23 October 2018

# Emmerson Plc ("Emmerson" or the "Company") Potential for Very Low Capital Cost Electrical and Gas Supply at Khemisset Potash Project

Emmerson Plc, the Moroccan focused potash development company, is pleased to announce that it has completed the preliminary cost estimates for the capex required to ensure electricity and gas supply at its 100% owned Khemisset Potash Project located in northern Morocco ("Khemisset" or "the Project"). This work has been completed by independent consultant Golder Associates ("Golder"), as part of the forthcoming Scoping Study, which the Company expects to be completed in early Q1 2019. These estimates have confirmed the potential for significant capital cost savings for the Project due to its proximity to excellent infrastructure.

#### Highlights

- Total budgeted cost for construction of connection to existing electrical infrastructure is approximately US\$5.7 million including a 30% contingency
- Discussions with largest gas provider in Morocco confirms Company's expectation that onsite gas (LPG) storage facility can be constructed at supplier's expense, with zero capex required by Emmerson
- Estimated capital cost saving for similar work package of approximately 93%, or over US\$75 million, relative to estimates for average Canadian potash mine development<sup>1</sup>
- Proposed site location is only 5.5km from the expected connection point to 60kV electricity lines, and 7km from nearest electrical substation
- Design and estimate completed by Golder according to AusIMM guidelines for capital cost estimates
- Further enhances Management's strong belief in potential for Khemisset to be a low capital cost potash mine development, following the announcements of low capex mine access and low capex logistics solution, which have the potential to save Emmerson over US\$1.1 billion when compared to benchmark projects (refer RNS dated 18 September and 08 October 2018)

## Hayden Locke, CEO of Emmerson, commented:

"The Khemisset Project benefits from access to outstanding infrastructure and this manifests itself in significant capital cost savings for the Project. Morocco has invested heavily in electrical generation and transmission capacity throughout the country. As a result, the Project is within close proximity of numerous sites to connect to the electrical grid.

"Our discussions with one of the largest gas suppliers in Morocco confirm that it is willing to design, build and maintain the gas storage infrastructure required for the mine and processing. This saves us considerable capex which would otherwise be required to construct either a pipeline or onsite storage, at our own expense.

"The design and cost estimates for the access to mineralisation and connection to logistics highlighted significant cost savings already available to the Khemisset Project. This announcement further

<sup>&</sup>lt;sup>1</sup> Based on Hatch Engineering Study, 2012 (<u>http://publications.gov.sk.ca/documents/310/93667-PotashRequirementGuide%20Rev1.pdf</u>) with 30% contingency added.

enhances our belief that the Scoping Study for Khemisset will present a low capital cost, high margin proposition which should result in compelling economic metrics."

#### Comparison to Peers

The electrical and gas supply capex estimates for the Khemisset Project, completed by independent engineers Golder as a part of the Scoping Study, indicates that the capital cost requirement to ensure electricity and gas availability should be far lower than the equivalent connections for the majority of potash development projects globally. A comparison to other development stage potash projects is shown in **Figure 1** below.



Figure 1. Capital costs to connect to logistics solution in selected potash projects

## **Electrical Connection Overview**

Golder, which was appointed by the Company to manage the delivery of its Scoping Study, has completed basic design and cost estimates for the electrical connection at Khemisset. Designs and estimates have been prepared in line with Scoping Study guidelines provided by the Australasian Institute of Mining and Metallurgy ("AusIMM").

## Electrical Grid Connection

There is an existing 60 kV network in the area, with two transmission lines running to the north and west of the proposed process plant site. The nearest connection point to that line is 5.5 kilometres due west of the site. The nearest substation is the 60/22 kV Khemisset substation approximately 7 kilometres north west of the site. **Figure 2** below indicates the proposed location for connection to site.



Figure 2. Approximate distances to nearest point on 60 kV line and Khemisset Substation

There are multiple possible connection points to the electricity grid, of which the Khemisset substation, and its transmission lines, are the closest. A detailed power study, to confirm availability of the full 40MW estimated peak power requirement has not yet been completed, but initial discussions with the Moroccan electricity network, and work completed by local consultants, indicate that there is sufficient capacity both on the 60 kV network and at the Khemisset substation for the Project's needs.

The larger Meknes substation which is located approximately 38 kilometres due east of the proposed mine, has confirmed capacity for the mine and offers a viable alternative to the Khemisset substation.



Figure 3: Approximate location of Meknes substation in relation to other connection alternatives

## Site Electrical Infrastructure

The 60kV overhead line will feed from the electricity grid into the mine's 60/11 kV intake substation. Given the relatively large size of the mine infrastructure area, it is considered impractical to distribute to all infrastructure at 400V. It is therefore proposed that a single 11 kV ring will feed all surface and underground infrastructure, with 11 kV / 400 V step-down pole-mount transformers or compact substations throughout the mine infrastructure area. Compact substations with dry-type transformers are recommended for underground operations.

In most cases, 11 kV and 400 V underground cables are proposed for the mine infrastructure area. However, 11 kV overhead lines will be considered for longer runs to reduce costs and transmission losses.

#### Gas Supply Overview

Emmerson will require supply of gas, either Liquified Petroleum Gas ("LPG") or Liquified Natural Gas ("LNG"), for the Khemisset processing plant. In Morocco, the most common gas source is LPG, which can be either propane, butane, or a mixture of the two. The Company has been in discussions with multiple companies capable of supplying this gas and is comfortable that a reliable supplier can be contracted who will construct an on-site storage facility and deliver all required gas at market rates. The storage contemplated would be of sufficient size to allow 10 days' supply to be stored at all times. The Company has received written offers which reflect these terms.

In this scenario, there would be no capex required from Emmerson with respect to ensuring supply of LPG. Gas prices in operation would be floating, with reference to global market prices plus freight and taxes to deliver to site in Morocco.

#### Cost Estimation

The total budgeted capital cost required to connect the Khemisset site to the electrical grid and construct onsite gas storage is US\$5.74 million including a 30% contingency. Cost estimation for the electrical grid connection has been conducted in line with Scoping Study levels of accuracy of approximately  $\pm$ 30-50%.

US\$ millions ltem **Electrical Connection** \$4,416,000 \$300,000 60 kV Departure Bay 60 kV overhead lines, connection to nearest line \$116,000 60/11 kV Intake Substation \$4,000,000 Gas Storage \$0 \$1,325,000 Contingency (30%) Total Direct Costs including Contingency \$5,741,000

A summary of the cost breakdown is presented in Table 1 below:

Table 1: Summary of Direct Costs for Electrical and Gas Supply Capex

\*\*ENDS\*\*

For further information, please visit <u>www.emmersonplc.com</u>, follow us on Twitter (@emmerson\_plc), or contact:

Hayden Locke Edward McDermott	Emmerson Plc	Tel: +44 (0) 207 236 1177
James Biddle Roland Cornish	Beaumont Cornish Limited Financial Adviser	Tel: +44 (0) 207 628 3396
Jeremy King	Optiva Securities Limited Broker	Tel: +44 (0) 3137 1904
Lottie Wadham Gaby Jenner	St Brides Partners Ltd Financial PR/IR	Tel: +44 (0) 20 7236 1177

#### Notes to Editors

Emmerson's primary focus is on developing the Khemisset Potash Project located in Northern Morocco. The project has a large JORC Resource Estimate (2012) of 311.4Mt @ 10.2% K<sub>2</sub>O and significant exploration potential with an accelerated development pathway targeting a low capex, high margin mine. Khemisset is perfectly located to capitalise on the expected growth of African fertiliser consumption whilst also being located on the doorstep of European markets. This unique positioning means the project will receive a premium netback price compared to existing potash producers. The need to feed the world's rapidly increasing population is driving demand for potash and Emmerson is well placed to benefit from the opportunities this presents.

The information contained within this announcement is deemed by the Company to constitute inside information as stipulated under the Market Abuse Regulations (EU) No. 596/2014.