
Electrical
Regulatory
Authorities
Council

Draft

Electrical Incident Data

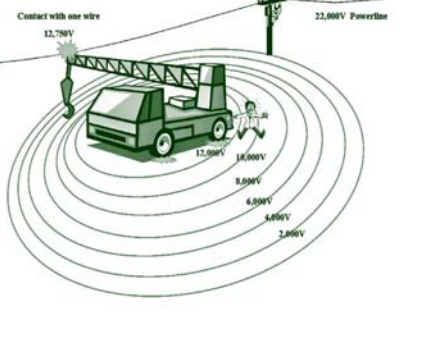

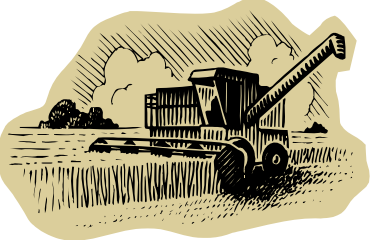

Australia & New Zealand 2006 - 07

Definitions

<i>“Customer’s Installation”</i>	means all parts of an electrical installation past the point of supply on the consumer side.
<i>“Distribution or Supply Equipment”</i>	means equipment used in the generation, transmission, supply or distribution of electricity.
<i>“Electrical Worker”</i>	means a person who carries out electrical work and is licensed or authorised to do so.
<i>“General Public”</i>	means a person who is not doing any work as part of his or her employment or under a contract of work or training at the time the incident occurs
<i>“Misuse/Interference”</i>	means to damage, mishandle or use equipment in a way that it is not intended or for what it is designed.
<i>“Non Electrical Worker”</i>	means a person who is in the process of carrying out their occupation and is not an electrical worker.
<i>“Supply Worker”</i>	means a person who is employed by or under the control of a network operator.
<i>“Work Practice”</i>	means the process or method by which work is carried out.

QUICK FACTS 2006-07

30 deaths were recorded in Australia and New Zealand in 2006-07. This is equivalent to 1.66 deaths per million population.

	<p>All 10 distribution network related deaths were as a result of accidental contact with electricity supply overhead conductors</p>
	<p>20 deaths involved customer's installations, appliances or equipment</p>
	<p>Of the people who were electrocuted, 70% were either non-electrical workers or general public.</p>
	<p>Of the people who were electrocuted, 63% were workplace accidents.</p>

Electrical Incident Data

This report covers the 12 month period from 1 July 2006 to 30 June 2007. It is based on details of incidents reported to electrical safety regulators in Australia and New Zealand.

Due to differences in reporting definitions and requirements, this comparative report concerns accidental electrical fatalities only.

Out of 30 deaths (excluding suicides) reported in the financial year, 10 deaths (33%) involved the electricity supply networks while 20 (67%) involved customers installations, appliances or equipment. It is noticed that all 10 deaths involving electricity supply networks were associated with energised overhead conductors.

As shown in table A, The number of fatal accidents has fluctuated over the past few years with a 25% increase in this year following a 31% decrease in the previous year (2005-06).

Table A: Electrical Deaths

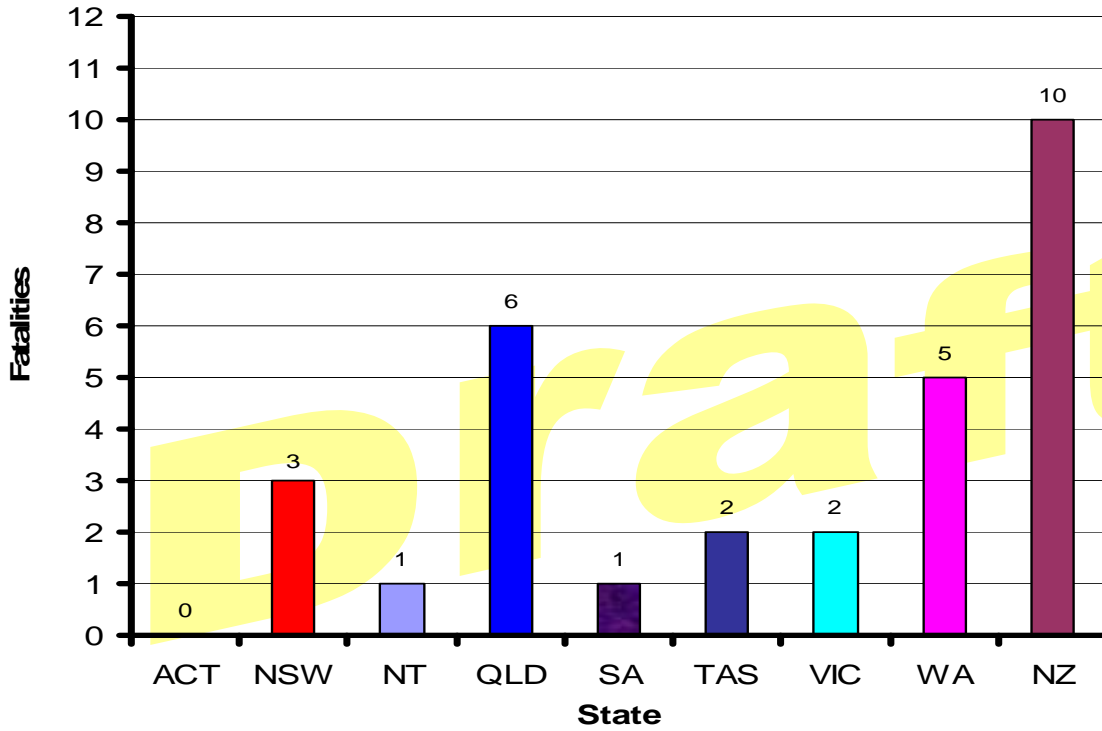
Year	Deaths	Change	%
2006-07	30	6	↑25%
2005-06	24	-11	↓31%
2004-05	35	15	↑75%
2003-04	20	-15	↓43%
2002-03	35	14	↑67%
2001-02	21	-18	↓46%

The statistics from 2001-02 to 2006-07 continue to show that most electrical deaths associated with electricity networks are as a result of working on or near energised overhead conductors. 96.5% of electrical deaths associated with electricity supply networks involved overhead conductors (out of 57 deaths involving the electricity supply networks over the last 6 year period, 55 were due to contact with energised overhead conductors).

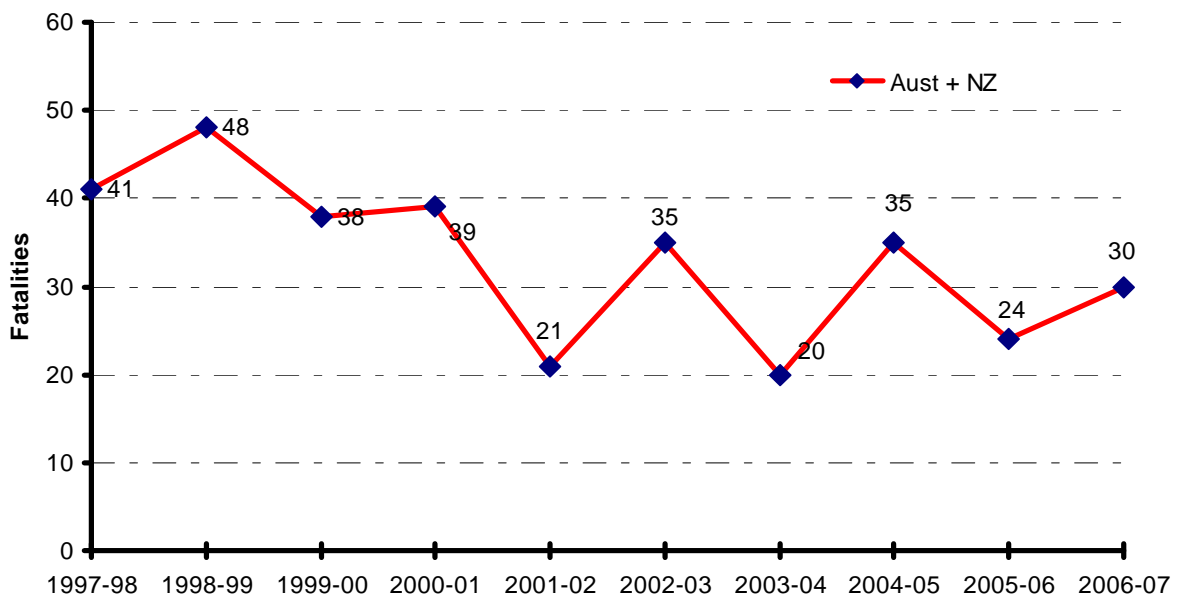
This report presents the information in a series of charts and tables.

1- Regional Deaths 2006-07

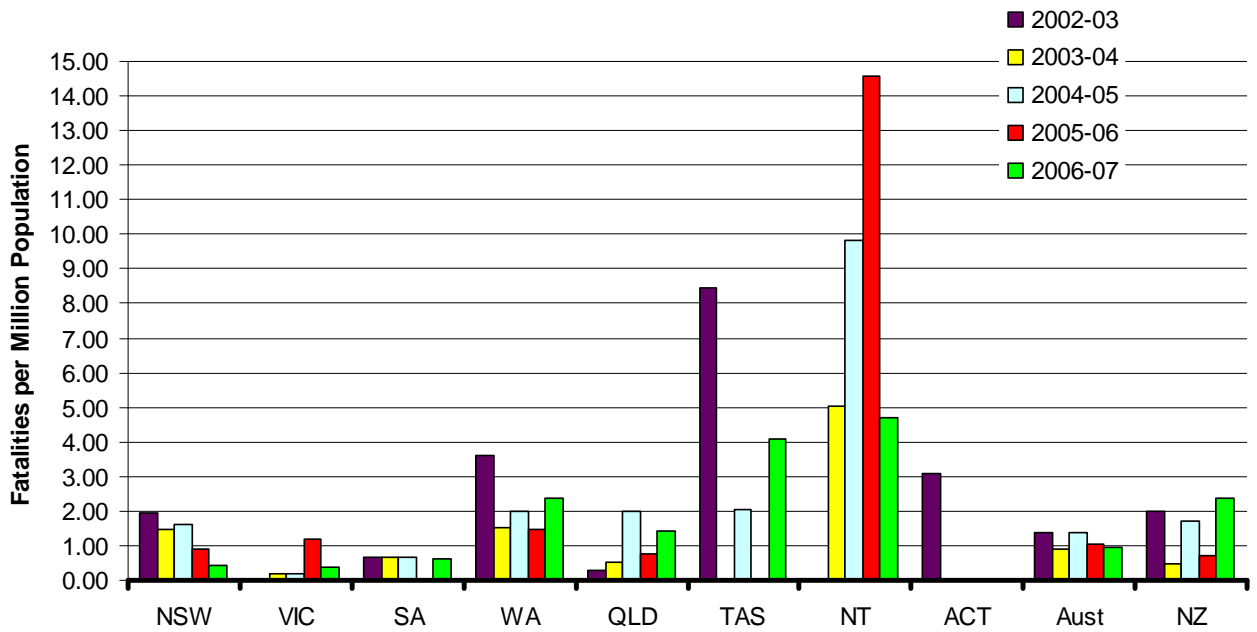
GRAPH 1.1 Australian & NZ Electrical Deaths 2006-07



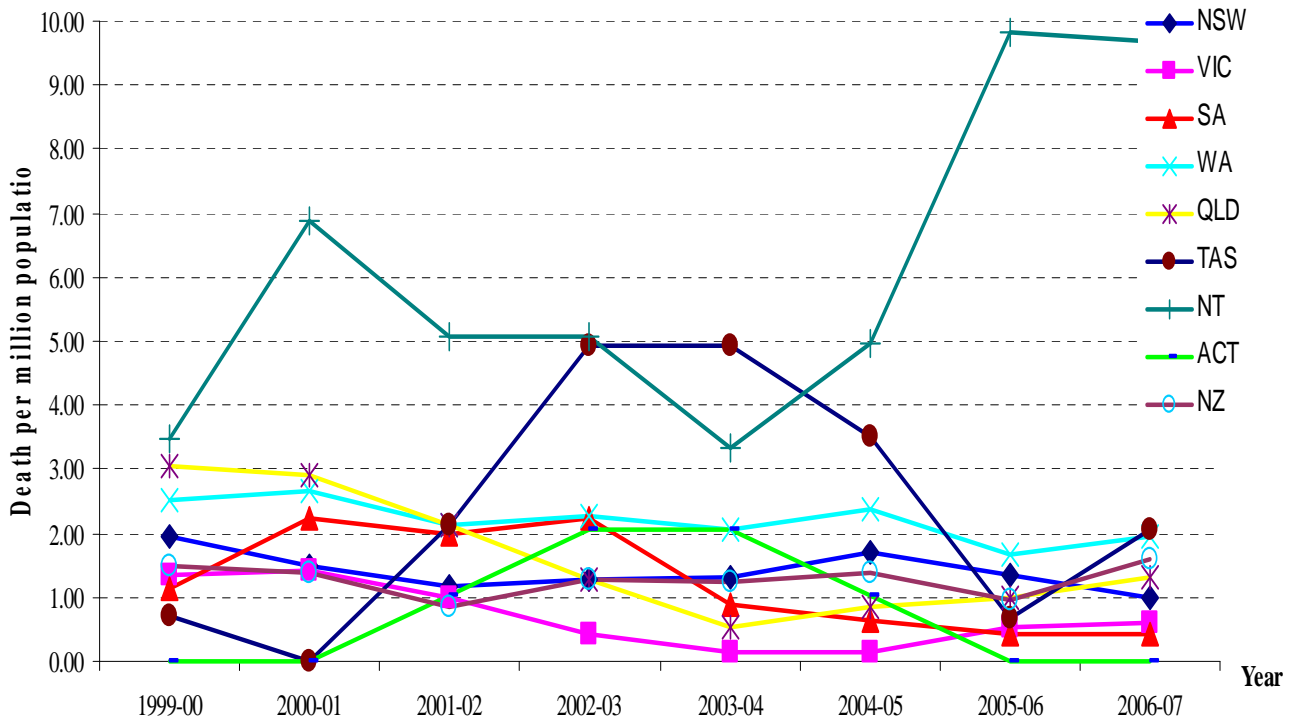
GRAPH 1.2 Total Number of Deaths in Australia and New Zealand



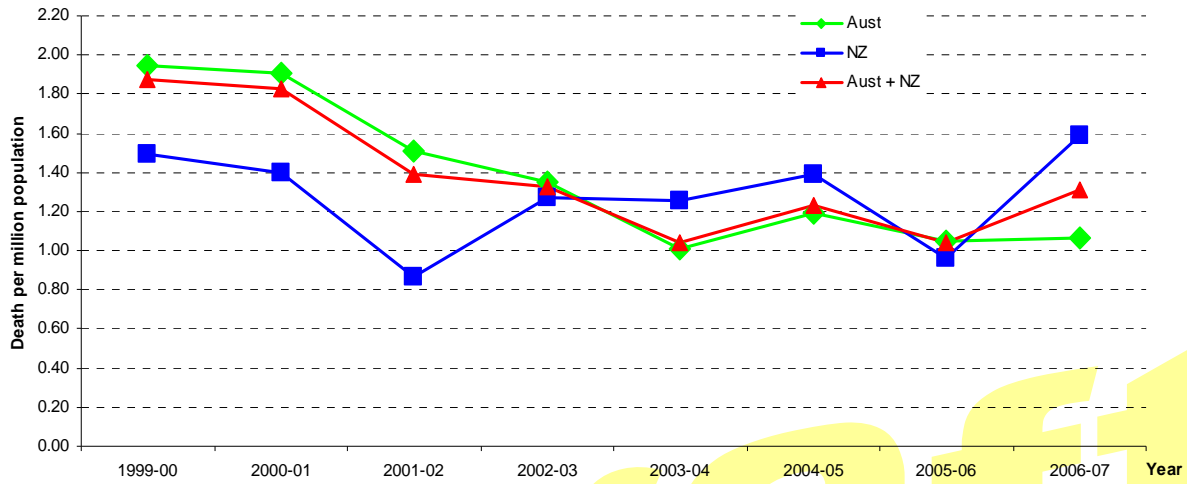
GRAPH 1.3 Electrical Deaths per Million Population from 2002 to 2007



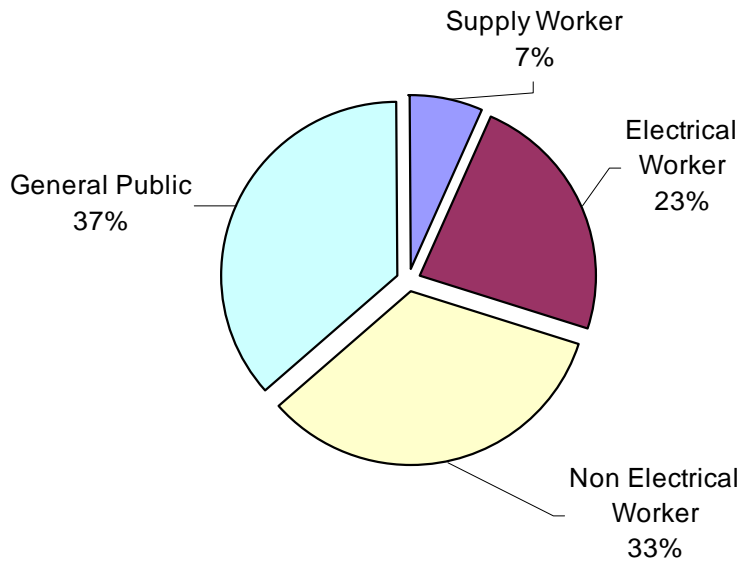
GRAPH 1.4 Trend in Electrocutions with 3 Year Moving Average per Million Population



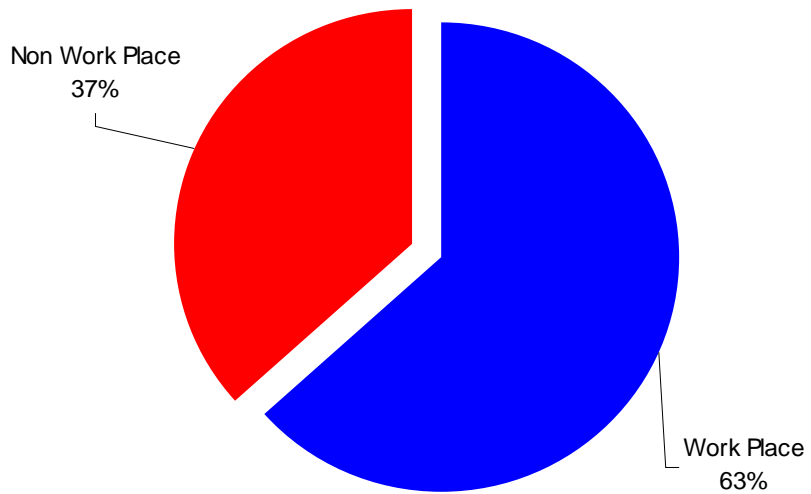
GRAPH 1.5 Trend in Electrocutions with 3 Year Moving Average per Million Population in Australia & New Zealand



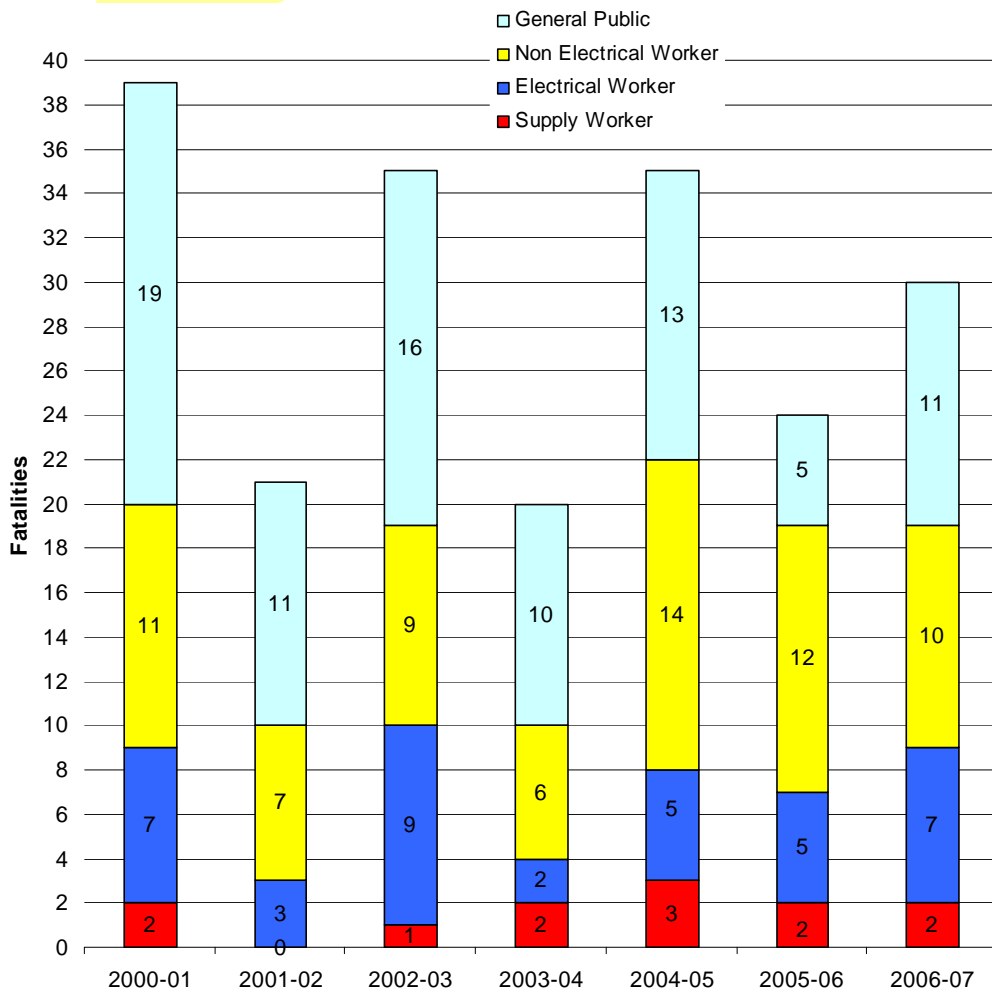
GRAPH 1.6 Aust & NZ Deaths Categories 2006-07



GRAPH 1.7 Deaths: Work Place Versus Non—Work Place 2006-07

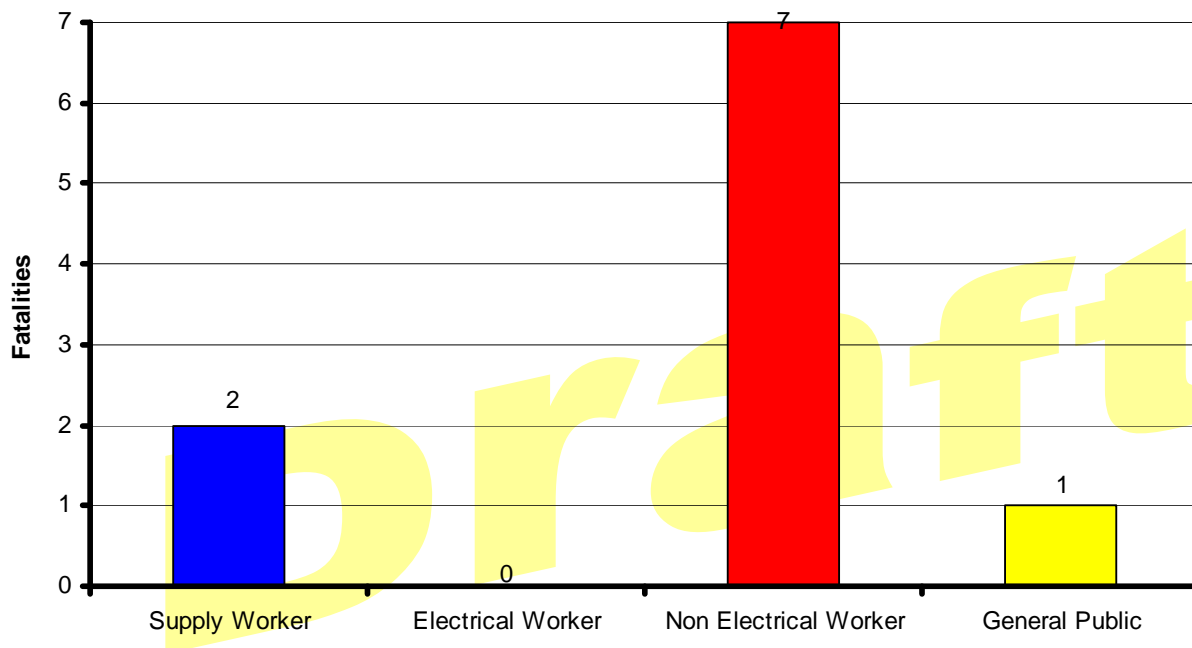


GRAPH 1.8 Deaths sorted by Victim Categories 2000 – 2007

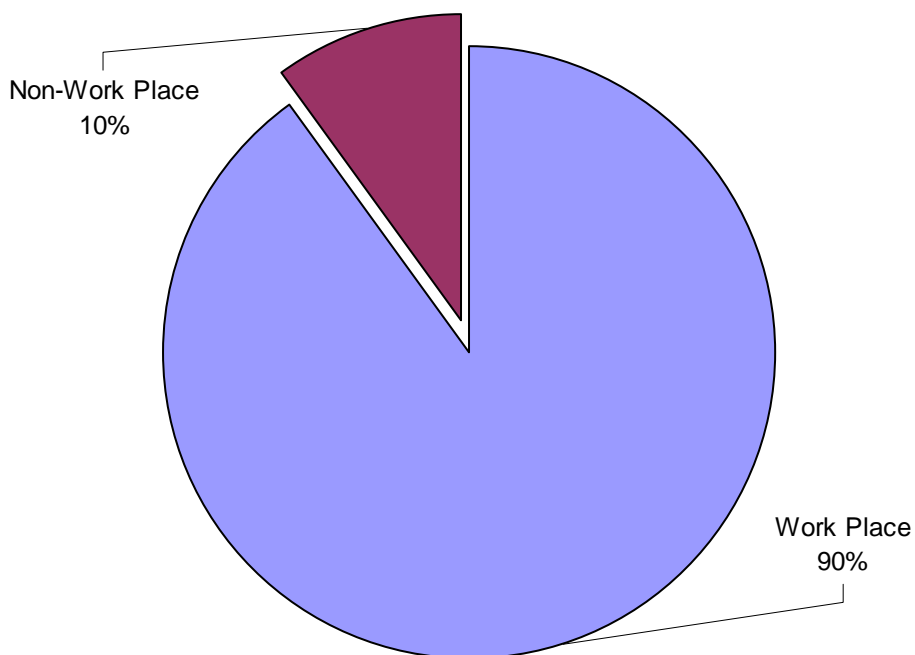


2-Deaths involving Network Assets

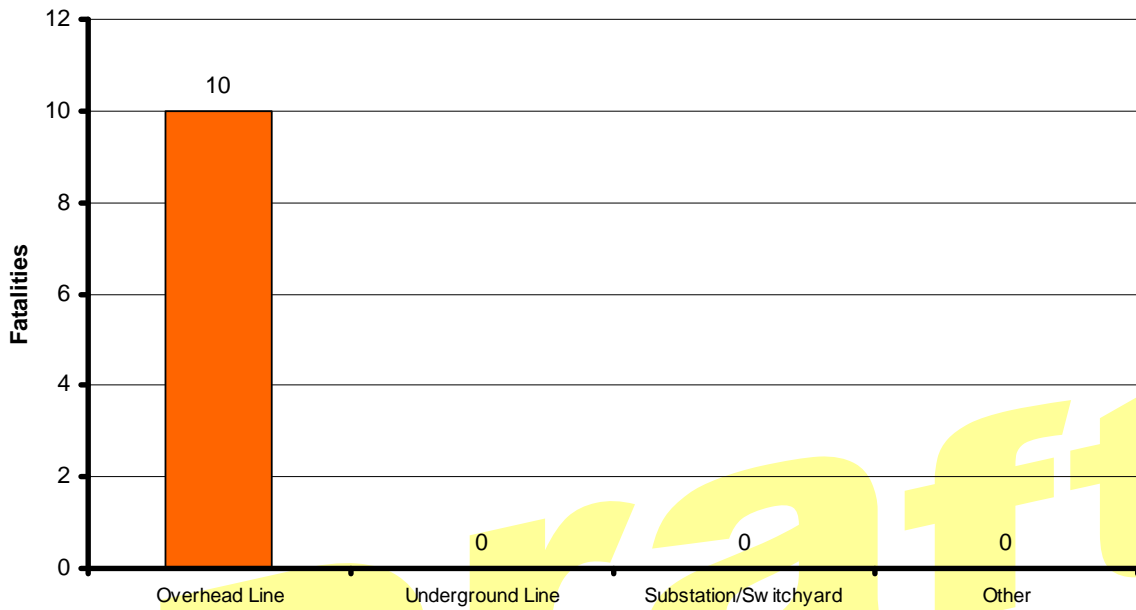
GRAPH 2.1 Deaths Involving Electricity Supply Assets 2006-07 sorted by victim category



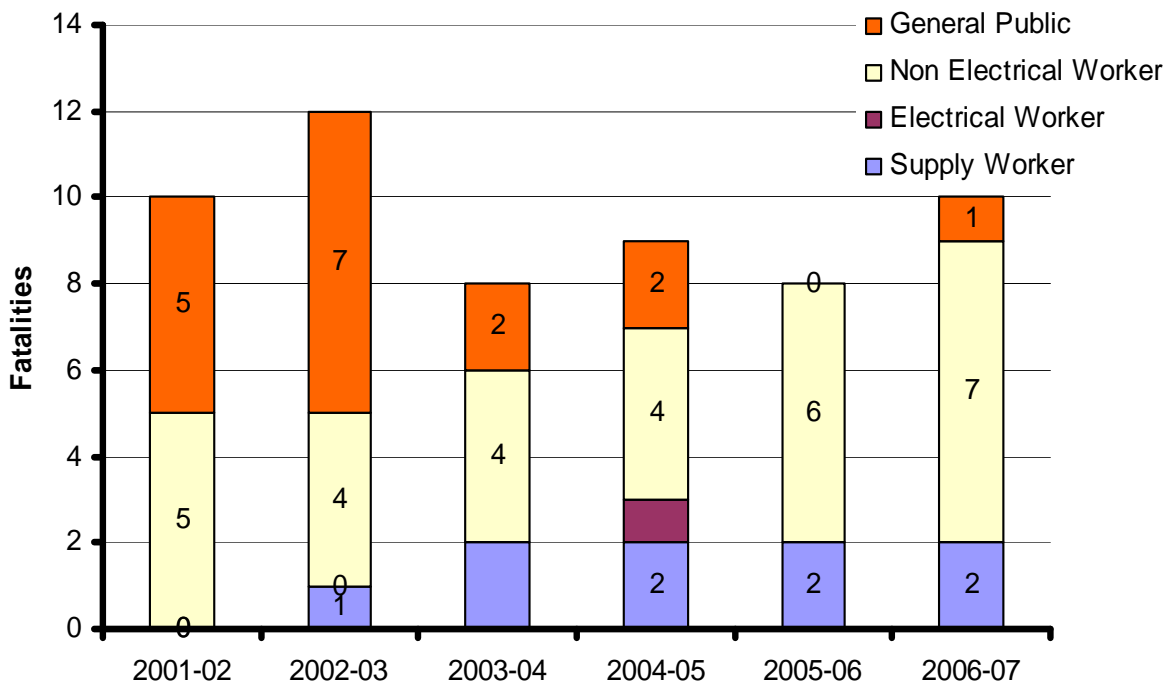
GRAPH 2.2 Death involving Electricity Supply Assets: Work Place Versus Non-work Place 2006-07



GRAPH 2.3 Deaths Involving Electricity Supply Assets 2006-07 sorted by Asset Types

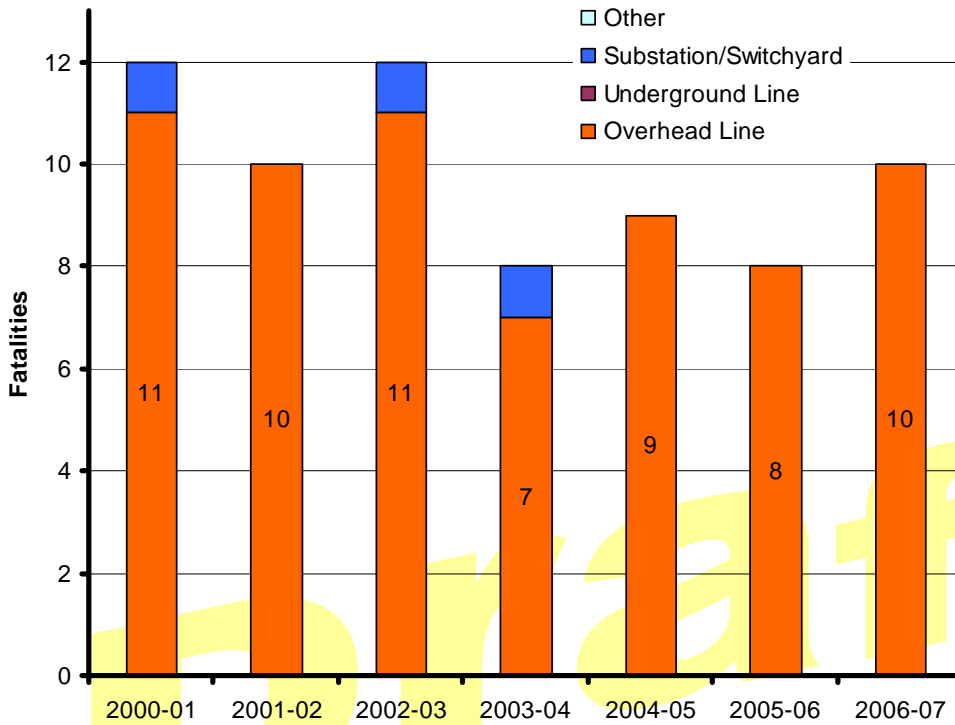


GRAPH 2.4 Deaths Involving Electricity Supply Assets from 2001 to 2007 Sorted by Victim's Categories



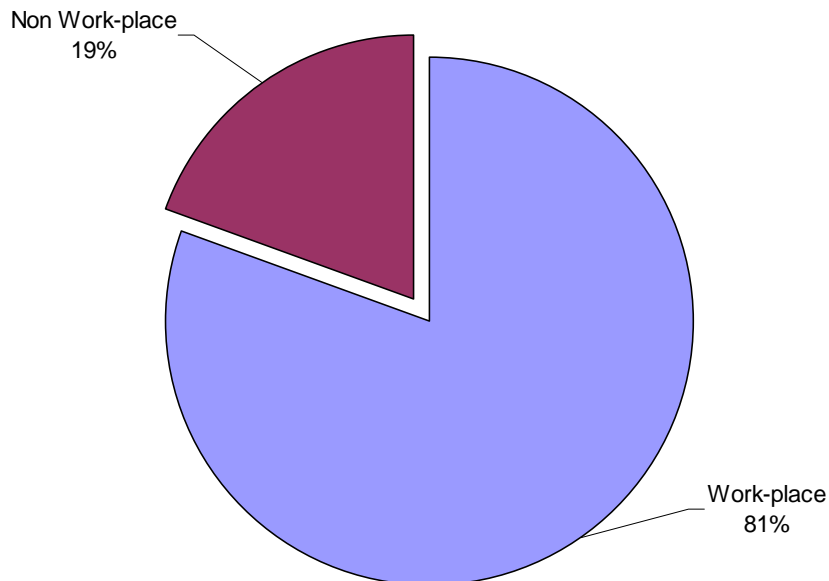
Missing number on blue part of the 2003-04 and red part of 2004-05 bar graphs.

GRAPH 2.5 Deaths Involving Electricity Supply Assets from 2000 to 2007 Sorted by Asset Types



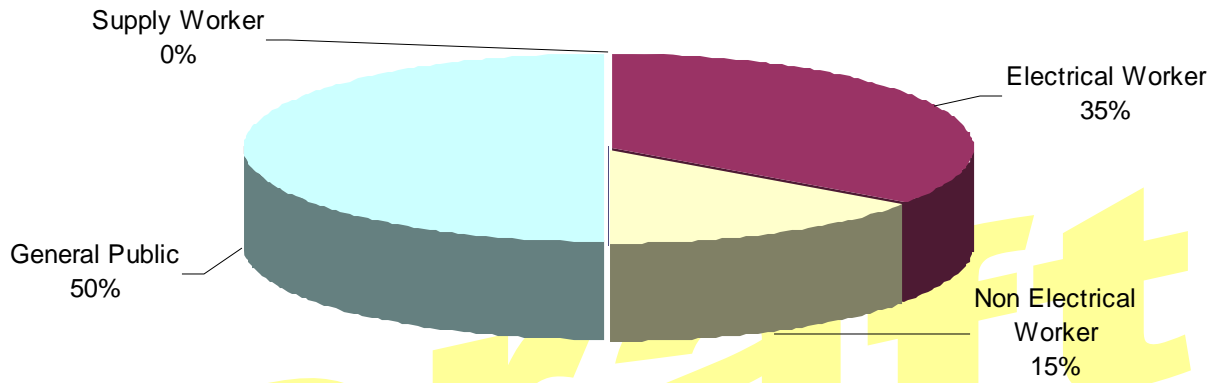
NB. 95.7% of deaths associated with Network Assets over 7 years from 2000 to 2007 involved overhead conductors. The other 4.3% involved equipment in a substation or switchyard

GRAPH 2.6 Deaths Involving Electricity Supply Assets from 2000 to 2007

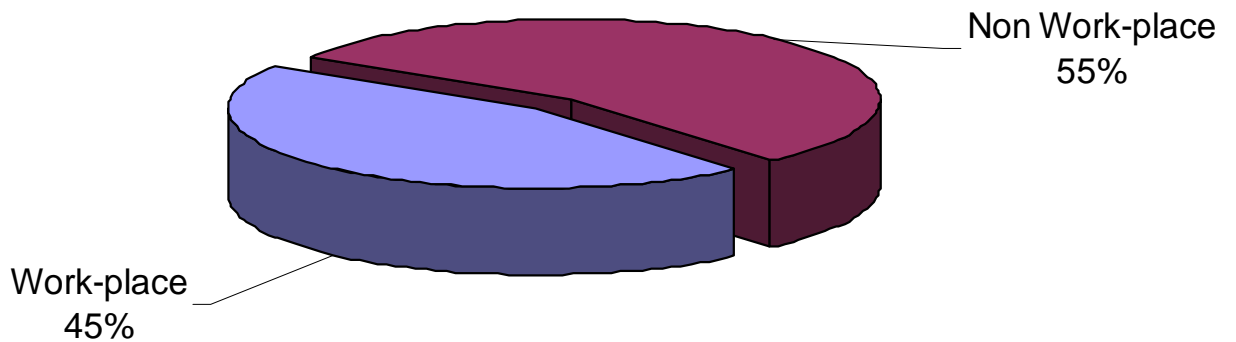


3. Deaths involving Consumer Installation and Equipment.

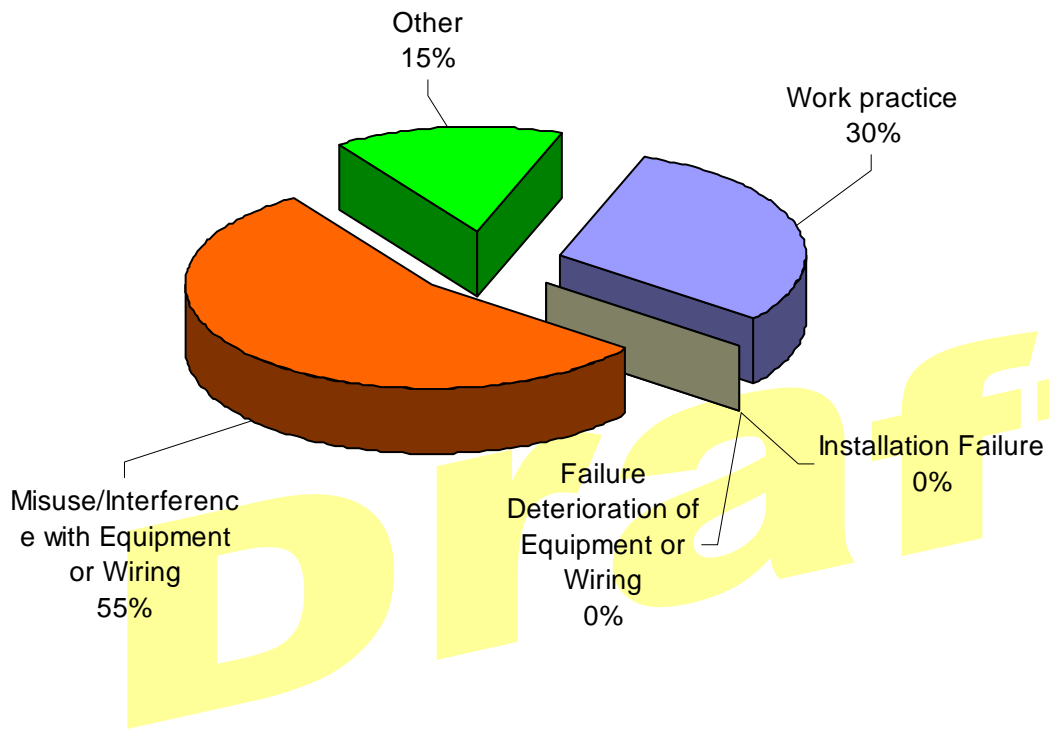
GRAPH 3.1 Deaths Involving Customer's Installation, appliances or equipment sorted by Victim's Categories 2006-07



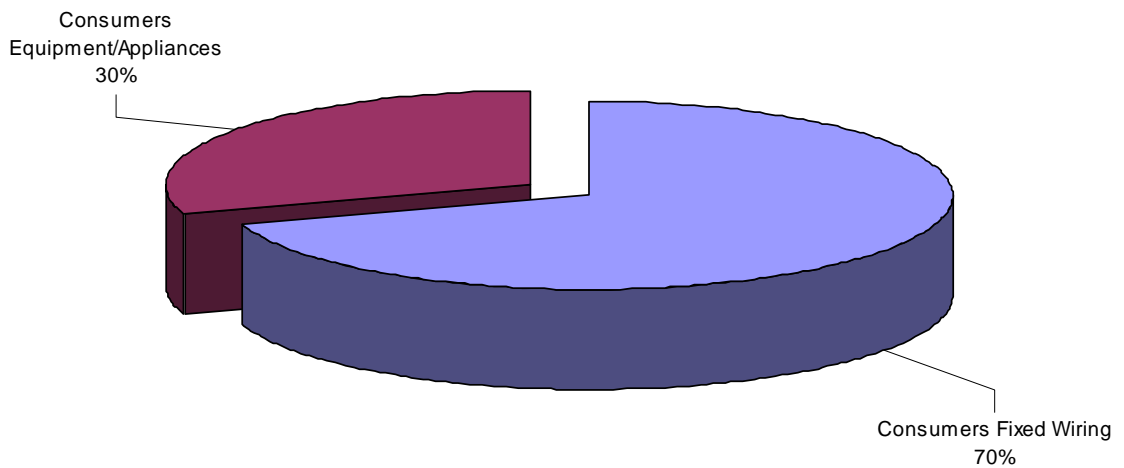
GRAPH 3.2 Deaths Involving Customer's Installation or appliances/equipment in 2006-07 sorted by locations



GRAPH 3.3 Contributing factors for Electrical Deaths Involving Customer's Installation or appliances/equipment in 2006-07



GRAPH 3.4 Deaths Involving Customers' Installation (fixed wiring) or appliances/equipment in 2006-07



4. Fatal Electrical Accidents 2006-07

Region:	NSW	VIC	SA	WA	QLD	TAS	NT	ACT	NZ	TOTAL
Deaths:	3	2	1	5	6	2	1	0	10	30

	AUSTRALIA	DEATHS NEW ZEALAND	TOTAL
TOTAL	20	10	30

YEAR	NSW	VIC	SA	WA	QLD	TAS	NT	ACT	AUST	NZ	TOTAL
2005-06	6	6	0	3	3	0	3	0	21	3	24
2004-05	11	1	1	4	8*	1	2	0	28	7	35
2003-04	10	1	1	3	2	0	1	0	18	2	20
2002-03	13	0	1	7	1	4	0	1	27	8	35
2001-02	3	1*	2	2	3	3	1	1	16	5	21
2000/01	9	5	7	4	10	0	2	0	37	2	39
1999-00	11	8	0	6	10	0	0	0	35	3	38
1998-99	9	7	3	5	11	0	2	0	37	11	48
1997-98	17	4	2	3	11	1	0	0	38	3	41
1996-97	9	8	2	5	20	0	2	0	46	12	58
1995-96	13	10	2	6	9	4	0	0	44	3	47
1995	13	8	2	8	7	2	1	0	41	5	46
1994	23	6	1	4	11	1	2	1	49	5	54
1993	16	5	3	6	12	3	1	3	49	6	55

Note: * Figures were changed from previous reports.

5. Summary of ERAC Electrical Fatality Reports 2006-07

Legend:

A Supply Worker
 B Electrical Worker
 C Non Electrical Worker
 D General Public

ELECTRICITY DISTRIBUTOR/SUPPLY AUTHORITY EQUIPMENT

	AUSTRALIAN CAPITAL TERRITORY				NEW SOUTH WALES				NORTHERN TERRITORY				QUEENSLAND				SOUTH AUSTRALIA			
	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
Overhead Line											1				2	1				
Underground Service																				
Substation/Switchyard																				
Other																				
TOTAL	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	1	0	0	0	0

	TASMANIA				VICTORIA				WESTERN AUSTRALIA				NEW ZEALAND				TOTAL			
	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
Overhead Line			2				0				1		2		1		2		7	1
Underground Service																				
Substation/Switchyard																				
Other																				
TOTAL	0	0	2	0	0	0	0	0	0	0	1	0	2	0	1	0	2	0	7	1

- *An increase of 2 in the number of deaths involving electricity distribution/supply authority equipment from 8 deaths in 2005-06 to 10 in 2006-07.*
- *All 27 deaths involving electricity distribution/supply authority equipment over the last 3 years were due to accidental contacts with overhead conductors.*

CONSUMER INSTALLATION OR EQUIPMENT

	AUSTRALIAN CAPITAL TERRITORY		NEW SOUTH WALES		NORTHERN TERRITORY		QUEENSLAND	
	Installation	Consumer Equipment (Appliances and Accessories)	Installation	Consumer Equipment (Appliances and Accessories)	Installation	Consumer Equipment (Appliances and Accessories)	Installation	Consumer Equipment (Appliances and Accessories)
Work practice			3				2	
Installation Failure								
Failure Deterioration of Equipment or Wiring								
Misuse/Interference with Equipment or Wiring								1
Other								
Total	0	0	3	0	0	0	2	1

	SOUTH AUSTRALIA		TASMANIA		VICTORIA		WESTERN AUSTRALIA	
	Installation	Consumer Equipment (Appliances and Accessories)	Installation	Consumer Equipment (Appliances and Accessories)	Installation	Consumer Equipment (Appliances and Accessories)	Installation	Consumer Equipment (Appliances and Accessories)
Work practice							1	
Installation Failure								
Failure Deterioration of Equipment or Wiring								
Misuse/Interference with Equipment or Wiring		1			1			2
Other					1			1
Total	0	1	0	0	2	0	1	3

	NEW ZEALAND		TOTAL	
	Installation	Consumer Equipment (Appliances and Accessories)	Installation	Consumer Equipment (Appliances and Accessories)
Work practice			6	
Installation Failure				
Failure Deterioration of Equipment or Wiring				
Misuse/Interference with Equipment or Wiring	6		7	4
Other		1	1	2
Total	6	1	14	6

An increase of 25% in the number of deaths associated with customers' electrical installations, appliances or equipment in 2006-07 (20 deaths) compared with the 2005-06 figure (16 deaths).