

Australian Energy Market Operator  
2021 Planning and Forecasting IASR Consultation  
Supplementary submissions following webinar  
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### **2021 Planning and Forecasting Inputs, Assumptions and Scenarios – Post-Webinar Submission**

Walcha Energy thanks AEMO for the opportunity to submit this feedback for your consideration in finalising the 2021 Planning and Forecasting, Inputs, Assumptions and Scenarios Report.

Walcha Energy, a joint venture between Energy Estate and Mirus Wind, is developing the Walcha Energy Project, situated within the New England Renewable Energy Zone in northern New South Wales. The largest renewable energy project in the NEM, it comprises more than 4GW of wind, solar, pumped hydro and battery storage projects. The Walcha Energy Project will support NSW in the transition from coal fired generation and will play a major role in delivering the NSW Government Electricity Infrastructure Roadmap.

Our post- webinar supplementary submissions follow.

#### **1. Provision for early closures of fossil fuel power stations**

Walcha Energy believes that a series of closures of major NSW coal-fired power station units is likely to commence soon after the Liddell closure with several thousand MW of additional plant decommitments in the later 2020s. The announcement that Yallourn Power station will close in 2028 instead of 2032 is likely to be the first of many such announcements.

Given the fastest achievable lead times for major grid augmentations of 5 years, the current rate of progress of Integrated System Planning is too slow.

Annual updates identifying actionable projects are needed between the 2-yearly ISP publications. The transition is occurring too rapidly for the 2-yearly ISPs to keep up. Annual updates would be based on actual developments and decisions made during the year, such as power station decommitment and closure plans, priority REZ development progress, impact of development consent issues, generation plant failures, etc., not on global analysis of economic trends and market efficiency priorities which are covered in the 2-yearly reports.

An accelerated process to initiate refinement, definition, and funding of early works for projects is urgently needed. Funding will be needed for the development costs of critical actionable

transmission line projects in advance of final approval of the projects or it will be impossible to complete them in time to prevent wholesale market price surges and the possibility of power rationing.

AEMO Planning and Forecasting must now further revise its assessment of the sequence and likely earliest dates for power station generating unit decommitments and closures. This new assessment should be based on economic criteria, that is the short run marginal cost of generation at each power station, whether known or estimated. The effective operating range of coal-fired generating plant output and generating unit reliability will also be relevant factors.

The strategy of deploying large batteries in association with major coal generating plant and likely gradual withdrawal of operating generators would lead to an earlier gradual phase out of coal generators rather than the assumed open or closed approach. This emerging strategy should be modelled.

## **2. State-driven plans should drive the Central Scenario**

State governments are ultimately responsible bodies for electricity supply within their state. They are more aware of decentralisation occurring in their Region. State government is the only body that can integrate regional planning and industry policy affecting specific sub-regions. Although AEMO's national analysis is a critically important input, State governments are the appropriate bodies to identify priority Renewable Energy Zones (REZ) within their state and to plan their progress.

AEMO must input a National Electricity Market perspective and National Grid requirements such as for interconnection and grid management. These inputs are critical as inputs to State-based plans and close liaison between AEMO and each state is essential. However, the deliverable plans of the states for the development of priority REZ must drive the Central scenario of the ISP upon which actionable projects are based.

## **3. Social licence is critical to a successful transition**

Social licence is critical for renewable energy projects and it is also critical for power line and other grid augmentation projects.

It is essential that the developers of renewable energy projects consult closely with landowners and win the support of neighbours likely to be affected by the project or even to see the developments within an appropriately defined visual impact zone. This consultation is a relational activity and cannot be achieved in a week or a month. Developers must also recognise that the development requires not only compensation to those directly affected but also for a critical share of the benefits to flow to the wider community from the project. This is particularly the case for very large-scale developments and even more so for the transformative impacts of developing a Renewable Energy Zone.

The same principles apply to the development of the grid connections that are required to service a REZ, that is the effects of the development on neighbours and sometimes a wider

community need to be recognised. The impacts on the management of prime agricultural lands must be recognised as being potentially much greater than the impacts on grazing lands.

The development of a REZ with large renewable resources will require more main grid connections as well as Generator connections. There are limits to the number of lines, especially EHV lines, that can reasonably be connected to a grid hub or to a grid and REZ hub.

#### **4. There is no global formula for managing social licence from the desktop**

At the webinar AEMO recognised the significance of social licence and floated the idea of applying a penalty in its multi-criteria analysis against development of a REZ beyond a generation density limit.

Walcha Energy is very concerned that it is not realistic to attempt to assess a viable density of renewable development from the desktop which is the likely approach in a global multi-criteria analysis.

In one location it may be acceptable to have solar extend over a high proportion of the land. In another location it is unacceptable for neighbours to see the solar farm. In a third location tracking solar may be seen as desirable to complement and enhance pastoral farming activity.

Similarly wind generation may be acceptable on flat windy land at high density or not at all depending on the productivity of the land for agriculture for example. Wind generators on a ridge line may overpower the environment of a rural residential area or may be out of sight from residences due to nearer hills. In every instance due attention should be given to applicable noise and visual impact guidelines.

Rather than focussing on limiting the density of renewable energy development in a REZ, the focus should be site specific with due attention to the density, distance and views from residential and rural residential areas and even from individual landholders who are unhappy with the development concept.

There is no global formula for what is acceptable from a social licence viewpoint, however the quantum of the flow of community benefits is a significant factor. The key thing is to develop renewable energy with technologies appropriate to the location, respectfully with regard to the range of community opinions and with community benefits that make the development a win - win. Developments that divide a local community are to be avoided.

#### **5. The Hydrogen economy**

To add to the discussion in the webinar, Walcha Energy suggests that the development of a hydrogen economy will inevitably lead to innovative developer initiatives that AEMO cannot foresee, but which will impact on grid requirements, increasing loading in one location or perhaps reducing loading on the grid by placement of new major loads close to renewable generation sources.

**6. Grid augmentations to service priority REZ areas must begin now**

Walcha Energy considers that it is critical for the security of electricity supply that least regret transmission projects to connect priority REZ areas to the load centres be initiated immediately as the three year notice of power station closures is not sufficient (when compared to the 5 year horizon to build transmission lines) to facilitate the establishment and connection of large scale renewable resources needed to replace the fossil fuel stations.

Yours faithfully,



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