



Level 7, Emirates House
167 Eagle Street
(GPO Box 3017)
Brisbane QLD 4001

20 February 2020

Audrey Zibelman
Chief Executive Officer and Managing Director
Australian Energy Market Operator
Level 22, 530 Collins Street
Melbourne VIC 3000

By email: isp@aemo.com.au

Dear Ms Zibelman

Re: Submission on Draft 2020 Integrated System Plan for the National Electricity Market

I would like to thank you for meeting with me on 15 January 2020 regarding the CopperString 2.0 Project (CopperString or the Project) and the positive discussion we had about the way forward for the project.

With this in mind, CopperString now welcomes the opportunity to comment on the Australian Energy Market Operator's (AEMO) Draft 2020 Integrated System Plan (ISP). The 2020 ISP is important in providing an actionable and effective roadmap for eastern Australia's power system that maximises market benefits through a transition period of complexity and uncertainty and we are supportive of how AEMO is attempting to provide the optimal path for the National Electricity Market's (NEM) energy future.

CopperString Project

CopperString represents a unique project in the history of the NEM because it is bringing together two electricity supply systems that have different technical and market structures yet are both significant in their own right to Australia's economy; also:

1. CopperString is driven by the desire of electricity consumers in the North West Minerals Province (NWMP);
2. CopperString will provide market access to one of the best renewable energy zones in the NEM;
3. CopperString will deliver significant macro-economic and social benefit to the community and help achieve Local, State and Federal Government policy objectives.

The overall objective is to promote sustainable economic activity by providing strategic transmission infrastructure to integrate the reliable and efficient sources of electricity from the NEM (including in the future the North Queensland Renewable Energy Zone (NQ REZ)) and the important electricity system (and its customers) in North West Queensland.

The Townsville to Mount Isa minerals export supply chain is one of Australia's most valuable regional value-adding precincts with an aggregate gross regional product of approximately \$16 billion per annum. The Townsville economy is critically dependent on the productivity and future sustainability of the NWMP.

The North West Power System is part of the NWMP and is the largest common user power system in the NEM states that is not part of the NEM. The NWMP has a large maximum electricity demand of approximately 400MW, and very high consumption given the dominance of industrial businesses in this load base; a similar demand to the entire NEM demand north of Townsville.

Major energy users in the NWMP are estimated to spend \$400 million per annum on electricity supply, at an average wholesale energy price of over \$160/MWh, and many large customers paying over \$200/MWh – substantially more than equivalent customers within the NEM. The price of electricity is a driver of global competitiveness and the current NWMP price is an issue of significance to our national energy supply considerations.

The CopperString Project will provide a reliable transmission service for network users - customers and generators – across this significant economic region from Townsville to Mount Isa delivering one of the largest geographic expansion of the NEM via transmission investment since the national market was established



For the NWMP, access to the NEM will provide a competitive and flexible energy supply to underpin existing resources sector activities and further unlock economic opportunities in the region.

The Project is currently going through regulatory, commercial and financing negotiations with a range of stakeholders including mining companies in the NWMP who will be the foundation customers, Northern Australia Infrastructure Facility (NAIF) who is conducting Due Diligence on the provision of around \$1 billion in debt funding, Powerlink Queensland as the Queensland Transmission NSP, Energy Queensland as the NSP in the NWMP and the Queensland Government as the jurisdictional regulator.

Queensland, and the nation as a whole, have an important opportunity to secure jobs and sustainable economic growth for north and north west Queensland by leveraging off the procurement requirements of a major resources business such as Glencore and delivering true common-user energy infrastructure. CopperString is working closely with key agencies including the Department of Natural Resources, Mines and Energy, Department of the Premier and Cabinet, Queensland Treasury and the Department of State Development, Manufacturing, Infrastructure and Planning via a formal collaborative framework.

CopperString will also write to the Honourable Dr Anthony Lynham, who has the Ministerial responsibilities for Energy, and advise of our submission to AEMO's ISP 2020, and seeks his support for the NWMP to become part of the NEM via CopperString. Minister Lynham has written to the Project advising that, subject to meeting the State's criteria, the Queensland Government will continue to work to implement appropriate regulatory arrangements including with respect to the National Electricity Rules.

CopperString will also continue our positive engagement with the Federal Government, including the Honourable Angus Taylor MP, Minister for Energy and Emissions Reduction and other regulators such as the Australian Competition and Consumer Commission.

Subject to regulatory approvals, CopperString is on track for a construction commencement in the first half of 2021 with commissioning planned for July 2024. CopperString notes that while customers in the NWMP are currently not part of the NEM, they will become NEM customers during the ISP planning period (20 years) when the project is commissioned in July 2024.

Further, the project will unlock significant renewable generation resources for the NEM and it will provide NEM access to over 300MW of existing flexible gas fired generation in the NWMP. Therefore, we believe it is appropriate for the ISP to give regard to the Project and recognise it as a potential future augmentation with important economic consequences.

The CopperString project will involve the development of a double circuit 330kV transmission network between Powerlink's existing 275kV network south of Townsville to the existing NWPS 220kV substation in Cloncurry, 800km west of Townsville. The Project is being designed in conjunction with Powerlink to ensure there are no negative impacts on the existing Powerlink transmission services.

CuString Pty Ltd as the owner of the Project is an Intending Participant (NSP) and is undertaking formal joint network planning activities with Powerlink and the NSP in the NWMP, Ergon Energy Corporation Limited, consistent with the framework of the National Electricity Rules.

Detailed system studies between Powerlink and CopperString are underway to:

1. optimise the positive impact of the NWMP load on the existing constrained renewable generation in the Townsville region;
2. provide economically efficient access to the NEM for the NQ REZ;
3. provide NEM market efficiency and grid reliability to the significant energy zone in the NWMP.



We would like to take this opportunity to explain how the CopperString project will deliver substantial benefits to Queensland and to the NEM and how it will support the objectives of the ISP.

CopperString role in Queensland's future

The development is being driven by the energy users

It is important to note that the project was initiated because of, and is driven by, the customers' desire to connect to the NEM. CopperString will deliver cheaper power to a string of foundation customers and reduce the cost of supplying all customers in NWMP. As it was noted above, big industrial users in Mount Isa are currently paying at least \$160/MWh for wholesale electricity, while similar operations in Townsville pay less than \$65/MWh under longer term retail contracts. The market context in the NWMP is rigid and monopolistic creating inefficient costs for existing market participants and significant barriers for new investment.

CopperString 2.0 is expecting to deliver wholesale electricity at a transmission connection point to the NWMP for under \$100/MWh via the market framework of the NEM. We consider the fact that the development is driven by the consumers' need is consistent with the National Electricity Objective which is to promote efficient investment in electricity services for the long-term interest of consumers.

Unlocking a strong renewable source

AEMO's ISP indicates that the North Queensland Clean Energy Hub NQ REZ has excellent quality renewable resources – it is the only REZ in the NEM with "A" grade wind and solar. The ISP notes a potential upgrade to Kidston, but does not contemplate the impact of connecting the NWMP (and its major loads) to the NEM.

We consider that the CopperString Project offers the potential to unlock a strong renewable resource while also bringing additional customer demand (load) into the NEM. The additional load will reduce or remove the current constraints on solar generation in Powerlink's Ross and North Zones and even facilitate more solar investment in northern Queensland.

Given the geographic location of Mount Isa relative to the Queensland load centre of Powerlink's Moreton / Gold Coast Zones, a REZ based on solar around Mount Isa is a logical opportunity based on the integration of the NWMP and the NEM. We consider it is appropriate for AEMO to take into consideration the Project when evaluating investment challenges and opportunities associated with new Renewable Energy Zones in northern Queensland.

The Project is closely aligned with the State's policies and objectives

We consider that by providing NEM access for the high quality renewable resources across the Townsville to Mount Isa corridor - including the NQ REZ, the project will facilitate the least-cost achievement of the Queensland Government objective to achieve a 50 per cent renewable energy target by 2030 (QRET).

In addition to this renewable energy target, this strategic transmission investment supports the Powering North Queensland Plan that committed to "...deliver strategy transmission infrastructure in North and North-West Queensland", and aims to strengthen and diversify North Queensland's energy supply, drive economic growth in the region, and support jobs.

The project also supports the Queensland Government Strategic Blueprint for North West Minerals Province by facilitating continued resources sector development, diversifying the regional economy (through unlocking renewable energy sources), and creating employment opportunities. It will also provide more direct NEM market access for the significant gas resources available in Mount Isa from the Carpentaria and Northern Gas pipelines.

Based on initial modelling, the project meets the principles of RIT-T through capturing benefits in terms of lower wholesale prices and deferred generation investment.

The project will be designed in a way to support system security and strength across Queensland network

We are committed to design the CopperString transmission network in a way that ensures the existing NEM system is enhanced and not negatively impacted and that the NWMP has access to the same security of supply and reliability requirements with the least cost and lowest regret to all NEM consumers.



The Project is founded on rigorous cost-benefit analysis and will align the NEM cost, security and reliability expectations of energy consumers while also increasing system resilience to be able to better deal with future challenges.

Conclusion

Based on the above, we consider it is important that the ISP notes the possibility of the CopperString Project when defining investment opportunities and potential projects for the Queensland region.

Specifically, CopperString should be recognised in the ISP as the current project underway that will facilitate the development of the NQ REZ in North Queensland, add approximately 400MW of mainly high load factor industrial load to the Queensland NEM and deliver cheaper electricity to a vital minerals value-adding region for Queensland and Australia.

CopperString welcomes the opportunity to discuss the matters raised in this submission. Should you have any queries with respect to the above, please do not hesitate to contact myself on 0418 888 652.

Yours sincerely,

John O'Brien
Executive Chairman