



## Minutes

### Transformation Design and Operation Working Group – Meeting 10

**Time:** 9.30am – 12.00pm  
**Date:** 06 April 2020  
**Venue:** Online meeting via teams

#### Attendees:

Name	Organisation	Name	Organisation
Aden Barker	ETIU	Luke O’Callaghan	Lavan Legal
Aditi Varma	ETIU	Lulian Sirbu	Kleenheat
Angeline Ong	ETIU	Lynda Venables	Synergy
Antonia Cornwell	Synergy	Marc Hettler	Perth Energy
Ashwin Raj	ETIU	Mark Riley	AGL
Bobby Ditric	Lantau Group	Martin Maticka	AEMO
Brad Huppatz	Synergy	Mena Gilchrist	ETIU
Bronwyn Gunn	ETIU	Natalia KostECKI	AEMO
Chayan Thanachayan	Kleenheat	Natalie Robins	ERA
Clayton James	AEMO	Noel Schubert	
Daniel Kurz	Bluewaters	Oscar Carlberg	Alinta
Dean Frost	Western Power	Patrick Peake	Perth Energy
Dermot Costello	Clean Energy Council	Paul Arias	Bluewaters
Dev Tayal	Tesla	Peter Huxtable	Water Corporation
Dora Guzeleva	EPWA	Quentin Jeay	Kleenheat
Drew Harris	Simcoa	Rajat Sarawat	ERA
Elizabeth Aitken	Perth Energy	Rebecca White	ETIU
Elizabeth Walters	ERA	Rhiannon Bedola	Synergy
Erin Stone	Point Global	Robert Pullella	ERA
Geoff Gaston	Change Energy	Rodney Littlejohn	Tersum Energy
Geoff Glazier	Merz Consulting	Ross Davies	Western Power
George Varma	Pinsent Masons	Sabina Roshan	Western Power
Glen Carruthers	Western Power	Sam Lei	Alinta
Graham Pearson	Australian Energy Council	Sarah Silbert	AGL
Greg Ruthven	AEMO	Shannon Hewitt	Clean Tech Energy
Ignatius Chan	EMCA	Simon Middleton	AEMO
Jake Flynn	ERA	Stephen Eliot	Rule Change Panel Support
Jas Bhandal	AEMO	Steve Gould	Community Electricity
Jason Froud	Synergy	Stuart Featham	AEMO
Jenny Laidlaw	Rule Change Panel Support	Tim McLeod	Amanda Energy
Jo-anne Chan	Synergy	Toby Evans	
Judy Hunter	Western Power	Wes Medrana	Synergy
Kei Sukmadja	Western Power	Wendy Ng	ERM

\* Via phone

Meeting minutes should be read in conjunction with meeting slides.

Item No.	Issue
<b>Slide 1 - 3</b>	Aditi Varma (AV) opened the meeting, noted the virtual meeting protocol and requested keeping questions relevant to the topic.
<b>1.</b>	<b>Generator Performance Standards: Regulatory Framework Monitoring and Rectification</b>
<b>Slide 4 - 5</b>	<p>Mena Gilchrist (MG) presented Generator Performance Standards: Regulatory Framework, Monitoring and Rectification.</p> <ul style="list-style-type: none"> <li>• Previous Taskforce decisions include moving the revised Generator Performance Standards (GPS) from the Technical Rules (TR) to the Wholesale Electricity Market (WEM) Rules (these were discussed at PSOWG mid 2019); and three other items (these were discussed in the last TDOWG meeting 9 held 10 March 2020 – presented by Bronwyn Gunn) creating a register for individual GPS, developing a monitoring framework (including self-monitoring and central monitoring), and compliance framework.</li> <li>• The early rectification of non-compliance will be discussed further, along with further detail on the monitoring plans and register. However, the application of civil penalties and the treatment of existing generators in relation to the monitoring plans and register will be discussed further mid-year.</li> </ul>
<b>Slide 6</b>	<p>MG talked through the scope slide.</p> <ul style="list-style-type: none"> <li>• The framework applies only to Market Participants with transmission connected generating facilities – including those intending to register as a Market Participant. Otherwise the framework under the TR will apply.</li> <li>• The standards to be moved to the WEM Rules will not apply retrospectively. Past exemptions from TR will be retained. This will only apply to new generator connections or any facilities that will undergo certain modifications (as per the existing requirements).</li> <li>• To avoid unnecessary costs, flexibility will be provided for existing generators in developing their self-monitoring plans. Acknowledging the age, technology type and existing monitoring equipment of some generators.</li> <li>• A process for backfilling the register will be developed. TR connected generators since 2007 will be fairly straightforward to accommodate in the register as their exemptions are already published. Generators connected between 1997 and 2007 will be more challenging as exemptions are not published. Pre-1997 connected generators are expected to require the most work. While it is not intended to apply standards retrospectively, the process of completing the register is likely to require updated computer models.</li> </ul>
<b>Slide 7</b>	<p>MG spoke about other related work programs and their relationship to this project:</p> <ul style="list-style-type: none"> <li>• 1. WEM monitoring and compliance framework – Aditi Varma spoke to this in TDOWG meeting 9. This project considers compliance with the whole WEM Rules, of which GPS will be a subset that is worthy of its own consideration. Notwithstanding, the principles between both projects are the same and the work is being done in collaboration.</li> <li>• 2. Generator compliance – Bronwyn Gunn spoke to this at a high-level at TDOWG meeting 9. Some decisions relating to monitoring plans and the register will be implemented under this project as they need to be included at the same time as moving the GPS to the WEM Rules. The detail of this will be discussed further today.</li> <li>• 3. Generator Performance Guideline (GPG)– Western Power (WP) and AEMO completed a review of the GPS in late 2018, culminating in the release of the GPG. The standards under the GPG represent those that will be moved to the WEM Rules.</li> <li>• 4. TR review – this is a holistic review of the whole of the TR, being undertaken by WP and scheduled for completion by the end of 2020. The review’s focus is not the WEM reform program, but the TR review will complement some of the reforms underway, including removing GPS from</li> </ul>

	<p>the TR that will now become part of the WEM Rules, as well as modifications to the connections process to support some off the changes being discussed.</p> <p>Elizabeth Aitken (EA) referred to a recent letter from WP relating to the GPG. The letter queried the generator’s capability to ride through events. EA asked how this fits under the regulatory framework. Glen Carruthers (GC) responded that he is not aware of the specific letter that was sent but is happy to have a look and chat with EA. He feels this may relate to understanding the generator performs against the GPG in relation to fault ride-through. Wendy Ng - ERM and Daniel Kurz – Bluewaters have also received similar letters. MG noted that the letter is not related to her work program.</p> <p>EA mentioned that Perth Energy still has not heard back from WP in relation to submission made on the framework. GC will chase up the response.</p> <p>MG continued with the presentation stating that in backfilling the register will require some new information, including updated computer models, but that there is no intention to retrospectively apply higher standards to the existing generators.</p> <p><b>Action: Western Power to follow up on the letter sent out to Participants.</b></p>
<p><b>Slide 8</b></p>	<p>MG talked through the slide.</p> <ul style="list-style-type: none"> <li>• Slide 8 provides a high level view of the regulatory framework. The project proposes a new chapter 3A in the WEM Rules, which sets out the framework for the standards and includes the connection process, register, monitoring program and early reification process. A new Appendix 12 will contain the GPS (from the GPG).</li> <li>• There will be three new Market Procedures, 1. Monitoring program with self-monitoring template, 2. Computer model requirements. 3. Generator testing.</li> <li>• Minor amendments to Access Code Appendix 6 will be required to limit the scope of the TR, such that the relevant standards can be removed from the TR and placed in the WEM Rules.</li> <li>• The new framework will commence from February 2021, with the exception of the process for backfilling the register, which will start in September to allow for the register to be developed in advance of the commencement date.</li> </ul> <p>Greg Ruthven (GR) asked who will be responsible for the three Market Procedures, AEMO or WP? MG responded Market Procedures relating to the monitoring program and generator testing will be an AEMO procedure and the computer model requirement will be WP procedure.</p> <p>EA mentioned the computer model requirements may take time, and whether the required information can be known earlier than September?</p> <ul style="list-style-type: none"> <li>○ MG indicated she does not expect a long lead time, the requirement will replace an existing guideline. GC added, WP currently have a guideline for RMS models and currently referring to the AEMO guideline in the east for other models. WP will combine the guidelines to be a WP guideline.</li> </ul> <p>EA clarified the query was related to the information the WP will require from Participants.</p> <ul style="list-style-type: none"> <li>○ GC added that the requirement is for new generators connecting. But in the future may require model information from existing facilities, but will ask for information at a later stage and is slightly different.</li> </ul> <p>EA sought further clarification that the commencement date for February 2021 will only apply to new facilities joining.</p> <ul style="list-style-type: none"> <li>○ MG responded that the new standards and amendments to the connection process are for new generators. However, the register, monitoring program and compliance framework (including early rectification plans, to be discussed today) will apply to existing generators. Notwithstanding, it is acknowledged that some existing generators may require variations to the monitoring programs to avoid unnecessary costs, particularly older generators. Further work is required to develop a process for ensuring that existing generators have suitable monitoring plans. Further work is also required to backfill the register of standards for existing generators, particularly older generators, where the reference standards are difficult to locate and the standards set out in contracts may not translate well to the current standards. It is intended that the process for backfilling the register and monitoring plans for existing generators will be developed for consultation mid-year.</li> <li>○ The framework will apply to existing generators from February 2021, and should have all the existing facilities to join from the time at which they have a suitable monitoring plan in place (1 February 2021, whichever is later).</li> </ul>
<p><b>Slide 9</b></p>	<p>MG spoke to the connection and negotiation slide.</p>

	<ul style="list-style-type: none"> <li>• The scope for negotiation under the new framework will be between an ideal and minimum standard, which is similar to the NEM framework. Generators connecting are expected to meet the ideal standard unless this is not technically or commercially feasible. When negotiating below the ideal standard, generators must demonstrate that they are as close as possible to the ideal. MG noted that there are a couple standards that only have an ideal standard and no minimum.</li> <li>• Trigger events will be permitted, allowing performance under the ideal until a trigger is reached after which certain pre-specified actions will be taken. The trigger may relate a range of factors, including time, demand, etc. Similarly, the action to be taken can be varied, including a requirement to meet the ideal, or another higher standard, or may relate to other kinds of investment, including network investment. All factors around trigger events must be clearly stated upfront.</li> </ul>
<p><b>Slide 10</b></p>	<p>MG spoke to the connection and negotiation slide.</p> <ul style="list-style-type: none"> <li>• AEMO will now have a formal role in negotiations of new generator connection standards, but negotiations will still occur between Participants and WP during the connections process.</li> <li>• WP will be required to consult with AEMO on any negotiated standards and will not be permitted to accept a standard if AEMO do not agree. This does not prevent the Market Participant from discussing directly with AEMO (or AEMO and WP jointly) but ensuring the formal process is between WP and the generator means that all parties will receive the same information and that generators don't have to speak with multiple parties about the same matters- there's less 'run around'.</li> <li>• MG noted that at the pre-connection phase, most prospective generators are not yet a Market Participant and the WEM Rules cannot place obligations on them, therefore there is a requirement for WP to ensure that its connection process aligns with the process contemplated in Chapter 3A. Obligations can still be placed on WP during this phase, including in how it negotiates with generators and AEMO.</li> <li>• WP must accept a standard that meets the ideal requirement and cannot accept a standard below the minimum. When negotiating between the ideal and minimum, AEMO and WP can accept, reject or request further information. However, if rejecting they must state why and provide an alternative standard that would be accepted.</li> <li>• WP and AEMO will not be permitted to accept a proposed negotiated standard if it believes that the standard will affect power system security or reliability, or otherwise affect the quality of supply for other users.</li> <li>• WEM Rules disputes process will not apply to elements of chapter 3A – particularly the negotiation process.</li> </ul> <p>EA queried whether obligations for system impact modelling is being placed on WP or AEMO? And who is given specific obligations under this connection arrangement for establishing the impact on generators will be on the overarching system requirements for ancillary services, in relation to dealing with the issue relating to the LFAS requirements for GIA.</p> <ul style="list-style-type: none"> <li>○ Clayton James (CJ) clarified if the query was in relation to a generator connecting in the North Country and it might impact the single largest contingency.</li> <li>○ EA confirmed and queried who will have the obligation to assess this in the framework.</li> <li>○ CJ clarified that this project doesn't deal with that problem, and is about how a new generator establishes what it can do under its performance standards, how it tests and how to confirm that. CJ suggested perhaps the issue EA is speaking about is the management of Essential System Services (ESS) levels in the future and is not part of this framework here. The obligation is placed on AEMOs to assess the level of AS/ESS needed. If there are not enough ESS or providers, AEMO may need to constrain down generators if AS/ESS doesn't cover the requirements, and would be dealt with in dispatch.</li> </ul> <p>EA further queried who will implement the causer pays rule.</p> <ul style="list-style-type: none"> <li>○ CJ responded the causer pays approach is a market mechanism and will continue with AEMO.</li> </ul> <p>EA queried how prospective Participants will know if they cause a single largest contingency?</p> <ul style="list-style-type: none"> <li>○ CJ noted that it is part of the modelling any generator will do when they connect.</li> <li>○ EA said this is currently a WP task, there is confusion between where WP responsibility stops in relation to the modelling for connection and where the prospective generator responsibility where the risks will start.</li> </ul>

	<ul style="list-style-type: none"> <li>○ CJ believes this sounds like a different conversation, this may be in relation to system modelling and how a generator might get more information about where they are connecting, relates with the constraints work.</li> <li>○ EA believes that currently WP is responsible for the load studies and to pass on the information to generators. WP is part of the end to end process and it is unclear where all the elements that WP are currently taking how they will be allocated. EA suggests to go through all the elements WP currently take and make a clear allocation of who has a responsibility for undertaking the certain requirements.</li> <li>○ Daniel Kurz (DK) added to the same extent as Liz's question, it could be applicable to an existing generator seeking additional capacity at an existing connection. Wendy Ng (WN) agreed it would impact existing generators</li> <li>○ AV noted there is modelling and related information that generators need to be provided at time of connection. Then there is the ongoing performance of generators for dispatch-related services. This is a separate conversation about what responsibilities WP will have in offering different connections around the network as well as generators seeking additional capacity. AV also said that this related to the broader considerations around constrained network access.</li> </ul> <p><b>Action: ETIU to provide further information on the role of Western Power in determining appropriate location of generators in different parts of the network</b></p>
<p><b>Slide 11</b></p>	<p>MG discussed the register slide</p> <ul style="list-style-type: none"> <li>● The register will be created and maintained by WP, with visibility provided to the ERA, AEMO and individual generators seeking access to their own data.</li> <li>● Minimum requirements of the register will include the status of the connection (initially filled in at the time a generator negotiates its connection contract, and will be updated at final approval to operate, and may be updated during the life of the generator), specific performance standards specific to Appendix 12 (any negotiated performance standards and trigger events); computer models and approved self-monitoring plan.</li> <li>● Ability to allow WP to add additional information to the register, without the requirement to share it.</li> </ul> <p>Patrick Peake (PP) asked whether AEMO will have access to generator models. They have had issues with model provider allowing them to release the proprietary information to others.</p> <ul style="list-style-type: none"> <li>○ MG confirmed AEMO will have access. With System Manager previously in WP and moving System Manager to AEMO will require information and modeling data. CJ confirmed there has been a rule change to allow access to the models.</li> <li>○ PP noted there may be a potential issue with the ERA requiring the computer models as they will need approval to release propriety modelling to the ERA. PP queried whether the ERA would use the model.</li> <li>○ MG and CJ have taken the ERA receiving the model on notice and will further investigate.</li> <li>○ EA clarified that the rule change was in relation to the outputs of the model and not the model themselves.</li> <li>○ CJ confirmed that the rules were an arrangement between AEMO and WP and does not relate to anything that the Participants need to do.</li> <li>○ MG can consider whether the ERA will require the computer models.</li> <li>○ Stephen Elliot noted that the ERA can already access this information under chapter 10 of the Market Rules.</li> </ul> <ul style="list-style-type: none"> <li>● MG continued with the presentation, stating that there will be an obligation on generators to advise WP when their situation changes and requires the register to be updated.</li> </ul>
<p><b>Slide 12</b></p>	<p>MG spoke to the testing and approval to operate slide</p> <ul style="list-style-type: none"> <li>● New Market Procedure specifying testing requirements – no intention to change the game in generator testing- it is about clarity.</li> <li>● Generator requirement to undertake appropriate tests prior to being granted interim approval to operate</li> <li>● WP will not be permitted to provide final approval to operate until: A monitoring plan has been approved by AEMO and has been added to the register, The operational performance of the generator is considered satisfactory by both WP and AEMO, The generator has demonstrated compliance to WP and AEMO's satisfaction with the applicable generator performance standards</li> </ul>

	<ul style="list-style-type: none"> <li>If, during testing, a generator’s performance is not as expected, the generator will be expected to bring the facility up to compliance. However where this can be demonstrated as unachievable, re-negotiation may be permitted if deemed appropriate by AEMO and WP.</li> </ul>
<p><b>Slide 13</b></p>	<p>MG discussed the monitoring program slide and referenced TDOWG meeting 9.</p> <ul style="list-style-type: none"> <li>Self-monitoring is intended to be the primary mechanism for ensuring compliance. It will be supported by central, non-invasive monitoring by AEMO and WP – it is not the intention for periodic central monitoring to be undertaken, but rather the framework will allow for self-monitoring as needed.</li> <li>The self-monitoring Market Procedure to be developed by AEMO will include the process for approval and amendment of individual self-monitoring plans and will also include a template self-monitoring plan (as mentioned by Bronwyn at TDOWG meeting 9)</li> <li>Connecting generators will be required to develop a self-monitoring plan consistent with the template for AEMO approval. AEMO will be required to approve the plan if it believes the plan is consistent with the template, but will otherwise be able to reject, or require amendments. As noted prior, some existing generators may be permitted to have a plan that is not consistent with the template, noting further work to be done in this area.</li> <li>Changes to the template can be applied retrospectively - generators will have 6 months to undertake the required changes and re-submit for AEMO approval. Generators may also request changes to their plans, with AEMO approval required. Noting that any changes must still be consistent with the template.</li> <li>Generators are not required to routinely provide outcomes of their plans or report to AEMO unless non-compliance is discovered. Notwithstanding, generators must submit their monitoring plan if requested by the ERA, AEMO or WP</li> </ul> <p>EA asked whether this requirement will apply to all generators, or only to generators over a certain size? Will it apply to batteries put into the distribution network?</p> <ul style="list-style-type: none"> <li>MG confirmed that all transmission-connected generators participating in the market will be required to have a self-monitoring plan and be covered under this framework.</li> </ul>
<p><b>Slide 14</b></p>	<p>MG discussed addressing early non-compliance</p> <ul style="list-style-type: none"> <li>Generators must report all instances of non-compliance with their generator performance standards to AEMO, whether discovered through their self-monitoring plan, or by any other means.</li> <li>Generators must also advise AEMO if they cannot comply with the terms of their monitoring plan.</li> <li>In reporting non-compliance (either with standards, or their monitoring plan), generators may request a rectification plan. If agreed by AEMO, the generator must submit the plan within 10 business days, unless agreed otherwise.</li> <li>If AEMO agrees to a rectification plan, an amnesty will begin. AEMO will have the ability to reject a rectification plan or request modifications or further information. AEMO will also be able to choose not to agree to the development of a rectification plan, meaning that no amnesty period will apply. It is expected that this will only occur in relation to very serious breaches or repeat non-compliance. Such instances will be immediately referred to the ERA for investigation.</li> <li>Nothing will prevent the generator from taking steps to rectify the non-compliance, irrespective of whether there is an agreed rectification plan in place.</li> <li>Minimum information in the plan includes: The actions to be taken to rectify non-compliance, the timeframes for the generator to become compliant, any testing required to establish compliance with applicable generator performance standards.</li> <li>Alignment with wider WEM compliance framework, once implemented – acknowledging the differences in commencement dates. For example, reporting of non-compliance with GPS can be streamlined with other types of non-compliance reporting.</li> </ul>
<p><b>Slide 15</b></p>	<p>MG discussed addressing early non-compliance</p> <ul style="list-style-type: none"> <li>AEMO to consider a rectification plan, consulting with WP (testing is likely to require WP) - Timeframe ‘best endeavours’ 10 business days for both parties.</li> <li>AEMO cannot approve if WP rejects, reasons must be provided if rejected, giving the Participant an opportunity to make modifications.</li> <li>Once developed, a generator may request an amendment to plan for the approval of AEMO – i.e. to request additional time. Rectification plans will be provided to the ERA.</li> </ul>

	<ul style="list-style-type: none"> <li>• Amnesty period applies from the time a generator notifies its intention to develop a rectification plan, until either:             <ul style="list-style-type: none"> <li>○ A rectification plan is not submitted within the required timeframes; or</li> <li>○ A rectification plan is submitted, but not agreed; or</li> <li>○ A rectification plan is agreed, but is not complied with, and hence is cancelled by AEMO; or</li> <li>○ The rectification plan is agreed, but testing shows the generator remains non-compliant and an amendment to the plan could not be negotiated;</li> </ul> </li> <li>- all the above, the ERA will begin investigations.</li> <li>○ The rectification plan is successfully completed</li> <li>• As above, nothing will prevent a generator from undertaking action to remedy non-compliance, whether or not a rectification plan is agreed.</li> </ul> <p>WN queried whether 10 business days sufficient for both WP and AEMO to make an assessment of the rectification plan.</p> <ul style="list-style-type: none"> <li>○ MG responded it is a balance. At that point the Participant is in a non-compliance space, but need to consider that not all non-compliance are the same and may require more than 10 business days, therefore 'best endeavours' have been included. There is scope to go longer if appropriate</li> </ul> <p>EA: For noting: This framework represents a significant increase in compliance risk and obligations for participation in the WEM. I hope that this is recognised in the fixed costs required to operate and refunded as part of the capacity payment regime.</p> <ul style="list-style-type: none"> <li>○ MG noted she understands it is a difference to the existing framework. Part of the reason for GPS being moved into the WEM Rules is to ensure an improved compliance regime given the current evidence of non-compliance. There is a growing need to ensure generators are responding in predictable ways to system disturbances in light of changes to the generation mix and load profile. Unsure of how the capacity payment regime relates.</li> <li>○ EA added the only way to get paid for participating in the WEM is getting paid in the capacity. Short Run Marginal Cost (SRMC) does not include or acknowledge all the additional compliance costs or requirements. The extra costs are not refunded and the other revenue stream is capacity payments. The reform process is adding costs to all participants. BRCP needs to start including all these things.</li> <li>○ MG responded generators have always had an obligation to comply with standards. Changes to the framework have been designed to make it as easy as possible for generators to monitor performance and rectify early non-compliance. Notwithstanding, MG acknowledges that it does represent change for generators.</li> </ul> <p>GR: In response to EA's 2nd question, this appears worthy of discussion in the upcoming BRCP review by the ERA.</p> <p>Drew Harris: The BRCP should not be the bucket that everything gets lumped into. The cost of the Reserve Capacity is already onerous for end users and should not be used as the revenue stream for all things. It should be reflective only of the cost for providing reserve capacity.</p>
<p><b>Slide 16</b></p>	<p>MG spoke to the diagram. Indicating the decision points and where the amnesty period may cease.</p>
<p><b>Slide 17</b></p>	<p>MG spoke to the next steps slide.</p> <ul style="list-style-type: none"> <li>• Drafting has started and will have an exposure draft ~May 2020.</li> <li>• Next steps to develop a process to backfill the register and the application of monitoring plans to existing generators.</li> <li>• Civil penalties and the treatment of existing generators to be complete with the exposure draft realised around July/August.</li> <li>• Implementation of all WEM Rules under this project by September after which the process for backfilling the register will commence. Everything else will apply from February 2021 (or such time that existing generators have a monitoring plan, if later than Feb 2021).</li> <li>• An email will be sent to TDOWG working group to invite to speak about the backfilling of the register and self-monitoring plan.</li> <li>•</li> </ul>

2.	Commissioning plan and process
Slide 18-20	<p>CJ introduced the presentation</p> <ul style="list-style-type: none"> <li>• Moving to SCED, the concept of Commissioning Tests is not fundamentally different. It is to ensure that facilities are performing to standard.</li> <li>• CJ spoke to the key issues with commissioning tests as listed on the slide.</li> <li>• This work package will provide clarity on the types of tests and timelines, when they need to be submitted and the types of information to be included, and how to add more flexibility in the testing themselves</li> </ul>
Slide 21	<p>CJ spoke to the current WEM Rule requirements and high level issues identified.</p> <ul style="list-style-type: none"> <li>• The definition of Commissioning Tests are limited, and should be expanded to cover different types of testing (GPS compliance testing or the back of maintenance/upgrades, ESS accreditation).</li> <li>• Commissioning tests are required for facilities that have undergone significant maintenance. Definition of significant maintenance is not clear. Clarity will be provided on things that should go through a test.</li> <li>• Timeframes for submission are unclear. Currently a best endeavours rule, allows the Market Participant to submit up to 7 days prior to the start. However AEMO can reject it up to 20 days before start if they have not had time to assess the submission. Some tests will require a long time to assess than others. This project seeks to provide variability in timeframes to cater for the different types of testing that can happen</li> <li>• AEMO must notify a Market Participant as to whether it has approved a Commissioning Test Plan – there is a need to align the approvals with timeframes for SCED (e.g. pre-dispatch)</li> </ul>
Slide 22	<p>CJ spoke to the Slide – Principle 1.</p> <ul style="list-style-type: none"> <li>• The definition of Commissioning Tests will be expanded to be broader and cover other tests that can occur.</li> <li>• Looking to align with the principle in the RC_2013_15, where a commissioning test can be conducted during a planned or forced outage.</li> </ul> <p>EA commented Commissioning Test with 2 hour gate closure is really hard - will these requirements be coming in once we have shorter gate closure? Will AEMO be able to override WP during commissioning tests? Particularly for the timeframes to book testing?</p> <ul style="list-style-type: none"> <li>○ CJ deferred the answer for later slides.</li> </ul>
Slide 23	<p>CJ spoke to Principle 2 slide</p> <ul style="list-style-type: none"> <li>• Clarify the requirements on when to submit a Commissioning Test Plan</li> <li>• Details will be in the Market Procedure to provide clarity on the types of things that will need/can to go through the commissioning test plan arrangement.</li> <li>• The new design will retain the current obligation to submit tests, and expand on the various type of test covered for which AEMO's approval is required.</li> </ul>
Slide 24	<p>CJ talked through the current process.</p> <ul style="list-style-type: none"> <li>• Example of a new generator connecting, all information must be submitted to WP 3months in advance. Information to do with the commissioning plan is requires to AEMO 7days in advance. Both AEMO and WP conduct similar analysis – is it safe to occur, what's the risk to power security, is the timing right etc.</li> <li>• It is difficult to coordinate in the current framework – intention is to make the coordination more transparent.</li> <li>• New Design will ensure that there is a common set of requirements and timing for Market Participants – so there is no surprises that information needs to be provided that they are not aware of. The intention is also to allow information to be shared between AEMO and WP to remove duplication.</li> </ul>
Slide 25	<p>CJ discussed principle 3</p> <ul style="list-style-type: none"> <li>• Clarify the requirements on information and timing required when submitting Commissioning Test Plans. This will allow AEMO with sufficient time to plan and coordinate the commission plan.</li> <li>• This principle will allow transparency, remove duplication and enable sharing of information.</li> </ul>

	<ul style="list-style-type: none"> <li>• New design will require some additional information that will need to be considered. This includes things such as specific details on the equipment being tested, details on agreements or contracts (e.g. have they been signed), provide alternative windows for testing and details of special readings, curves etc.</li> </ul> <p>Mark Riley (MR) asked whether one organisation will be the lead with participants and coordinate the process.</p> <ul style="list-style-type: none"> <li>○ CJ confirmed it is reasonable to have one party. If it is about GPS, and it is submitted to AEMO they are happy to lead it, as long as it is coordinated with WP and included.</li> <li>○ GC and Sabina Roshan (SR) both agreed that AEMO can lead it as long as WP is informed, has visibility and kept in the loop.</li> </ul>
<p><b>Slide 26</b></p>	<p>CJ discussed Principle 4</p> <ul style="list-style-type: none"> <li>• Modify the timeline for Commissioning Test Plan Submission.</li> <li>• AEMO will detail the requirements for different types of tests in a Market Procedure - Different tests have different lead times, and currently the timeframes are not clear. More complex tests require longer lead times, lower impact tests do not require as much lead time. There is no clear guidance for participants on what is required.</li> <li>• The intent is to define the different timeframes for each type of test in the same Market Procedure, this will align with the Technical Rules. Really complex – 65 BD, High level test – 20BD (trip tests, large reactive swings), and Other commissioning tests – 7BD (signal testing, ramping)</li> </ul> <p>Dean Frost (DF): Clayton, Western Power intend to introduce an "Approval to Commission" sign-off, "Conditional Approval to Operate" and "Approval to Operate".</p> <ul style="list-style-type: none"> <li>○ CJ confirmed, that for a new generator connecting, will submit the information and test. Intention is to review the information and WP and AEMO will provide an interim approval to operate if facilities have passed certain tests and can operate safely - but not all tests and information have been reviewed yet, but don't want to prevent the participant from operating. Therefore an interim ability to operate will be pending final approval. Once the all the data is received data, checked, is consistent with requirements and compliant, then a final approval to operate is provided.</li> </ul> <ul style="list-style-type: none"> <li>• Jenny Laidlaw (JL) asked would a Facility with conditional approval to operate be deemed to be in Commercial Operation. CJ took the question on notice. Think it is the final approval to operate, but will check.</li> </ul>
<p><b>Slide 27</b></p>	<p>CJ discussed principle 5</p> <ul style="list-style-type: none"> <li>• Ensure the approval rules support the submission of required information ahead of assessment and modify last time for approval.</li> <li>• AEMO must approve a commissioning test plan unless there is inadequate information, the test would pose an unnecessary threat to power system security or power system reliability, or there is inadequate time to properly consider the commissioning plan – time and information inadequacies have been addressed in other principles.</li> <li>• The coordination and scheduling of tests is linked to the power security and reliability and the approval of commissioning tests.</li> <li>• For the tests that require advanced notice and additional information, AEMO will include in the Market Procedure the timeframes it will use to provide initial review and response.</li> <li>• Commissioning and testing plans require generation information in advance, the change will allow the generator to provide indicative information on generation, and only will be required to provide accurate information closer to the day. This allows for information feedback.</li> <li>• Obligation for AEMO to notify participant of approval as soon as practicable, however no longer than 48 hours.</li> </ul> <p>EA queried, no-one has been able to advise what / how much in terms of modifications constitutes an existing facility becoming a "new" facility. This will be important in relation to a 65 day testing plan.</p> <ul style="list-style-type: none"> <li>○ CJ, responded stating that some of that will come through in chapter 3A, and asked MG for confirmation. MG stated that this will be covered under the TR and will be referred to TR. This will be reviewed as a part of the TR review.</li> </ul>

	<ul style="list-style-type: none"> <li>○ EA stated she has been waiting for WP's response on this. EA provided an example of increasing 5% of existing capacity with battery, is that a new facility and give 65 days for a commissioning plan?</li> <li>○ AV responded with taking the query on notice. This concept is also part of RCM under the consideration of Network Access Quantities and whether new kit is considered a new facility.</li> </ul> <p>DF queried what re-testing is proposed for the new ESS framework?</p> <ul style="list-style-type: none"> <li>○ AV responded with taking the query offline, ESS may also go through a commissioning test process, but re-testing accreditation could be through a different process.</li> <li>○ GC provided some guidance. If new technology is installed or the performance of a new installation is different, or it changes the performance of the system they will need to be tested.</li> <li>○ EA responded to GC stating it is a significant position to have and will require a more holistic policy approach. EA provided an example of a 5WM system at the power station.</li> <li>○ SR referred to the existing TR and any modifications to systems and the requirement for testing.</li> <li>○ EA has a concern that there is an interpretation issue.</li> <li>○ AV clarified the intent is that any modification may have an impact on power system security and for those reasons may require testing. However it may be a threshold question and will need to be considered with other work streams.</li> </ul> <p><b>Action: ETIU to provide clarity as to what modifications to an existing facility make it a new facility.</b></p>
<p><b>Slide 28</b></p>	<p>CJ continued to discuss principle 6</p> <ul style="list-style-type: none"> <li>● Include the requirements for undertaking a Commissioning Test, these processes will be described in the Market procedure.</li> <li>● As commissioning activities may impact on the power system or WEM, specific actions may be required prior to undertaking online commissioning tests.</li> <li>● Participants must ensure all offers associated with commissioning or testing are submitted to pre-dispatch at least 48 hours in advance to support STEM submissions.</li> <li>● New design will formalises the current process – for some test AEMO will require Participants to contact AEMO control room prior to commencing a test (e.g. trip test).</li> </ul>
<p><b>Slide 29</b></p>	<p>CJ discussed principle 7 slide</p> <ul style="list-style-type: none"> <li>● AEMO would like to allow more flexibility for commissioning test plans. Currently any revision to the Commissioning test plan is considered to be a new test and require approval.</li> <li>● The change will allow commissioning test plans to be amended within testing window without the need for a new approval. New tests, tests outside the time window or significant changes to the tests will still require a new approval.</li> <li>● Participants have the obligation to adjust offers at least 2 hours prior to the commencement of the actual test.</li> <li>● As per normal practice, if there are any changes to the day, the AEMO will provide a confirmation to proceed. Or move the test to an alternative day.</li> </ul> <p>WN queried if AEMO cancels or delays a plan or test will that constitute a new commissioning test plan?</p> <ul style="list-style-type: none"> <li>○ CJ responded stating that it would not necessarily be a new test plan if the shift is within the window of the test. The intention is to allow flexibility for more minor scheduling.</li> <li>○ MR added, what if the shift to another day? MR clarified back up dates should be included?</li> <li>○ CJ responded subject to the type of testing it should be part of the same approval as long as it is in the same window. CJ confirmed this was the intention and for alternative dates to be listed</li> </ul>
<p><b>Slide 30</b></p>	<p>CJ made a note on Generator Performance Standards and testing as a part of initial connection.</p> <ul style="list-style-type: none"> <li>● The enhanced design will support sharing information on new facilities commission program to AEMO ahead of testing commencing and liaising with WP to confirm the tests are acceptable to proceed. Information will be shared between AEMO and WP.</li> </ul>

	<ul style="list-style-type: none"> <li>• Where appropriate other testing may occur at the same time</li> </ul>
<p><b>Slide 31</b></p>	<p>CJ spoke to Principle 8</p> <ul style="list-style-type: none"> <li>• AEMO would like to publish the commissioning test plan profiles once approved, this does not include the details of the participant or the contents. Relates to the MW and possibly the test being conducted (e.g. trip test, reactive power test).</li> <li>• The intention is to increase transparency to allow other participants to adjust offers and to assist with MT PASA and ST PASA</li> </ul>
<p><b>Slide 32</b></p>	<p>Next steps</p> <ul style="list-style-type: none"> <li>• CJ sought for participant feedback</li> <li>• AEMO will be working on drafting instructions and will package the rule drafting work with outages.</li> </ul>
<p><b>3.</b></p>	<p><b>Rule drafting plan</b></p>
<p><b>Slide 36</b></p>	<p>Aden Barker (AB) introduced the presentation on the Rule Drafting Plan for the Foundation Regulatory Frameworks work stream of the Strategy and a status report of what has occurred up to this point.</p> <ul style="list-style-type: none"> <li>• Update: Work is continuing as usual at ETIU and largely unaffected by the transition to working from home and other Government activity in response to the COVID-19 pandemic. The Minister for Energy has confirmed that the activities under the Energy Transformation Strategy remain a priority. Other priority items being progressed outside the Strategy include the Pilbara reforms and implementation of stand-alone power systems, with the Bill having been passed. The Pilbara Network Access Code (PNAC) and related rules will be subject to consultation soon. Kathryn Barrie (the Director at EPWA leading the work) is happy to meet virtually about the PNAC or other things.</li> <li>• DER roadmap has been approved by Cabinet and is now available on the Energy Transformation Strategy website. Jai Thomas has offered to present the DER roadmap to this group in the coming weeks.</li> </ul> <p>EA queried what happens if we have retail customers who end up in a Western Power stand-alone power system?</p> <ul style="list-style-type: none"> <li>○ AB responded there has previously been policy statements about the stand-alone power system trials from WP and Horizon Power. The understanding is that regulated tariffs will be maintained under stand-alone power systems – subject to the contestability threshold. Customer will, as they already do, have the ability to choose their own stand-alone power system (but not necessarily retain access to regulated tariffs).</li> <li>○ EA further queried whether they are able to see any of the result.</li> <li>○ SR added Perenjori is working but only a battery system for a township when the feeder is down, Kalbarri is under construction. However is not sure what information is required- Let them know and they will see what they can provide.</li> <li>○ EA clarified that they would like to understand for those customers who are contestable in those area, what impact will be on them in terms of their tariffs and cost structures from WP in relation to these issues. There is no understanding of how the trials are going.</li> <li>○ AB will take this as an action to talk to Kathryn Barrie about sectorial engagement. The purpose to develop SPS is to create lower cost alternatives to network investment, it is meant to reduce the cost to all customers.</li> <li>○ EA added it is also about the reliability of supply. How it will impact existing customers and any who happen to be in proposed SPS. How it relates to contestable and future contestable customers.</li> </ul> <p>Noted through chats:</p> <ul style="list-style-type: none"> <li>• NK: Appendix B of the DER Roadmap provides an overview of the various WP initiatives. This includes Perenjori</li> <li>• Geoff Gaston (GG) I think there should be a separate meeting to discuss the standalone power systems</li> <li>• AV responded to GG and EA, stating it will be communicated to the SPS team within EPWA             <ul style="list-style-type: none"> <li>○ GG does not believe the cheapest network solution is necessarily the best for the customers</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ EA agreed, EA also wanted to understand at what point all the batteries become generators - they aren't going to be "just" for network stability, they will affect the market. If Western Power is going to create a VPP they should be subject to market rules - or not do it at all.</li> <li>○ AV responded the plan for VPPs and other aggregated DERs has been outlined in the DER Roadmap which was released over the weekend and sent from the Energy Transformation email. Registration for an industry forum is also open</li> </ul> <p><b>Action: ETIU to speak to Kathryn Barrie about sectoral engagement on SPS.</b></p>
<p><b>Slide 37</b></p>	<p>AB discussed the diagram on Slide 20 at a high-level Depicting a 'mud map' for Foundation Regulatory Framework work.</p> <ul style="list-style-type: none"> <li>• Each box in the diagram represents a paper or series of papers that have been released by the Taskforce. Some papers also cover multiple boxes, or elements of market design.</li> <li>• Since mid-2019, about 18 Taskforce papers on market and power system security and reliability frameworks have been released. Some papers are very detailed and will lead directly to WEM Rule and regulation drafting, others will require more work to bridge the gap from policy to how it will work in the context of WEM Rules or regulations.</li> <li>• Upcoming Taskforce meeting (24<sup>th</sup> April) will include compliance and monitoring generally and also in relation to Generator Performance Standards (content that was presented at TDOWG meeting 9).</li> <li>• Market information, forecasts and operation planning will go to taskforce in May</li> <li>• Individual reserve capacity requirements, capacity obligation quantities, Refunds, Reliability standards framework, Lt PASA and market power mitigation will go to the Taskforce in mid-2020.</li> <li>• Rule drafting has already occurred in relation to GPS, the constraints information governance framework and Technical Rules Change Management.</li> </ul>
<p><b>Slide 38</b></p>	<p>AB continued to discuss the WEM Rules Delivery Approach</p> <ul style="list-style-type: none"> <li>• Intention is to maintain the level of consultation that has been achieved with respect to Taskforce Information Papers. Consultation will continue to occur prior to Amending Rules being provided to the Minister for Energy for making. Rules will be packaged into 5 main packages,</li> <li>• Packages have been developed taking into consideration the following: <ul style="list-style-type: none"> <li>○ Priority work streams – those rules that must be implemented now</li> <li>○ Dependencies – those rules that must be made prior to other rules being finalised</li> <li>○ Certainty for Market Participants and AEMO to inform system build – those rules that have the greatest bearing on Market Participant and AEMO system design decisions</li> <li>○ Implementation timing – those rules that have long implementation timeframes</li> </ul> </li> <li>• Rules will be provided to the Minister for Energy by September/October 2020 these are in line with the upcoming elections.</li> </ul>
<p><b>Slide 39</b></p>	<p>AB ran through the process for the development of Amending Rules and consultation, speaking to each section.</p> <ul style="list-style-type: none"> <li>• Timelines depicted in the slide have underpinned the WEM Rule drafting plan. Process includes turning the principles and Taskforce decisions into drafting instructions, drafting instructions are then informed by implementation working groups (ERA, AEMO, WP depending on the rule set) and feedback from the TDOWG and individual meetings.</li> <li>• AB indicated that feedback is always welcome and the door is always open to discuss anything covered within the Taskforce papers.</li> <li>• Rule Drafting: Depending on the complexity and the size of the task time allowed is between 8-12 weeks. In some cases some decisions are granular, others are more principles level, and there will be work required to bridge the gap. Keen on engaging with stakeholders in that process.</li> <li>• There will be a consultation period of approximately 4weeks on the exposure draft Amending Rules. Post consultation, the final draft of the Amending Rules will be published for a period of 1-2 weeks - this in response to a feedback provided by Rhiannon from Synergy and is to allow participants to identify if there is a material impact as a result of amendments to the exposure draft prior to the Amending Rules being provided to the Minister for Energy for making.</li> </ul> <p>EA queried what's happening with the market power mitigation work (MPM) and whether it has started.</p>

	<ul style="list-style-type: none"><li>○ AV responded that MPM has started, there is a fair amount of research and consultation with ERA. It is still planned to be brought to the Taskforce and industry later in the year. Fair amount of thinking to do with SRMC, need to look at it thoroughly to include start-up costs and enablement costs etc. Also looking at the definition of Market Power and will align this with the Energy Market Misconduct Bill and ACCC definition of abuse of market power. Yes work is happening, not ready to be brought to industry just yet.</li></ul> <p>EA added, in relation to the Reserve Capacity network allocation quantities, how will MPM be reverse fit into the allocation issues process</p> <ul style="list-style-type: none"><li>○ AV responded, under the current rules the SRMC concept/good faith obligations apply to energy scheduling and energy dispatch, not capacity allocation.</li><li>○ EA, clarified that MPM was not meant to apply only to the spot market, but was meant to apply to the whole process from a wholesale perspective and it has to include the reserve capacity process.</li><li>○ AV responded perhaps the issue is the barrier to entry.</li><li>○ EA added, once facility has 60% of the installed capacity, and has the ability to withhold capacity – this may be considered as market power.</li><li>○ AV will take the question on notice, to provide a response with Ash. The idea of withholding capacity as market power in the spot market is being looked at.</li><li>○ EA added the question is about facilities holding capacity credits to keep the price low. There is an issue with politics, happy to take the conversation offline. But would like to have the ability to revisit at work streams that have been completed to ensure the design decisions are adequate and addressing issues.</li><li>○ AB responded stating the Taskforce understand the inherent risk of designing all elements of the market simultaneously and are aware there is a potential that there are some areas of decisions that may need to be revisited.</li><li>○ AV added, the intent is to create the market and check that the design decisions are working as intended. There is also a contemplation that there will be a market evolution register where items will be checked to ensure it is still meeting the market objectives, and if not the matter will be up for a review at another point in time.</li><li>○ EA responded stating information was sought about how decision makers are tiebreaking on decisions where there are conflicting objectives.</li><li>○ AB responded stating that WEM Objectives are necessarily in tension and that there a balance that needs to be struck. The Taskforce and Minister for Energy will need to consider this balance.</li><li>○ EA clarified they will not be told which are more important?</li><li>○ AV responded reiterating AB's point that there are inherent tension between the WEM Objectives. When rule changes are looked at, not only are objectives looked at, cost and benefits, practicality of implementation etc is also looked at. Looking at the NEM they also have the same challenges with their Market Objectives, which must necessarily have tension between them.</li></ul> <p>GR queried, how will incremental rule changes be managed after Oct 2020, between the Minister making the rules and go-live? It is highly likely that bugs in the rules will be found in the rules during the implementation process.</p> <ul style="list-style-type: none"><li>○ AB responded the Minister for Energy's rule-making powers are until June 2021. It is anticipated that they may be extended all the way to the implementation of the new market in October 2022 to make necessary tweaks and changes. In relation to the time between Oct 2020 and March/April elections in 2021, ETIU will continue to exist and continue to meet with Market Participants to develop draft WEM Rules, continue with TDOWG and log the rule changes required for the Minister for Energy when a decision can be made again.</li><li>○ GR to what extent will consultation occur beyond the time.</li><li>○ AB - Taskforce ceases in May 2021, ETUI/EPWA will need to think about how it will work as DER have implementation dates after.</li></ul> <p>MR queried the transitional processes leading to implementation</p> <ul style="list-style-type: none"><li>○ AB: Transitional matters will be discussed and addressed through the WEM Reform Implementation Group (WRIG), with the intent being to work with the sector to develop a 'joint industry plan', so that there is a shared view of what needs to be done by ETIU, AEMO, WP and Market Participants.</li></ul>
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<b>Slide 40</b>	AB continued to speak to the rule drafting timeline <ul style="list-style-type: none"><li>• Packages are ordered by the prioritisation of previously spoken about (Slide 21).</li><li>• Pack 1 work that has been already undertaken and moving into the rule drafting and implementation.</li><li>• Pack 2 is the high level framework in relation to PSSR, ESS framework etc.</li><li>• Pack 3 is the details of market operation.</li><li>• Pack 4 is predominantly RCM</li><li>• Pack 5 is important but lower priority that will be progressed.</li><li>• Peach: drafting instructions and rule drafting.</li><li>• Blue: stakeholder consultation, in many cases they go over 1 month. Note that this period also includes the initial consultation, individual meetings, time to respond to feedback, and the final 1-2 week period of consultation after Taskforce decision.</li></ul>
<b>Slide 41</b>	AB spoke to the Market Procedures slide. <ul style="list-style-type: none"><li>• Rules will provide heads of power for the development of Market Procedures. This development plan was not provided in the previous slide. The over-arching plan will be provided at the next TDOWG (meeting 11).</li><li>• Planning for the development of Market Procedures has them allocated to one of three boxes.</li><li>• Box 1 require fully-drafted and completed procedures prior to the end of 2020.</li><li>• Box 2 require core contents are complete at the end of 2020 to enable stakeholders to understand how the rules will operate in practice.</li><li>• Box 3 Procedures are not required in the short-medium term to support rule development.</li></ul>
<b>Slide 42</b>	AB and AV closed the meeting