Inquiry into Western Power's Evidence

Unassisted Failure Themes

- Western Power Network Safety Risk
- Budget Paper Disclosure
- Estimates Evidence
- Parliamentary Oversight and Accountability

Western Power
Network Safety Risk

2009 EnergySafety Order

Western Power had:

- Sustained pole failure rates two to four times higher than the Australian industry target and 20 times higher than those achieved by the leading wood pole network operators.
- Had a pattern of unassisted pole failures in its rural network with poles that:
  - Were untreated jarrah;
  - Were between 30 and 60 years old;
  - Did not meet the design standards when they were installed.

Victorian "Black Saturday" Bushfires Royal Commission

Victoria's electricity assets are ageing, and the age of the assets contributed to three of the electricity-caused fires on 7 February 2009—the Kilmore East, Coleraine and Horsham fires. … **As components of the distribution network age and approach the end of their engineering life, there will probably be an increase in the number of fires resulting from asset failures unless urgent preventive steps are taken.**

Toodyay Bushfire - EnergySafety

In EnergySafety's opinion Pole T303-43 on Western Power's T303, 12.7kV spur power line fell southward to the ground some time prior to 12:54 hours on 29 December 2009. This brought

the high voltage active conductor into contact with the ground on each side of Pole T303-43,

causing arc flashes that ignited stubble from the recently harvested barley crop.

EnergySafety 10 August 2010 *Final Electrical Incident Report Bushfire near River and Folewood Roads Toodyay Western Australia* 29 December 2009

ERA Final AA3 Decision

The poor condition of its wood pole population poses a high risk for Western Power because of the risk to public safety from unassisted wood pole failures and the potential for such failures to start bush fires that cause extensive property damage.

January 2011 Letter from Minister for Commerce (EnergySafety)

"Questions raised by the [Public Administration] Committee canvassed EnergySafety's safety audit of 2005/06 and specifically referred to the progress of work towards the improvement of the wood pole network."

"I believe it is necessary and timely that Western Power produce a realistic plan to address this issue, and I would be grateful if you could advise as to what progress has been made in development of such a plan."

February 2011 Reply to Minster of Commerce (EnergySafety)

"To this end, Western Power is currently preparing its expenditure forecast for the next regulatory period (2012/13-2016/17) and I am advised it will seek sufficient funds to continue to mitigate the **significant remaining community risk posed by the generally poor condition of the wood pole population**."

February 2011 Reply to Minster of Commerce (EnergySafety)

"Into the future, I remain committed to ensuring Western Power:

- continues to address and implement all the recommendations and requirements of EnergySafety's wood pole audit and order;
- maintains an inspection backlog of less than 1,000 poles;
- continues to reduce its unassisted wood pole failure rate;
- incorporates into its Bushfire Management Plan, the recommendations of the Victorian Bushfire Royal Commission …"

February 2011 Reply to Minister of Commerce

"I am also aware that you recently received an overview presentation from Western Power's Managing Director of its network investment and wood pole management plans."

"From this presentation you would be aware that over 30% of the current wood pole population of 630,000 poles is over 40 years old. Immediately replacing this large number of poles would require the Government to inject a **large increase in additional funding on top of that which I have outlined to you**."

March 2011 ERA – Final Horizon Power Funding Decision

"**Technically, Horizon Power maybe in breach of safety standards, and is exposed to legal challenge in the event of a safety incident.** Horizon Power has therefore prioritised its expenditure on the programmes over and above other programmes and is consulting closely with EnergySafety and the Economic Regulation Authority to manage the risks associated with its wood pole management."

Wooden Power Poles – Safety Risk

Date	Event
November 2006	EnergySafety Western Power Compliance Audit Report Released
2008	EnergySafety Distribution Wood Pole Review commenced
7 February 2009	Victorian 'Black Saturday' Bushfires
14 February 2009	Balingup Bushfire
April 2009	EnergySafety *Electrical Incident Report Power Pole Failure and Bush Fire Balingup Western Australia 14 February 2009*
May 2009	EnergySafety *Distribution Wood Pole Review* Report released
29 September 2009	EnergySafety issue Western Power with an Order
29 December 2009	Toodyay Bush Fire
July 2010	Victorian 'Black Saturday' Bushfires Royal Commission Report released
10 August 2010	EnergySafety *Final Electrical Incident Report Bushfire Near River and Folewood Roads Toodyay Western Australia 29 December 2009*

Western Power Budget Paper Disclosure

April 2011 Western Power's AA3 Engagement Strategy

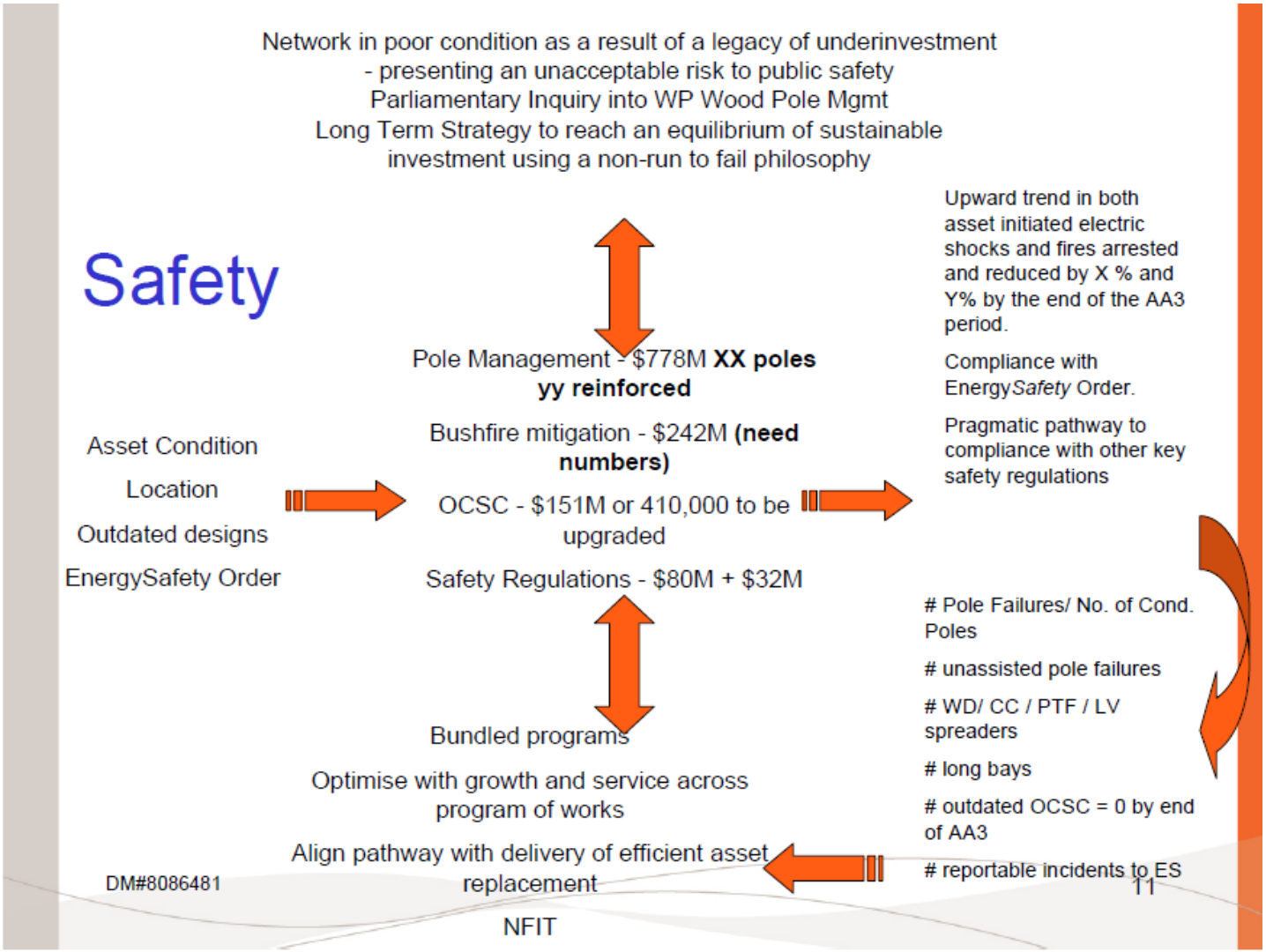
- 7 April 2011 Board Paper

  A critical success factor of the business's AA3 strategy is the need to engage proactively with our stakeholders.

- Proposed Actions
  - 7 April – July 2011
    - Board and management to target engagements with the Minister for Energy and members of the EERC (Economic and Expenditure Reform Committee) of Cabinet

April 2011

- Dated 20 April 2011



ERA Draft AA3 Decision

	Initial Discussions Treasury 15 Feb 2011	Powerpoint 20 April 2011	Draft AA3 Decision 29 March 2012
Wooden Power Poles	$724m	$778m	$748m

	Initial Discussions Treasury 15 Feb 2011	Powerpoint 20 April 2011	Western Power Press Release 15 Sept 2011
Safety Related Expenditure	$1,197m	$1,283m	$1,222m

2011/12 Budget Paper Disclosure

Western Power Capital Expenditure

Western Power is required to provide its AA3 submission to the Economic Regulation Authority. This access arrangement will outline Western Power's capital investment over the period 2012-13 to 2016-17. **Additional capital expenditure may be required to meet growth requirements in the network and undertake asset maintenance and replacement to mitigate safety, security and reliability issues.**

Western Power Budget Estimates Hearings

Estimates Hearing 27 June 2011

Hon PETER COLLIER: When you have got wood poles, you are always going to have difficulty. They have well in excess of about 630 000 poles with Western Power, which is wood poles, which itself presents enormous challenges for the corporation. In June 2008 they had a pole maintenance backlog of around 73 000. That is now nil. They have done extremely well from that perspective. For the 2010–11 financial year to date, they have inspected over 120 000 poles. **We will provide around $177 million over the two-year period from 2010–11 to 2011–12 on pole replacement and reinforcement**. **Of that amount of $177 million, $79.5 million is additional funding. …**

Estimates Hearing 27 June 2011

Mr Aberle: If I could just for clarity point out that the backlog is down at the functional minimum, which is not zero—there is always between zero and 1 000 waiting to be done because you do not go out and do one pole at a time—but sitting at that level is tantamount to nil. For absolute clarity, there is always a small population programmed to be inspected in the immediate weeks.

Parliamentary Oversight

Draft AA3 ERA Decision

The authority understands that EnergySafety considers Western Power's proposed wood pole management program is inadequate and that Western Power's preferred investment approach does not fully meet the Order's requirements.

Final AA3 ERA Decision

Following the draft decision, Western Power has proposed to increase its wood pole investment to what it considers is the greatest extent possible under current delivery constraints. **Western Power proposes to reinforce an additional 204,820 wood poles at a cost of $332.5m** [in 2012 dollars] …

	Initial Treasury Proposal	Draft AA3 ERA Decision	Final ERA Decision
Wooden Power Poles	$724m	$748m	$1,112.9

Network Investment Proposal

Public Safety - addressing only the highest priority risks

Capital expenditure

Options considered	Cost (millions)	Area for variation	Outcome (end of AA3)	Comment
High Investment Scenario 1 Low Risk	$2,197	***5 year*** plan to replace and reinforce ***wood poles*** ***10 year*** plan for replacing ***conductors*** in high fire risk areas and eliminating long bays ***5 year*** program to replace all high risk ***service connections***	***296,000*** poles • Exponential reduction in risk of pole failure • Compliance with Energy*Safety* Order • Limited incremental improvement in the number of bush fires prevented over Proposed Investment Scenario	Compliance with Energy*Safety* order would come at a cost: • compromise ability to deliver other programs focused on growth and service • difficulty resourcing materials and labour • impact on outages as large parts of network out of service
High Investment Scenario 2 Low Risk	$1,557	***10 year*** plan to replace and reinforce ***wood poles*** ***10 year*** plan for replacing ***conductors*** in high fire risk areas and eliminating long bays ***5 year*** program to replace all high risk ***service connections***	***207,000*** poles • Rapid reduction in risk of pole failure • Limited incremental improvement in the number of bush fires prevented over Proposed Investment Scenario	Considered not fully compliant with Energy*safety* order while still being a very large program with major deliverability challenges
Proposed Investment Scenario Medium Risk	$1,357	***15-20 year*** plan to replace and reinforce wood poles ***10 year*** plan for replacing conductors in high fire risk areas and eliminating long bays ***5 year*** program to replace all high risk ***service connections***	***164,000*** poles • Accelerated reduction in high risk pole population Forecast reduction in asset initiated fires of 10% from 60 to 54 per year Forecast reduction in electric shocks by 25% from 373 to 278 per year	Considered not compliant with Energy*safety* order Seeks to address most at risk poles to deliver a reduction in public safety risk while balancing: • deliverability challenge • regulatory requirements Largest replacement program in Australia
Low Investment Scenario Extreme Risk	$1,007	Pole management program ***reduced*** from current levels ***Reduction*** in the targeted replacement of poor condition assets in high and extreme bushfire areas ***Reduced*** rate of replacing high risk service connections	Less than ***123,000*** poles Forecast ***increase*** of asset initiated ***fires*** (greater than 62 per year) Forecast ***increase*** of electric ***shocks*** (greater than 380 per year)	Number of unserviceable poles in the population will increase Increase the probability of fatalities due to either electric shocks or asset initiated fires Sustainable rates of replacement and reinforcement of key assets not achievable