



## Minutes

### Transformation Design and Operation Working Group – Meeting 9

**Time:** 9.00am – 12.00pm  
**Date:** 10 March 2020  
**Venue:** Central Park Conference Centre

#### Attendees:

Name	Organisation	Name	Organisation
Eva Mitchell	Amanda Energy	Clayton James	AEMO
Tim McLeod	Amanda Energy	Simon Middleton	AEMO
Geoff Gaston	Change Energy	Oscar Carlberg	Alinta Energy
Steve Gould	Community Electricity	Sam Lei	Alinta Energy
Stephen Eliot	RCP Support	Rebecca White	EPWA
Jenny Laidlaw	RCP Support	Glen Carruthers	Western Power
Brad Huppatz	Synergy	Geoff Glazier	Merz
Peter Huxtable	Water Corporation	Aden Barker	EPWA
Patrick Peake	Perth Energy	Aditi Varma	EPWA
Liz Aitken	Perth Energy	Ashwin Raj	EPWA
Justin Ashley	Synergy	Mena Gilchrist	EPWA
Paul Arias	Bluewaters	Brooke Eddington	EPWA
Daniel Kurz	Bluewaters	Bronwyn Gunn	EPWA
Emma Rowe	Treasury	Angeline Ong	EPWA
Shannon Hewitt	Future Grid Energy	Dora Guzeleva	EPWA
Dermot Costello	CEC		
Erin Stone	Point Global		
Rajat Sarawat	ERA	Kei Sukmadjaja *	Western Power
Sara O'Connor	ERA	Ross Davies *	Western Power
Jake Flynn	ERA	Sabina Roshan*	Western Power
Wesley Medrana	Synergy	Sarah Rankin*	Moonies Hill Energy
Tim Robinson	Robinson Bowmaker Paul	Jo-Anne *	Synergy
Nathan Kirby	Western Power	Greg Ruthven *	AEMO
Wendy Ng	ERM power	Dev Tayal *	Tesla
Graham Pearson	Australian Energy Council	Chris Wilson *	AEMO

\* Via phone

Meeting minutes should be read in conjunction with [meeting slides](#):

Item No.	Issue
<b>Slide 1</b>	<p>Aditi Varma (AV) opened the meeting and noted that the meeting agenda is full. To keep the meeting on time questions will need to be specific to the presentation or discussed outside the meeting.</p> <p>Simon Middleton (SM) provided a brief in relation to AEMO COVID-19 policies. Due to the essential nature of the services, there will be limited face-to-face meetings.</p> <p>Aden Barker (AB) provided the policy of COVID-19 for ETIU, meetings are not currently being limited and is consistent with the federal government policy.</p>
<b>1.</b>	<b>Short Term Energy Market (STEM)</b>
<b>Slide 4</b>	<p>Tim Robinson (TR) discussed the agenda for the STEM discussion, the presentation follows requests on how the STEM will work in the new market.</p>
<b>Slide 5</b>	<p>TR recapped the current and future state of STEM.</p> <ul style="list-style-type: none"> <li>• Currently STEM is cleared and provided on a portfolio basis, future state Essential System Services (ESS) will be retained on the current unconstrained basis and be procured from the open market and co-optimised with energy.</li> <li>• Liz Aitken (LA) asked when the decision was made to keep the STEM on an unconstrained basis. <ul style="list-style-type: none"> <li>○ TR confirmed that the decision was made and published in August last year, with a paper released at that time.</li> </ul> </li> <li>• LA queried whether the comments from Perth Energy were taken on board. <ul style="list-style-type: none"> <li>○ TR confirmed that all comments are considered and TDOWG is the consultation forum.</li> <li>○ AV suggested to LA that Perth Energy's issues can be discussed further offline.</li> </ul> </li> </ul>
<b>Slide 6</b>	<p>TR recapped the STEM design changes and taskforce approved design approach, noting there will be minimal changes on the market customer side.</p>
<b>Slide 7</b>	<p>TR discussed the new STEM timeline – before scheduling day. Standing submission do not need to be submitted every day, but there is an option to be updated. Weekly schedule out every day, then as it gets closer to the day the information will be more accurate.</p> <ul style="list-style-type: none"> <li>• Jenny Laidlaw (JL) asked whether participants will be submitting dispatch a week ahead? <ul style="list-style-type: none"> <li>○ TR confirmed it will continue with how it works now.</li> </ul> </li> <li>• LA asked will network outages or constraints be included? <ul style="list-style-type: none"> <li>○ TR said constraints and binding constraints be included in the schedule.</li> </ul> </li> </ul>
<b>Slide 8</b>	<p>TR talked through the STEM timelines – before scheduling day using the diagram on the slide.</p> <p>Window for bilateral and STEM submissions ends at the same time as it does now, the difference is that STEM submissions and bilateral submissions can be placed ahead of time.</p> <ul style="list-style-type: none"> <li>• LA asked if there is the option to bid a week ahead, when is it compulsory to place standing offers? <ul style="list-style-type: none"> <li>○ TR said a week ahead to allow for the forecast forward view.</li> </ul> </li> <li>• LA sought clarification on whether STEM is being used as a proxy for pre-dispatch. LA referred to the NEM and other markets where outages are submitted when they will occur. LA doesn't understand why STEM offers are required a week ahead. <ul style="list-style-type: none"> <li>○ TR said a week ahead submission is not required for STEM submissions as there is not a forecast of the STEM market. Week-ahead submissions will be required for the real-time market, and it is the real-time market pre-dispatch that will provide guidance for STEM offers. Currently, AEMO calculates the total available capacity for each participant based on standing data capacities, outages, and Ancillary Service quantities. In the future, the new pre-dispatch schedule will be a better source of information on facility availability.</li> </ul> </li> <li>• LA mentioned she feels like this was a design issue that that hasn't been considered. AV requested that specific details be provided regarding the issue so the reform team can consider them.</li> </ul>
<b>Slide 9</b>	<p>TR discussed the new STEM timeline on scheduling day.</p> <ul style="list-style-type: none"> <li>• JL asked whether the reference to outages include both planned and forced outage quantities? <ul style="list-style-type: none"> <li>○ TR confirmed it does.</li> </ul> </li> </ul>

<p><b>Slide 10</b></p>	<p>TR discussed the STEM timeline on scheduling day using the diagram from the slides.</p> <ul style="list-style-type: none"> <li>• JL asked what obligations will be on participants to make accurate real-time market offers for use in pre-dispatch schedules. TR noted that the same 'good faith' provisions would apply to all submissions, and that compliance and monitoring arrangements to ensure good quality submissions would be covered in that workflow.</li> </ul>
<p><b>Slide 11</b></p>	<p>TR discussed changes to the content of STEM submissions, noting that retention of the alt max STEM price will be considered as a part of the market power work.</p> <p>The ability to update real-time offers will continue, but the maximum quantity in STEM offers will be set by what is offered into real-time market as at the 0900 Pre-Dispatch Schedule (PDS).</p> <ul style="list-style-type: none"> <li>• LA asked how consequential outages will be managed. <ul style="list-style-type: none"> <li>○ TR said there won't be any consequential outages in the new market.</li> <li>○ Clayton James (CJ) added the pre-dispatch will represent the best estimate of what will happen.</li> </ul> </li> <li>• LA asked what happens if you need an outage after STEM has occurred? Will there only be forced outages? <ul style="list-style-type: none"> <li>○ CJ responded no, opportunistic outages will still be available.</li> <li>○ TR said if you haven't submitted an outage before STEM, it by definition cannot be included in STEM calculations.</li> </ul> </li> </ul>
<p><b>Slide 12</b></p>	<p>TR discussed the STEM offer obligations, including the current thinking of the market power framework.</p> <p>Where <i>in service</i> refers to 'I expect to be running' and <i>available</i> refers to 'I don't expect to be running but can be if called upon'.</p> <ul style="list-style-type: none"> <li>• JL commented that understanding what to bid depends on the STEM and bilateral, until you know that, it is difficult to know reasonably accurately what you will actually bid into the market because the costs are different. <ul style="list-style-type: none"> <li>○ TR responded we are talking about maximum available quantities, not prices. It will be the same as now, you need to make an availability declaration. The 'in-service' and 'available' quantities declared in real time offers are effectively the same thing. What you get cleared for might be different, but it's the best way to determine the amount available from each facility.</li> </ul> </li> <li>• JL asked whether the minimum required STEM offer quantity would be Reserve Capacity Obligation Quantity (RCOQ) less forced outages? <ul style="list-style-type: none"> <li>○ TR confirmed it was RCOQ minus outages.</li> </ul> </li> <li>• Brad Huppatz (BH) asked whether it will remain voluntary for intermittent generators (who have RCOQ of zero) to offer into the STEM? <ul style="list-style-type: none"> <li>○ TR confirmed that it would remain voluntary, but that STEM participation for intermittent generators could be revisited as part of market evolution.</li> </ul> </li> </ul> <p>When a facility is not cleared in the real-time market pre-dispatch schedule, it could be that the offer was too expensive or that there was a network constraint. If you have not cleared in pre-dispatch due to a network constraint, the binding constraint will be part of pre-dispatch schedule output.</p> <ul style="list-style-type: none"> <li>• JL queried whether basing STEM offer price requirements on cleared pre-dispatch quantities would be accurate enough, and how well can you tell if you will be cleared in pre-dispatch?</li> <li>• LA requested this to be flagged as a risk and expressed concern that System Management load forecasts are often significantly out with an average error of 200MW, If there is no accurate forecast load value and participants cannot submit a consequential outage based on not being dispatched due to the system forecasting error, the generator cannot control the risk of difference between STEM and real-time. There is also a risk that if the real-time market is cleared as constrained, and previously it was cleared as unconstrained, the liability and risks is on the generator. This risk needs to be considered. <ul style="list-style-type: none"> <li>○ TR responded that the changes proposed are specifically to deal with that risk. The intention is to provide pre-dispatch schedules based on high and low load forecasts, so participants have a better view of the range of possible outcomes.</li> <li>○ CJ added that the risk of network constraints changing between STEM and real-time is the same situation as today.</li> <li>○ LA agreed that is the same situation as today, but facilities receive constrained off payments and in the future they will not. All the error in the future will be pushed forwards in real time.</li> <li>○ JL noted that forecast errors are present now.</li> <li>○ CJ added the point is to look ahead and have a better view.</li> <li>○ LA noted the responsibility for differences between STEM and real-time are being pushed onto the generators. It is a massive risk, especially when you cannot add a risk premium on it.</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ TR said this is the reason for recognising that the requirement to offer the full RCOQ quantity into STEM at Short Run Marginal Cost (SRMC) needs to be relaxed, with an allowance to be made for risk.</li> <li>○ CJ queried whether LA was in favour of risk premiums.</li> <li>○ LA confirmed they are in favour, but it is limited and doesn't include enough risk premium.</li> <li>● Wendy Ng (WN) queried whether SRMC will still be used as the basis for market power mitigation arrangements in the future, she had thought a decision had not been made yet.             <ul style="list-style-type: none"> <li>○ AV outlined that the guiding principle was to ensure that generators can recover their operating costs in the market. She added that the workstream was still developing.</li> </ul> </li> </ul> <p>LA noted that even pre-dispatch cleared quantities were subject to risk of change between STEM and real-time, and participants should be allowed to account for that risk in their STEM pricing.</p>
<p><b>Slide 13</b></p>	<p>TR ran through an example.</p> <p>As today, clearing in STEM doesn't obligate you to run. That is, while it may be the most sensible thing financially to commit your unit in these intervals to deliver the STEM quantity, it's acceptable not to. PDS offers may continue to change, but for STEM purposes, it is the offers from the 0900 PDS that will be used.</p> <p>Facility A illustrates capacity credits equal to RCOQ, where offers can exceed that amount due to the temperature of the day.</p> <ul style="list-style-type: none"> <li>● JL queried what is meant by available at 41 degrees.             <ul style="list-style-type: none"> <li>○ TR said CC is calculated based on a 41 degree day.</li> </ul> </li> <li>● AB mentioned a lot of the outage related questions were addressed in the outages paper.</li> <li>● LA asked isn't declared sent out capacity (DSOC) the driver for the level of capacity credits allocated? Has that gone?             <ul style="list-style-type: none"> <li>○ TR said if your output is limited by DSOC then you naturally can't offer a greater quantity. If you are able to physically deliver a greater quantity than RCOQ at the projected ambient temperature, you may offer that greater quantity.</li> </ul> </li> </ul> <p>TR noted that although STEM submissions would remain on a portfolio basis, examples were on a facility basis for clarity.</p>
<p><b>Slide 14</b></p>	<p>TR ran through the example for facility A.</p>
<p><b>Slide 15</b></p>	<p>TR ran through the example for facility B, noting that inconsistent offers into STEM and real-time could result in a participant being out of pocket, but if offers are consistent it should not be an issue.</p> <ul style="list-style-type: none"> <li>● JL queried why not exclude the forecast cleared ESS quantities from STEM offer requirements?             <ul style="list-style-type: none"> <li>○ TR said the real-time co-optimisation should be making a trade-off between ESS and energy offers. If offers are well structured, you shouldn't be out of pocket.</li> </ul> </li> <li>● JL queried why it would be reasonable to offer capacity forecast to be cleared for ESS into STEM at above SRMC?             <ul style="list-style-type: none"> <li>○ TR said that would allow participants to reflect risk of real-time ESS pricing not covering the difference between STEM and real-time energy prices.</li> </ul> </li> <li>● LA queried what date will a participant need to submit final real-time market offers, noting that in the NEM, participants must fix prices a day ahead, and can only change quantities after that. In the new WEM, will participants be able to change both prices and quantities 30mins out?             <ul style="list-style-type: none"> <li>○ TR said you can already effectively do this in the NEM. Although the prices for each of 10 offer tranches can't be changed, moving 100% of offered capacity from the \$1 tranche to the \$100 tranche has exactly the same effect as changing the price of that tranche from \$1 to \$100.</li> </ul> </li> <li>● LA queried when real time prices are set.             <ul style="list-style-type: none"> <li>○ AV confirmed the price will be determined ex-ante, at the time the dispatch algorithm runs.</li> </ul> </li> </ul>
<p><b>Slide 16</b></p>	<p>TR ran through the example for facility C.</p>
<p><b>Slide 17</b></p>	<p>TR ran through the example for facility D, if a facility is on outage, there are no obligations.</p>
<p><b>Slide 19</b></p>	<p>TR stated the next steps would be rule drafting.</p> <ul style="list-style-type: none"> <li>● WN sought clarification whether all facilities can be cleared for ESS, or whether only facilities which have gone through accreditation will be cleared?</li> </ul>

	<ul style="list-style-type: none"> <li>○ TR confirmed that all examples shown assume the facility is accredited, e.g. B if there was no accreditation then the section representing ESS would not be present.</li> <li>○ WN asked how facilities cleared were to recover their costs if there was uncertainty about constraints. AV said where a facility is cleared to run, but is affected by a network constraint, it may be eligible for an uplift payment.</li> <li>● Daniel Kurz (DK) queried whether STEM submissions were now to be made as offers, or whether portfolio supply and demand curves would be retained.             <ul style="list-style-type: none"> <li>○ TR confirmed that no changes to the portfolio-based submission were being proposed.</li> </ul> </li> </ul>
<b>2.</b>	<b>Monitoring and compliance in the WEM</b>
<b>Slide 20</b>	AV introduced the presentation noting that it will be addressing the framework of monitoring and compliance, and not details of dispatch compliance.
<b>Slide 21</b>	<p>AV discussed the drivers for change.</p> <ol style="list-style-type: none"> <li>1. A new market design will result in a significant change to the rules, this will necessitate changes to the monitoring and compliance framework as we move forward.</li> <li>2. There are existing issues in the framework that require amendment such as the discrepancy between dispatch non-compliance reporting and breaches. Where events may not be recorded as they fall within a tolerance range, but under the rules they are still considered a breach. This anomaly does not respect the facility capabilities and will be amended.</li> </ol>
<b>Slide 22</b>	<p>AV discussed the high-level principles on the slide and noted they will apply to the monitoring and compliance framework as it is developed. These principles are in addition to the WEM objectives.</p> <ul style="list-style-type: none"> <li>● Patrick Peake (PP) commented that the unambiguous interpretation of rules should be about the accuracy. For example, if dispatch up to 1kW then it will not be accurate, it needs to be realistic, generators cannot comply to 1MWh over 30mins             <ul style="list-style-type: none"> <li>○ AV confirmed it will be fixed and said the intent is to design tolerances that respect the physical capabilities of facilities.</li> </ul> </li> </ul>
<b>Slide 23</b>	<p>AV discussed the entity roles.</p> <p>Entity roles will broadly remain the same.</p> <p>ERA to continue with compliance and enforcement, monitor bidding behaviour and monitoring WEM effectiveness.</p> <p>AEMO to continue with real time monitoring and assist ERA with monitoring functions, require additional analysis by AEMO. With the introduction of dispatch automation AEMO will have the ability to provide more analysis on alleged breaches to assist the ERA's investigation.</p> <p>Electricity Review Board (ERB) to only be responsible for appeals and consideration of reviewable decisions. Currently ERB is the body that can issue Category B and C civil penalties when instigated by the ERA, moving forward the ERA will be able to issue those penalties.</p> <ul style="list-style-type: none"> <li>● PP queried the disputes process. If there is a dispute with the ERA, it is expensive and time consuming to speak to ERB. PP commented that there needs to have someone in between, suggestion to have a disputes resolution process with an independent person then it would keep the costs down.             <ul style="list-style-type: none"> <li>○ AV said the investigation process the ERA undertakes contains processes where there is a conversation with the participant about the breach, and therefore the need to maintain an arbitrator, in addition to the ERB, at cost to the market, could not be justified</li> <li>○ PP responded if there are disputes going to the ERB, it is too expensive; LA said ERB takes a long time and don't think it will be timely enough.</li> <li>○ AV said other options such as arbitration have been considered, however it was reached that this would not be a cost-effective option. In the new framework, several process will have to have failed to get to the point of ERB appeals.</li> <li>○ LA suggested to have an agreed arbitrator, and the participant will have the ability to go to the agreed arbitrator at the expense of the party in question to get the issue resolved.</li> <li>○ AV suggested to take the discussion offline to be able to provide the reasonings behind moving away from using an arbitrator.</li> </ul> </li> </ul>
<b>Slide 24</b>	AV discussed the reporting of non-compliance events. There are currently different ways of reporting a compliance event, as a part of the monitoring and compliance framework, a fourth option will be provided.

	<p>Self-reporting, which some participants already do voluntarily, this option will be provided for in the Rules with appropriate incentives. An example of an incentive is not to penalize a participant that self-reports and puts forward a self-rectification plan. A template will be provided for ease of reporting.</p>
<b>Slide 25</b>	<p>AV discussed investigations.</p> <p>Investigations will be based on risk rating (guidance for this to be developed in collaboration with ERA and AEMO). Risk rating will not only look at materiality, but also frequency of breaches, duration and whether there is systemic non-compliance.</p> <p>Minor deviations when within the tolerance band are currently reportable. This will be corrected.</p> <ul style="list-style-type: none"> <li>• JL commented where there is a deviation from tolerance and it is not reported, it seems odd that it is considered a non-compliance, it should be amended to make it legitimate. <ul style="list-style-type: none"> <li>○ AV confirmed that is the intent.</li> </ul> </li> </ul> <p>In practice, there will be two logs the ERA will hold, non-compliance event log and investigations log.</p> <p>Once ERA receives or self-detects an alleged breach it must be recorded in a non-compliance log and applied a risk-rating. Based on the risk-rating, it would either be elevated straightaway to the investigations log and investigated promptly or it would sit a bit longer on the non-compliance log until the next time risk-rating is reviewed. Details of how soon risk-ratings are reviewed are to be worked out, but the intent here is to apply the 80/20 rule so that serious non-compliance matters are addressed immediately, and the compliance framework becomes more response in practice. For example, where there is systemic non-compliance in the WEM – the ERA may apply a high-risk rating to investigate promptly.</p> <p>ERA will need to develop a more sophisticated risk-rating guideline, and this will be published.</p> <ul style="list-style-type: none"> <li>• PP commented that there may be situations where the ERA determines a matter to be of higher risk and everyone else doesn't. Will this guideline be consulted upon? <ul style="list-style-type: none"> <li>○ AV confirmed that when the risk-rating guideline is developed, it will be consulted on.</li> </ul> </li> </ul>
<b>Slide 26</b>	<p>AV discussed the various compliance responses the ERA has and will have access to.</p> <p>Compliance responses are on a spectrum depending on the severity of breach.</p> <p>ERA will have discretion within limits as to what compliance response it chooses, and who is put on the public register.</p> <p>Infringements will also become available to the ERA to allow for more proportionate and responsive approach.</p>
<b>Slide 27</b>	<p>AV discussed civil penalties.</p> <p>Values for the civil penalties will not change. ERA will be able to issue Category B and C civil penalties in addition to the current ability to issue Category A.</p> <p>Enable the ERA to issue a proportionate civil penalty in the form of an infringement – this will be based on a guideline and must be published to ensure ERA's decision-making is predictable by market participants.</p> <p>Will also exclude the liable participant from the distribution of civil penalties.</p>
<b>Slide 28</b>	<p>AV discussed a compliance amnesty that will apply at market start.</p> <p>The intent is to allow the market to become familiar with the rules of the new market.</p> <p>Timeframes have not yet been determined but will become clear during the market-testing and trial phase. Participants will still be required to act in good faith.</p> <p>Alleged breaches will continue to be recorded, however, no compliance action will be taken during the amnesty period.</p>
<b>Slide 29</b>	<p>AV discussed the WEM effectiveness reviews.</p> <ul style="list-style-type: none"> <li>• LA queried if there is any way to enforce a response. ERA have reported on the ineffectiveness for the WEM for 5 years, there needs to be a way to enforce a response from the government to address issues. <ul style="list-style-type: none"> <li>○ AV said the ERA is required to submit a rule change request where it makes recommendations for improvement in its reviews. AV also recommended to all participants to submit rule if they believe the market is not effective.</li> </ul> </li> <li>• LA queried who will be responsible for the market post ETIU. <ul style="list-style-type: none"> <li>○ AB said it has been identified that there will be a need for market evolution post ETIU, work will need to continue with implementation as well as the DER actions – this is an ongoing discussion.</li> <li>○ AB welcomes any ideas how to progress with market evolution.</li> </ul> </li> <li>• DK queried whether electricity generation licenses will be reviewed</li> </ul>

	<ul style="list-style-type: none"> <li>○ AV said electricity licenses sits outside of the Rules, however a different part of EPWA is looking at it. AV undertook to provide further information to DK.</li> </ul>
<b>3.</b>	<b>Generator Performance Standards – Compliance and monitoring</b>
<b>Slide 30</b>	Bronwyn Gunn (BG) introduced the generator performance standards (GPS) – compliance and monitoring presentation. Noted that the GPS compliance and monitoring framework would build on the overall framework that was presented by AV but was being presented separately as it will be a new part of the WEM Rules.
<b>Slide 31</b>	BG discussed the agenda. Noted that this presentation is about the high-level design and the detail will be determined in the coming months.
<b>Slide 32</b>	<p>BG discussed the importance of compliance with GPS – maintaining stable network voltage and frequency for a secure and reliable power system. BG noted that:</p> <ul style="list-style-type: none"> <li>• The technical obligations that generator performance standards are comprised of include reactive power capability and control, active power response to frequency disturbances and the ability to continuously operate or ride through a range of system disturbances.</li> <li>• AEMO uses information about the expected performance of generators when assessing the operating state of the power system. Uncertainty about the performance can cause the AEMO to procure extra ESS, the cost of which is ultimately passed through to the end consumer.</li> </ul> <p>The shift toward more variable sources of electricity generation and consumption, and difficulties in predicting this variability, increases the potential for imbalances between supply and demand that can cause frequency disturbances. As the system continues to change it will be more and more important for AEMO and Western Power to have access to information about the standards that generators required to comply with, and have the confidence that generators will comply with their obligations.</p>
<b>Slide 33</b>	<p>BG discussed related projects. Noted that the same principles as the monitoring and compliance framework in the WEM as presented by AV are used in this project.</p> <p>LA noted that Perth Energy had made a submission to the Generator Performance Guidelines and had not received a response from Western Power.</p> <ul style="list-style-type: none"> <li>• Glen Carruthers (GC) said responses should have been sent out a while ago.</li> <li>• Oscar Carlberg (OC) queried if testing occurs once non-compliance is shown. <ul style="list-style-type: none"> <li>○ BG confirmed that is correct. Testing will occur following non-compliance, but this will not be the only circumstance under which it will occur.</li> </ul> </li> </ul>
<b>Slide 34</b>	<p>BG noted that this compliance and monitoring framework would only apply to generators who are both transmission connected and registered to participate in the market.</p> <p>Noting that the generator performance standards and associated compliance and monitoring framework for generations who are distribution connected, or not registered in the market, will continue to be in the Technical Rules.</p>
<b>Slide 35</b>	<p>BG noted there are four elements to a compliance and monitoring framework as it might apply to GPS.</p> <ul style="list-style-type: none"> <li>• Need to know what the standards are.</li> <li>• Need to allow for those standards to be monitored, by the generator and a central body.</li> <li>• Need to allow for more invasive testing where non-compliance is demonstrated or reasonably suspected.</li> <li>• Need to have mechanisms to enforce compliance.</li> </ul> <p>BG discussed the current framework in this context.</p> <ul style="list-style-type: none"> <li>• Generator performance standards are contained within contracts between generators and Western Power. Where generators have connected under the Technical Rules, there is some information available through the register of exemptions published by the Authority about which generators have been exempted from which standards.</li> <li>• The Technical Rules clearly requires generators who have connected after 2007 to establish a self-monitoring program to confirm ongoing compliance of their generating units and to self-report any non-compliance detected. The obligation in the Technical Rules for generators who connected pre 2007 is more general.</li> <li>• There are currently no provisions in the Technical Rules or WEM Rules that give AEMO or Western Power specific functions to carry out central monitoring for compliance purposes.</li> <li>• Western Power may require a generator to perform more invasive tests to demonstrate compliance with a performance standard, where they reasonably believe that a generating unit is not complying with one or more technical requirements.</li> </ul>

	<ul style="list-style-type: none"> <li>• The only enforcement options available to Western Power or AEMO are to require the generator to reduce its output or disconnect from the system.</li> <li>• DK queried whether existing derogations will continue to be applicable in the future.             <ul style="list-style-type: none"> <li>○ BG noted that this will be covered on a later slide</li> </ul> </li> </ul>
<p><b>Slide 36</b></p>	<p>BG discussed the issues with the visibility over current GPS standards at an individual generator level</p> <ul style="list-style-type: none"> <li>• Where generators have connected under the Technical Rules, there is some information available through the register of exemptions published by the ERA about which generators have been exempted from which standards. However, this register does not always state what the alternative required standard is. Additionally, there is no publicly available information about the reference standards, or any derogations from these, for generators who connected prior to the Technical Rules being introduced in 2007.</li> <li>• This can create issues for AEMO, who are responsible for managing system security.</li> <li>• To facilitate transparency, a central register of generator performance standards will be established. The register will contain information on the required performance for each standard for every generator that is connected to the transmission network and registered in the market.</li> </ul> <p>JL queried whether the register will be maintained by AEMO</p> <ul style="list-style-type: none"> <li>• BG said Western Power will maintain the register but AEMO and ERA will have visibility.</li> <li>• Mena Gilchrist (MG) noted that the relevant standards are determined during the connection process with Western Power, and it therefore makes sense for Western Power to be responsible for maintaining this information.</li> </ul> <p>JL mentioned that there is an ongoing issue about computer models.</p> <ul style="list-style-type: none"> <li>• CJ questions whether this was the outstanding MAC item. JL clarified yes.</li> <li>• MG suggested to chat offline</li> </ul> <p>BG noted that for future generators, the register would be populated as the facility connects to the network. A process to determine how it will be filled in for existing generators would be determined over the next 6 months. A key principle in this process will be that generators will only be required to comply with the standards they are currently contracted to – there is no intention to change performance standards for existing generators.</p>
<p><b>Slide 37</b></p>	<p>BG issues with the current monitoring arrangements</p> <p>There is a low level of engagement with the requirement to have a self-monitoring program. This lack of engagement means that Western Power, as the owner of the self-monitoring framework under the Technical Rules, cannot be sure that all generators are actively monitoring their equipment and reporting non-compliances as they occur.</p> <p>Improvements will be made by transferring the requirement for a self-monitoring framework to the WEM Rules and making it clear that it applies to all generators, current and future. AEMO will be the custodian of the program under this new framework.</p> <p>Once a self-monitoring plan has been approved, generators will be required to self-monitor their compliance in accordance with their plan and will generally only be required to report to AEMO where they identify a non-compliance or consider that they may become non-compliant.</p> <p>Also proposing to introduce provisions that allow Western Power and AEMO to carry out central monitoring for compliance purposes. Do not consider it necessary for Western Power and AEMO to carry out centralised monitoring on a regular basis but rather allow them to do so as required.</p>
<p><b>Slide 38</b></p>	<p>BG discussed the existing and future enforcement measures. Movement of the GPS to the WEM Rules will enable the civil penalty provisions to be utilised. Noted that the requirement for a generator to comply with their standards, adopt a self-monitoring plan for approval by AEMO; comply with their approved self-monitoring plan; and notify AEMO of any identified or suspected non-compliance, will be associated with a civil penalty provision under the WEM Rules.</p> <p>JL asked who will be responsible for the ensuring compliance and reporting to the ERA.</p> <ul style="list-style-type: none"> <li>• BG noted that the primary mechanism was for generators to monitor their own compliance, with central monitoring as a back-up.</li> <li>• BG noted that if a generator has self-reported non-compliance they can work with AEMO to determine the rectification plan.</li> </ul> <p>PP queried whether the costs for monitoring will be reflected in capacity credit prices. Noted that an increasing amount of obligations are being placed on generators, which impose costs</p> <ul style="list-style-type: none"> <li>• AB noted that the market is effectively paying for non-compliance now as there are costs associated with that.</li> </ul>

	<ul style="list-style-type: none"> <li>• MG said we will work with existing facilities to determine what a reasonable self-monitoring plan will look like, it is not the intention to impose extensive costs.</li> <li>• BG added there is already a current requirement for facilities to monitor the capability of their facilities under the WEM Rules.</li> <li>• JL noted that the alternative to a strong compliance and monitoring framework is events like the South Australian blackouts.</li> <li>• BG noted that the self-monitoring is not intended to be onerous, it will not be an annual report that must be submitted. The frequency of testing will be different for each standard – some may be every 6 months, some every 5 years.             <ul style="list-style-type: none"> <li>○ PP reiterated that testing is can be costly.</li> </ul> </li> </ul>
<b>Slide 39</b>	<p>BG summarised the proposed framework, noting that circumstances under which testing would take place was remaining largely the same but that broader changes to testing framework will be discussed in AEMOs presentation.</p>
<b>Slide 40</b>	<p>BG discussed the next steps. Noted that the framework for monitoring would be completed in April and May, but that any adaptations to the way that the template applies to existing generators, and a process for how the register will be backfilled, will be determined by September 2020. Noted that the overall monitoring and compliance framework for the WEM will commence in October 2022 when the new market starts, however the framework for monitoring and compliance for generator performance standards would commence as soon as the rules were written.</p> <p>BG encouraged participants to get in touch to discuss the monitoring and compliance framework if they were interested.</p> <p>OC asked what the window of opportunity is to discuss this before a decision is made</p> <ul style="list-style-type: none"> <li>• BG responded that high level decision on the framework will be made this month, and this would include; however, the detail will be discussed at TDOWG in April.</li> </ul> <p>LA asked whether assessment of moving the Technical Rules to the WEM Rules has been completed? Noted that her understanding was that the decision to move Technical Rules into the WEM Rules are yet to be made.</p> <ul style="list-style-type: none"> <li>• BG said the decision on moving generator performance standards to the WEM Rules has been made.             <ul style="list-style-type: none"> <li>○ MG added there has not been a decision to move Technical Rules to the WEM Rules. Noted that moving creating one instrument that combines the WEM Rules and Technical Rules would require a new head of power in primary legislation. Noted that Western Power is currently reviewing the Technical Rules for completion by the end of 2020. Early next year a revised Technical Rules (except chapter 5) will be in place and the new Technical Rules change management process will apply.</li> </ul> </li> </ul> <p>Access Code rule change will be out soon for consultation, but the proposed changes are currently on the EPWA website.</p>
<b>4.</b>	<p><b>Supplementary Essential System Services Mechanism</b></p>
<b>Slide 43</b>	<p>TR discussed the design considerations for the Supplementary Essential System Services Mechanism (SESSM). The SESSM is needed due to the risk of partial market failure.</p> <p>The SESSM will also improve transparency as arrangements will be competitive processes under clear market rules rather than direct bilateral contracts. Processes for procuring non-co-optimised ESS (such as locational voltage support) will be consistent with the SESSM.</p> <p>The SESSM will not mandate that ESS is always provided by the selected facilities, but rather designate selected facilities as the default providers in case others are not available.</p> <p>The SESSM will provide additional compensation towards fixed costs, which will be important to incentivise entry of facilities that do not have capacity revenue.</p>
<b>Slide 44</b>	<p>TR discussed when the SESSM can be triggered and by which party.</p> <p>The SESSM can be triggered by AEMO when one of the following issues arises:</p> <ul style="list-style-type: none"> <li>• <i>Accredited capacity is insufficient</i>: There are physically not enough facilities to meet demand.</li> <li>• <i>Existing capacity is not participating in the ESS market</i>: AEMO is having to issue directions to participate.</li> </ul> <p>The SESSM can be triggered by the ERA if it identifies structural issues in the market and the need to provide certainty to new entrants that they will be able to recover their fixed costs.</p> <ul style="list-style-type: none"> <li>• LA asked what biennial EOIs are.             <ul style="list-style-type: none"> <li>○ TR says it is a process to provide additional information on the potential costs of new entry. This will allow ERA additional information to assess potential market outcomes with new entry.</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• LA asked why the ERA would trigger the mechanism to address inefficient market outcomes, and how the ERA would identify inefficient market outcomes are occurring. LA is of the view that if the price in a market is high enough, it will attract entry.             <ul style="list-style-type: none"> <li>○ TR said that how the ERA will monitor the market is under development.</li> </ul> </li> </ul>
<p><b>Slide 45</b></p>	<p>TR explained the process diagram for triggering the SESSM.</p> <p>The ERA will include in the market impact document explanation of the problems the proposed SESSM will address.</p> <p>The ERA would only veto a trigger of the SESSM:</p> <ul style="list-style-type: none"> <li>• if the appropriate process has not been followed; or</li> <li>• if the costs of running the SESSM outweigh the expected benefits.</li> </ul> <p>The SESSM is not intended as a first response to a shortfall. The PASA workstream is considering how there can be some signals to the market in advance of a shortfall eventuating to avoid intervention.</p>
<p><b>Slide 46</b></p>	<p>TR explained the characteristics of each service to be procured will be set out in a service specification.</p> <p>There needs to be a balance between having a timeframe that allows for cost recovery and locking the market into an expensive arrangement for a long time.</p> <p>The default award duration of one year does not preclude offers of more than one year.</p> <ul style="list-style-type: none"> <li>• JL asked does the facility have to participate or does it just have to be accredited?             <ul style="list-style-type: none"> <li>○ TR said the SESSM award facility must make its capacity available (but this doesn't mean it has to always run, it just has to bid).</li> </ul> </li> <li>• LA asked how the SESSM process will solve the inefficient market outcome issue, whether it is a qualitative assessment and whether inefficient market outcomes will be defined in the WEM Rules.             <ul style="list-style-type: none"> <li>○ TR said there has to be evidence the SESSM is needed, for example that a new entrant can provide service for a lower cost compared to existing generators, but is not entering the market.</li> </ul> </li> <li>• LA questioned why a generator would provide services when there is such heavy-handed enforcement on how participants are to behave.</li> </ul> <p>AV said that the intent was to create a cost-discovery mechanism through the SESSM trigger for inefficient market outcomes to enable the ERA to monitor inefficient bidding in the market that leads to inefficient market outcomes.</p>
<p><b>Slide 47</b></p>	<p>TR explained that when the SESSM is triggered due to inefficient market outcomes, the ERA may designate certain facilities/Market Participants to participate in the SESSM.</p>
<p><b>Slide 48</b></p>	<p>TR outlined there are three cost categories:</p> <ul style="list-style-type: none"> <li>• Capital (fixed)</li> <li>• Running</li> <li>• Enablement</li> </ul> <p>Capital (fixed) costs can be recovered through the SESSM. Running and enablement costs (for example, start up and minimum generation costs) are to be recovered in the real-time market.</p>
<p><b>Slide 49</b></p>	<p>TR explained that submissions must include an availability payment (representing incremental fixed costs required to provide the service) and an offer cap (representing the pure variable costs of providing the service). Submissions are not to include opportunity cost, as the market clearing engine does this trade-off.</p> <ul style="list-style-type: none"> <li>• JL asked whether this approach assumes facilities are running.             <ul style="list-style-type: none"> <li>○ TR said it does not require facilities to run. The clearing engine only trades off quantities above the enablement minimum, so participants will be able to include enablement losses in their ESS offers.</li> </ul> </li> <li>• LA asked whether there will be opportunity to work through this proposal in detail given it includes decisions about how generators should behave and bid, and there appears to be operational challenges that need to be resolved for a decision is made.             <ul style="list-style-type: none"> <li>○ AB said detailed discussions will occur at the WEM Reform Implementation Group.</li> </ul> </li> <li>• JL asked whether the opportunity to provide feedback will occur prior to the Taskforce endorsing design decisions.             <ul style="list-style-type: none"> <li>○ AB said all design content is discussed at TDOWG prior to consideration of the related paper by the Taskforce.</li> </ul> </li> <li>• JL acknowledged this and said that the detail should be worked through prior to the Taskforce's consideration.             <ul style="list-style-type: none"> <li>○ AV said the Taskforce has previously endorsed the design decision to have a SESSM, and now the discussions are on its detailed design. AV indicated that the Taskforce paper on SESSM was to be</li> </ul> </li> </ul>

	<p>considered at a future Taskforce meeting, likely in April, and that further industry feedback on the SESSM design is welcome during March and early-April.</p> <p>LA expressed her opinion that previous design decisions have been made in isolation from each other and the completion of design is now requiring those decisions to be reconciled.</p>
<b>Slide 50</b>	TR outlined the items that submissions must include, which vary depending on whether it is an existing or new facility.
<b>Slide 51</b>	<p>TR stated the selection process must accommodate offers structured in different ways. The ETIU is still considering whether to assess offers based on historic or forward-looking analysis.</p> <ul style="list-style-type: none"> <li>• OC queried whether forward looking analysis would end up as a more complex version of the existing margin values methodology, which could be extremely intensive. <ul style="list-style-type: none"> <li>○ TR noted that in order to simplify the selection process, the preference was to use analysis based on historic data, accepting that this approach may lose some of the precision of detailed price and quantity forecasting.</li> </ul> </li> </ul>
<b>Slide 52</b>	TR outlined that although some information about the SESSM process will be made public (including final awards), the data provided in submissions will be confidential to AEMO and the ERA.
<b>Slide 53</b>	TR outlined that facilities with a SESSM award will be the first facilities directed if AEMO forecasts a shortfall that has not been met by market activity.
<b>Slide 55</b>	<p>TR outlined transition arrangements which would require facilities (not just Synergy) that are providing ESS prior to market start to offer into the ESS market for six months following market start.</p> <ul style="list-style-type: none"> <li>• Daniel Kurz asked if a facility has previously provided ESS, but no longer does, will it have to offer ESS following market start. <ul style="list-style-type: none"> <li>○ TR said no, only facilities providing in a certain period prior to market start (there will be a set point in time identified), but that other facilities are encouraged to accredit.</li> </ul> </li> </ul> <p>TR said the compulsory offer requirement is a transitional arrangement aimed at mitigating the need to trigger the SESSM at market start.</p>
<b>Slide 56</b>	<p>TR outlined the process to identify potential new ESS providers. The aim is to provide information for market monitoring. The information will be confidential to AEMO and the ERA.</p> <ul style="list-style-type: none"> <li>• JL asked whether Synergy facilities would be obligated to bid into ESS after six months. <ul style="list-style-type: none"> <li>○ TR said the intention was for the transitional obligation to lapse, as by that time market behavior should be more settled.</li> </ul> </li> <li>• Peter Huxtable asked how loads will be treated. <ul style="list-style-type: none"> <li>○ TR said loads with existing Spinning Reserve obligations would have to accredit as an Interruptible Load.</li> </ul> </li> </ul>
<b>5.</b>	<b>Commissioning Plan and Process</b>
	Deferred until next meeting due to time limitations.
<b>6.</b>	<b>Transition: 2020 Reserve Capacity Cycle</b>
<b>Slide 77</b>	<p>Ashwin Raj (AR) outlined that the 2020 Reserve Capacity Cycle will not be deferred. However, the Network Access Quantity (NAQ) assignment will be deferred until the 2021 cycle to provide an opportunity the ERA to progress a rule change proposal for improvements to the Relevant Level Method. AR noted that while the ETIU will support the ERA to progress the proposal, it is possible the amendments to the RLM is not implemented in time for the 2021 Cycle.</p> <p>AR will present at a future TDOWG meeting on the transitional arrangements in more detail.</p>
<b>7.</b>	<b>Meeting close</b>
	AV closed the meeting and noted that feedback and questions are welcome via TDOWG@energy.wa.gov.au.