RES Australia Pty Ltd
Suite 6.01
Level 6, 165 Walker Street
North Sydney NSW 2060 Australia
T +61 (0)2 8440 7400
E info-australia@res-ltd.com
www.res-australia.com.au

Australian Energy Market Operator
GPS Box 2008
Melbourne VIC 3001
By email: forecasting.planning@aemo.com.au

1 February 2021

Dear Sir/Madam

Draft 2021 Inputs Assumptions Consultation

Renewable Energy Systems Australia Pty Ltd (RES) welcomes the opportunity to provide a submission to the Australia Energy Market Operator's (AEMO) draft 2021 Inputs, Assumptions and Scenarios Report (IASR) consultation.

RES is the world's largest independent renewable energy company with a portfolio of 17 GW of wind, solar, and storage projects, supporting 6 GW of operational assets operating across 10 countries. The RES vision is to create a future where everyone has access to affordable zero carbon energy.

RES in Australia is realising this vision by developing high-quality wind, solar and energy storage projects across Queensland, New South Wales, Victoria, and South Australia, bringing together expertise and technology partners from around the world.

RES is supportive of the work AEMO is undertaking to develop the inputs, assumptions and scenarios to inform the whole-of-system plan and views this as a critical step in providing guidance on the path forward for an orderly and efficient transition to affordable, reliable, renewable energy.

We broadly agree with the inputs, assumptions and scenarios set out in the draft IASR and is consistent with the discussions from the workshops/webinars.

Re-calibration of the Central scenario

We support the development of the four scenarios centred around the Central scenario to inform a breadth of possible outcomes for the energy sector. However, in our view the formulation of the Central scenario does not capture the most-likely reality.

Reflecting on the formulation of previous Central scenarios from previous ISPs, the Central scenario has to date underestimated the actual rate of change in the transition away from the current generation mix and in the amount of Variable Renewable Energy (VRE) being deployed in the NEM.

We believe the Central scenario should be re-calibrated to take a more progressive view of the future energy system and be more inclusive of social and market factors beyond the current state and federal government policies. A Central scenario which is too heavily weighted on current policies risks skewing the future scenarios away from innovation and needed support.

As a result, the future scenarios will need to be re-calibrated relative to the Central scenario to ensure each future scenario remains broad and distinct.

Diversified transmission technology

We believe that there is a possible future world where alongside alternative low emission technologies that there will be a place for diverse transmission technologies beyond traditional 'poles and wires'. Whilst the draft IASR recognises alternative transmission technologies such as HVAC/DC and virtual transmission lines in the inter-zonal augmentation options, we believe a broader inclusion of the technologies should be considered in technology-rich scenarios.

Technologies such as fixed-duration high capacity superconductive links such as those trialled in Europe should be to explored for use cases in the NEM which may open novel network solutions to address current issues.

Gladstone Grid zone candidacy

We support the proposed addition of the Gladstone Grid zone and more broadly the exploration of hydrogen as an integrated part of the NEM. Improvements in the efficiency, scalability and dynamics of hydrogen electrolysers points to hydrogen as a future which will add new large industrial demand centres, complementing variability of VRE whilst directly increasing economic activity.

Production and use of hydrogen both locally and overseas through direct export will accelerate electrification of transportation and industry and accelerate the energy transition away from fossil fuels.

Gladstone serves as an example of where the increase industrial loads together with the retirement of traditional coal fire power station, will add constraints on surrounding networks and the development of Renewable Energy Zones. Therefore, RES welcomes the inclusion of Gladstone Grid zone as part of the IASR.

RES supports the inclusion of additional hydrogen ports to assess the potential benefits of other zones and their grid connection.

In summary, RES is broadly aligned with AEMO on its development the inputs, assumptions and scenarios for the 2022 Integrated System Plan and look forward to further consultation.

Thank you for the opportunity to comment on this consultation. If you have any questions regarding the submission, please don't hesitate to contact Martin Hemphill on 0421 481 267, or myself on 0402 669 717.

Yours sincerely,

James Tin

Grid Commercial and Strategy Manager