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20 October 2014

The Secretary  
NSW Department of Planning & Environment  
GPO Box 39  
Sydney NSW 2001

Attention: Mr David Kitto

Dear David

**BYLONG COAL PROJECT (SSD 14\_6367)  
MINOR REFINEMENTS TO PROJECT DESCRIPTION**

**1 INTRODUCTION**

The purpose of this letter is to inform the Department of Planning & Environment (DP&E) of some minor amendments to the Bylong Coal Project (the Project) (SSD 14\_6367), which is proposed by KEPCO Bylong Australia Pty Limited (KEPCO). KEPCO seeks concurrence that these minor amendments will not require amendments to the Secretary's Environmental Assessment Requirements (SEARs) and Gateway Certificate for the Project.

This letter provides a summary of the planning approvals process and mine planning undertaken to date, the minor changes to the description of the Project, an indication of the likely environmental implications of these changes, and provides a justification for not revising the SEARs and Gateway Certificate for the Project as a consequence to these changes.

**2 BACKGROUND**

KEPCO lodged a Background Document (Hansen Bailey, 2014a) and Gateway Certificate Application Supporting Documentation (Hansen Bailey, 2014b) in January 2014 seeking the issuance of SEARs and Gateway Certificate respectively. DP&E arranged for the Planning Focus Meeting to be held on 13 February 2014. The SEARs for the Project were issued by DP&E on 23 June 2014. The SEARs provided consideration of the Mining and Petroleum Gateway Panel's Gateway Certificate which was issued on 15 April 2014.

KEPCO has also lodged a Referral to the Commonwealth Department for the Environment (DoE) for the Project under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Since the lodgement of the two preliminary documents, KEPCO has progressed with the preparation of the Environmental Impact Statement (EIS) and completed ongoing exploration and mine planning activities for the Project.

The ongoing exploration activities have assisted in gaining improved knowledge of the coal resource within Authorisation (A) 287 and A342 (the Authorisations). This has in turn assisted in refinements to the mine plan design during the mine planning process to maximise the recovery of the coal resource in the most efficient and environmentally sensitive manner. Further work has also been completed on the engineering design of the mining related infrastructure which has led to various refinements to that presented within the preliminary documentation. These mine plan and infrastructure changes have been primarily made to improve the economic benefits of the Project, in addition there is also likely to be material environmental benefits from these refinements.

### 3 REFINEMENTS TO PROJECT DESCRIPTION

#### 3.1 MINE PLAN

Coal exploration activities have enabled the gathering of additional information to improve the knowledge of the available coal resource within the Authorisations. This improved knowledge of the coal resource has encouraged the mine plan and associated scheduling to be refined in an attempt to improve the overall efficiency of the mining operations. Both the open cut and underground mining methods have been refined during the mine planning process since the preparation of preliminary documentation. **Figure 1** illustrates the Project Layout as presented within the Background Document. **Figure 2** illustrates the refined Project Layout that will now be assessed within the EIS.

The improved knowledge of the coal resource has identified that more efficient mining methods can be implemented and the scheduling of mining operations within the Eastern Open Cut has subsequently changed. Open cut mining operations within the Eastern Open Cut are now proposed to commence in the northern part of this area and progress in a southerly direction, rather than commencing in the west and progressing to the east as conceptually presented in Section 3 of the Background Document (Hansen Bailey, 2014a).

This change to mining schedule and understanding of the coal resource has also improved the overburden to Run of Mine (ROM) coal stripping ratio for the open cut mining area. The improved stripping ratio also means that less overburden (approximately 13 Million bank cubic metres) will need to be handled and stored within the out of pit Overburden Emplacement Area (OEA), resulting in the reduced footprint for the North-Western OEA (see **Figure 2**). The reduced stripping ratio will also facilitate the economic recovery of an additional 2.8 Million tonne of ROM coal within the open cut mining area and result in 6.5 Million tonnes per annum (Mtpa) of ROM coal recovered rather than 6 Mtpa ROM being potentially produced in the maximum year of combined underground and open cut mining.

The improved knowledge of the coal resource has also identified a possible bypass product coal stream for the early years of the open cut mining operations, meaning a reduced reliance upon the Coal Handling and Preparation Plant (CHPP) during this period.

In light of the improved knowledge of the coal resource qualities and structures within the Authorisations, the underground mine plan now proposes the development of wider longwall panels, although it will generally remain within the same footprint. Longwall panels are now proposed to be developed with a maximum width of 350 m as compared with 250 m wide panels presented within the Background Document. A preliminary investigation by the subsidence technical expert has confirmed that the maximum vertical subsidence will not materially change with the wider longwall panels. This is as a result of the original longwall panels being designed to super critical conditions.

The area within the underground mining footprint that was proposed to be left unmined in the mine plan presented in the preliminary documentation will now be mined as part of the adjusted underground extraction area. There are also some other minor adjustments to the extents of the Extraction Underground Area (see **Figure 2**).

The implementation of the wider longwall panels has resulted in improved coal recovery and will reduce the time required to develop the Underground Extraction Area. This improved coal recovery results in the life of the longwall mining operation to be reduced by approximately 4 years from 24 years to 20 years. This also results in a reduced mine life for the Project from 29 to 25 years.

Access to the underground mining area will continue to be via two drifts to the portals. However these drifts will be located outside of the proposed rail loop to improve access conditions.

### **3.2 MINING RELATED INFRASTRUCTURE**

Further detailed design completed for the various pieces of mining infrastructure has resulted in the revision to the location and sizes of this infrastructure. Whilst this infrastructure is generally within the same location, there will be some minor alterations made to the Project Disturbance Boundary.

The initial rail loop design presented within the Background Document has been determined to be very costly as a result of considerable cut and fill activities required for this design. It also presented challenges to the construction program for the Project. Further engineering work has been completed to design the rail loop with a reduced footprint, whilst also minimising construction time and cost. The CHPP which will be developed within the rail loop has also been re-engineered to reflect the reduced footprint of the rail loop. The revised footprint for these pieces of infrastructure is illustrated in **Figure 2**.

The Open Cut and Underground Mine Infrastructure Areas (MIAs) were also refined with the engineering work, resulting in some minor changes to the Project Disturbance Boundary. In light of the various changes to the mine plan and associated infrastructure, the latest engineering work has led to the revised design and siting of sediment dams surrounding the open cut mining areas and infrastructure areas, along with a Mine Water Dam and CHPP dam design now positioned in more optimal locations.

## **4 ENVIRONMENTAL IMPLICATIONS**

A preliminary review of the environmental implications of the proposed Project Description amendments confirms the following:

- Approximately 13 Million tonnes less overburden needing to be removed to uncover slightly more open cut mined coal resulting in less total dust emissions over the life of open cut mining operations.
- Revised mine plan scheduling (mining from north to south rather than east to west) may reduce noise and air quality impacts to sensitive receivers;
- Impacts to water resources is unlikely to be materially different, although this will be subject to revised modelling;
- Potential for reduced visual impacts to the north-west of the Project resulting from the reduced size of the North-Western OEA;
- The direct Project Disturbance Boundary (open cut and surface infrastructure) will be reduced by approximately 70 ha (a 5.7% reduction);
- Approximately 18 ha less direct impact to BSAL (a 6.3% reduction) within the Project Disturbance Boundary;
- Reduce direct impacts to approximately 74 ha of Equine CIC (a 9.6%) within the Project Disturbance Boundary;

- Reduce direct impacts to approximately 5 ha of the Box Gum Woodland Critically Endangered Ecological Community (CEEC) (a 3.6%) within the Project Disturbance Boundary;
- Reduce impacts to approximately 44 ha of State listed Endangered Ecological Communities (EECs) (a 16.9%) within the Project Disturbance Boundary;
- Reduced direct impacts (resulting from North-Western OEA refinement) to individuals of *Tylophora linearis*, which is listed as Vulnerable under the *Threatened Species Conservation Act 1997* and Endangered under the EPBC Act;
- Maximum year of coal production increasing from 6 to 6.5 Mtpa with an additional 2.8 Million tonnes of ROM coal recovered over the life of the Project for a total of approximately 124Mt ROM (a 2.5% increase) and the subsequent socio-economic benefits of this realised by NSW; and
- Greater setbacks to the south-west extent of the underground mining area from the cliff line and the north-east extent of longwall panels from the neighbouring National Park

The above presents only a preliminary analysis of the potential environmental consequences of the mine plan changes. Further more detailed environmental assessment will be completed within the EIS that is being prepared by Hansen Bailey to support the SSD Application.

## 5 CONCLUSION

In summary, we wish to confirm that the proposed mine plan changes are of a minor nature, will overall result in less environmental impact and as such have no consequence for the SEARs that have been issued for the Project.

Further, the revised Project will have less impact on BSAL and Equine CIC whilst marginally increasing the socio-economic benefits resulting from the Project to the State of NSW. As a result, the Gateway Certificate recommendations (as appended to the SEARs) remain relevant to the Project and do not warrant revisiting.

In light of the above, KEPCO seeks written confirmation that the SEARs and Gateway Certificate do not require amendments to reflect the proposed minor changes to the project description and associated mine plan.

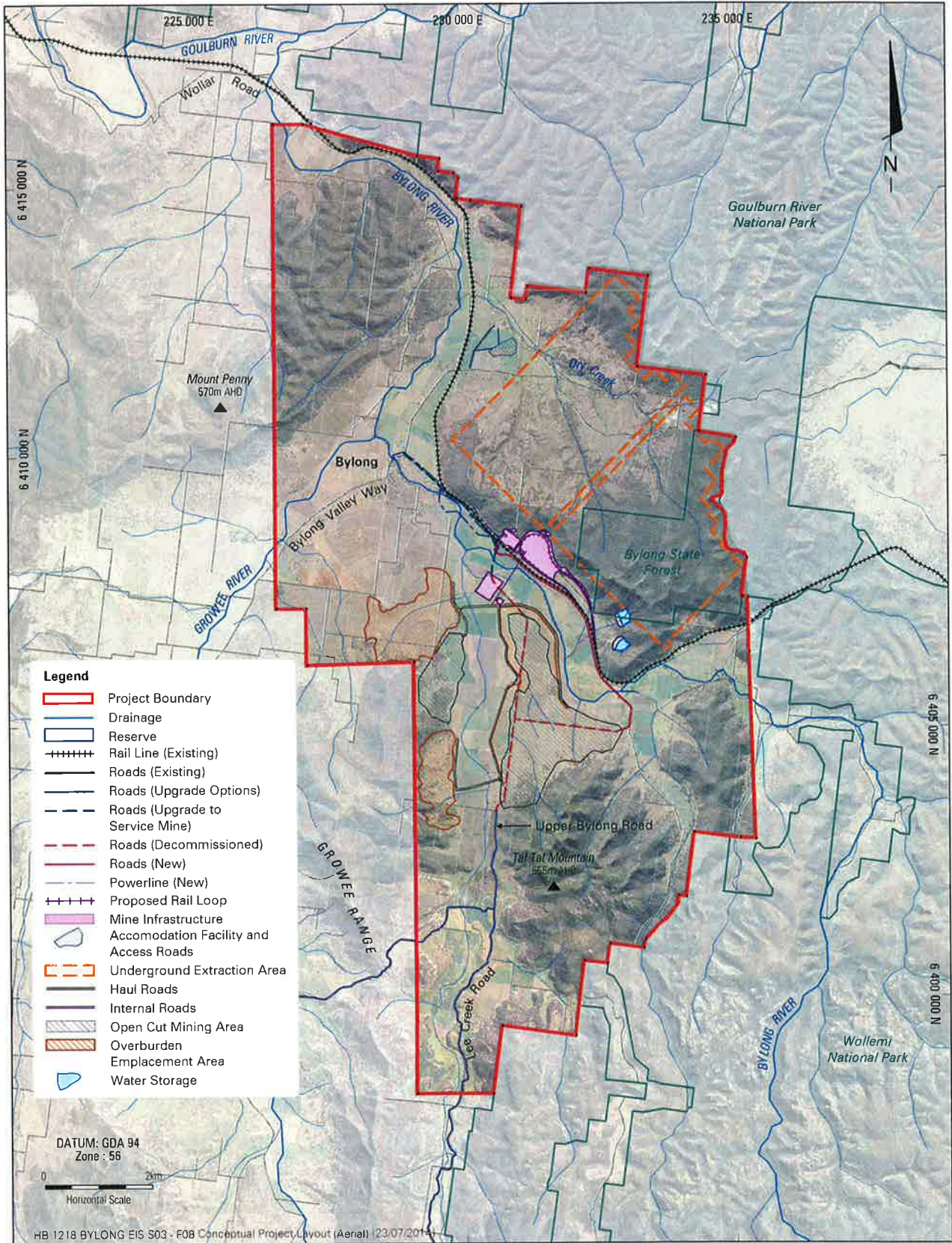
Should you have any queries in relation to this letter, please do not hesitate to contact me on (02) 8904 9508.

Yours faithfully



William(Bill) Vatovec  
Chief Operating Officer  
KEPCO Australia Pty Ltd

cc. Mr Stuart Withington - Gateway Panel Secretariat  
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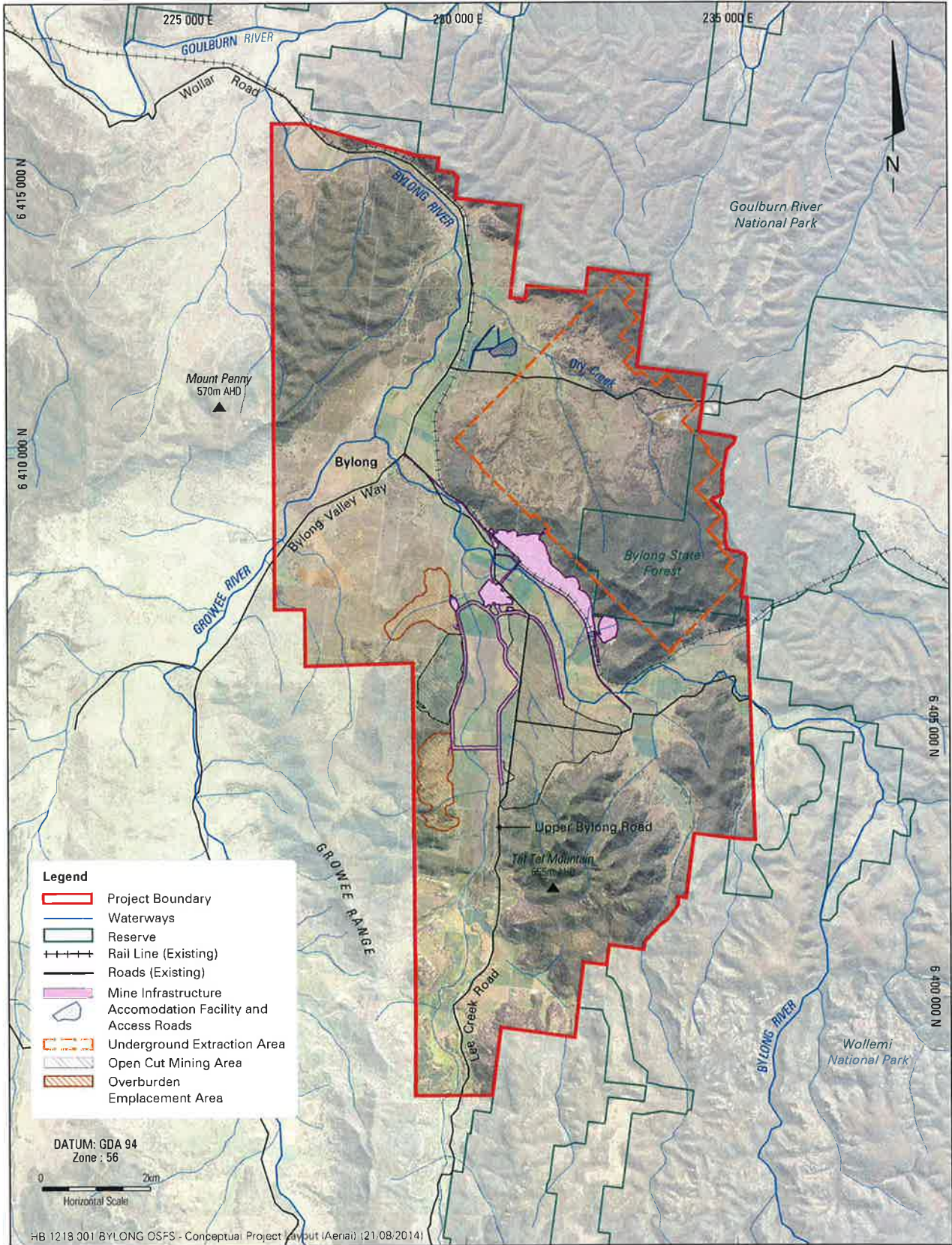
BYLONG COAL PROJECT



Original Conceptual Project Layout

**FIGURE 1**





BYLONG COAL PROJECT



Amended Conceptual Project Layout

**FIGURE 2**

