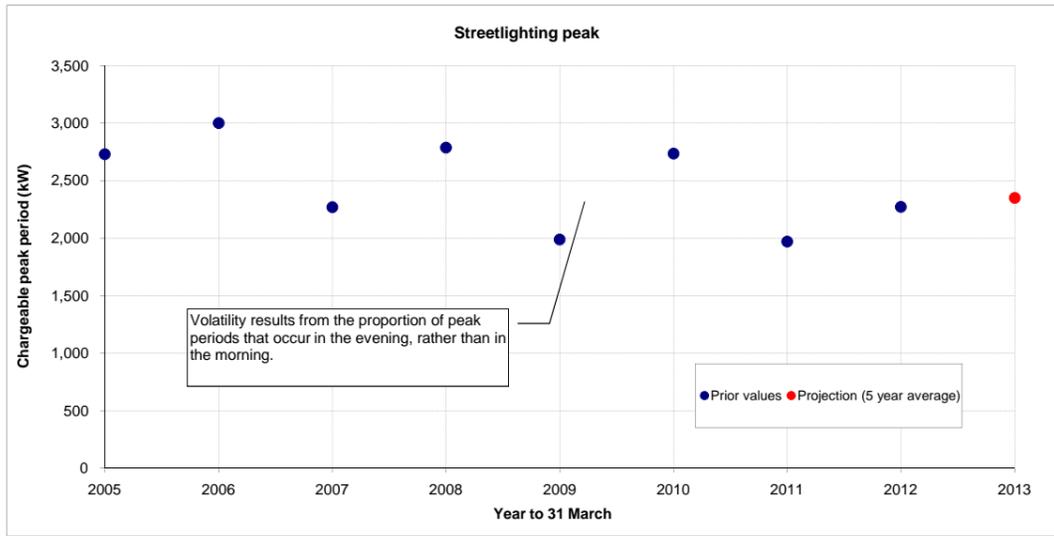
Streetlighting fixed charge graph data

Year to	2005	2006	2007	2008	2009	2010	2011	2012	2013	CPP underlying growth rate
Prior values	38,399	39,245	40,135	40,896	41,500	42,016	42,375	42,707	43,248	1.00%
Trend line (5 year SL)				41,155	41,553	41,951	42,349	42,747	43,248	
Projection									43,248	



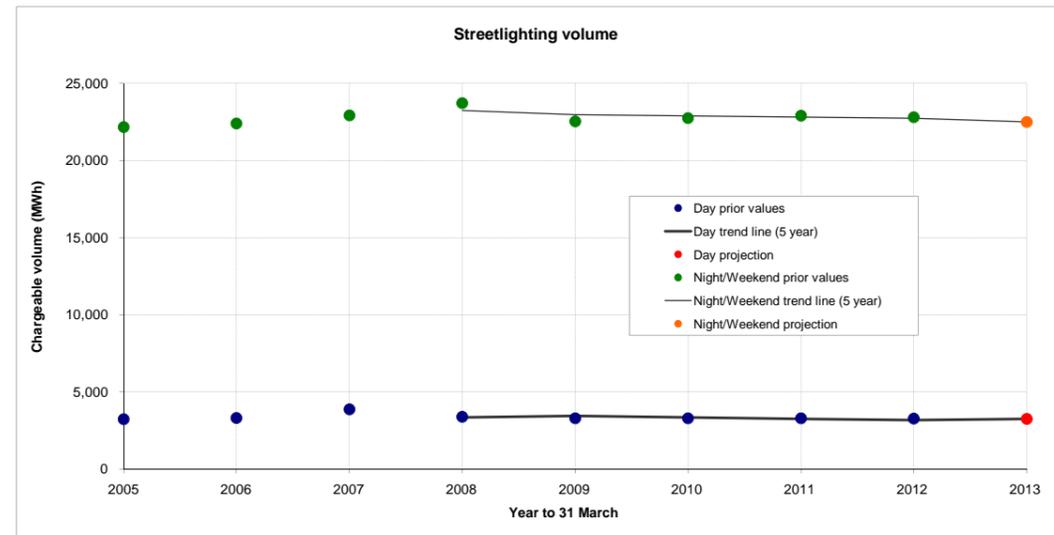
Streetlighting peak graph data

Year to	2005	2006	2007	2008	2009	2010	2011	2012	2013	CPP underlying growth rate
Prior values	2,730	3,000	2,271	2,787	1,990	2,736	1,971	2,274	2,352	
Projection (5 year average)									2,352	



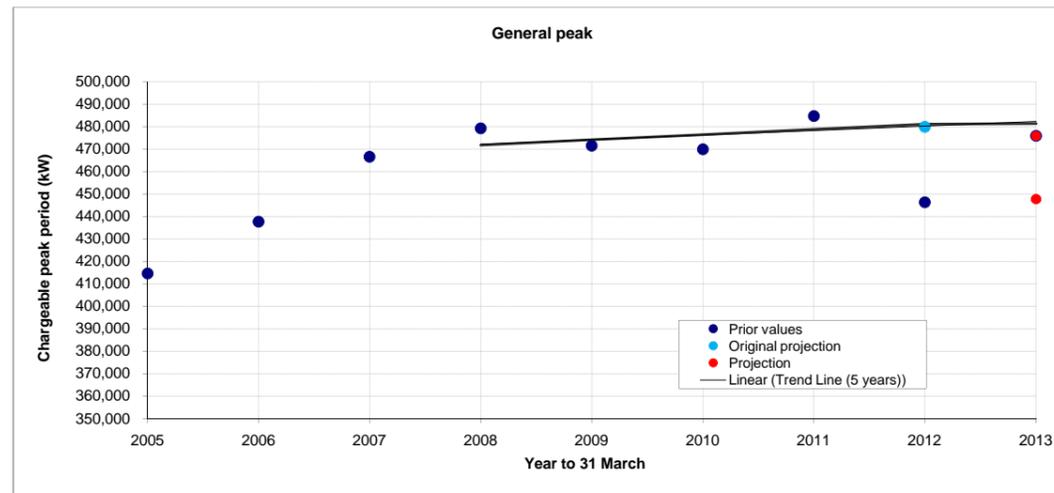
Streetlighting volume graph data

Year to	2005	2006	2007	2008	2009	2010	2011	2012	2013	CPP underlying growth rate
Day prior values	3,241	3,328	3,889	3,390	3,290	3,301	3,309	3,279	3,252	-0.62%
Day trend line (5 year)				3,354	3,456	3,363	3,269	3,175	3,252	
Day projection									3,252	
Night/Weekend prior values	22,173	22,405	22,926	23,731	22,532	22,757	22,900	22,810	22,504	-0.64%
Night/Weekend trend line (5 year)				23,241	22,983	22,902	22,821	22,739	22,504	
Night/Weekend projection									22,504	



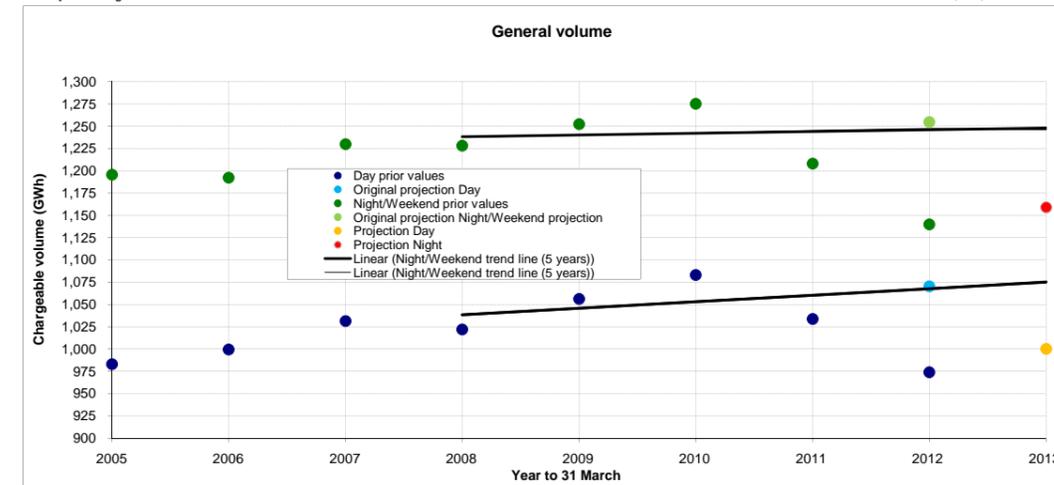
General peak graph data

Year to	2005	2006	2007	2008	2009	2010	2011	2012	2013	CPP underlying growth rate
Prior values	414,626	437,684	466,538	479,290	471,481	469,853	484,724	446,363	475,925	
Original projection			466,538	479,290	471,481	469,853	484,724	479,906		
Trend Line (5 years)				471,805	474,134	476,463	478,792	481,121	481,393	0.40%
Projection									447,696	

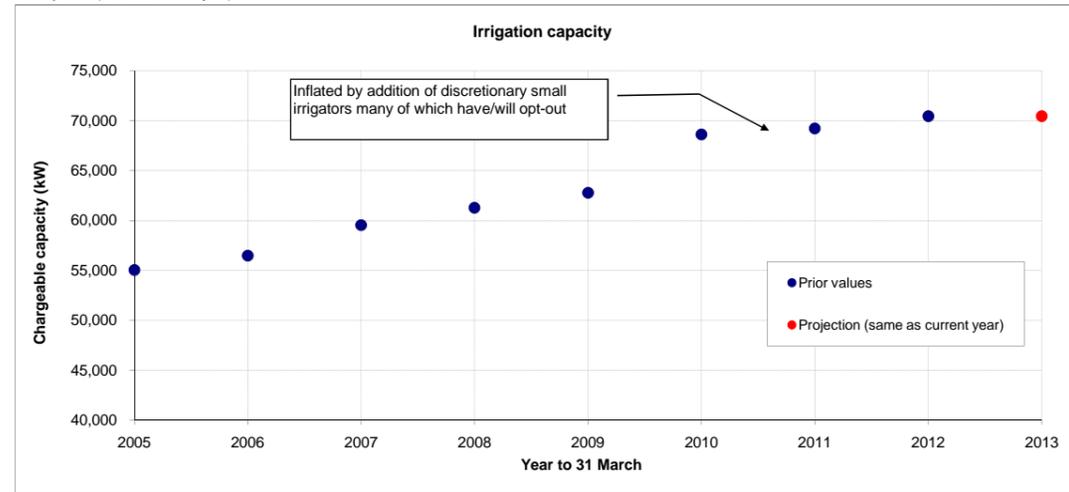


General volume graph data

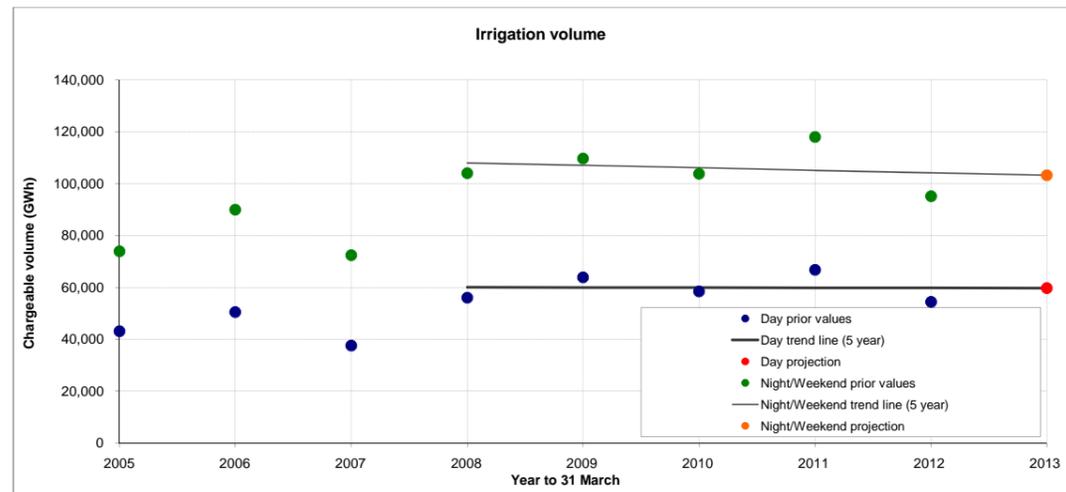
Year to	2005	2006	2007	2008	2009	2010	2011	2012	2013	CPP underlying growth rate
Day prior values	982,940	999,562	1,031,331	1,021,961	1,056,117	1,082,974	1,033,761	974,117		
Original projection Day			1,031,331	1,021,961	1,056,117	1,082,974	1,033,761	1,070,266		
Day trend line (5 years)				1,038,390	1,045,731	1,053,072	1,060,413	1,067,754	1,075,292	0.70%
Night/Weekend prior values	1,195,614	1,192,348	1,229,876	1,228,087	1,252,408	1,275,326	1,207,887	1,139,712		
Original projection Night/Weekend projection			1,229,876	1,228,087	1,252,408	1,275,326	1,207,887	1,254,610		
Night/Weekend trend line (5 years)				1,237,680	1,240,137	1,242,594	1,245,051	1,247,508	1,246,221	0.14%
Projection Day									1,000,022	0.4%
Projection Night									1,158,986	



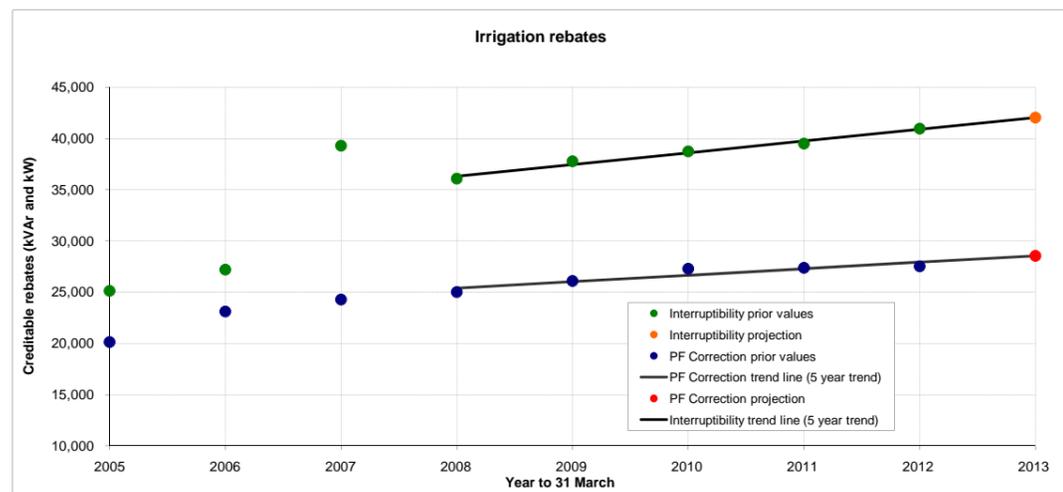
Irrigation capacity graph data										
Year to	2005	2006	2007	2008	2009	2010	2011	2012	2013	CPP underlying growth rate
Prior values	55,033	56,493	59,549	61,278	62,766	68,609	69,213	70,446	70,446	0%
Projection (same as current year)										1.3%



Irrigation volume graph data										
Year to	2005	2006	2007	2008	2009	2010	2011	2012	2013	CPP underlying growth rate
Day prior values	43,087	50,481	37,627	56,049	63,920	58,440	66,719	54,359	59,723	0.0%
Day trend line (5 year)				60,014	59,955	59,897	59,839	59,781	59,723	0.0%
Day projection	112,727,674								59,723	
Night/Weekend prior values	73,941	89,879	72,377	104,020	109,647	103,755	117,920	95,063	103,188	0.0%
Night/Weekend trend line (5 year)				108,009	107,045	106,081	105,117	104,153	103,188	0.0%
Night/Weekend projection									103,188	

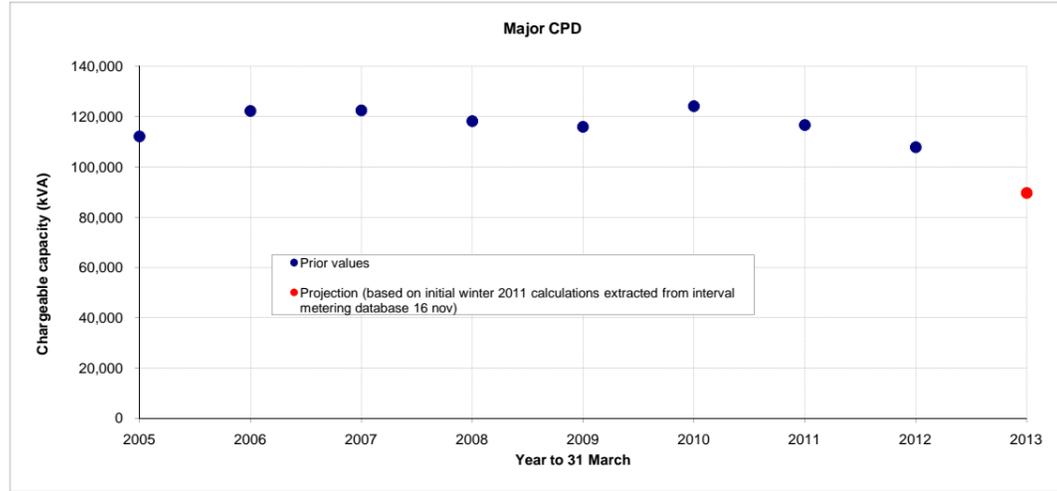


Irrigation rebates graph data										
Year to	2005	2006	2007	2008	2009	2010	2011	2012	2013	CPP underlying growth rate
PF Correction prior values	20,124	23,105	24,296	25,029	26,094	27,293	27,387	27,530	28,555	0%
PF Correction trend line (5 year trend)				25,408	26,037	26,667	27,296	27,926	28,555	0%
PF Correction projection									28,555	
Interruptibility prior values	25,129	27,220	39,299	36,083	37,785	38,763	39,510	40,964	42,067	0%
Interruptibility trend line (5 year trend)				36,324	37,472	38,621	39,770	40,918	42,067	0%
Interruptibility projection									42,067	

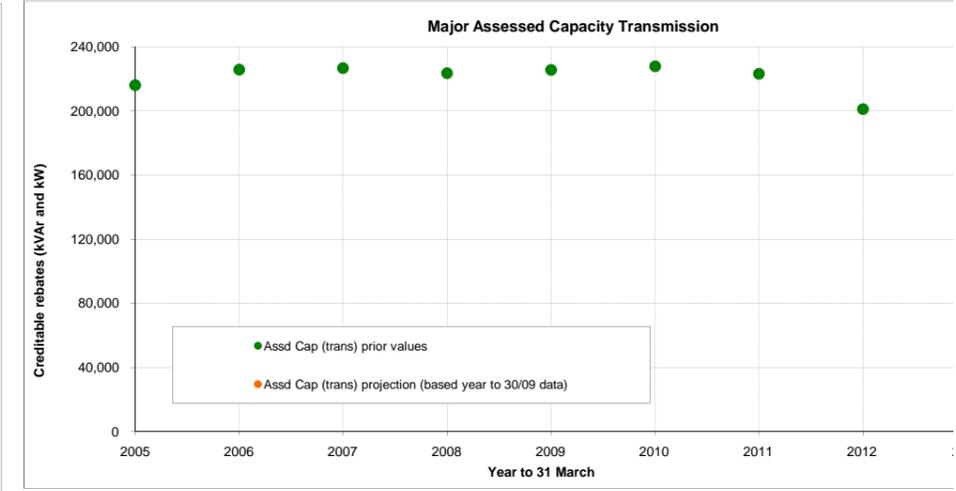
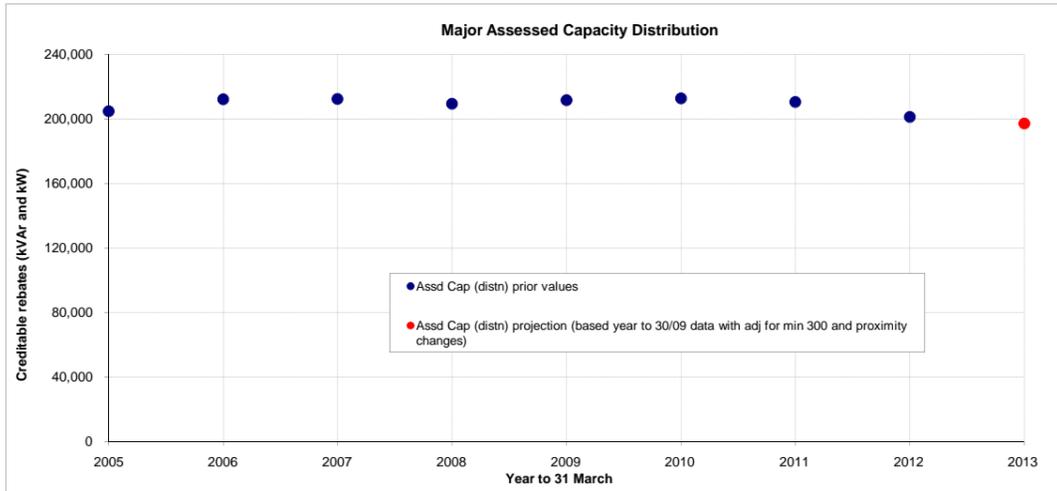


Major CPD graph data										
Year to	2005	2006	2007	2008	2009	2010	2011	2012	2013	
Quantity Projections										

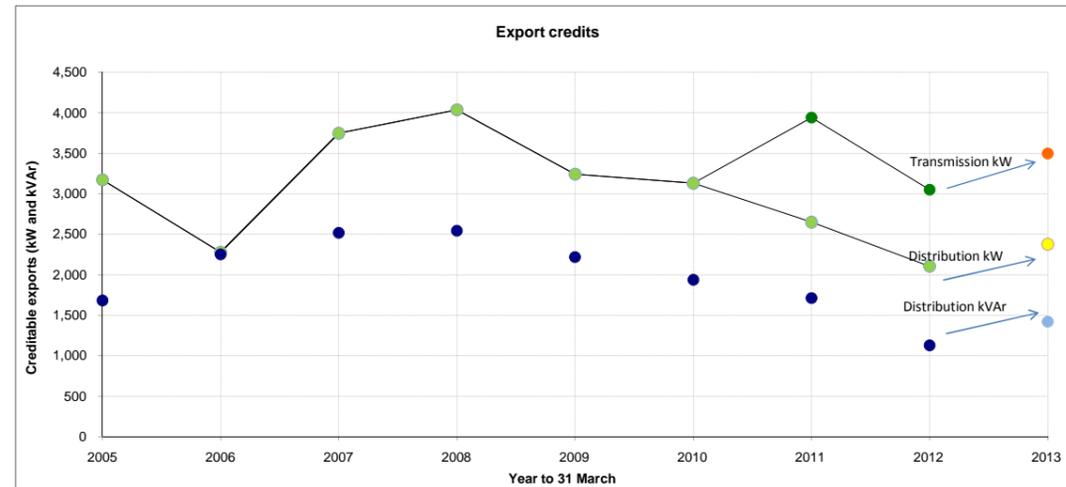
Prior values	112,189	122,361	122,589	118,251	115,943	124,192	116,648	107,898	
Trend line (8 year linear)	119,846	119,178	118,511	117,843	117,175	116,507	115,839	115,171	114,504
Projection (based on initial winter 2011 calculations extracted from interval metering database 16 nov)									89,667



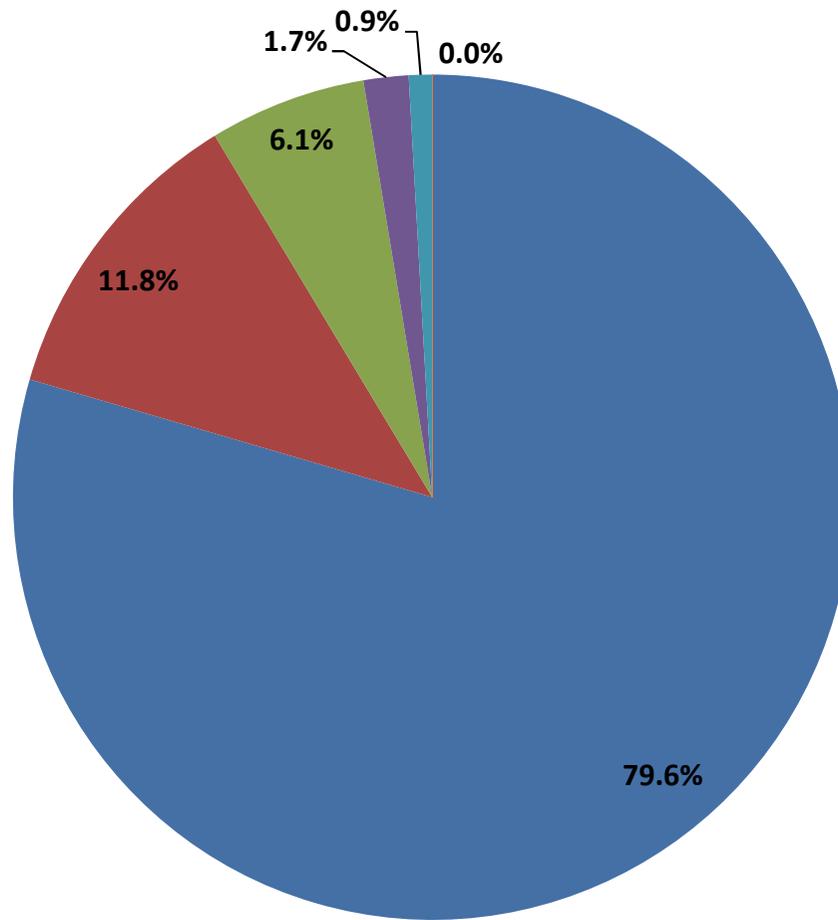
Year to	2005	2006	2007	2008	2009	2010	2011	2012	2013	CPP underlying growth rate
Assd Cap (distn) prior values	204,723	212,142	212,413	209,390	211,683	212,797	210,496	201,250		
Assd Cap (distn) trend line (7 y)	208,603	209,242	209,881	210,521	211,160	211,799	212,438		213,717	0.30%
Assd Cap (distn) projection (based year to 30/09 data with adj for min 300 and proximity changes)									197,105	
Assd Cap (trans) prior values	216,077	225,859	226,819	223,645	225,594	227,952	223,165	201,210		
Assd Cap (trans) trend line (7 y)	225,965	224,629	223,294	221,958	220,622	219,287	217,951	216,616	215,280	-0.61%
Assd Cap (trans) projection (based year to 30/09 data)									191,689	



Year to	2005	2006	2007	2008	2009	2010	2011	2012	2013	CPP underlying growth rate
Export kW (distribution)	3,171	2,277	3,747	4,036	3,241	3,130	2,649	2,104		
Export kW (distribution) projection									2,377	
Export kW (transmission)	3,171	2,277	3,747	4,036	3,241	3,130	3,942	3,050		
Export kW (transmission) projection									3,496	
Export kVA(distn)	1,681	2,251	2,517	2,545	2,217	1,937	1,710	1,127		
Export kVA(distn) projection									1,419	



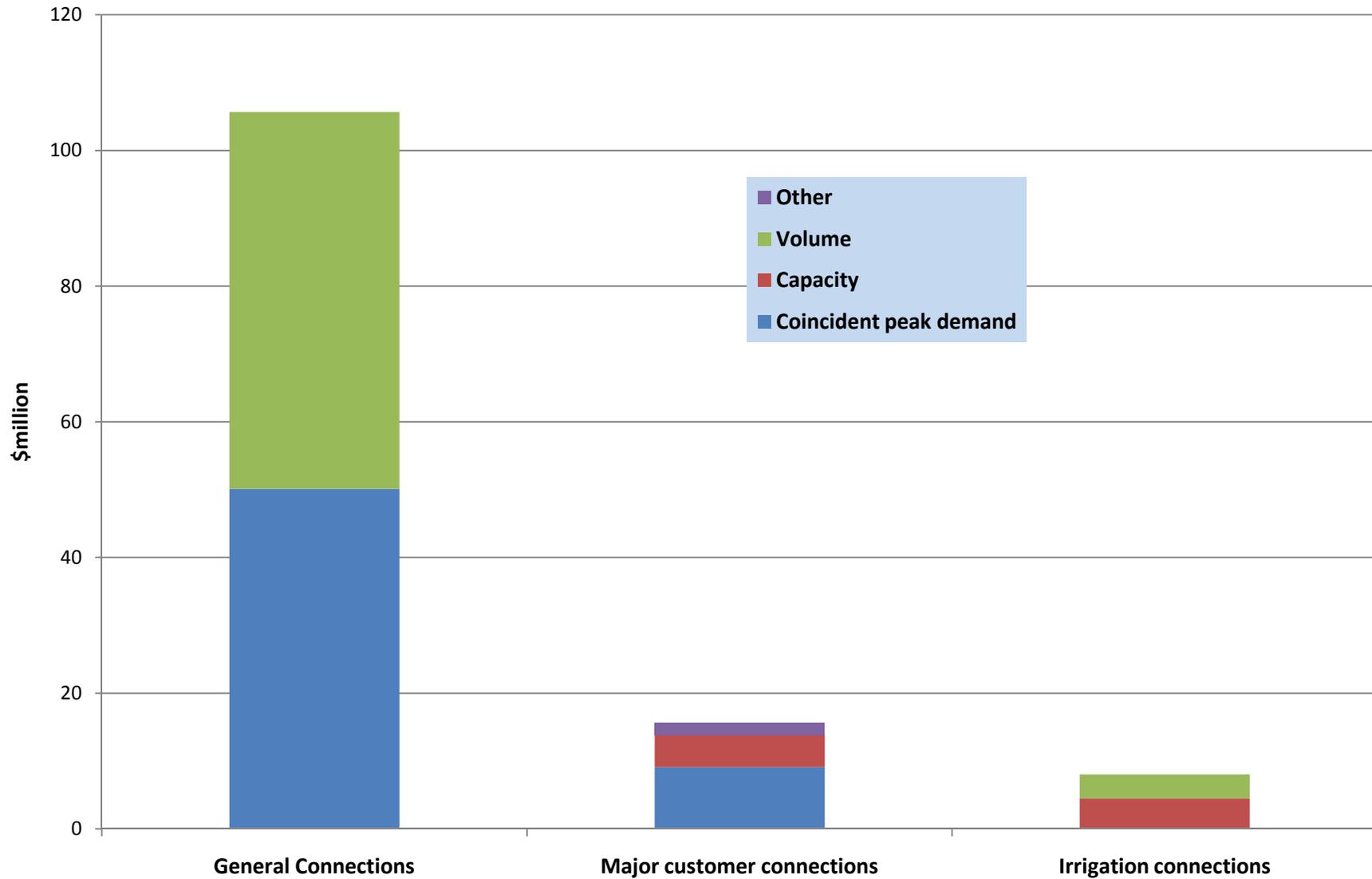
**Orion distribution revenue
by connection category (2012/13 budget)**



- General Connections
- Major customer connections
- Irrigation connections
- Streetlighting connections
- Large capacity connections
- Miscellaneous

Orion distribution revenue

by component within main connection categories (2012/13 budget)



	Components	Revenue			Component weights			Category weights		
		Next Year Budget (12/13 Quantities, 12/13 Prices)			Distn	Trans	Delv	Distn	Trans	Delv
		Distn	Trans	Delv						
Streetlighting connections										
1	Fixed charge	1,748	-	1,748	1.32%		0.87%			
2	Peak charge (peak period demand)	263	145	409	0.20%	0.22%	0.20%			
	Volume charge									
3	Working weekdays (7am - 9pm)	159	68	227	0.12%	0.10%	0.11%			
4	Nights, weekends and holidays	130	72	202	0.10%	0.11%	0.10%			
	Streetlighting total	2,300	285	2,586				1.7%	0.4%	1.3%
General Connections										
5	Peak charge	50,101	27,665	77,766	37.76%	41.09%	38.88%			
	Volume charge									
6	Working weekdays (7am - 9pm)	48,861	21,050	69,912	36.82%	31.26%	34.95%			
7	Nights, weekends and holidays	6,711	3,686	10,396	5.06%	5.47%	5.20%			
8	Low power factor charge	-	-	-	0.00%		0.00%			
	General connections total	105,673	52,401	158,074				79.6%	77.8%	79.0%
Irrigation connections										
9	Capacity charge	5,607	273	5,880	4.23%	0.41%	2.94%			
	Volume charge									
10	Working weekdays (7am - 9pm)	2,918	1,257	4,175	2.20%	1.87%	2.09%			
11	Nights, weekends and holidays	597	328	926	0.45%	0.49%	0.46%			
	Rebates									
12	Power factor correction rebate	(789)		(789.0)	-0.59%		-0.39%			
13	Interruptibility rebate	(293)		(292.5)	-0.22%		-0.15%			
	Irrigation connections total	8,041	1,859	9,899				6.1%	2.8%	4.9%
Major customer connections & Embedded networks										
	Fixed charge									
14	Fixed (Standard connections)	198		198	0.15%		0.10%			
15	Fixed (Secondary connections)	4		4	0.00%		0.00%			
16	Dedicated Equipment	1,646		1,646	1.24%		0.82%			
17	Peak charge (control period demand)	9,073	5,748	14,821	6.84%	8.54%	7.41%			
	Capacity charge									
18	Assessed capacity distribution	4,795		4,795	3.61%		2.40%			
	Assessed capacity transmission		6,596	6,596		9.80%	3.30%			
	Major customer connections total	15,716	12,345	28,061				11.8%	18.3%	14.0%
Large capacity connections										
	Synlait									
	Distribution charge									
19	Operations, maintenance & administration	148		148	0.11%		0.07%			
20	Asset charge	263		263	0.20%		0.13%			
	Transmission charge									
	Interconnection charge (winter)		122	122	0.00%	0.18%	0.06%			
	Interconnection charge (summer)		156	156	0.00%	0.23%	0.08%			
	Use of transmission connection assets		56	56	0.00%	0.08%	0.03%			
	Synlait total	411	333	743						
	Fonterra									
	Distribution charge									
21	Operations, maintenance & administration	199		199	0.15%		0.10%			
22	Asset charge	580		580	0.44%		0.29%			
	Transmission charge									
	Interconnection charge (winter)		32	32	0.00%	0.05%	0.02%			
	Interconnection charge (summer)		209	209	0.00%	0.31%	0.10%			
	Use of transmission connection assets		77	77	0.00%	0.11%	0.04%			
	Fonterra total	778	318	1,096						
	Large capacity connections total	1,189	651	1,839				0.9%	1.0%	0.9%

Export and generation									
23	Real power distribution component	(123)	-	(123)	-0.09%		-0.06%		
24	Reactive power distribution component	(24)	-	(24)	-0.02%		-0.01%		
	Real power transmission component	-	(132)	(132)		-0.20%	-0.07%		
25	Generation credits	(77)	(77)	(154)	-0.06%	-0.11%	-0.08%		
	Export and generation total	(224)	(209)	(433)				-0.2%	-0.3%
									-0.2%
Miscellaneous									
26	Monthly invoice charge	6		6	0.00%	0.00%	0.00%	0.0%	0.0%
		132,700	67,332	200,031	100.00%	100.00%	100.00%	100.0%	100.0%

Summary

	Share of distribution rev	Coincident peak	Capacity	Volume	Other
General Connections	79.6%	50,101,100		55,571,604	-
Major customer connections	11.8%	9,073,210	4,794,775		1,848,369
Irrigation connections	6.1%		4,525,016	3,515,524	
Streetlighting connections	1.7%				
Large capacity connections	0.9%				
Miscellaneous	0.0%				
Export and generation	-0.2%				