

## MINUTES - FINAL

MEETING: Control Room Operations Working Group (CROWG)  
DATE: Friday, 9 October 2020  
TIME: 9:30AM – 12:30PM (EST)  
LOCATION: Via Teleconference / Microsoft Teams  
[Join Microsoft Teams Meeting](#)

TELECONFERENCE DETAILS: +61 2 8318 0090  
CONFERENCE ID: 884 698 85

**ATTENDEES:**

<b>Name</b>	<b>Company / Department</b>
Alan Jenkinson	AGL LOY YANG
Alastair Andrews	POWERLINK
Ali Walsh	SA POWER NETWORKS
Bill Webb	AEMO
Bradley Shipp	TRANSGRID
Caroline Ferres	AEMO
Christopher Migocki	AUSGRID
Colin Taylor	ELECTRANET (1ST HALF HOUR ONLY)
Daniel Lavis	AEMO
Darrell Blackford	TERRITORY GENERATION (NT GOC)
Darren Spoor	AEMO
Diego Aljure	AEMO
Duane Brooks	ELECTRANET
Edward Sellwood	ESSENTIAL ENERGY
Geoff Cook	TRANSGRID
Leylann Hinch	EVO ENERGY
Margarete Ting	AEMO
Mario Rositano	AEMO (CHAIR)
Maryam Shakeri	AEMO
Matthew Corney	POWERLINK
Michael Paine	SNOWY HYDRO
Nikki Barbi	ENERGY QLD
Peter Sanderson	AEMO
Phil Gay	AUSNET
Rob Krueger	APA
Russell Gordon	ENERGY QLD
Simon Ahrens	ENGIE
Simon Bolt	DELTA ELECTRICITY
Vernon Lee	POWERWATER – NT

**APOLOGIES:**

<b>Name</b>	<b>Company / Department</b>
Matthew Wikman	AEMO
Grant Matherson	AGL
Brenton Medlin	AGL
Garry Paterson	AGL
Stephan Laucht	AGL MACQUARIE
Paul McNamara	AGL MACQUARIE (BAYSWATER)
James Mortimer	APA
Joo Ean Prasad	AUSGRID
Joo Wee	AUSGRID
Kylie McClafferty	AUSGRID
Martin Cavanagh	AUSNET
Matthew Sands	CLEANCO QLD
Anthony Ham	CS ENERGY
Greg Dale	CS ENERGY
Ian Swift	CS ENERGY
M Greenaway	CS ENERGY
Henry Rich	DELTA ELECTRICITY
Doug Deans	ELECTRANET
Tim Gray	ELECTRANET
Ken Wilby	ENDEAVOUR ENERGY
Robert Armstrong	ENDEAVOUR ENERGY
Rod Joyce	ENDEAVOUR ENERGY
David Molla	ENERGY AUSTRALIA
Peter Moretti	ENERGY AUSTRALIA
Brett Harrington	ENERGY AUSTRALIA (ECOGEN)
Craig Flanigan	ENERGY AUSTRALIA (ECOGEN)
Gayle McAllister	ENERGY AUSTRALIA (YALLOURN)
Neil Grigg	ENERGY AUSTRALIA (YALLOURN)
David Gray	ENERGY QLD
Matthew Turner	EVO ENERGY
Wahid Ibrahim	EVO ENERGY
James Sherrin	HYDRO TAS
S Burge	INTERGEN
David Elkington	LOY YANG B
Brett Wills	ORIGIN ENERGY
Chad Thompson	ORIGIN ENERGY
Mike Griffiths	ORIGIN ENERGY
Robert Chapman	ORIGIN ENERGY
Leanne Maurice	POWERLINK
Steve Saunders	POWERLINK
Duncan Griffin	POWERWATER
Ian Ferguson	POWERWATER
Michael Edmonds	SA POWER NETWORKS
Brad Perry	STANWELL
Elizabeth Beavis	STANWELL
Colin Sharp	TASNETWORKS

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## 1. Welcome and Introduction

### 1.1. Roll Call was taken.

Apologies accepted from various members who were unable to attend

### 1.2. Purpose and objectives of today's CROWG meeting

Main purpose and objectives for today are to:

- Continue discussions on some of the topics that were raised in the last meetings and provide updates on where work stands.
- Introduce and explore new topics.
- Hear from Ali Walsh of SA Power Networks who has kindly prepared and agreed to deliver a presentation on DER in SA.
- Share ideas and experiences and matters that relate to our work in the control rooms. Share opinions, insights, etc.
- Improve control room operations and relations in the NEM as per the TOR.

### 1.3. Introduce any new members/guests

Welcome to new CROWG member, Russell Gordon from Energy QLD and the AEMO day work attendees including Bill Webb, Diego Aljure and two of our newer AEMO control room staff Margarete Ting and Maryam Shakeri.

## 2. Minutes/ Actions

### 2.1. Previous meeting minutes

Minutes were accepted by Phil Gay (AusNet)

### 2.2. Updates to actions register made

Refer to actions register for details.

## 3. Electricity Industry Terminology and Phraseology

Main task and purpose of this sub-group is to come up with a complete set of terminology that goes across the NEM. From the previous meeting, sub-group/member involvement was confirmed.

### 3.1. Update following on from the first meeting

The first Electricity Industry Terminology and Phraseology meeting held on 4th September 2020 was attended by representatives from AEMO, TAS Networks, ElectraNet, Essential Energy, Energy Australia, AGL and Ausnet Services.

**Action:** MR to circulate a draft of the meeting minutes to the CROWG. RG - confirmed he'd like to see the minutes.

The sub-group is keen to get some representation from Queensland – Russell Gordon (Energy QLD) and Matt Corney (Powerlink) volunteered to join the group.

- Simon Bolt (Delta Electricity) – Will you be creating a terminology/phraseology list to circulate to the CROWG for feedback? I'm assuming that most of the CROWG will want to see it and that they'll want to circulate it to members of their respective organisations for comment – not the one sent out earlier this year.

- Mario confirmed this is correct and that will be the process. The intent is to cast the net wide and come up with something that's suitable, obtain comments/input and formalise the list. The initial list that was sent out a few months back originated from Ed Selwood of Essential Energy and was intended as a starting point to spark ideas and discussion.

Ahead of the next meeting in October, it was agreed that it would be reasonable to expect to be able to:

- Define objectives and desired outcomes.
- Collate regional and/or sector sources highlighting where some of the phraseology originates from.
- Investigate any commonality between these sources.
- Put together a plan/schedule.

MR provided an update summarising the main outcomes from the September meeting:

- The discussion on defining task objectives and desired outcomes:
  - Concentrate on Control Room operations communications between the various disciplines. Exclude legal jargon - if we go down the path of including legal jargon the list will get too large.
  - Initially, the focus is to be on emergency and time critical events (restarts, major events, etc.)
  - In the background, very much aware that we all want to be mindful of training new people – everyone has new people coming through who don't necessarily have the traditional working backgrounds of working at power stations, switch yards, and the like. Want to bear in mind the needs of new staff as well.
- In terms of sources, the sub-group explored and expanded on the sources discussing where the terminology originates from.
  - The sub-group is eager to hear from Queensland colleagues as to where their terminology originates from.
  - Good input was provided on SA and Tasmania.
  - The sub-group collated regional/sector sources. Discussed some of the commonalities that were identified. Looked at the relationships between various disciplines, regions and key players as well as the interactions and types of communications that they had.
- Finally, a task plan and schedule were created including:
  - A reference table focusing on the restart and emergency terms. MR distributed the table and canvassed the sub-group for contributions – especially in terms of restart. The reference table was broken down further into three sections:
    1. Phraseology – standardised phrases for clarity and predictability - have observed people saying the same thing in different ways which can lead to confusion. Also included some of the restart scripts that AEMO is required to say.
    2. Definitions of terminology (e.g. circuit breaker)
    3. Acronyms

- Aim is to clarify these terms / phrases and have something ready ahead of Summer 2020/21 – looking to have a draft of emergency communication portion ready for comment by next meeting. Next meeting hasn't been scheduled yet but agreed to hold next one in mid to late November. Waiting on feedback from the group and working on building reference table (incorporating time critical events).
  - DL asked the group what thoughts, if any, people had regarding the need for a training package or re-training.
    - DB - Need to be careful as it's a guide only to start with. Obviously, all of the organisations have terminology as part of their documentation and arrangements with customers. First step: have a guide and then we'll all have to look at how we'll implement change before we can consider training.
    - MR – mentioned that the subgroup discussed and agreed that the various entities would want to maintain the ability to keep their own terminology that they use.
  - SB – Is there any need to connect this terminology and phraseology to the National Rule 4.12 on nomenclature? Probably very formal. Answer is probably no. Just wondered if it needs to be connected to rule? If so, might change focus, if that's a concern.
    - MR – agreed sub-group should look at Rule 4.12. From an AEMO perspective, sub-group did consult the glossary and the rules to see if some of the terminology was fit for purpose - some terminology sourced from there.

#### 4. Managing DER in SA

##### 4.1. Presentation by Ali Walsh (SA Power Networks) – 'Managing High Penetrations of DER on the Distribution Network'

Ali Walsh prepared and delivered an excellent presentation on how SAPN is responding to challenges and opportunities presented by the world's highest penetration of distributed solar PV, and the rise of virtual power plants. In this presentation, Ali talked about the capabilities required to enable the distributed energy transition and the vision for the future of the South Australian energy system.

**Action:** Ali Walsh – to share her presentation. MR to circulate to all members of the CROWG

##### 4.1. Discussion on DER in NEM following presentation

Questions/Discussion:

BW – Re new requirement with comms port for the new inverters to have internet capability, is this required to be hard wired? AW: Believe all are acceptable. Can be Wifi connected. Doesn't need to be hard wired. If Wifi not connected at home, still possible to get solar if you live in an area without stable internet. Equipment being installed would have ability to add it were the internet situation to change

Flexible exports and expectations would eventually capture everyone over the next decade or so. Once flexible exports are mandatory for new connections, upgrade of the system would require the new functionality. As the economics change, hoping that people would install batteries.

LH – re density of smart meters needed to operate the network safely. How much is enough? AW - Part of the trials. More comfortable in those areas where it's possible to get greater concentration of data.

Is SAPN the first to introduce these kinds of solutions in the world? AW - Believes smarter homes requirements are some of the most stringent in the world. SAPN trying to align their requirements with International Standards that California rule is based on. Flexible exports program is heavily focussed on standards-based approach.

RG – Re approaching reverse limits on some of the substations – is that reverse limit equal to the forward limit? AW - It varies. In some situations, reverse rating limited by online tap changer. Designed to move forward but cannot go backwards. Looking at ways to tell the tap changer to not tap and therefore increase those reverse limits.

PG – have same problem in Victoria on the transformers in terminal stations. Have SCADA based scheme to protect in both directions. Clever enough to trip a supply not a load. They trip the solar farm.

MR – You mentioned under frequency load shed. At these low loads, we don't have a lot of load that we can count on going into an island. It may be a case where we have to start looking at the raises as a priority. Is there a figure if we have to clear whatever solar we've got? AW - The milestones from AEMO and State Govt was 130 MW by 30<sup>th</sup> September. Next milestone is in a few months' time. Aiming for 190MW. Then aiming for 250MW by March 2021 - on track to achieve this.

CM – Does anybody within their networks have any schemes in place for selective blocking of under frequency load shedding based on when the feeders are net negative as far as load goes?

- RG – AusGrid doesn't.
- Energy QLD: not yet.
- PG – Victoria: not yet.

## **5. Summer Preparedness**

### **5.1. Update from members**

Members were invited to update the group on what's new. Keen to hear from generators to hear what they're doing to keep a more reliable fleet online.

DB (Darwin) – Well and truly into summer preparedness plans at the moment. Ensuring that black start procedures and emergency procedures are in place. Been doing a lot of desktop simulations around monsoonal weather and cyclone restoration. Currently catching up as working groups with management and groups. Have renewable participants entering and assisting. Making sure people know how to communicate and manage through it effectively.

AEMO providing Summer Readiness training going through scenarios to help prepare and sharpen skills.

RG – Our ability to achieve 60% 'sheddable' load is very diminished. It's a changing dynamic. A personal view (not organisational) is that this 60% part of the law needs to be reviewed. RG has fed this back to AEMO.

AW - SAPN agree with this. Jenny Riesz has been working with SAPN Planning on this.



## 6. COVID-19

### 6.1. Update from members

Things are starting to ease up in Melbourne. City of Melbourne still locked down. People are unable to go to country regions. SAPN still running two rooms so they can rapidly re-escalate if required. Helps with social distancing of controllers both in and out of the control room.

In Victoria, still running two separate control rooms. Building a third and will keep it separate until at least early to mid-2021.

NB – SthEast operating out of four different sites. No more pin boards. Digitised. Challenge is the coming storm seasons. Doing a scenario to practice response.

RG – being digitised has made things a lot more seamless. Certainly, glad that we're on the path to have a system in the three control rooms in Queensland. Flexibility it gives is very good.

MP – Opportunity to change. Good to have a back-up site. COVID was good for pushing for a primary and back up site. Been good from a fatigue point of view. There are staff who live in Jindabyne who now drive ten minutes as opposed to an hour to work their shift.

## 7. Communications

### 7.1. Update from Darren Spoor on SRAS Communications Protocol status & Discussion on SRAS Communications Protocol

Draft 'System Restart Communication Protocol' as it stands shared with the group. NEMOC tasked with this by the AEMC (to address rule change).

Key themes:

- Legal issues – definitions
- Requirements and obligation to share information
- Look at technical envelope and time sensitive requirements.
- Availability and testing of Emergency Communications

### 7.2. Discussion on SRAS Communications Protocol

SB – sent through feedback. Should consult further than just the CROWG. Needs to go to a broader audience before it is finalised.

DS – Have until April 2021 to get this published. This is an open and collaborative document. Feedback and input appreciated. Please read the document to make sure it works for you and not against you.

MR – Can communication links between the control centres be included in the document (as highlighted and discussed in recent Generator Requirement meetings ahead of System Restart training)? Open mic at particular point during the restoration process useful.

AW – It's not necessarily a sudden thing that materially affects a system restart. There are things that are 'creeping us on us'. May not be a sudden change that impacts system restart.

**Action:** DS to make changes and add comments about strategic communication and send latest version to MR to circulate to CROWG members



## 8. Weather and Demand Outlook for Summer

### 8.1. Update on latest outlook for the upcoming warmer months

- Driest few months since 2008. Maximum temperatures have been well above where they've been previously. Minimum SA temperatures have been below average in Winter. Rainfall deficiencies vary from serious in some areas to some of the most severe we've seen in a long time and even lowest on record.
- Water storage levels have picked up a bit since 2019. Water storage in Tasmania are about half.
- October 2020 Outlook – looking at some record minimums in SA. Rainfall is average but better than what we've had in previous years.
- Averages – load demand profiles should be fairly similar to what we saw in the summer just gone. We are not likely to have as many consecutive hot days but will probably still see hot days.
- Severe Weather Outlook Spring/Summer 2020-21
- Bushfire, heat waves, severe storms, dust, coral bleaching is likely to be similar

**Action:** Mario to distribute the BOM Weather Outlook ppt he shared.

## 9. Voltage Control

### 9.1. Update on AEMO VDS and related issues following on from the last meeting

Matt Wikman (AEMO) provided an update at the previous meeting which generated some good discussion on the AEMO VDS and related issues with feedback from some of the TNSP's and Generators. In Matt's absence (Matt is currently on leave), Andrew Illing who is the VDS guru at AEMO and who will be working through issues raised has been invited to field any further questions. Discussed proposals for a better way forward to deal with VDS related issues.

- Phil Gay provided feedback. VDS seems to be trying to do too fine a job. East Rowville issue discussed (high limit of 70 kV) – tend to assess each instruction on its merits and decide whether or not it's required and whether or not we have the ability to put it into service. Examples provided. Desired range / soft limits too tight.
- Discussed best way to raise and manage issues/problems.  
**Action:** Organise some kind of reboot of the VDS project/working group to sort out some of the issues and provide a forum to obtain feedback and conduct Q&A. (Andrew, Alan Jenkinson, Phil Gay, Mario, etc)
- Alan Jenkinson (Loy Yang) – Loy Yang A – prior to VDS we always tapped on equal taps between the four units. Since VDS, we've noticed the units can be on a couple of different taps apart. From our metering, it doesn't look like they're equalising the Vars. Potentially got some circulating currents. Deviated from what was originally agreed (i.e. tap all units equally). Running into trouble with capabilities of the units.
- Brad Shipp – re soft limits we're using. Do they get adjusted based on time of day depending on the user at the time? AI – They get input from schedules which are set up offline. Also very easily overwritten by users. The solution could be to widen soft limits. Important to know the issues
- Simon Bolt – important for AEMO to work out first if there's the capability and capacity to make changes to the VDS. That will define how much change can be

implemented. The decision about what AEMO does about these issues is probably not for this forum. Do we ever want to enhance the VDS to start giving generators stator voltage directions – none of them have it and probably don't want it but it is a significant gap.

## 10. Other Business

### 10.1. Feedback & Consultation - Renewing AEMO's engagement model

Update from Hayley George (AEMO Stakeholder Liaison Officer). Submissions closed on 28<sup>th</sup> August with 31 written submissions received from stakeholders (they are all published on the website now). Unfortunately, AEMO haven't published anything further externally yet. She is hopeful something will be sent out next week some time!

If you do have any feedback or suggestions, please let us know.

## 11. Next Meeting...

### Meeting Forward Plan

Date	Host	Location
Mid March, 2021	TBA	TBA

## 12. Action Items:

- MR to circulate minutes of the first meeting of the 'Electricity Industry Terminology and Phraseology' sub-group held on 4<sup>th</sup> September, 2020
- Ali Walsh – to share her presentation. MR to circulate to all members of the CROWG
- Organise some kind of reboot of the VDS project follow up meetings/working group to sort out some of the issues and provide a forum to obtain feedback and conduct Q&A. (Andrew, Alan Jenkinson, Phil Gay, Mario, etc)
- DS to make changes and add comments about strategic communication to SRAS Communications Protocol document and send latest version to MR to circulate to CROWG members
- MR to distribute the BOM Weather Outlook ppt