



18 April 2017

#### About Marenica Energy

- Marenica Energy Limited (ASX: MEY) is a minerals exploration company holding a portfolio of mineral tenements in Namibia and Australia.
- Marenica's principal project is the 75% owned Marenica Uranium Project in Namibia.
- Marenica is currently focused on the development of its propriety **U-pgrade™** technology.

#### Investment Summary

- 75% interest in the Marenica Uranium Project in Namibia.
- **U-pgrade™**
- Marenica has the entitlement to receive 1.125% of the gross production of gold and other minerals in the Katanning Gold Project in Western Australia.

#### Directors

**Douglas Buerger** – Non-Executive Chairman  
**Murray Hill** – Managing Director & CEO  
**John Sestan** – Executive Director  
**Nelson Chen** – Non-Executive Director  
**Lou Guo Qing** – Non-Executive Director  
**David Sanders** – Non-Executive Director

#### Share Structure

Shares on Issue: 31,481,239  
Options on Issue: 1,038,714  
Performance Rights: 202,500  
Last Price (6 April 2017): [\$0.15]  
Market Capitalisation: circa \$4.7 million

#### Substantial Shareholders

Hanlong Energy Limited: 11.9%  
MingSun Technology Co Limited: 6.5%  
Retzos Executive Pty Ltd: 6.4%  
Murray Hill & Associates: 5.3%

#### Contact

##### Investors:

Murray Hill  
Managing Director & CEO  
T: +61 8 6555 1816  
E: [murray.hill@marenicaenergy.com.au](mailto:murray.hill@marenicaenergy.com.au)

##### Media:

Tim Duncan  
Hintons  
T: +61 3 9600 1979  
E: [tduncan@hintons.com.au](mailto:tduncan@hintons.com.au)

## Scoping Study Completed – Marenica Project Highly Competitive with Industry Peers

An Independent Scoping Study has been completed on the Marenica Uranium Project in Namibia. The study concluded:

- The project would have industry competitive production costs, making it highly competitive with other ASX peer projects.
- The project would benefit from its enviable location in a highly attractive jurisdiction for uranium mining.
- The project would play a highly credible role in meeting future industry Uranium demand.
- Low cost surface mining technology possible due to favourable mining conditions.
- Shallow, flat deposit and a very low proportion of waste to ore.
- Applying **U-pgrade™** to ROM ore creates high value concentrate.
- There is no need for a tailings dam on site.
- Concentrate treated at third party processing plant, reducing capital development complexity and risk.

The Scoping Study has confirmed the Board's view that a step change in CAPEX and OPEX is possible by using Marenica's own **U-pgrade™** technology and a more flexible operating strategy using the latest mining technology. This supports further targeted expenditure on progressing the project to a point where it can be fast-tracked into production as soon as Uranium prices begin to recover.

### **Scoping Study Parameters – Cautionary Statement**

*The Scoping Study referred to in this announcement has been undertaken to determine the potential viability of an open pit mine and **U-pgrade**<sup>TM</sup> processing plant constructed on site at the Marenica Uranium deposit and to reach a decision to proceed with more definitive studies.*

*It is a preliminary technical and economic study of the potential viability of the Marenica Uranium Project. It is based on low level technical and economic assessments that are not sufficient to support the estimation of ore reserves. Further evaluation work and appropriate studies are required before Marenica Energy Limited will be in a position to estimate any ore reserves or to provide any assurance of an economic development case.*

*To achieve the range of proposed feasibility studies and potential mine development outcomes indicated in the Scoping Study, additional funding will likely be required. Investors should note that there is no certainty that Marenica Energy Limited will be able to raise that amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Marenica's existing shares.*

*It is also possible that Marenica Energy Limited could pursue other 'value realisation' strategies such as a sale, partial sale or joint venture of the project. If it does, this could materially reduce Marenica Energy Limited proportionate ownership of the project.*

*The Company has concluded it has a reasonable basis for providing the forward looking statements included in this announcement and believes that it has 'reasonable basis' to expect it will be able to fund the development of the project.*

*Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.*

*There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.*

The estimated Mineral Resources underpinning the Study have been prepared by a Competent Person in accordance with the requirements in the JORC Code (2004). Marenica's study was completed with assistance from the following reputable industry consultant groups; Orelogy Mine Consulting (mining); DRA Projects SA (process plant and infrastructure); and Epoch (process waste disposal).

Note that ASIC have recently tightened conditions under which listed company's are able to release development and production data generated from Inferred resources and as a consequence this announcement has been restricted in its reporting of such data. This study met its objective in providing justification for the Company to continue study of the project and prepare it for fast track development when conditions warrant.

## Summary

In January 2017 Marenica engaged DRA and Orelogy to undertake a Scoping Study on its 75% owned Marenica Uranium Project (“Project”) in Namibia. The Independent Scoping Study reviewed the viability of the Project using the **U-pgrade™** technology, new mining techniques now available for shallow deposits, and in an environment of a more competitive local exchange rate in Namibia.

The Scoping Study confirmed that the Marenica Project contains many attributes that support a low risk and fast track development.

- World class location for the project, Namibia very supportive of resources industry, and Erongo region has a high level of Uranium mining activity.
- Simple, close to surface orebody minimising resource risk.
- More complex leaching and product handling undertaken by third parties.
- Fast track construction possible, between 12 and 15 months.
- Opportunities exist to lower costs further and improve project’s competitiveness.

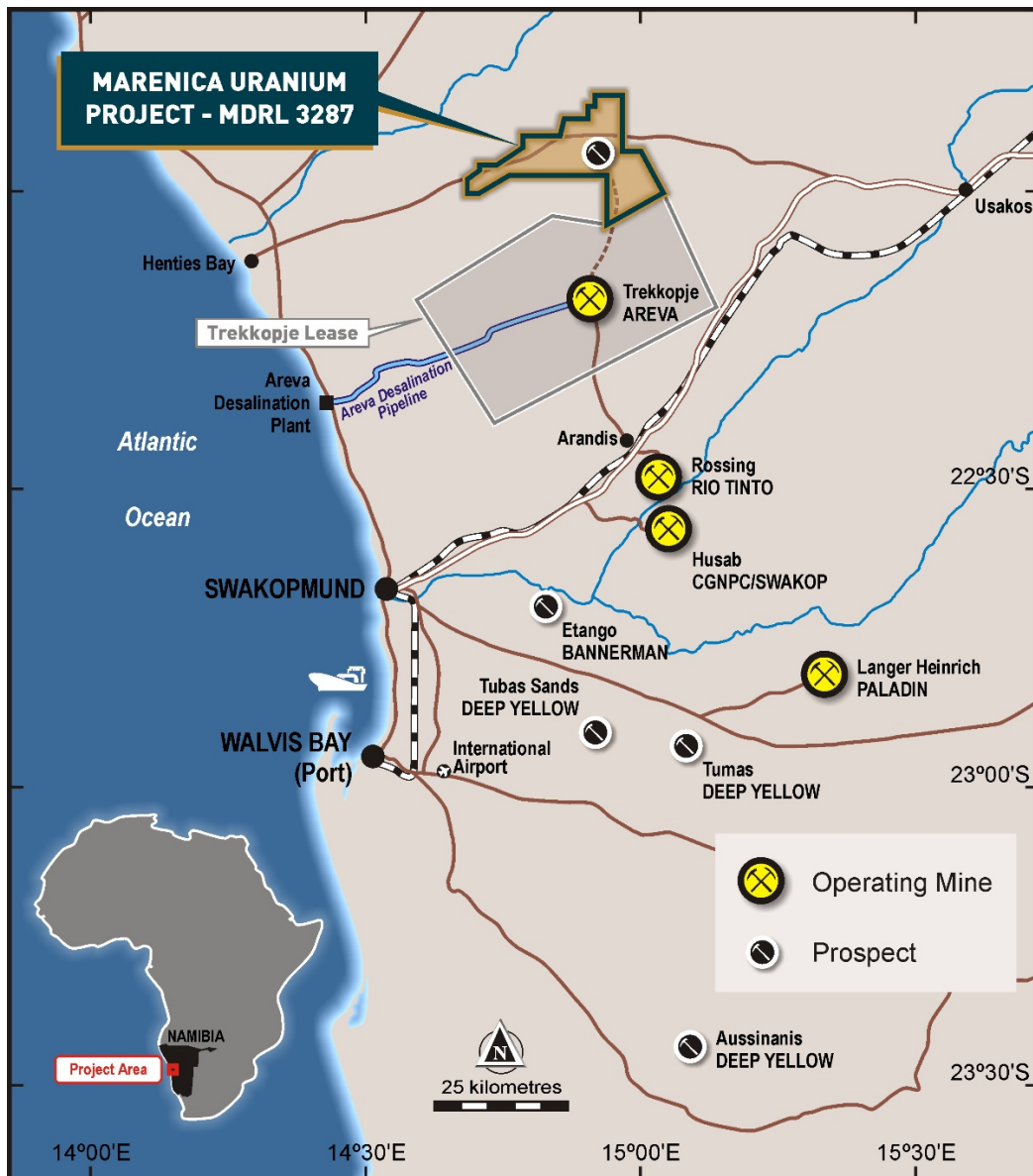
“The Marenica Uranium Project is a strategic asset whose value is comparable to many other uranium projects being developed by our peers on the ASX. The strengths of this project are beginning to be uncovered and we believe that will now reflect the way the market values our business.” Marenica Energy’s MD Murray Hill said today.

Marenica is committed to preparing the Marenica Uranium Project for fast track development as soon as market conditions signal the need for additional production capacity. The simple and low risk production strategy, which utilises offsite toll treatment of the concentrate at existing leaching and refining facilities, is expected to ease the financing burden and shorten the time to production to as little as 12 to 15 months from a Decision to Proceed.

In the short term the focus will be in the conversion of inferred resources to Indicated Resources while progressing a number of optimisation opportunities to further improve the competitiveness of the project. This will form a base for a more detailed Pre-Feasibility Study which is being planned for 2018. Production from the Marenica Uranium Project could commence as early as 2020 in a supportive Uranium price environment.

## Marenica Project - Background

The Project lies within the Mineral Deposit Retention Licence (MDRL) 3287, located in the Erongo Region of Namibia; a recognised uranium mining province and home to several world class uranium deposits and operating mines. As such it has the advantage of well-established and reliable mining related infrastructure and services, and a stable legislative framework within which to operate.



## Salient Points of the Scoping Study

### Geology and Resources

The Marenica deposit and the smaller MA7 deposit, 5 km to the southeast of the main resource, are both surficial uranium deposits. They are in the same palaeochannel system that hosts Areva's Trekkopje uranium deposit, which has similar mineralogical characteristics to the Marenica deposit. Marenica and Trekkopje are similar style deposits to the Langer Heinrich deposit.

The total Marenica Project resource at a 50 ppm cut-off grade is 61 Mlb at 93 ppm  $U_3O_8$ .

<b>Total Mineral Resources as at 30 June 2016 (at a 50ppm U<sub>3</sub>O<sub>8</sub> cut-off grade)</b>			
<b>Resource Category</b>	<b>Tonnes (millions)</b>	<b>U<sub>3</sub>O<sub>8</sub> Grade (ppm)</b>	<b>U<sub>3</sub>O<sub>8</sub> Mlbs</b>
<b>Marenica</b>			
Indicated	26.5	110	6.4
Inferred	249.6	92	50.9
<b>Total</b>	<b>276.1</b>	<b>94</b>	<b>57.3</b>
<b>MA7</b>			
Inferred	22.8	81	4.0
<b>Total</b>	<b>22.8</b>	<b>81</b>	<b>4.0</b>

First reported 14 December 2011

The calcrete deposits in Namibia occur in palaeochannels. Geophysics and the geomorphology completed within the MDRL indicate areas where the channel becomes constricted, which is a potential site for uranium precipitation. Some areas outside of the resource have high exploration potential due to a strong radiometric signature, positive near surface drill intercepts, as well as positive radon anomalies.

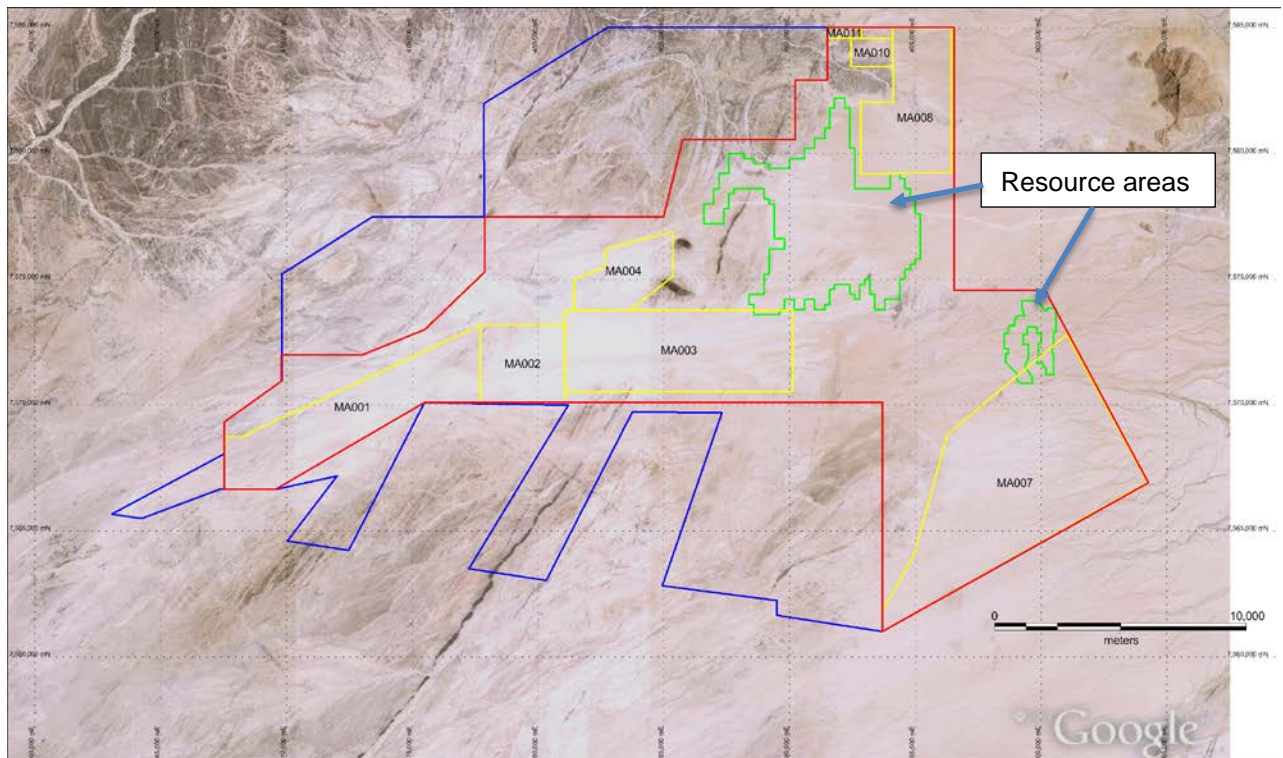
Marenica have previously completed an infill drill program (2010) to demonstrate that with additional drilling the Inferred category can be converted to Indicated.

It also completed an extensive review of the MDRL (2010 and 2011) and identified areas that either contain calcrete deposits or are prospective exploration targets for new deposits. These areas are defined within the yellow outlines in the included plan.

Marenica excavated seven test pits in the resource area to a depth of 5 to 8 m with all test pits encountering ore, which was then used for the metallurgical testwork program. The presence of ore in the Inferred area of the resource provides Marenica confidence in the Inferred resource category.

Subsequent to compilation of the resource estimate in December 2011 and identification of potential resource extensions, Marenica developed a proprietary technology for upgrading calcrete style deposits prior to leaching (**U-pgrade™**), which this Scoping Study has confirmed can result in a significant reduction in the development trigger price due to a reduced OPEX and CAPEX. This technology and the outcome of this Scoping Study provides economic justification for Marenica to invest further in drilling to expand the existing resource envelope and continue the conversion of the resources to Indicated and Measured.

Prior to development of **U-pgrade™** Marenica had no incentive to convert the resource from the Inferred category to Indicated or Measured due to a high uranium trigger price which resulted from using conventional processing technology. But that has now changed due to **U-pgrade™** and the outcome of this Scoping Study.



In summary

- Prior to ***U-pgrade™*** development
  - Large low grade resource with high trigger price using conventional process technology – project unlikely to be developed
  - However, demonstrated that Inferred could be converted to Indicated by additional drilling
  - But no incentive to convert Inferred resource to higher level category
  - Also identified exploration targets from drilling, radiometric survey, radon surveys and geophysics
  - But no incentive to expand resource
- After Scoping Study based on Marenica proprietary ***U-pgrade™*** process technology
  - Significantly reduced development trigger price
  - Economic justification to spend money on ground to advance project
  - High confidence that Inferred can be converted to Indicated and Measured
  - Identified on lease exploration targets to increase resource base
  - This scoping study has provided the catalyst to progress the project

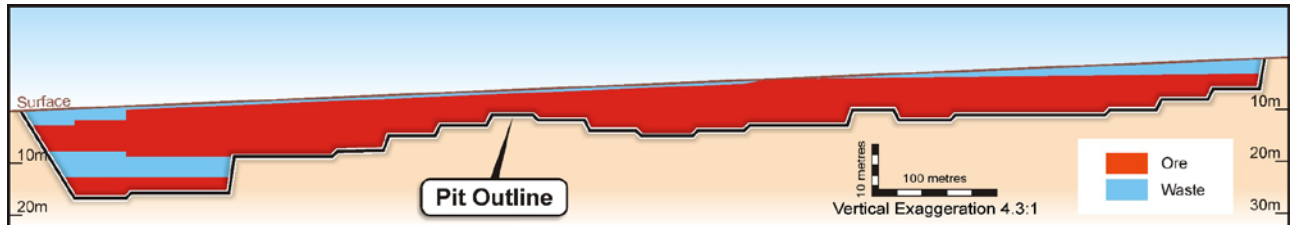
## Mining

Very low mining costs are possible due to:

- Extremely low strip ratio

- Minimal topographic relief
- Low material strength
- Relatively simple geological structure

Mining will be undertaken using Wirtgen surface miners, which will load directly into dump trucks. The study concluded that high volume low cost mining was possible given the shallow and flat orebody, with ground conditions suitable for surface mining. The following cross section of a production pit is generally representative of the modelled mining operations.



The sequential approach to mining the pits facilitates mined out pits being used as backfill for process waste from the **U-pgrade™** process and mine waste.

### **U-pgrade™ Plant**

Metallurgical testwork was completed in Perth on samples of bulk ore obtained from excavation of test pits, the same ore used to develop the **U-pgrade™** process. The **U-pgrade™** process uses common physical processing methodologies but applies them in a unique combination to achieve approximately 50 times concentration of the feed ore. The **U-pgrade™** process is expected to recover approximately 76% of the uranium into approximately 1.6% of the mass, producing a concentrate of about 5,000 ppm U<sub>3</sub>O<sub>8</sub>. The plant also removes acid consumers from the ore, allowing the concentrate to be processed at an acid leach plant, but does not exclude use of an alkali leach plant.

The concentrate is planned to be transported by road to one of several nearby Uranium processing plants where U<sub>3</sub>O<sub>8</sub> is produced on a toll treatment basis.

### **Transport and Toll Treating/Price of Concentrate**

Confidential discussions have been held with operators of leach/refining facilities operating in the immediate vicinity of the proposed plant. The **U-pgrade™** concentrate is attractive to these Toll Treatment plants because of the high grade and improved materials handling characteristics compared to ore. These discussions have established indicative terms to be used in the Scoping Study. Based on these discussions Marenica is confident that its concentrate would be accepted by Toll Treatment companies who will process the concentrate into Yellowcake. The Project will retain marketing and sales rights to its product.

Slurry transport of the **U-pgrade™** concentrate, using road tankers, was selected as the option to provide best economic returns and least challenges in terms of metal accounting and potential environmental impact. The plan is to leach and refine the **U-pgrade™** concentrate at one of three third party operations in the Erongo region. This mitigates the

need for a costly and complex leach plant and tailings storage facility on site at the Marenica project.

### Preliminary Schedule

The project development schedule indicates that the Project can be operational within 3 years from commencement of the Pre-Feasibility Study. There are milestones in the schedule that could Impact on meeting the schedule.

Task	Year Quarter	1				2				3				4		
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	
Pre-Feasibility Study		█														
Bankable Feasibility Study					█											
Secure Funding						█										
Mining Licence Application					█											
Mine Design							█									
Site Construction								█								
Mining														█		
Ore Processing														█		
Concentrate Production														█		

### Operating and Capital Costs

The Scoping Study has arrived at an industry competitive Capital and Operating cost for the Marenica Project. The reduction in costs compared to a conventional plant are in the same order of magnitude for the **U-pgrade™** plant previously reported by Marenica, i.e. a reduction of ~50% in operating costs and ~50% reduction in capital for a process plant producing U<sub>3</sub>O<sub>8</sub>. Further savings in CAPEX will be possible if the **U-pgrade™** concentrate is leached and refined at a third party site.

These total costs of producing Uranium will be the focus for the next stage of studies including seeking partnering opportunities in the region to further lower costs and share risk.

### Environmental, Social, Permitting

Marenica have completed extensive baseline environmental studies inclusive of:

- Preliminary Environmental Assessment report and Environmental Management Plan
- Dust monitoring
- Meteorological data
- Vegetation studies
- Vertebrate study
- Invertebrate study
- Archaeological study



- Hydrological data

A socio-economic study was also conducted in 2011.

No issues were identified from these studies.

The Marenica project is located in a well-established uranium mining jurisdiction with Rossing Uranium operating since the mid 70's. There is reliable mining related infrastructure and services in close proximity, Areva's Trekkopje project is on the adjoining lease and the Rossing uranium operation is 60 km to the south.

Namibia's jurisdiction is supportive of mining and there are not expected to be any permitting issues in development of the project.

### **Next Steps**

The study has confirmed that a viable project is possible at a moderately higher uranium price. These results provide justification for the Company to proceed further along the pathway towards development.

The first priority for the company is to focus on increasing the confidence in the Marenica resources.

A more detailed Pre-Feasibility Study is being planned for 2018.

### **Competent Persons Statement**

*This Mineral Resource estimate has been compiled by Ian Glacken in accordance with the guidelines of the JORC Code (2004). Ian Glacken is a full-time employee of Optiro Pty Ltd and has sufficient experience relevant to the style of mineralisation and type of deposit represented by the Marenica orebodies and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). Ian Glacken consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

For further information please contact:

Investors: Murray Hill

CEO - Marenica Energy Limited

T: +61 8 6555 1816

E: [murray.hill@marenicaenergy.com.au](mailto:murray.hill@marenicaenergy.com.au)

Media: Tim Duncan

Hintons

Mob: 0408 441 122

E: [tduncan@hintons.com.au](mailto:tduncan@hintons.com.au)

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