



South Australian Chamber of Mines and Energy

Supplementary Submission

to

Nuclear Fuel Cycle Royal Commission

31st August 2015



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SACOME

The South Australian Chamber of Mines and Energy (SACOME) is the peak industry association for companies with business interests in the resources industry in South Australia, including those with business, vocational or professional interests in minerals exploration, mining and processing, oil and gas exploration, extraction and processing, power generation, transmission and distribution, logistics, transport, infrastructure, and those with clients in these sectors. The Chamber also represents interests developing geothermal and wind power.

SACOME represents over 270 core industry and services members.

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Supplementary information

This submission provides the Royal Commission with additional information on existing mining industry electricity demand and projections over the next 15 years based on internal SACOME surveying of its members and external infrastructure surveys. This supplementary submission provides information to inform the Royal Commission of resources industry electricity demand pertinent to questions 3.7 and 3.8 of issues paper three.

The projected figures reported are from the Regional Mining and Infrastructure Planning (RMIP) project undertaken by Deloitte for the State and Federal Infrastructure departments [insert footnote with the full title of the RMIP Report]. This State government study is builds on the series of studies SACOME has contracted since 2007.

The Low and Medium scenarios presented in the following tables are what SACOME considers a reasonable estimate of the predicted future commodity markets outlined in the appendices of the RMIP reports. It should be noted there is a high growth scenario within the report. Typically in each region low growth scenario will be a continuation of the current operational mines, while the medium growth scenario will result in development of mines in areas where there are currently no existing projects, for example in the Braemar region. Table 1 illustrates the projected electricity demand for projects by region.

Table 1 - Current and projected annual electricity consumption (2013-2032)

	Current ¹	2013-2017		2018-2022		2023-2032	
Scenario	-	Low	Medium	Low	Medium	Low	Medium
Yorke, Mid North and Braemar ²	-	206 GWh	207 GWh	557 GWh	936 GWh	967 GWh	2,106 GWh
Eyre Peninsula and Western ³	-	65 GWh	101 GWh	79 GWh	1,841 GWh	99 GWh	2,315 GWh
Far North ⁴	-	1,143 GWh	1,419 GWh	1,230 GWh	1,679 GWh	1,314 GWh	1,879 GWh
Total	1,591 GWh ⁵	1,414 GWh	1,727 GWh	1,866 GWh	4,456 GWh	2,380 GWh	6,300 GWh

The projects that are connected to the National Electricity Market network constitute the majority of the current production figure. Projected figures for on-grid and off-grid demand are outlined in Table 2 below for all regions combined.

Table 2 - On and Off Grid demand

	Current ⁶	2013-2017		2018-2022		2023-2032	
Scenario	-	Low	Medium	Low	Medium	Low	Medium
On-Grid	1,578 GWh	1,167 GWh	1,179 GWh	1,376 GWh	3,500 GWh	1,376 GWh	4,418 GWh
Off-Grid	13 GWh	247 GWh	548 GWh	490 GWh	956 GWh	1,004 GWh	1882 GWh

¹ Data collated from SACOME member surveys of operating mine and petroleum operations.

² (Deloitte, 2013a)

³ (Deloitte, 2013c)

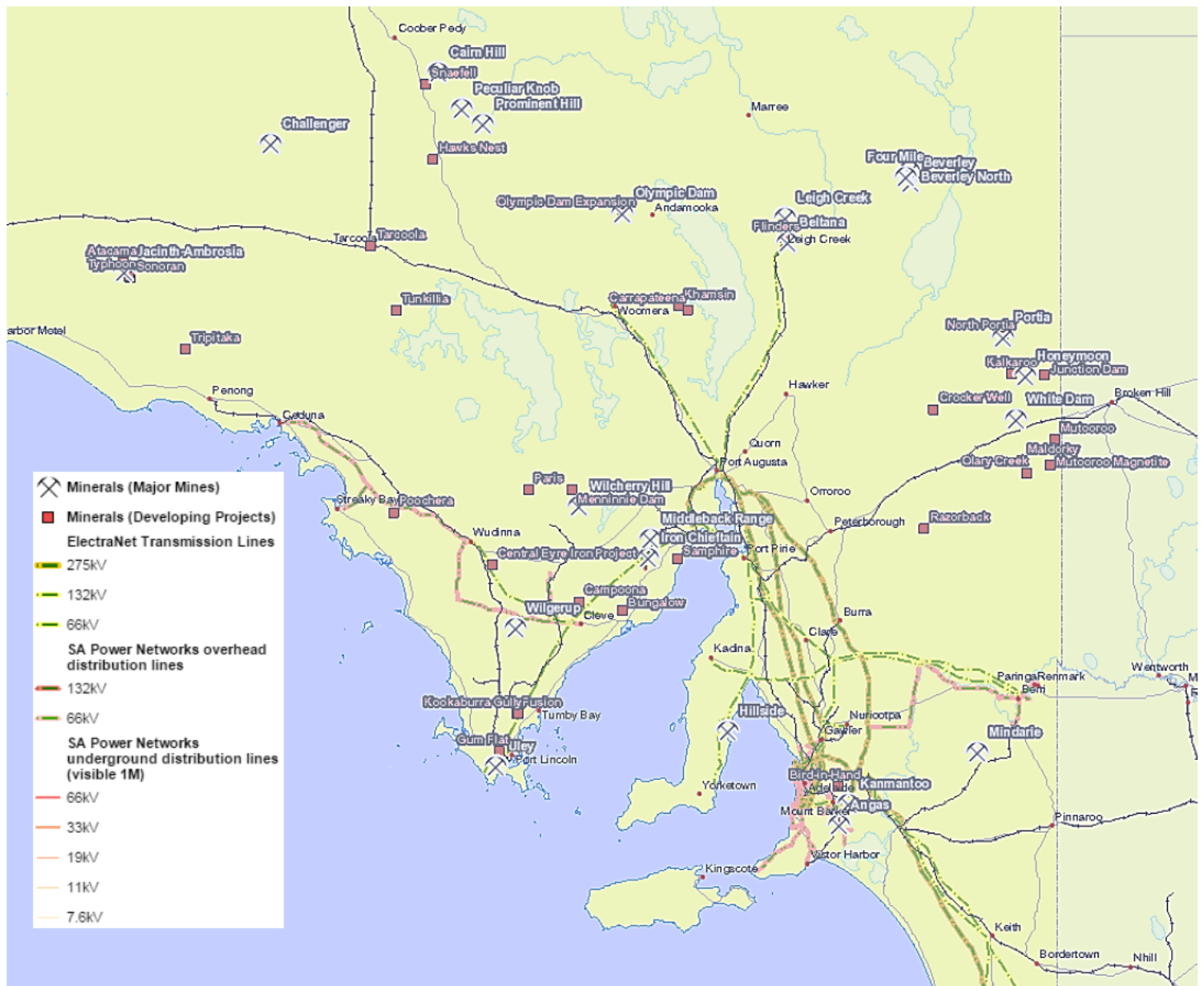
⁴ (Deloitte, 2013b)

⁵ Includes both Whyalla steel works and Port Pirie smelter.

⁶ Data collated from SACOME member surveys of operating mine and petroleum operations.

From consultation with SACOME members the majority of off grid operations are powered with diesel generators. The determining factors that dictate the energy source, whether it is on or off grid, is the proximity to the National Electricity Market, capacity of existing transmission and distribution networks to supply the increased demand and the relative cost of different sources. Typically companies will either utilise a fixed price or spot market contract price for electricity from the NEM, whichever is the cheaper option.

Map of transmission network, operational and developing mines⁷



Note: There are transmission lines between Woomera and Olympic Dam, Olympic Dam to Prominent Hill and NSW to Honeymoon not listed on the map.

⁷ (Department of State Development, 2015)

Bibliography

Deloitte, 2013a. *Regional Mining and Infrastructure Planning project - Yorke and Mid-North/Braemar*, Adelaide: Department of Planning, Transport and Infrastructure.

Deloitte, 2013b. *Regional Mining and Infrastructure Planning project - Far North*, Adelaide: Department of Planning, Transport and Infrastructure.

Deloitte, 2013c. *Regional Mining and Infrastructure Planning project - Eyre and Western Region*, Adelaide: Deloitte.

Deloitte, 2013. *Regional Mining and Infrastructure Planning project - Far North*, Adelaide: Deloitte.

Department of State Development, 2015. *South Australian Resource Information Geoserver*. [Online] Available at: <https://sarig.pir.sa.gov.au/Map>