

# NEDeRS Summary

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# NEDeRS Summary

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# NEDeRS - National Equipment Defects Reporting System

- Subscription service operated by the Energy Networks Association
- 4 types of reports
  - DIN – Dangerous Incident Notification
  - SOP – Suspension of Operation Practice
  - NEDeR – National Equipment Defect Report
  - Defect – Potential DIN or NEDeR (not circulated via email)
- Open to asset owners, network operators and maintenance and support organisations, but not to manufacturers.
- Data is confidential to ENA and NEDeRS subscribers
- Summary presented with the permission of the ENA – no further information can be given out

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# NEDeRS - Classes of NEDeRS Reports

## Dangerous Incident (DIN)

A dangerous incident is one where the incident resulted in or could have resulted in a fatality or serious injury with an item of plant

## Suspension of Operational Practice (SOP)

A notification of a company-specific suspension/change in some operational practice or procedure with an item of plant, for example, circuit breakers to be operated from a remote location or access restrictions around plant items.

## National Equipment Defect Report (NEDeR)

A notification of a design defect or in service problems/faults with plant items.

## Defect

A potential DIN or NEDeR which is recorded for reference purposes. These are not circulated.

# NEDeRS Summary

Reports issued 1 June 2018 to 31 January 2019

Month/Year	DIN		SOP		NEDeRS		Total	Defects	
	New	Update	New	Update	New	Update		New	Update
Jun-18	0	2	0	0	5	2	9	0	1
Jul-18	4	1	0	0	2	0	7	0	0
Aug-18	3	3	0	0	5	0	11	0	0
Sep-18	7	5	0	1	0	1	14	0	0
Oct-18	4	2	0	0	1	1	8	0	0
Nov-18	3	0	1	0	2	0	6	2	0
Dec-18	4	0	0	0	2	0	6	2	1
Jan-19	3	4	0	0	1	2	10	0	2
Total	28	17	1	1	18	6	71	4	4

# NEDeRS Summary (1)

	REFERENCE	Equipment	Volt	Component	Cause
N	DIN 2018/0032/00	Circuit Breaker - CBR SMOS - Schneider Electric	25kV	CPU	Under Investigation
N	SOP 2018/0410/00	Circuit Breaker - CBR SMOS - Schneider Electric	25kV	Control Cabinet	Under Investigation
N	NEDeR 2018/0884/00	Circuit Breaker - CE2 - Schneider Electric / Merlin Gerin	11kV	Main Tank / Chamber	Under Investigation
N	DIN 2018/0037/00	Circuit Breaker - DV Compact Form C - Whipp & Bourne	11kV	Spouts / Shutters	Environment (dust, leaf fall, salt spray etc)
U	DIN 2015/0024/01	Circuit Breaker - Genie Evo - Schneider Electric	11kV	Interrupter	Faulty design
N	NEDeR 2018/0891/00	Circuit Breaker - Genie Evo - Schneider Electric	11kV	Connector	Connector failure
N	NEDeR 2018/0890/00	Circuit Breaker - GHA36 - Schneider Electric	36kV	LV Chamber	Faulty manufacture
U	DIN 2018/0001/01	Circuit Breaker - GM6 - Schneider Electric	33kV	Main Tank / Chamber	Faulty Manufacture
U	DIN 2017/0034/01	Circuit Breaker - HG12 - Hawker Siddeley	11kV	Bushing	Water / Moisture Ingress
N	NEDeR 2018/0886/00	Circuit Breaker - LSR - Reyrolle	11kV	Main Tank / Chamber	Unknown
U	DIN 2016/0045/01	Circuit Breaker - MCSet - Schneider Electric	11kV	Busbar Chamber	Under Investigation
N	DIN 2018/0021/00	Circuit Breaker - NX Plus - Siemens	36kV	Main Tank/Chamber	Under Investigation

# NEDeRS Summary (2)

	REFERENCE	Equipment	Volt	Component	Cause
N	DIN 2018/0020/00	Circuit Breaker - OKG4 - English Electric	66kV	Bushing	Unknown
N	DIN 2018/0030/00	Circuit Breaker - OX36 AND HMX36 - GEC Alstom	33kV	Bushing	Under Investigation
U	DIN 2018/0030/01	Circuit Breaker - OX36 AND HMX36 - GEC Alstom	33kV	Bushing	Under Investigation
N	NEDeR 2019/0892/00	Circuit Breaker - PowerVac 630 - The Automated Technology Group Ltd	11kV	Bushing	Faulty manufacture, Under Investigation
N	DIN 2018/0031/00	Circuit Breaker - R4/1 - Brush Switchgear	11kV	Cable Box	Under Investigation
N	NEDeR 2018/0880/00	Circuit Breaker - SACE E1.2B - ABB	0.415 kV	Key Interlock	Faulty design
U	DIN 2011/0069/01	Circuit Breaker - SI123 SF6 - AEG	110kV	Interrupter	Under Investigation
N	NEDeR 2018/0887/00	Circuit Breaker - SMS - Reyrolle	33kV	Joggle Chamber	Faulty design
N	DIN 2018/0036/00	Circuit Breaker - ULC1 - Crompton & Parkinson	11kV	Main Tank/Chamber	Maintenance or Operator Induced
U	DIN 2012/0047/01	Circuit Breaker - Visax - Alstom (Distribution)	11kV	CT Chamber	Unknown
N	NEDeR 2018/0877/00	Circuit Breaker - YMV2 - Reyrolle	12kV	Mechanism / Mechanical	Mechanical (vibration/ shock/ damage/ malfunction)

# NEDeRS Summary (3)

	REFERENCE	Equipment	Volt	Component	Cause
N	DIN 2018/0019/00	Circuit Breaker - YSF6 - Yorkshire Switchgear	11kV	Unknown	Under Investigation
N	DIN 2018/0026/00	Circuit Breaker - YSF6 - Yorkshire Switchgear	11kV	Cable Box	Partial discharge activity
N	DIN 2018/0027/00	Circuit Breaker - YSF6 - Yorkshire Switchgear	11kV	Main Tank/Chamber	Under Investigation
N	DIN 2018/0025/00	Switchboard - WS - Schneider Electric	36kV	Voltage Transformer	Under Investigation
N	DIN 2018/0033/00	Earth Switch - MODEX-36 - Ilvief	33kV	Mechanism/Mechanical	Under Investigation
N	DIN 2019/0002/00	RMU - FRMU Mk II - Lucy	11kV	Cable Box	Faulty installation, Under Investigation
N	DIN 2018/0014/00	RMU - RN2c - Schneider Electric	11kV	Main Tank / Chamber	Faulty design
N	DIN 2018/0016/00	RMU - RN2c - Schneider Electric	11kV	Main Tank / Chamber	Faulty design
N	DIN 2018/0017/00	RMU - RN2c - Schneider Electric	11kV	Main Tank / Chamber	Under Investigation
N	DIN 2018/0018/00	RMU - RN2c - Schneider Electric	6.6kV	Main Tank / Chamber	Faulty manufacture
N	NEDeR 2018/0876/00	RMU - RN2c - Schneider Electric	11kV	Main Tank / Chamber	Under Investigation
U	NEDeR 2017/0838/01	RMU - Safering - ABB	24kV	Fuse Link / Compartment	Mechanical (vibration/ shock/ damage/ malfunction)



# NEDeRS Summary (4)

	REFERENCE	Equipment	Volt	Component	Cause
N	DIN 2018/0015/00	RMU - T3 - GEC	11kV	Cable Termination	Water / Moisture Ingress
N	DIN 2018/0029/00	RMU - T3GF3 - Long & Crawford	11kV	Joggle Chamber	Other - (please elaborate in text field)
U	DIN 2018/0007/01	LV Cabinet - 1600A 6 Way - Renley	LV	Isolating contact / Auxiliary contact	Operational / Training Issue
U	NEDeR 2018/0863/01	LV Cabinet - Aculock - Lucy Switchgear	0.415 kV	Fuse Link/Compartment	Faulty design
N	DIN 2018/0028/00	LV Pillar - 2-way service pillar - Voltax	LV	Case/Cover	Under Investigation
N	DIN 2018/0022/00	Substation (Complete) - Maxi Kiosk - Crompton & Parkinson	LV	LV Chamber	Other - (please elaborate in text field)
N	NEDeR 2018/0885/00	Tapchanger - HS319 - Fuller	33kV	Mechanism / Mechanical	Wear & Tear due to age
N	NEDeR 2018/0881/00	Tapchanger - MR Type V - Reinhausen	33kV	Tapchanger Tank	Mechanical (vibration/ shock/ damage/ malfunction)
N	DIN 2019/0003/00	Tapchanger - Vacutap - Reinhausen	66kV	Tapchanger Tank	Under Investigation

# NEDeRS Summary (5)

	REFERENCE	Equipment	Volt	Component	Cause
N	DIN 2018/0013/00	Transformer - 11/0.433kV 1000kVA - Schneider Electric	11/0.433 kV	Joggle Chamber	Under Investigation
N	NEDeR 2018/0878/00	Transformer - 11/0.433kV 500kVA - Ormazabal	11/0.433 kV	Main Tank / Chamber	Faulty manufacture
U	DIN 2018/0012/00	Transformer - 11/0.433kV 800kVA Transformer – CG Power Systems	11kV	HV Winding	Unknown
N	NEDeR 2018/0882/00	Transformer - 11kV/433V All ratings - Efacec	11/0.433 kV	HV Winding	Faulty manufacture
N	DIN 2018/0034/00	Battery - Cells - Unknown	110V	Case/Cover	Faulty manufacture
N	DIN 2018/0035/00	Battery - Cells - Unknown	110V	Unknown	Faulty manufacture
N	DIN 2019/0001/00	Bushing - 132kV/600A/T2 - Ferranti	110kV	Bushing	Water / Moisture Ingress
U	DIN 2013/0018/01	Bushing - GOEL 1050 - ABB	275kV	Bushing	Unknown
U	DIN 2012/0004/01	Connectors - Busbar Connectors - Connectors and Switchgear	110kV	Connector	Under Investigation
N	NEDeR 2018/0875/00	Generator - 50WT21H-120 - Alstom	LV	Generator Brushgear	Accidental contact, Faulty design, Other - (please elaborate in text field)

# NEDeRS Summary (6)

	REFERENCE	Equipment	Volt	Component	Cause
N	DIN 2018/0024/00	Cable & Accessories - 132kV Outdoor Sealing End - Prysmian	132kV	Cable Termination	Under Investigation
U	DIN 2018/0024/01	Cable & Accessories - 132kV Outdoor Sealing End - Prysmian	132kV	Cable Termination	Faulty installation, Water/Moisture Ingress
U	NEDeR 2018/0870/01	Cable & Accessories - 1x400/50 19/33 C EPT – Cabelte	33kV	Cable	Faulty manufacture
U	NEDeR 2017/0858/01	Cable & Accessories - 1X500/50 19/33 C EPT – Cabelte	36kV	Cable	Faulty manufacture
N	DIN 2018/0023/00	Cable & Accessories - EHFVC 145 - Suedkabel	132kV	Cable Termination	Contamination of internal parts
N	NEDeR 2018/0883/00	Cable & Accessories - XLPE/PILC Cables - 3 M	33kV	Cable	Faulty design
N	NEDeR 2018/0888/00	Insulators & Bushings - Unknown Insulators – Henley & Raychem	33kV	Insulator	Under Investigation

# NEDeRS Summary (7)

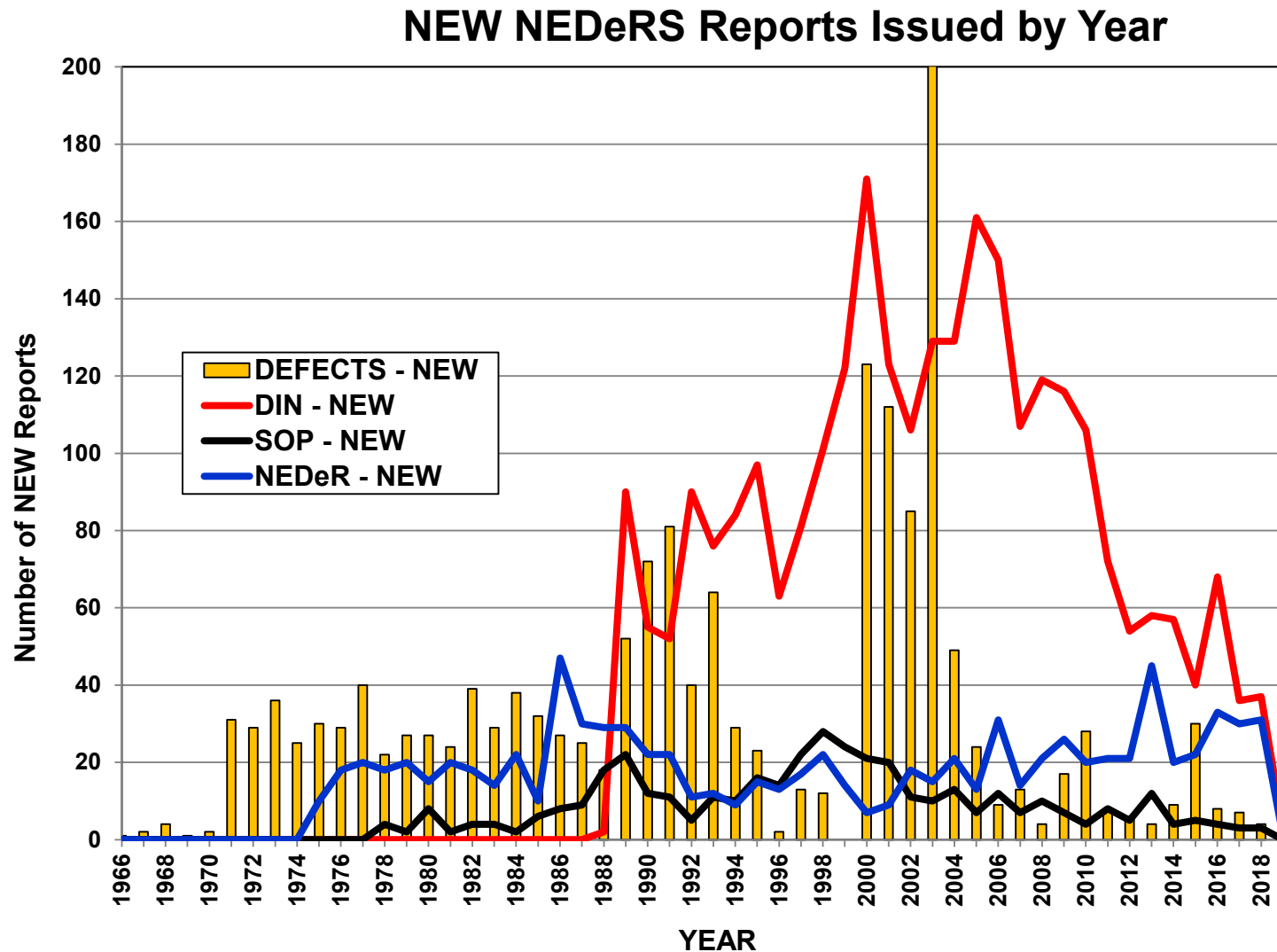
	REFERENCE	Equipment	Volt	Component	Cause
U	NEDeR 2018/0866/01	Pole Mounted Air Break Switch Disconnecter – Omni-Rupter - S & C Electric Company	11kV	Mechanism/Mechanical	Faulty manufacture
U	DIN 2016/0059/01	Pole Mounted Transformer - 11kV/100kVA - CG Power Systems	11/0.433 kV	HV Winding	Faulty design
U	DIN 2016/0060/01	Pole mounted transformer - 11kV/200kVA - CG Power Systems	11/0.433 kV	Main Tank/Chamber	Faulty design
N	NEDeR 2018/0879/00	Pole Mounted Transformer - 11kV/250-0-250V 100kVA - Ormazabal	11/0.433 kV	Main Tank / Chamber	Faulty installation, Faulty manufacture
U	NEDeR 2018/0874/01	Pole Mounted Transformer - 20kV/500V/250V – 50KVA - ABB	20kV	Main Tank/Chamber	Unknown
N	NEDeR 2018/0889/00	Pole Mounted Transformer - Unknown - ABB	11kV	Unknown	Under Investigation
U	DIN 2015/0002/04	Pole Mounted VT - 11 /0.240kV 500VA - Mid Central Electric	11kV	Voltage Transformer	Faulty installation
U	DIN 2015/0003/04	Pole Mounted VT - 11 /0.240kV 500VA - Mid Central Electric	11kV	Voltage Transformer	Unknown
U	DIN 2015/0004/04	Pole Mounted VT - 11 /0.240kV 500VA - Mid Central Electric	11kV	Voltage Transformer	Unknown
U	SOP 2015/0396/04	Pole Mounted VT - 11 /0.240kV 500VA - Mid Central Electric	11kV	Voltage Transformer	Other - (please elaborate in text field)

# NEDeRS Summary – Defects (from 1 June '18)

	REFERENCE	Equipment	Volt	Component	Cause
N	2018/0001/00	Cable & Accessories - 132kV Cable Sealing End – Nexans	11 kV	Cable	Faulty manufacture
U	2017/0008/01	Cable & Accessories - Cable Termination boxes – unspecified	36kV	Cable	Faulty manufacture
U	2017/0006/01	Circuit Breaker - GENIE - Merlin Gerin	11 kV	Main Tank/Chamber	Faulty manufacture
N	2018/0003/00	NOT ON DATABASE (ENTER DETAILS IN TEXT FIELD BELOW)	20kV	Fuse Link/Compartment	Faulty manufacture
U	2018/0005/01	RMU - RM6 - Schneider (France)	3.3 kV	Interrupter	Under Investigation
N	2018/0004/00	RMU - RM6 - Schneider (France)	3.3 kV	Interrupter	Under Investigation
U	2016/0007/01	RMU - RN2c - Schneider Electric	11 kV	Unknown	Unknown
U	2018/0002/00	Transformer - 11/0.433kV 800kVA Transformer - CG Power Systems	11 kV	Main Tank/Chamber	Under Investigation

# NEDeRS Reports Issued by Year

Defects in 2003 = 363,  
upload from 3 DNOs



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# NEDeRS - National Equipment Defects Reporting System

- Further information:
  - ENA NEDeRS Administrator - Vincent Hay
  - Tel: +44 (0) 20 7706 5100
  - [Vincent.hay@energynetworks.org](mailto:Vincent.hay@energynetworks.org)
  - <http://www.energynetworks.org/electricity/engineering/neders.html>
- Energy Networks Association
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  - Email: [info@energynetworks.org](mailto:info@energynetworks.org)
  - <http://www.energynetworks.org/>

# EA Technology NEDeRS Monitoring Service



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# EA Technology NEDeRS Monitoring Service

- EA Technology can provide a service to monitor NEDeRS on your behalf
- ENA Policy:
  - As long as your client(s) is a member of the NEDeRS Scheme then it is acceptable for EATL to review NEDeRS data on their behalf and advise that client of any implications NEDeRS reports may have upon their assets.
- We already do this for some clients

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# EA Technology NEDeRS Monitoring Service

- You must be a subscriber to ENA NEDeRS
- Need access to the asset register of high voltage equipment
  - Updated information as assets change
  - EATL can assist in creating/updating the asset register
- Search of historical notifications (~5,900 on website)
  - List relevant notifications
  - Summary of relevant notifications
- Quarterly summary of relevant notifications
- Immediate notification of major incidents
- Provision of specialist knowledge to assist in developing action plans to manage affected plant

# EA Technology NEDeRS Monitoring Service – Asset Data Requirements

HV Switchgear	Transformers	On Load Tap Changer
Asset Designation	Asset Designation	Asset Designation
Manufacturer	Manufacturer	Manufacturer
Switchgear Type	Makers Type Designation	Makers Type Designation
Makers Type Designation	Serial Number	Serial Number
Serial Number	Year of Manufacture	Year of Manufacture
Year of Manufacture	Year of Installation	
Year of Installation	Primary Voltage	
Current Rating	Secondary Voltage	
Fault Rating	Insulating Fluid	
Mechanism Type	Rating	
Arc Extinction		

Thank you.