**MEMO** 

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| --- | --- |
| **To:**  **CC** | Michelle Henderson  Jason Franklin, Tim Brown, Roger Paterson, Rachael Watt, Justin Peterson and Greg Buzzard, Richard Lee, Trevor Simmonds, Terry Jones, Jim Mathson,.Roy Duffin, Jim Giller and Mark Way |
| **From:** | Kana Shanmuganathan, System Control Manager |
| **Subject:** | System Control Weekly Report |
| **Date:** | {{TODAY\_DATE}} |

## Year to Date SAIDI and SAIFI – {{SAIDI\_SAIFI\_DATE}}

Table 1: Network SAIDI Performance

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Network | YTD Actual | YTD Target | EOY Target | EOY Expected Incentive/Penalty |
| EIL | {{SAIDI\_EIL\_YTD|round(3)}} | {{SAIDI\_EIL\_YTD\_T|round(3)}} | {{SAIDI\_EIL\_EOY\_T|round(3)}} | {{SAIDI\_EIL\_EIP}} |
| TPC | {{SAIDI\_TPC\_YTD|round(3)}} | {{SAIDI\_TPC\_YTD\_T|round(3)}} | {{SAIDI\_TPC\_EOY\_T|round(3)}} | {{SAIDI\_TPC\_EIP}} |
| OJV | {{SAIDI\_OJV\_YTD|round(3)}} | {{SAIDI\_OJV\_YTD\_T|round(3)}} | {{SAIDI\_OJV\_EOY\_T|round(3)}} | {{SAIDI\_OJV\_EIP}} |

Table 2: Network SAIFI Performance

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Network | YTD Actual | YTD Target | EOY Target | EOY Expected Incentive/Penalty |
| EIL | {{SAIFI\_EIL\_YTD|round(3)}} | {{SAIFI\_EIL\_YTD\_T|round(3)}} | {{SAIFI\_EIL\_EOY\_T|round(3)}} | {{SAIFI\_EIL\_EIP}} |
| TPC | {{SAIFI\_TPC\_YTD|round(3)}} | {{SAIFI\_TPC\_YTD\_T|round(3)}} | {{SAIFI\_TPC\_EOY\_T|round(3)}} | {{SAIFI\_TPC\_EIP}} |
| OJV | {{SAIFI\_OJV\_YTD|round(3)}} | {{SAIFI\_OJV\_YTD\_T|round(3)}} | {{SAIFI\_OJV\_EOY\_T|round(3)}} | {{SAIFI\_OJV\_EIP}} |

## Year to Date SAIDI and SAIFI Graphs

|  |  |
| --- | --- |
| {{EIL\_SAIDI\_CHART}} | {{EIL\_SAIFI\_CHART}} |
| {{TPC\_SAIDI\_CHART}} | {{TPC\_SAIFI\_CHART}} |
| {{OJV\_SAIDI\_CHART}} | {{OJV\_SAIFI\_CHART}} |

## Year to Date SAIDI and SAIFI Graphs

**Monday 16 January 2017**

#### ESL

* Business as usual

**EIL**

* RMU 251 Ness N of O’Hara – maintenance
* RRD sub – partial discharge test

**TPC**

* Asplundh cutting trees – KEL CB 2 cct
* OHA CB 28 – install Arc Flash and change CB auxillarys
* PAH CB tripped – broken insulator

**OJV**

* PML CB 2 – tree cutting

**Tuesday 17 January 2017**

#### ESL

* Business as usual

**EIL**

* RMU 251 Ness N of O’Hara – maintenance
* LEV sub – partial discharge test

**TPC**

* ORA CB 1 cct – removed Hagens ABS
* CHL T2 and CB 32 – maintenance

**OJV**

* CHS CB 62\_Clifton ABS 944 – replacing poles
* OWA CB 1 auto reclosed

**Wednesday 11 January 2017**

#### ESL

* Business as usual

**EIL**

* SPY sub – partial discharge test

**TPC**

* MAK CB 5 cct – repair Lightfoots ABS

**OJV**

* WHL CB 1 auto reclosed
* FIN CB 1 auto reclosed
* CHS CB 62\_Clifton ABS 944 – replacing poles
* PAL CB 3 and LAW CB 3 cct – tree cutting

**Thursday 12 January 2017**

**ESL**

* Business as usual

**EIL**

* Business as usual

**TPC**

* 66 kV NMK CB 322\_WTN CB 112 cct – replace poles
* Asplundh cutting trees - KEL CB 2 cct
* EDN CB 132 – protection and trip test checks carried out
* CEN Sub electrically disconnected ( both from 11 and 33 kV ) from network – upgrade work in progress
* SOU Sub – sheath test on on cable “SA” between ABS 66 and 8186
* OHA Bus “A” – install Arc Flash and change CB auxillarys
* HGH CB 5 auto reclosed

**OJV**

* CHS CB 62 auto reclosed
* CHS CB 62\_Clifton ABS 944 – replacing poles
* CLI GC 040 tripped – tree contact

**Friday 13 January 2017**

#### ESL

* Business as usual

**EIL**

* RRD T2 isolated and earthed – Electrix staff carrying out training exercise

**TPC**

* Asplundh cutting trees - KEL CB 2 cct
* Gore Injection Plant – protection testing

**OJV**

* CHS CB 62\_Clifton ABS 944 – replacing poles

**Saturday 14 January 2017**

**ESL**

* Business as usual

**EIL**

* Business as usual

**TPC**

* Asplundh cutting trees - RDD CB 2, OTA CB 3, WKK CB 2 cct
* MAK CB 5 tripped – tree contact
* MAK CB 5 & 37, UND CB 32 & 52 , NMK CB 1122
* UND & MAK tripps caused Comms Port 15 stop communicating – delays in restoring circuits

**OJV**

* MID CB 2 tripped - unknown

**Sunday 15 January 2017**

#### ESL

* RMK CB 8 cct - upgrade Tx LLN 01/02 to 500 kVA from 300 kVA

**EIL**

* Business as usual

**TPC**

* LWH CB auto reclosed
* AHL CB 3 tripped –
* WKK CB 2 cct – repaired leads on pole 11080

**OJV**

* Business as usual

Network Report (All Outages) - Electricity Invercargill Ltd

No planned or unplanned outages for the week

Network Report (All Outages) - Lakeland Network

**Planned - PowerNet**

**Distribution - Urban** Customer

Date Area Cause Reason Customers Minutes Minutes

15-Jan-17 Remarkables 8 Replace transformer Upgrade 101 251 25,351

101 25,351

Network Report (All Outages) - Otago Joint Venture

**Planned - PowerNet**

**Distribution - Rural** Customer

Date Area Cause Reason Customers Minutes Minutes

09-Jan-17 Glenore 1 Restrain wires Uneven sag 5 85 425

12-Jan-17 Owaka 4 Replace poles & wire Upgrade 9 288 2,592

12-Jan-17 Owaka 5 Replace pole Upgrade 19 166 3,154

12-Jan-17 Waitati 3 Replace poles Upgrade 16 315 5,040

13-Jan-17 Owaka 3 Replace crossarms Upgrade 8 74 592

57 11,803

**Unplanned - PowerNet**

**Subtransmission - Other** Customer

Date Area Cause Reason Customers Minutes Minutes

09-Jan-17 Owaka Zone Sub (OWA) A/R PML-42 Unknown 856 1 856

12-Jan-17 Clinton Zone Sub (CLI) QG A/R CHS-62 Lightning 694 1 694

1,550 1,550

**Distribution - Rural** Customer

Date Area Cause Reason Customers Minutes Minutes

11-Jan-17 Finegand 1 A/R Unknown 104 1 104

11-Jan-17 Waihola 1 A/R Unknown 80 1 80

12-Jan-17 Clinton 3 Failed transformer Lightning 1 242 242

14-Jan-17 Clydevale 2 Failed transformer Deterioration 1 194 194

14-Jan-17 Middlemarch 2 CB tripped Unknown 74 84 6,238

260 6,858

**SWER - Rural** Customer

Date Area Cause Reason Customers Minutes Minutes

09-Jan-17 Clarks 2 A/R Unknown 67 1 67

12-Jan-17 Clinton 1 Branch on line Tree contact 24 143 3,424

91 3,491

Network Report (All Outages) - The Power Company Ltd

**Planned - PowerNet**

**Distribution - Rural** Customer

Date Area Cause Reason Customers Minutes Minutes

10-Jan-17 Mossburn 3 Restrain wires Uneven sag 1 143 143

11-Jan-17 Edendale 7 Replace crossarms Upgrade 2 168 336

11-Jan-17 Glenham 1 Tree cutting Tree maintenance 2 316 632

11-Jan-17 Mossburn 5 Replace poles & wire Upgrade 8 252 2,013

11-Jan-17 Ohai 4 Install new CB Upgrade 98 278 27,244

11-Jan-17 South Gore 6 Replace earths Pukerau CB Upgrade 20 119 2,380

12-Jan-17 Centre Bush 1 Tie point shift CEN S/S upgrade 2 2 4

12-Jan-17 Dipton 2 Remove switch Upgrade 45 96 4,320

12-Jan-17 Hillside 1 Replace poles Upgrade 42 325 13,650

12-Jan-17 Tokanui 2 Replace poles Upgrade 2 277 554

13-Jan-17 South Gore 6 Replace poles Upgrade 42 270 11,340

14-Jan-17 Otatara 3 Tree cutting Tree maintenance 2 324 648

266 63,264

**Unplanned - PowerNet**

**Distribution - Other** Customer

Date Area Cause Reason Customers Minutes Minutes

15-Jan-17 Athol 3 CB tripped Unknown 100 26 2,600

100 2,600

**Distribution - Rural** Customer

Date Area Cause Reason Customers Minutes Minutes

09-Jan-17 Colyer Rd 9 Failed connection Deterioration 1 22 22

09-Jan-17 Edendale 2 Burnt pole Failed insulator 2 180 360

09-Jan-17 Glenham 1 Burnt pole Failed insulator 19 164 3,107

09-Jan-17 Makarewa 5 Failed cable termination Repair termination 1 293 293

10-Jan-17 Conical Hill 1 Broken pole Third party vehicle 9 96 864

10-Jan-17 Te Anau 2 A/R Unknown 166 1 166

11-Jan-17 Edendale 2 Branch on line Tree contact 3 35 105

11-Jan-17 Gorge Rd 2 A/R Failed insulator 165 1 165

11-Jan-17 Gorge Rd 2 Damaged wire Failed insulator 165 123 20,268

12-Jan-17 Hedgehope 5 A/R Unknown 59 1 59

13-Jan-17 Waikaka 2 Failed connection Deterioration 15 33 495

14-Jan-17 Makarewa 5 CB tripped Tree contact 385 57 21,945

14-Jan-17 Makarewa 5 Wires twisted togeather High winds 385 72 27,741

15-Jan-17 Conical Hill 1 Broken wires Tree contact 9 221 1,989

15-Jan-17 Riverton 7 A/R Unknown 359 1 359

15-Jan-17 Waikaka 2 Failed connection Deterioration 25 35 875

1,768 78,813

***All Defects not yet Completed***

**Defect No.**  **Date** **Response** **Location** **Equipment** **Item** **Project Mgr**

**7287** 26-May-2014 C OWAKA S/S Substation Switchgear CB 5 BYPASS ABS Lloyd Williamson

**Defect Details** MIDDLE FLICKER FAULTY

**Work in Progress** Total substation outage required to repair. Flicker fault is not affecting normal operations.

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**7745** 17-Sep-2015 C HYDE S/S 33kV Aerial Network CEMETRY RD NORTH ABS Terry Jones

**Defect Details** Red & Yellow flickers not engaging on switch when closed

**Work in Progress**

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**7977** 11-May-2016 B LEVEN ST S/S 11kV Aerial Network 11 kv d/outs @ TX 460/00/00 POLE 36898 Carol Lowe

**Defect Details** 11 kv d/outs @ TX 460/00/00 POLE 36898 2 DAY IN A ROW WHEN ONE HAS OPENED "NO " FAULT

**Work in Progress** wo #318691 issued 23/8

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**8078** 17-Aug-2016C WAIKIWI S/S Pole Mounted Transformer Transformer 170/13/10 Carol Lowe

Defect Details Report transformer leaking Geff B inspected and advised that transformer leaking posss out of a fin

**Work in Progress** wo 320443 created to handle issue

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**8086** 1-Sep-2016 A OTATARA S/S Protection & Control CB 3 Jack Wadworth

**Defect Details** CAN NOT DISABLE OR ENABLE CB 3 AUTO RECLOSE BY SCADA HAD TO SEN FAUTLMAN OUT AS FOR TO BE ABLE DO OPERATING ORDER

**Work in Progress** Ongoing problems with CB 3 Nulec Controller, Fault traced to Nulec control, Intermittant operating

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**8094** 9-Sep-2016 A DIPTON S/S 11kV Aerial Network Palmers ABS Barrie Duffin

**Defect Details** Palmers ABS has no Label & no Handle Earth

**Work in Progress**

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**8097** 12-Sep-2016 A NORTH MAKAREWA S/S Protection & Control 24v DC Trevor Simmonds

**Defect Details** 24v Dc earth Fault operated at sub. Please check. Barry K advised and on way to Sub (18:12)

**Work in Progress** Earth Fault traced to Tx Device outage re planned week of the 8th Nov to repair. Faulty switch found on main tank pressure relief valve new part ordered waiting on delivery. Outage to installed to be arranged when part arrives

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**8104** 19-Sep-2016 C OTATARA S/S 11kV Aerial Network Grant Rd ABS Centre Phase Contacts Carol Lowe

**Defect Details** Grant Rd ABS Centre Phase Contacts Failing ( opened & Tagged "DNO" )

**Work in Progress** 20/9/16 - W/O 321064 issued for replacement

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**8117** 5-Oct-2016 B MATAURA S/S Communications SCADA Daniel Wijkstra

**Defect Details** LINK WITH MAT S/S OPERATIONS IS TAKING UP TO 5 MINUTES TO GIVE CORRECT INDICATION AT SYSTEM END

**Work in Progress** Techs sent to site & contacted Catapult to investigate. Duplicate Defect generated 8149!

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**8119** 8-Oct-2016 C DIPTON S/S 11kV Aerial Network Craigs Cnr E Barrie Duffin

**Defect Details** Flickers on switch arching.

**Work in Progress** W/O 322869 issued for replacement - ABS will be removed and a new ABS established elsewhere

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**8127** 11-Oct-2016 C SOUTHERN S/S 400V Underground Failed ug box Carol Lowe

**Defect Details** ug box rusty nuts --bandit tapped closed

**Work in Progress** location needed.

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**8133** 17-Oct-2016 A CLYDEVALE S/S Protection & Control T2 VRR Lloyd Williamson

**Defect Details** T2 VRR GOING OF LINE THEN 10 SEC LATER T2 VRR ON LINE OP 10 CHECKED WHEN DOING SUB CHECKS

**Work in Progress** Software issue, Lloyd checking

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**8138** 20-Oct-2016 C COLYER RD S/S Protection & Control T3 AVR Trevor Simmonds

**Defect Details** T3 AVR TAP CHANGE BLOCKED ALARM & TAP CHANGE FAIL ALARM OPERATES ON VERY REGULAR OCCURANCE ---THIS IS ABLE TO BE CLEARED BY SELECTING THE TX TO MANUAL --TX WILL RAISE & LOWER WHEN SELECTED TO MANUAL & TAP ON AUTO

**Work in Progress** Settings applied as per the standard AVR settings at KEN but the COL settings have more differences to sort out before they are the same as KEN, Block alarm still fleeting , More work required on site.

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**8158** 18-Nov-2016 C SEAWARD BUSH S/S 400V Aerial Network Crossarm Carol Lowe

**Defect Details** Check Crossarms on Pole 57995 and carry out repairs as required

**Work in Progress**

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**8160** 23-Nov-2016 B DOON ST S/S 400V Underground pillar box needs tidy up Carol Lowe

**Defect Details** Defect raised Spey st sub 400v tidy up in pillar box required feeding house 1- 30 Antrim St Inv

Temp repairs made tonight

**Work in Progress** wo 322514 issued to replace box

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**8184** 20-Dec-2016 A EDENDALE S/S Protection & Control temp alarm t7 Trevor Simmonds

**Defect Details** temp alarm t7 -59 edn fonterra

**Work in Progress** Intermittant fault with the temperature transmittor , ?? . On site checks reset temp alarm but there may still be a scada fault. JRW to investigate.

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**8185** 22-Dec-2016 A NORTH GORE S/S Protection & Control T2 AUX SCREEN Daniel Wijkstra

**Defect Details** T2 AUX SCREEN DOES NOT HAVE T1/T2 PARALLEL/SOLO INDICATION OR CONTROL ON IT

**Work in Progress** Will need Catapults assistance > 09/01/2016, Parallel control should be available on T1 Aux screen ?

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**8187** 28-Dec-2016 C ORAWIA S/S 11kV Aerial Network Hagens ABS Barrie Duffin

**Defect Details** REPLACE HAGENS ABS BRIDGED OUT FAILED INSULATORS ORA 1 CCT

**Work in Progress**

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**8192** 3-Jan-2017 C TPC Rural 11kV Aerial Network Glenkennich Cnr East ABS Failed Justin Peterson

**Defect Details** Glenkennich Cnr East ABS Failed ( Leads removed both sides ) Reece & Wattie attended 0/0 58082

**Work in Progress**

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**8202** 13-Jan-2017 C CLINTON S/S Communications RT Daniel Wijkstra

**Defect Details** TODAY RT'S HAVE BEEN CRACKLING MOST OF THE DAY FIELD STAFF HEAR ME OK CAN NOT HEAR THEM

**Work in Progress**

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**8203** 14-Jan-2017 A MAKAREWA S/S Communications cb 5 indication Daniel Wijkstra

**Defect Details** MAK CB 5 SHOWING OPEN WHEN IN FACT CLOSED COMMS PORT 15 UND S/S COMMS PORT 15 WILL NOT RE-START

**Work in Progress**

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**8204** 14-Jan-2017 A UNDERWOOD S/S Communications Comms fail @ Underwood Sub Trevor Simmonds

**Defect Details** Comms fail @ Underwood Sub

**Work in Progress** Review if comm port problem or RTU . RTU event log cleared and RTU restarted. Scada ok

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**8205** 15-Jan-2017 B LONGWOOD HILL CB SCADA Equipment longwood cb Daniel Wijkstra

**Defect Details** FAILED TO ROLL MAIN DESK SCADA SCREEN ON TRIPPING

**Work in Progress**

**8206** 15-Jan-2017 C MAKAREWA S/S 11kV Aerial Network lightfoots abs Carol Lowe

**Defect Details** switch handle broke off when attempting to open

**Work in Progress**

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**8207** 15-Jan-2017 A ATHOL S/S SCADA Equipment CB 3 Daniel Wijkstra

**Defect Details** CB 3 TRIPPING HAD NO SCREEN ROLL ON MAIN DESK SCREEN

**Work in Progress**