CONNECTION TO DEDICATED CONNECTION ASSETS

STAKEHOLDER WEBINAR

6 OCTOBER 2020

AEMC

Agenda

1.	Introduction and ground rules – David Feeney *(5 mins)*
2.	Welcome – Allison Warburton *(5 mins)*
3.	Previously proposed approach and reasons for change – Andrew Truswell *(20 mins)*
4.	Q&A #1 *(20 mins)*
5.	Overview of the proposed new framework for 'designated network assets' – Martina McCowan *(20 mins)*
6.	Q&A #2 *(20 mins)*
7.	Close and next steps – Allison Warburton

Format for the webinar

- You will have the option to make comments or ask questions via the chat function on the bottom of the screen
- In the chat area please first indicate whether you are asking a question or making a comment, then add your remarks, and then finally please include your name and organisation at the end
- We will attempt to answer all questions during the scheduled Q&A sessions – if we don't get to your question during the webinar, we will follow-up after the event
- Comments can also be made during the Q&A sessions. Where possible, and time permitting, participants will be invited to present their comments – if this happens, your mic will be taken off mute, and you will be asked by the presenter to make your comment

INTRODUCTION AND GROUND RULES

DAVID FEENEY – EXECUTIVE GENERAL MANAGER, TRANSMISSION AND DISTRIBUTION NETWORKS

WELCOME

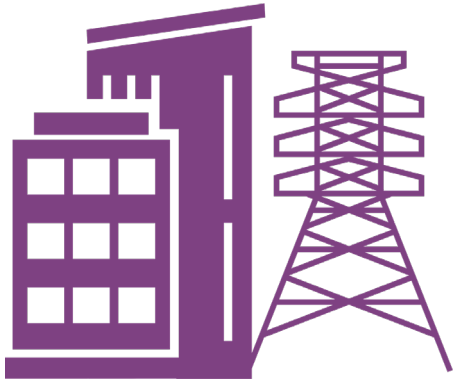
ALLISON WARBURTON – COMMISSIONER

PREVIOUSLY PROPOSED APPROACH AND REASONS FOR CHANGE

ANDREW TRUSWELL – DIRECTOR/PROJECT SPONSOR

Background and AEMO's rule change request

- The AEMC's 2017 Transmission Connection and Planning Arrangements (TCAPA) rule introduced the concept of Dedicated Connection Assets (DCAs) (does not apply in Victoria)
- Whilst TCAPA provided for third-party access to DCAs, it did not specify any arrangements to facilitate the 'sharing' of DCAs
- AEMO considers the current DCA framework to be 'unintentionally unworkable' in respect of sharing
- Lack of clarity regarding the application of key NER requirements where there is more than one proponent in an 'identified user group' (i.e. connected by the same DCA)



DCA rule change request received from AEMO on 3 January 2020, consultation paper published on 5 March 2020

AEMO's rule change request – case for change

AEMO identified the following issues associated with sharing of DCAs:

Performance standards

- Issues with negotiation of a shared performance standard; requirement to re-open a connection agreement if subsequent parties want to connect
- Difficult for AEMO and the AER to monitor and enforce compliance; potential disconnection of multiple systems

Settlement and metering

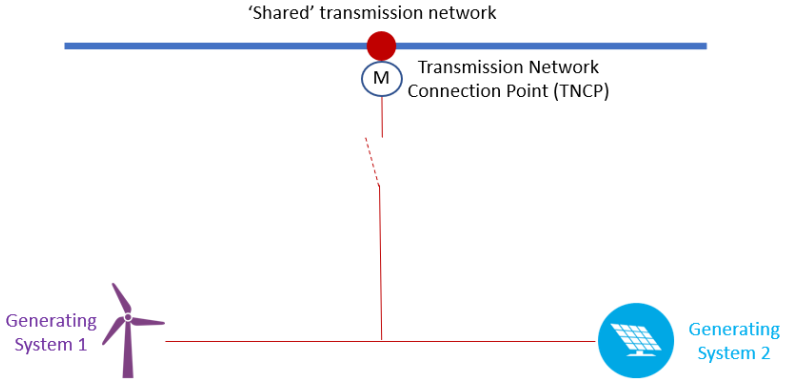
- Absence of a metering installation for each connected facility prevents individual settlement

Loss factors

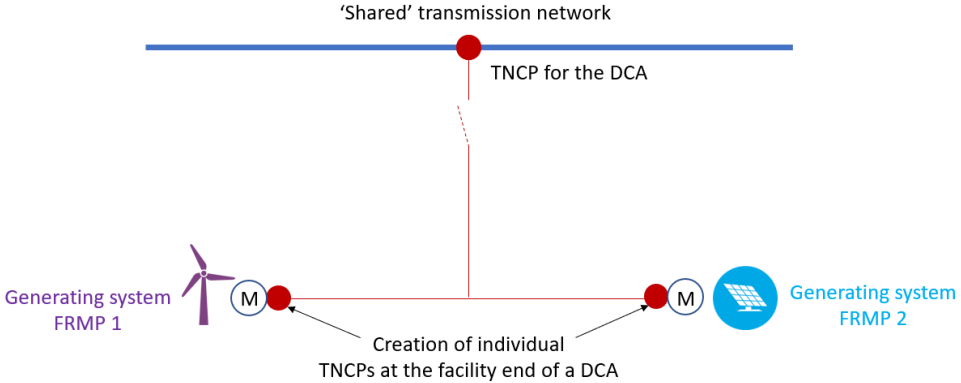
- Inability to determine individual loss factors means that Transmission Loss Factors will be based on the combined energy profile of the identified user group

Status quo and AEMO's proposed solution

Status quo



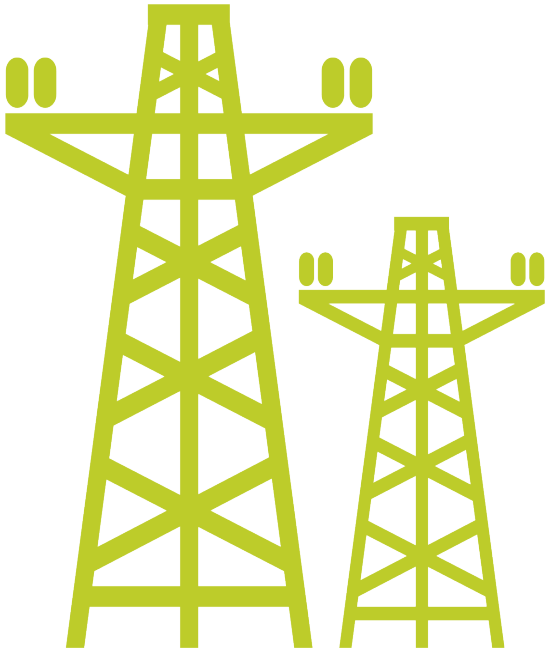
AEMO's proposed approach



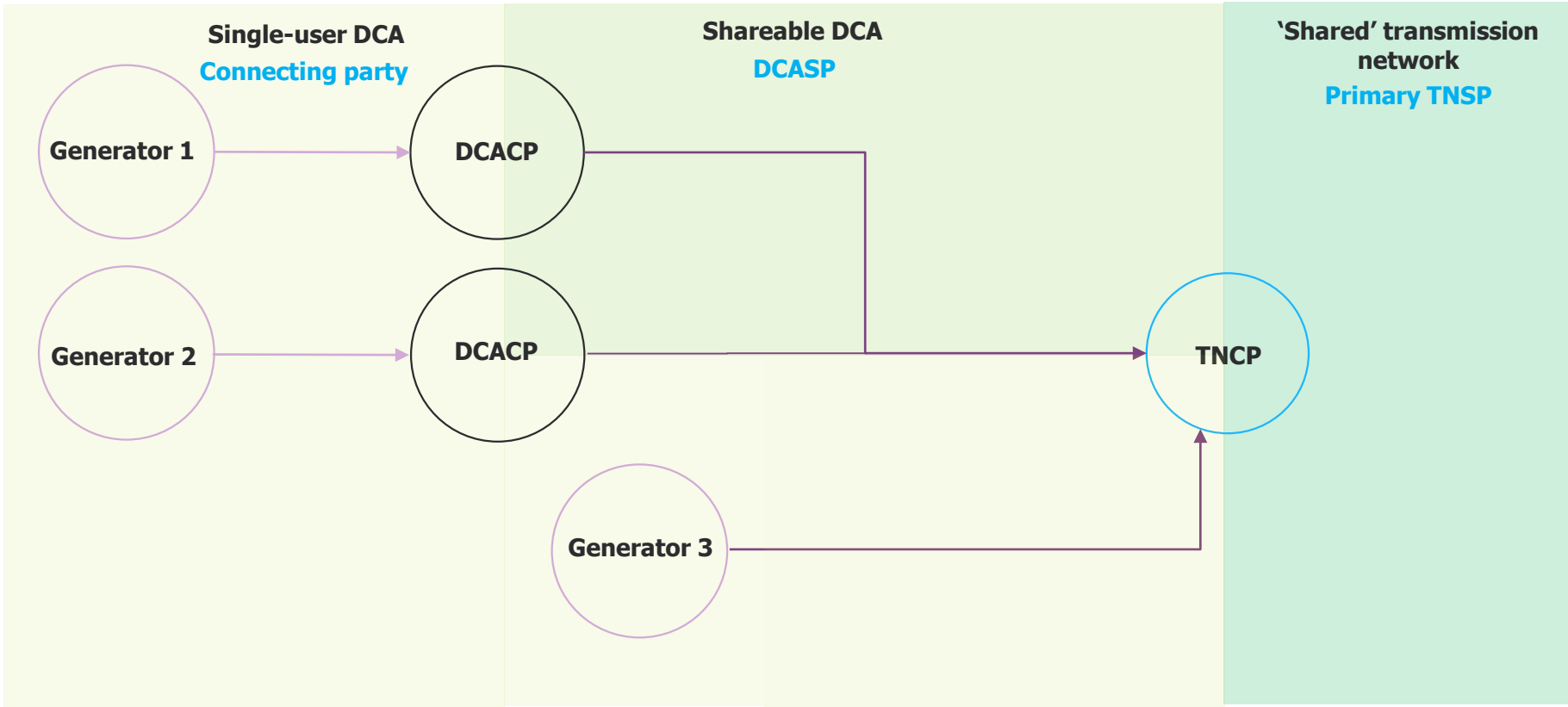
Key: Isolator; DCA; M Metering installation

Previous AEMC strawman model – based on creation of DCA connection points

- At the July webinar we presented a strawman model developed to assess against the status quo and AEMO's proposal
- Key feature: establishment of 'DCA connection points' as a clearer alternative to the 'nesting' of multiple TNCPs
- Introduction of DCA connection points at the facility end of a DCA required defining the connection assets between a facility and its DCA connection point
  - Even where there was initially only one facility connected
- We proposed repurposing small and large DCAs to become single-user DCAs and shareable DCAs
- A single-user DCA would have either facilitated:
  - Connection of a facility directly to a TNCP on the network
  - Connection of a facility to a DCA connection point on a shareable DCA



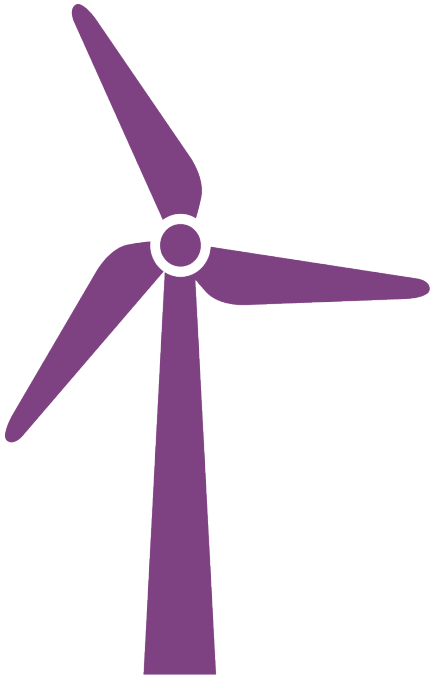
DCA connection configurations



Implications of creating DCA connection points for the connection process

Connection agreements would have included different parties:

- Party connecting directly to a TNCP on the network:
  - A connecting party would have entered into a connection agreement with the Primary TNSP, with the connection process under Rule 5.3 applying
- Party connecting to a DCA connection point on a shareable DCA:
  - A connecting party would have negotiated a connection with the DCASP under a new DCA connection process
  - No direct contractual relationship between the Primary TNSP and a connecting party



Previous strawman model – settlement

- The establishment of individual DCA connection points would have allowed for individual settlement of DCA-connected facilities
- A FRMP would have been assigned at every DCA connection point, but would not have been required at the TNCP
- Metering installations would have been required at each DCA connection point
- We expected that metering would have also been required at the TNCP:
    - To facilitate TUOS charging: envisaged that TNSP would levy TUOS on the DCASP and be passed through
    - To calculate losses: were considering an approach involving individual Transmission Loss Factors (TLFs) and separate DCA loss factors

Performance standards and system strength

System and performance standards:

- DCASP would have been responsible for compliance with system standards across the DCA and at the TNCP, where the DCA connects to the shared network
- Performance standards would have been negotiated by the DCASP for each connecting party at DCA connection points, with input from the primary TNSP

System strength:

- Application of the 'minimum level of system strength' framework to TNSPs in its current form
- We considered different options for the application of the 'do no harm' framework: either connecting generator or DCASP responsible for 'do no harm'

Implementation – significant impacts on the National Electricity Rules

CHAPTER	CHAPTER TITLE	INDICATIVE IMPACTS
Chapter 2	Registered Participants and Registration	Minimal – but registered DCASPs would attract expanded obligations elsewhere
Chapter 3	Market Rules	Changes to settlement, losses
Chapter 4	Power System Security	Significant amendments to establish power system security obligations on DCASPs
Chapter 5	Network Connection, Planning and Expansion	Significant impact on connection process, performance standards, system strength, etc.
Chapter 6A	Economic Regulation of Transmission Services	Likely minimal
Chapter 7	Metering	DCASP obligations in relation to metering
Chapter 10	Glossary	New and amended definitions
Chapter 11	Savings and Transitional Rules	Transitionals

Benefits and disadvantages of the previously proposed AEMC strawman model

- **Application of all key NER requirements for individual facilities**
  - Establishment of individual DCA connection points would allow for individual settlement, loss factors, performance standards, etc
- **Maintain contestability arrangements established under TCAPA**
  - Unchanged concept of DCAs – would remain connection assets, separate from the Transmission Network
- **Increased complexity**
  - Significant increase in DCASPs' responsibilities and significant changes to the Rules required, especially for power system security
  - Complexity multiplied by 'nested' shareable DCAs with multiple DCASPs
  - Establishing a parallel regulatory regime for 'mini-networks'
- **No direct connection agreement with the Primary TNSP**
  - Could raise issues in terms of liability and inability to address other issues through a connection agreement

Reasons for revisiting our previously proposed approach

- Large DCAs likely to become material additions to the transmission system
  - Further analysis and discussions with stakeholders after the July stakeholder webinar suggest that DCAs are likely to 'grow' in length and size (generation capacity connected) and connect multiple parties
- Large DCAs resemble 'network' from a power system security perspective
  - Due to the increasing size and capacity of DCAs, the Primary TNSP should no longer be able to disconnect an entire DCA at the TNCP
  - Applying the rules for power system security to DCAs and DCASPs would have required the creation of a new, complex regime
- Holistic network planning and clear allocation of responsibility
  - Continuing to treat large DCAs separately from the network also risks the inefficient development of the transmission system over time
  - Avoiding 'nested' DCAs with multiple DCASPs

OVERVIEW OF THE PROPOSED FRAMEWORK FOR DESIGNATED NETWORK ASSETS

MARTINA McCOWAN – SENIOR ADVISOR/PROJECT LEADER

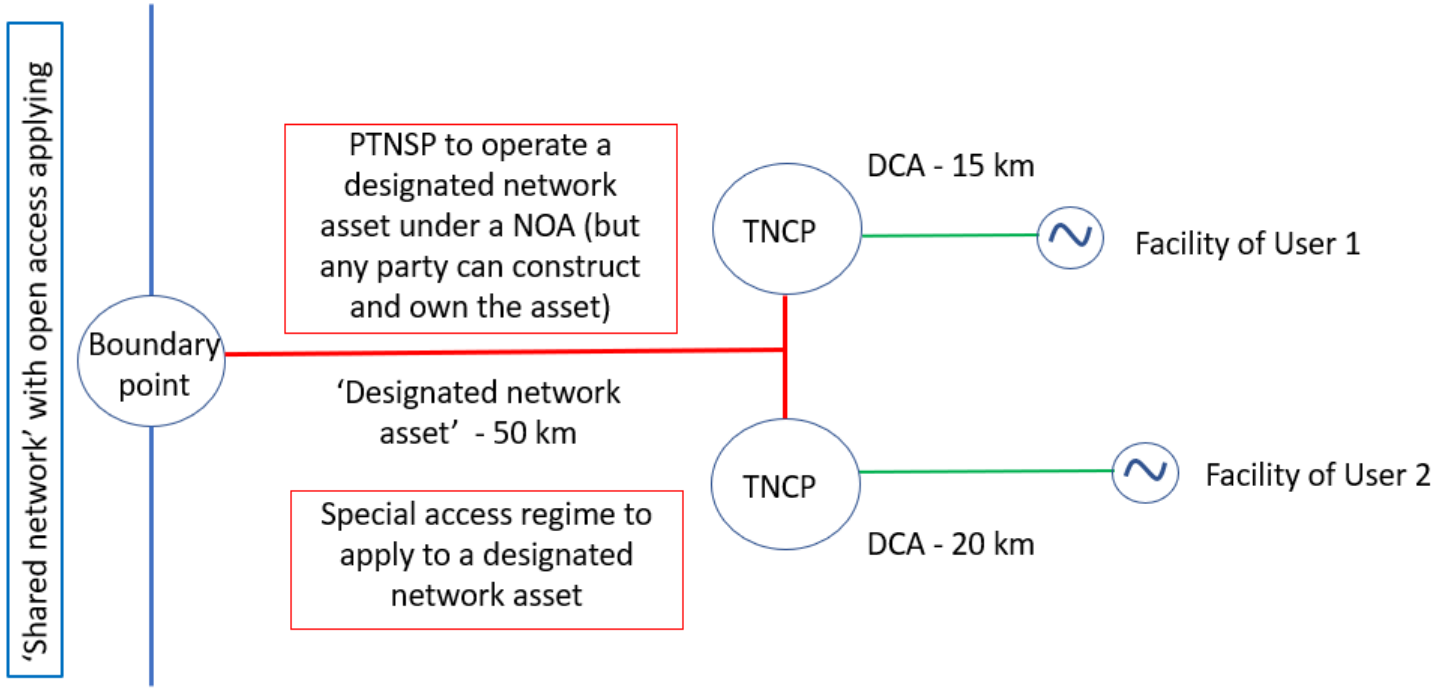
Proposed new framework for 'designated network assets': Overview

- We are developing a new framework that would replace the concept of large DCAs for material 'additions' to the transmission system
- The concept of DCAs would then only apply to connection assets, i.e. small DCAs, that facilitate the connection of one party to the network
- Making large DCAs 'network' facilitates establishing individual TNCPs
- Our objective is to ensure a special access regime continues to apply to parts of the network that are funded by market participants
- As such, we must distinguish between different parts of the network for the application of different access regimes, i.e. open vs. special access
- We propose the term **'designated network assets'** to refer to the parts of the network that are subject to a special access regime
- Longer term access reform may offer the possibility of an integrated access regime to apply across the entirety of the network

Proposed new framework for 'designated network assets': Key features

- Type of connection points: establishment of TNCPs
  - Application of key NER requirements (e.g. settlement, performance standards)
  - Application of existing regime for power system security and visibility to TNSPs for network planning purposes
- Contestability: limited contestability
  - Apply arrangements for third party Identified User Shared Assets (IUSAs) to designated network assets
  - Small DCAs to remain fully contestable connection assets
- Third-party access: special access regime
  - 'Boundary point' to delineate between 'shared' network and designated network asset
  - Special access regime instead of open access

Proposed new framework for designated network assets: Possible configuration



Creation of TNCPs and application of key NER requirements (i)

Objectives: simplicity, consistency and 'transition-readiness'

- System and performance standards
  - Application of the same technical requirements that apply across the Primary TNSP's shared network (existing Schedules 5.1a and 5.1 of the NER)
  - Negotiation of performance standards in line with existing Schedules 5.2 and 5.3 of the NER
- System strength
  - Extending the existing 'minimum system strength requirements' framework to designated network assets
  - Connecting generators to comply with 'do no harm'
  - Final rule may be affected by the outcome of the current review and rule change relating to system strength

Creation of TNCPs and application of key NER requirements (ii)

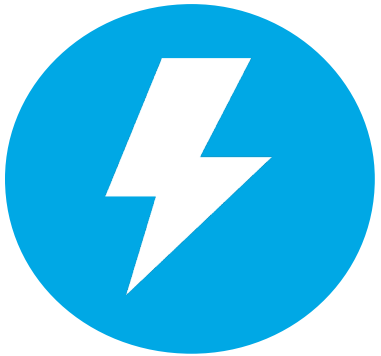
- Metering and TUOS recovery
  - Metering installations at individual TNCPs
  - Primary TNSP to recover TUOS charges from load customers connected to TNCPs

- Transmission losses
  - Application of a single transmission loss factor, calculated on a marginal basis, in dispatch and settlement
  - Introduction of a mechanism to calculate settlement residues accruing from losses on designated network assets and distribution of these to funding parties

Contestability arrangements

Objective: maintaining as much contestability as possible

- Application of the contestability arrangements for 3rd party IUSAs
  - Primary TNSP to provide the services of functional specification, cut-in works and O&M as a negotiated service
  - Detailed design, construction and ownership could be provided on a contestable basis by any party (including the Primary TNSP)
  - Requirement to have a Network Operating Agreement (NOA)
  - Considering appropriateness of financial thresholds and ownership restrictions
- No changes to contestability arrangements for small DCAs
  - Small DCAs to remain fully contestable assets



Access framework

Objective: robust protections, capable of transitioning into long term reforms

- Application of a special third-party access regime
  - Open access should not apply to designated network assets
  - Our intention is to provide a mechanism to remunerate asset owners where spare capacity is used to provide access to a third-party
- Principles-based access regime
  - We are considering whether the negotiating principles for large DCA services could apply, and if so, whether they need amendments to ensure the principles would provide sufficient protections
  - Do stakeholders have any views what kind of protections the principles should address?
- Access policy
  - Primary TNSP to develop access policy and administer access

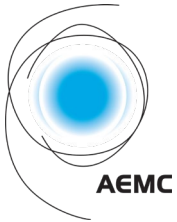
Summary: Benefits of the proposed framework for 'designated network assets'

- **Slight reduction in contestability**
  - Facilitate contestable construction and ownership (like third party IUSAs)
- **Application of key NER requirements**
  - Establishment of individual TNCPs for each connecting party
- **Reduced complexity and direct relationship with the Primary TNSP**
  - By allocating responsibility for operation and maintenance to the Primary TNSP no need to extend significant portions of the rules to the DCASP
  - Connection agreement negotiated in line with Rule 5.3
- **Continuing application of a special access regime**
  - Special access regime for parts of the network funded by market participants
- **Transition-ready framework**
  - Longer term access reform may offer the possibility of an integrated access regime to apply across the entirety of the network

CLOSE AND NEXT STEPS

Close and next steps

- This slide pack will be published on our website
- If participants wish to follow-up on specific issues raised during the webinar, please contact the project leader Martina.McCowan@aemc.gov.au or the project sponsor Andrew.Truswell@aemc.gov.au
- The draft determination is due to be published on 26 November 2020



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