



Supporting
document 18.9

Vegetation Management Audits

2020-2025
Regulatory Proposal
January 2019



VEGETATION CLEARANCE COMPLIANCE AUDIT Summary 2015 - 2018

1. Purpose

To provide information in response to the requirement of Schedule 1 of the Australian Energy Regulator's (**AER**) Regulatory Information Notice (**RIN**) 29.1 Provide compliance audits of vegetation management work conducted by SA Power Networks during the current regulatory control period (2015-20).

2. Background

- 2.1 SA Power Networks (**SAPN**) has a duty of care to take 'reasonable steps' to clear vegetation from its powerlines in accordance with the Electricity Act 1996 (SA) and associated regulations. SAPN undertake a number of internal and external audits to ensure 'reasonable steps' have been undertaken to achieve compliance and mitigate bushfire risk.
- 2.2 SAPN Vegetation Audit procedures are documented in the Vegetation Manual 37.
- 2.3 Internally SAPN audit 10% of the feeders scoped and 25% of the feeders cut for each of the 40 districts in the Annual Vegetation Cyclic Program. The audits will consist of four (4) random sites and two (2) targeted sites, in addition 50% to 70% of the feeder will be traversed. Equal quantities of the sites are from High Bushfire Risk Areas (**HBFRA**) and Medium Bushfire Risk Areas (**MBFRA**) feeders.
- 2.4 SAPN engages GHD to undertake three independent audits of the Vegetation Clearance Program against the provisions of the Electricity Act and its Regulations.
 - 2.4.1 Annual Cyclic Program
 - 2.4.2 Pre-Summer Audit
 - 2.4.3 Post-Summer Audit
- 2.5 These audits provide SAPN with a report detailing the level of regulatory compliance achieved prior and post summer and recommends process improvements and management actions to improve the vegetation clearance programs.
- 2.6 Table 1 shows the number of outstanding vegetation defects (Z codes, fire starts) as of 1 December each year. In addition, the table shows the high-level trend comparison for internal and external audit results for the 2011-2018 period.

Table 1. Number of outstanding vegetation defects (z codes, fire starts) as at December 1, annually

Status at 1 December:	2011	2012	2013	2014	2015	2016	2017	2018
Z-Codes outstanding - Total	7,109	12,184	0	0	0	0	0	0
HBFRA	6,543	1,398	0	0	0	0	0	0
MBFRA	556	10,786	0	0	0	0	0	0
External Cyclic Audit Non-conformance %								
Audit-site		15.26%	5.63%	11.43%	10.95%	7.31%	4.19%	1.53%
Span		2.84%	0.92%	1.90%	1.78%	1.22%	0.71	0.26%
External Pre-Summer Audit Non-conformance %								
Audit-site	14.1%	9.0%	8.9%	2.7%	8.4%	2.9%	3.2%	1.2%
Span	3.8%	2.4%	1.7%	0.5%	1.4%	0.5%	0.5%	0.2%
External Post Summer Audit Non-Conformance %								
Audit-site		30.8%	40.0%	21.9%	12.1%	11.9%	10.9%	April 2019
Span		6.2%	12.3%	3.2%	2.0%	2.5%	2.0%	April 2019
Internal Scoping and Cutting Audits %								
Total Fdrs Scoped					1,189	1,189	1,198	1,138
Scoping Fdrs Audited					194	178	153	129
Scoping Fdrs Audited %					16%	15%	13%	11%
Scoping non-conformance %					1.8%	0.78%	0.80%	0.22%
Total fdrs Cut					1,189	1,189	1,198	1,138
Cutting Fdrs Audited					277	312	317	293
Cutting Audit %					23%	26%	26%	25%
Cutting non-conformance %					0.99%	0.52%	0.69%	0.31%

3. Discussion

- 3.1 The SAPN internal and external Cyclic, Pre- and Post-Summer Compliance Audits includes all 40 districts within the State's Bushfire Risk areas.
- 3.2 Figures 1 to 3 show the high-level trend comparison for Span and Audit Non-Conformance Rates (**NCR**) on the external Cyclic, Pre- and Post-Summer audits for the period 2011-2018.



Figure 1. High-level trend comparison for Span and Audit Site NCR on the External Cyclic Audit (2011-2018)

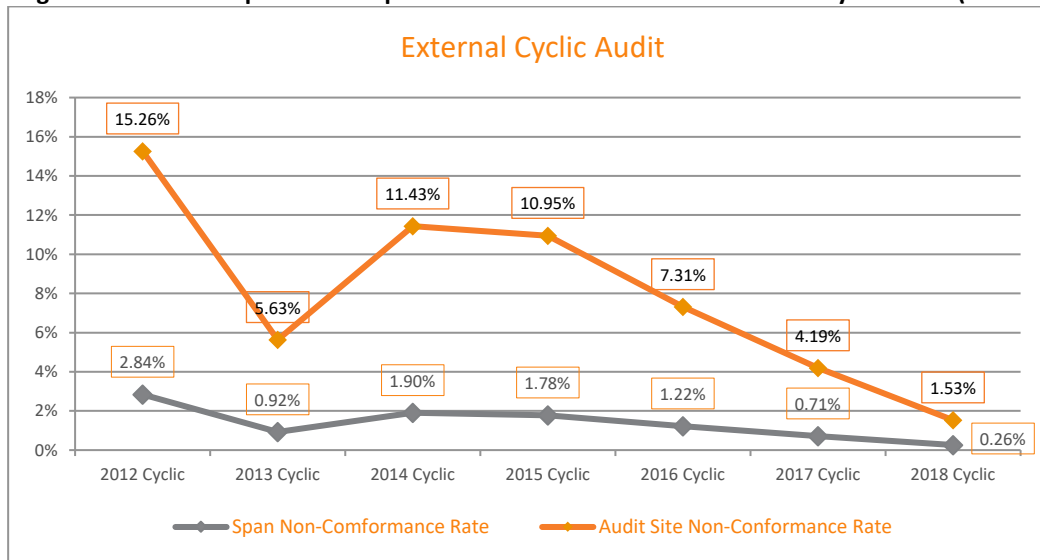


Figure 2. High-level trend comparison for Span and Audit Site NCR on the External Pre-Summer Audit (2011-2018)

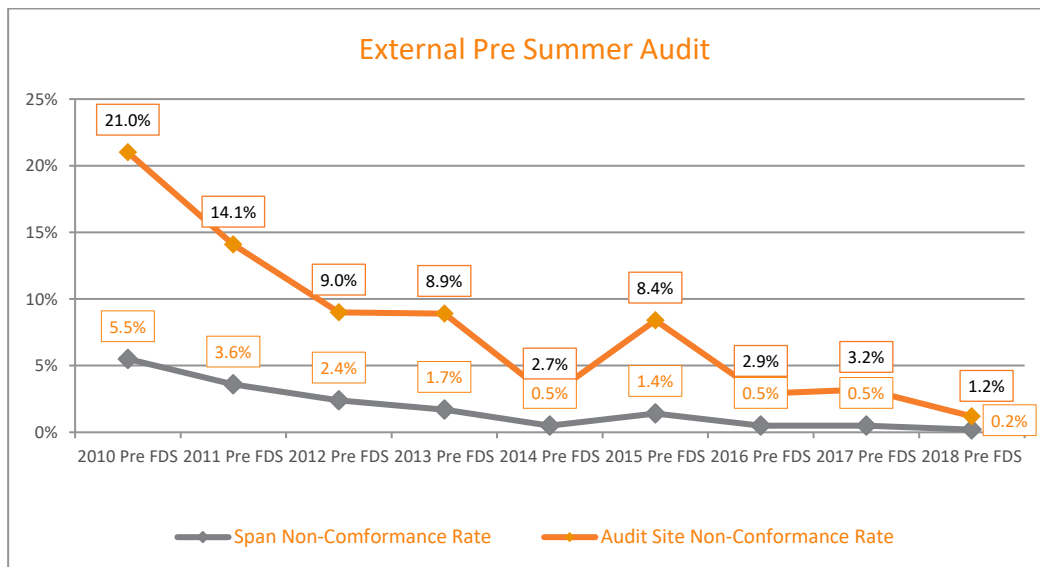
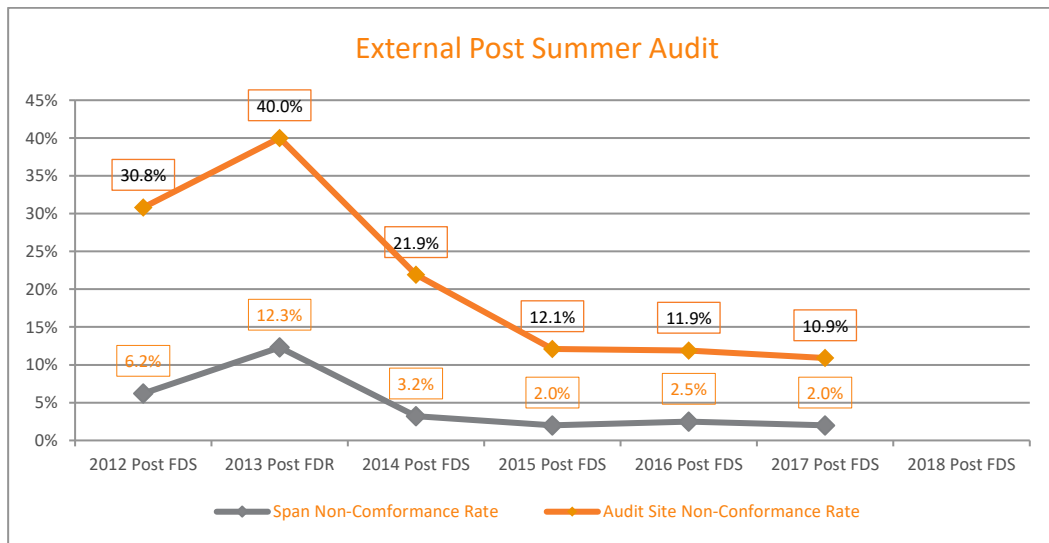


Figure 3. High-level trend comparison for Span and Audit Site NCR on the External Post-Summer Audit (2011-2018)



3.3 The external audit results show that since 2015 there has been a significant improvement in vegetation clearance performance. Notwithstanding, the audits include recommendations and priority for identified improvements to ensure SAPN continuously improves the vegetation clearance practices to minimise bushfire risks and maintain reliability standards.

3.4 Figures 4 and 5 show the high-level comparison of the internal scoping and cutting audits undertaken by SAPN for the period 2015 – 2018.

Figure 4. High-level trend comparison of the internal scoping audit undertaken by SAPN (2011-2018)

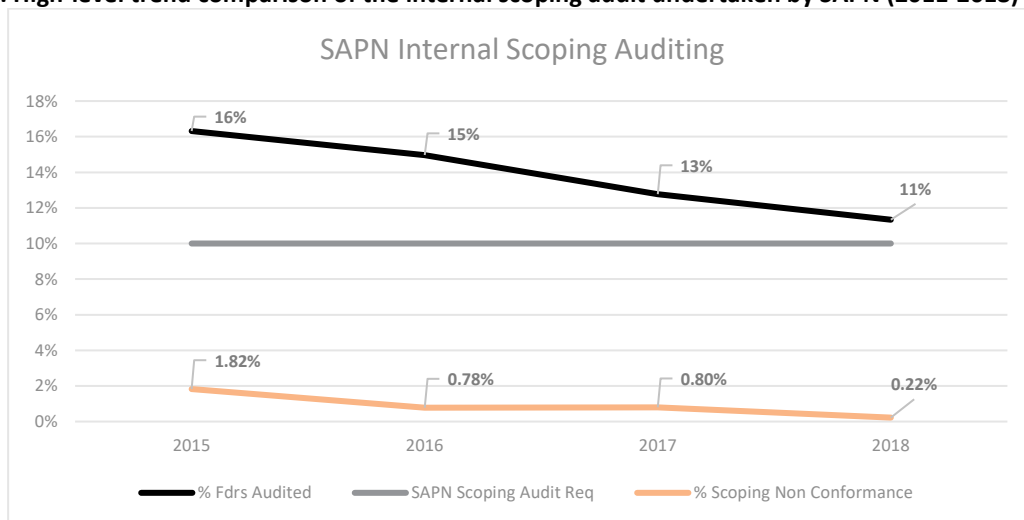
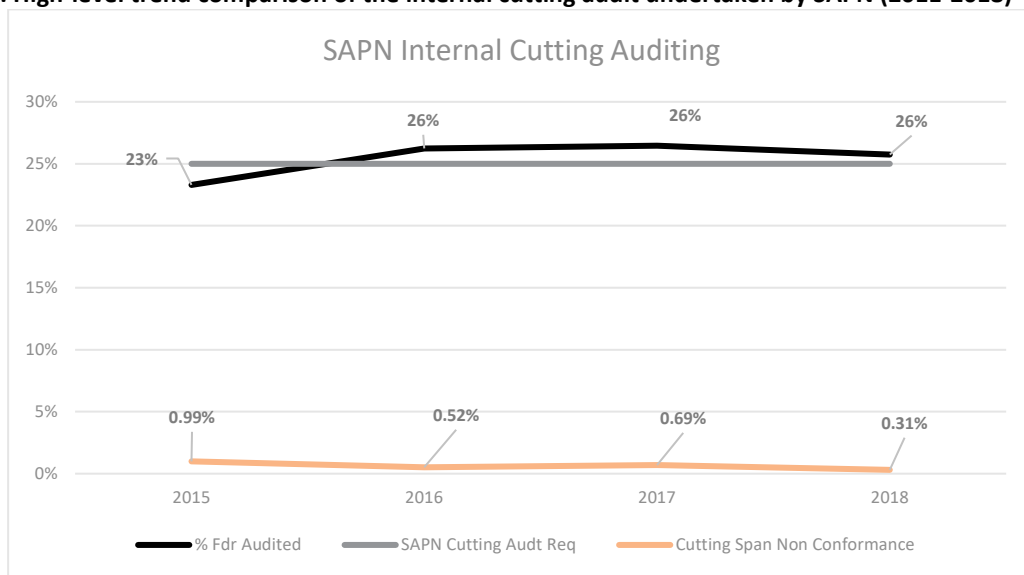


Figure 5. High-level trend comparison of the internal cutting audit undertaken by SAPN (2011-2018)



- 3.5 The SAPN internal audit results show that since 2015 there has been a significant improvement in vegetation management performance. Furthermore, all non-conformances are formally discussed with SAPN's Vegetation contractor and SAPN has a formal documented process to address identified non-conformances.
- 3.6 Copies of the GHD audit reports for each year (Supporting Document 18.6 – GHD Vegetation Audits 2015-2018) and some sample internal feeder audits (Supporting Document 18.22 – Vegetation Sample Audits) are supplied.