

## Quarterly Activities Report

FOR THE PERIOD ENDED 30 SEPTEMBER 2021

Bannerman Energy Ltd (ASX:BMN, OTCQB:BNLNF, NSX:BMN) (**Bannerman** or **the Company**) is pleased to report on a milestone quarter in which Bannerman released a Pre-Feasibility Study (PFS) for the 8Mtpa development<sup>1</sup> of its flagship Etango Uranium Project in Namibia (**Etango-8**).

### HIGHLIGHTS

- Completed positive PFS confirming strong technical and economic viability of Etango-8 (see page 2 for key outcomes)
- Etango-8 Definitive Feasibility Study (DFS) underway with completion targeted for 3Q CY2022; expected cost approx. A\$4M (excl. internal costs)
- Buy back and extinguishment of only private royalty over Etango Uranium Project
  - Streamlines development process
  - Value accretive transaction
- Successful launch of rebranded Bannerman Energy Ltd, reflecting the Company's focus on uranium and its strong reputation within the nuclear energy industry
- Cash balance of A\$9.6M at quarter end
- Uranium spot price hit a nine-year high before closing 30% higher for the quarter
  - Sprott Physical Uranium Trust listed in Canada and utilised an At-The-Market raising facility to raise approximately US\$450 million to purchase almost 11 million pounds U<sub>3</sub>O<sub>8</sub> from the spot market
  - Support for nuclear power increased in context of energy crisis in Europe, China and elsewhere
  - New Japanese Prime Minister Kishida supported restarting nuclear power plants
  - Clean Energy Act passed in Illinois, preventing the premature closure of the Byron and Dresden nuclear power plants

#### **Bannerman Managing Director and Chief Executive Officer, Brandon Munro, said:**

*"I am very pleased with the Etango-8 Pre-Feasibility Study and the high quality of work generated by the Bannerman team and our top-tier consultants. We have delivered a rigorous study that improved on last year's Scoping Study during a quarter when the uranium spot price attained multi-year highs and investor interest in our sector surged. The nuclear power outlook is the best it has been for a decade as governments, corporates and societies come to appreciate the tremendous positive attributes of this reliable and clean energy source."*

Bannerman advised of the completion of a Pre-Feasibility Study (PFS) for an 8Mtpa development of its flagship Etango Uranium Project in Namibia in an ASX announcement dated 2 August 2021. Bannerman is not aware of any new information or data that materially affects the information included in this ASX release, and Bannerman confirms that, to the best of its knowledge, all material assumptions and technical parameters underpinning the estimates in this release continue to apply and have not materially changed. Of the Mineral Resources scheduled for extraction and recovery in the PFS production plan, 100% are classified as Measured or Indicated. Bannerman confirms that there are no Inferred Resources included in the PFS production schedule.

## KEY ETANGO-8 PFS OUTCOMES (100% PROJECT BASIS)

- Confirms strong technical and economic viability of conventional open pit mining and heap leach processing of the **world-class Etango deposit at 8Mtpa throughput**.
- Informed by vast body of previous technical work with extensive resource drilling, geotechnical, metallurgical and environmental work already complete.
- Heap leach **process route has also been comprehensively de-risked** via operation of the Etango Heap Leach Demonstration Plant.
- Project rigour further bolstered through PFS with inclusion of dual pit ramps in northern and central pits, detailed plant design and higher accuracy estimation.
- Maiden Etango-8 **Ore Reserve** declaration of **117.6 Mt at 232 ppm  $U_3O_8$  for 60.3 Mlbs  $U_3O_8$** .
- Life-of-mine (LOM) production of 52.9 Mlbs  $U_3O_8$  (August 2020 Scoping Study (SS): 51.1 Mlbs) over **15 years with annual average production of 3.5 Mlbs  $U_3O_8$**  (SS: 3.5 Mlbs).
- Average final product **cash operating cost** (incl. royalties) of **US\$39.5/lb  $U_3O_8$**  (SS: US\$40.3/lb).
- Forecast pre-production **capital expenditure of US\$274M** (SS: US\$254M), delivering an attractive upfront capital intensity of approx. US\$78/lb average annual  $U_3O_8$  production.
- Attractive projected economics at US\$65/lb (100% project basis): **post-tax NPV<sub>8%</sub> of US\$222M** (SS: US\$212M), post-tax IRR of 20.3% (SS: 21.2%) and post-tax payback of 3.8 years (SS: 3.6).
- Forecast net project cashflow (post-capex, post-tax) of US\$642M (SS: US\$604M).
- **Further upside potential** from future life extension and/or scale-up expansion.
- **Long-term scalability** of Etango Project (up to 20Mtpa) confirmed by previous definitive level studies; provides strong optionality and leverage to upside-case uranium market.
- **Bannerman Board approved commencement of a Definitive Feasibility Study (DFS)** with completion targeted for 3Q CY2022.



Heap Leach Demonstration Plant, Etango Uranium Project, Namibia

## Etango-8 Uranium Project (Bannerman 95%)

In 2019, Bannerman commenced an evaluation of various project scaling and scope opportunities under a range of potential development parameters and market conditions. Indicative outcomes of this work highlighted strong potential for a scaled-down initial development of the Etango Project. As a result, Bannerman commenced work on a Scoping Study into such a development.

The Etango-8 Scoping Study (August 2020) provided an early-stage confirmation of the technical and commercial viability for development of the Etango Project at an 8Mtpa throughput rate. Importantly, much of this Scoping Study evaluation was heavily informed by the detailed study work undertaken across all relevant disciplines as part of the DFS 2012 and OS 2015. The Etango-8 Scoping Study development also, critically, maintained the real option of modular expansion, up to potentially the 20Mtpa scale envisaged by the DFS 2012 and OS 2015.

Following completion of the Etango-8 Scoping Study, the PFS process was commenced with the Etango-8 PFS released on 2 August 2021.

### The Etango-8 PFS

The PFS has been completed to a  $\pm 20\%$  level of accuracy. Key external study consultants include Wood plc (process plant design and related infrastructure, plant capital and operating cost estimates) and Qubeka Mining Consultants (pit inventory estimates, mine planning and mining cost estimates).

The PFS has confirmed the strong technical and economic viability of conventional open pit mining and heap leach processing of the world-class Etango deposit at 8Mtpa throughput. It has been informed by the vast body of previous technical work completed on the Etango Project with extensive resource drilling, geotechnical, metallurgical and environmental work already complete. The heap leach process route has also been comprehensively de-risked via the prior operation of the Etango Heap Leach Demonstration Plant.

The level of planning rigour for Etango-8 has been bolstered through the PFS process via the inclusion of dual pit ramps in the northern and central pits, detailed plant design and higher accuracy estimation. Table 1 and Table 2 outlines the key physical and economic outcomes from the Etango-8 PFS.

**Table 1: Etango-8 PFS summary**

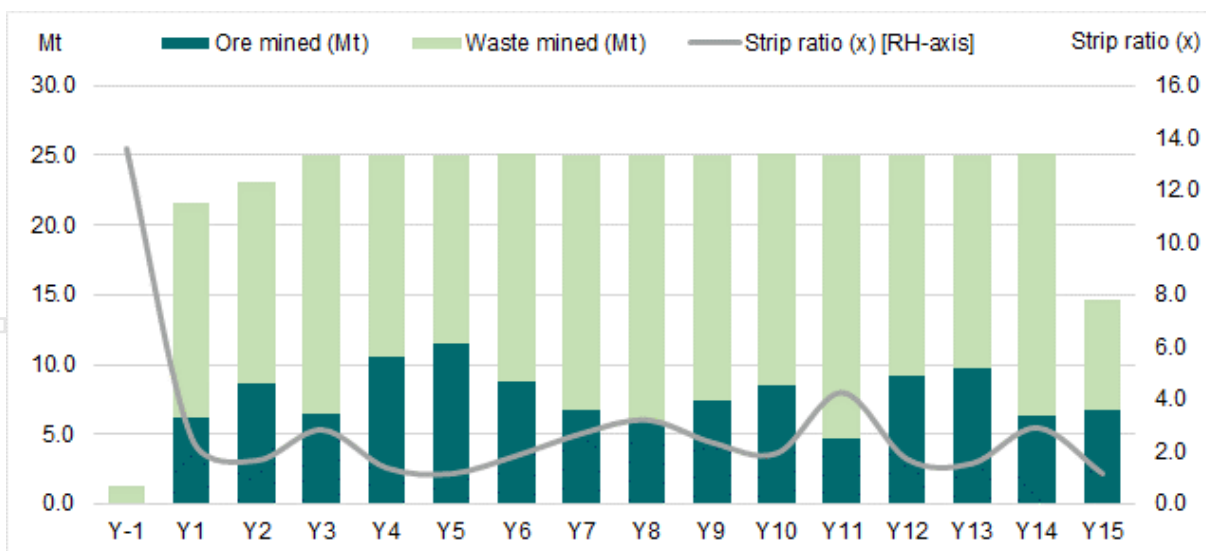
Key metric	Unit	PFS (Aug 2021)	Scoping Study (Aug 2020)	Change
Total ore throughput	Mt	117.6	114.1	+ 3%
Annual process throughput	Mtpa	7.8	7.9	- 1%
Initial life-of-mine	years	15.0	14.4	+ 4%
Average strip ratio (waste:ore)	t:t	2.07	1.93	+ 7%
Average uranium head grade	U <sub>3</sub> O <sub>8</sub>	232	232	-
Forecast uranium recovery	% U <sub>3</sub> O <sub>8</sub>	87.8%	87.8%	-
Total production	Mlbs U <sub>3</sub> O <sub>8</sub>	52.9	51.1	+ 4%
Average annual production	Mlbs pa	3.5	3.5	-
Pre-production capital expenditure	US\$M	274	254	+ 8%
Cash operating cost (ex-royalties)	US\$/lb U <sub>3</sub> O <sub>8</sub>	37.3	37.4	-
All-In-Sustaining-Cost (AISC) (incl royalties)	US\$/lb U <sub>3</sub> O <sub>8</sub>	40.3	40.9	- 2%
Uranium price	US\$/lb U <sub>3</sub> O <sub>8</sub>	65	65	-
NPV <sub>8%</sub> (post-tax, real basis, ungeared)	US\$M	222	212	+ 5%
IRR (post-tax, real basis, ungeared)	%	20.3	21.2	- 0.9%
Project net cashflow (post-tax)	US\$M	642	604	+ 6%

**Table 2: Etango-8 PFS key physical outcomes**

Key physical parameters	Unit	Total / LOM		Annual average	
		PFS	Scoping Study	PFS	Scoping Study
Operations					
Construction period	months	24	24	NA	NA
Initial production life	years	15.0	14.4	NA	NA
Mining					
Ore mined	Mt	117.6	114.1	7.8	7.9
Strip ratio	x	2.07	1.93	2.07	1.93
Waste mined	Mt	243.2	220.0	16.2	15.3
Processing					
Ore processed	Mt	117.6	114.1	7.8	7.9
Average uranium head grade	ppm U <sub>3</sub> O <sub>8</sub>	232	232	232	232
Forecast uranium recovery	%	87.8%	87.8%	87.8%	87.8%
Output					
Uranium production	Mlbs U <sub>3</sub> O <sub>8</sub>	52.9	51.1	3.53	3.55

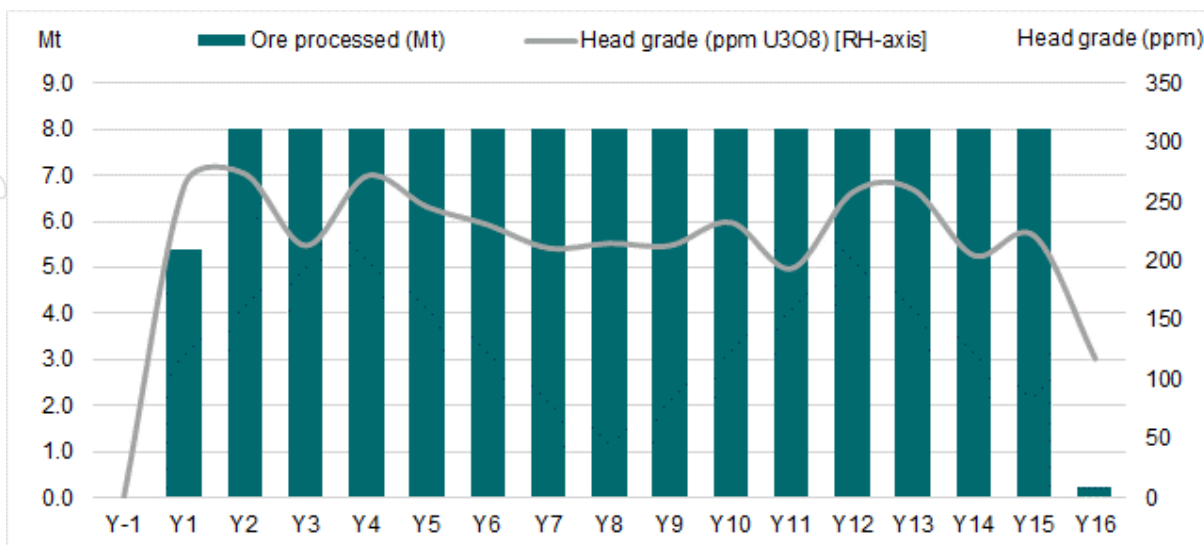
Key physical differentials versus the Etango-8 Scoping Study include higher total metal production (+4%) and operating life (+4%), balanced against a higher strip ratio (+7%). The predominant driver of the increased strip ratio was the incorporation of the dual pit ramp systems for the northern and central pits, further de-risking the overall mine schedule execution.

**Figure 1: Etango-8 mine schedule**



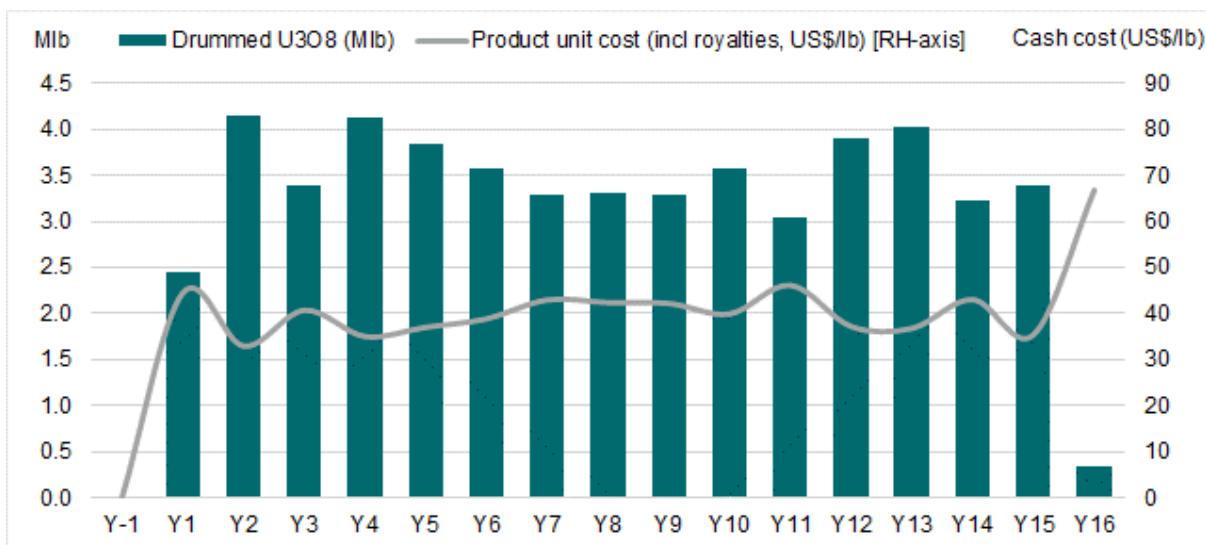
The mine schedule incorporates a pre-strip phase (Y-1) of approximately 1.26 Mt waste (and 90 kt ore).

**Figure 2: Etango-8 processing schedule**



The PFS utilises an overall uranium recovery of 87.8% (unchanged from the Scoping Study). This is based on the extensive testwork done with columns (2m, 4m, 5m and 7m) and cribs (2m x 2m x 5m), as well as applying appropriate scale-up factors to simulate performance on a commercial heap.

**Figure 3: Etango-8 output schedule**



Forecast average LOM U<sub>3</sub>O<sub>8</sub> production is 3.53 Mlb per annum, with a peak in Year 2 of 4.15 Mlb.

### Forecast economic outcomes

Forecast key financial metrics for the development of Etango-8 as reflected in the PFS are summarised in Table 3 below (all projections are on a 100% project basis).

Key financial differentials versus the Etango-8 Scoping Study include higher total project revenues (+4%), balanced against a bolstered pre-production capital estimate (+8%). The final PFS outcomes also include the extinguishment of the 1.5% RCF royalty over Etango (see Bannerman ASX release dated 22 July 2021, *Buy back of private royalty*).

**Table 3: Etango-8 PFS key financial metrics**

Key financial outcomes	Unit	PFS	Scoping Study
<b>Price inputs</b>			
LOM average uranium price	US\$/lb U <sub>3</sub> O <sub>8</sub>	65	65
US\$/N\$	N\$	16	16
<b>Valuation, returns and key ratios</b>			
<b>NPV8% (post-tax, real basis, ungeared)</b>	<b>US\$M</b>	<b>222</b>	<b>212</b>
NPV8% (pre-tax, real basis, ungeared)	US\$M	386	373
<b>IRR (post-tax, real basis, ungeared)</b>	<b>%</b>	<b>20.3</b>	<b>21.2</b>
IRR (pre-tax, real basis, ungeared)	%	25.3	26.8
<b>Payback period (post-tax, from first production)</b>	<b>years</b>	<b>3.8</b>	<b>3.6</b>
Payback period (pre-tax, from first production)	years	3.8	3.4
Pre-tax NPV / Pre-production capex	x	1.4	1.5
Pre-production capital intensity	US\$/lb U <sub>3</sub> O <sub>8</sub> pa capacity	78	71
<b>Cashflow summary</b>			
<b>Sales revenue (gross)</b>	<b>US\$M</b>	<b>3,440</b>	<b>3,320</b>
Mining opex	US\$M	(885)	(856)
Processing opex	US\$M	(911)	(859)
G&A opex	US\$M	(122)	(143)
Product transport, port, freight, conversion	US\$M	(58)	(56)
Royalties and export levies	US\$M	(112)	(146)
<b>Project operating surplus</b>	<b>US\$M</b>	<b>1,352</b>	<b>1,260</b>
Pre-production capital expenditure	US\$M	(274)	(254)
LOM sustaining capital expenditure	US\$M	(43)	(31)
<b>Project net cashflow (pre-tax)</b>	<b>US\$M</b>	<b>1,034</b>	<b>975</b>
Tax paid	US\$M	(392)	(371)
<b>Project net cashflow (post-tax)</b>	<b>US\$M</b>	<b>642</b>	<b>604</b>
<b>Unit cash operating costs</b>			
Mining	US\$/t material mined	2.45	2.56
Mining	US\$/lb U <sub>3</sub> O <sub>8</sub>	16.7	16.8
Processing	US\$/t ore	7.74	7.53
Processing	US\$/lb U <sub>3</sub> O <sub>8</sub>	17.2	16.8
G&A	US\$/lb U <sub>3</sub> O <sub>8</sub>	2.3	2.8
Product transport, port, freight, conversion	US\$/lb U <sub>3</sub> O <sub>8</sub>	1.1	1.1
<b>Total cash operating cost (ex-royalties/levies)</b>	<b>US\$/lb U<sub>3</sub>O<sub>8</sub></b>	<b>37.3</b>	<b>37.4</b>
Royalties and export levies	US\$/lb U <sub>3</sub> O <sub>8</sub>	2.1	2.9
Total cash operating cost	US\$/lb U <sub>3</sub> O <sub>8</sub>	39.5	40.3
<b>All-in-sustaining-cost (AISC)</b>	<b>US\$/lb U<sub>3</sub>O<sub>8</sub></b>	<b>40.3</b>	<b>40.9</b>

## Corporate

### Buyback of Private Royalty

Bannerman advised the ASX on 22 July 2021 that it had agreed to buyback and extinguish the private revenue royalty over its 95%-owned Etango Uranium Project. Bannerman agreed with Resource Capital Fund IV L.P. and Resource Capital Fund VI L.P. (collectively the **RCF Funds**) to buy-back and extinguish the aggregate 1.5% revenue royalty held by the RCF Funds. The consideration payable to the RCF Funds was, in the aggregate, A\$2 million cash and the issue of 15,680,000 new Bannerman shares. The transaction was settled on 19 August 2021.

### Cash balance of A\$9.6 million and continued focus on prudent cost control

Bannerman's cash balance at 30 September 2021 was A\$9.6 million (30 June 2021: A\$12.5 million). The Company has no debt (other than typical creditor balances) or convertible instruments. Total exploration and development expenditure for the quarter was A\$2,283,000, which included work on completion of the PFS, commencement of the DFS and payment of A\$2 million to the RCF Funds.

Management continues to maintain a focus on prudent cost control. For the purpose of item 6.1 of the Appendix 5B, the aggregate payments during the quarter to related parties (totalling A\$188,000) were comprised of directors' fees and salary.

### Rebranding and change of name to "Bannerman Energy Ltd"

The Company advised on 27 July 2021 that it had changed its name to Bannerman Energy Ltd, following shareholder approval at the General Meeting held on 13 July 2021. The new name reflects the Company's focus over many years on uranium, an energy metal, and the Company's continued commitment to the uranium sector and the nuclear power industry. The change of name was undertaken in conjunction with a rebranding, including a new website: [www.bannermanenergy.com](http://www.bannermanenergy.com)

The new Bannerman Energy brand and website acknowledges the growing acceptance of nuclear power as a clean, base-load energy source that is vital to mitigating climate change challenges, reducing airborne pollution, balancing land use challenges and reducing other environmental risks associated with energy production. The rebranding also enhances the Company's reputation in Namibia as an outstanding corporate citizen, its strong environmental record and its excellent credentials for industry leadership and governance.

The listing codes remain the same on the ASX (BMN), the OTCQB markets (BNNLF) and the Namibian Stock Exchange (BMN).

### No disruption to Bannerman operations from COVID-19

The Company has not experienced any significant disruption to its business or operations as a result of measures taken to date in either Namibia or Australia in response to the COVID-19 pandemic. Bannerman continues to implement various measures to protect Bannerman employees, their families and the broader community from transmission of the COVID-19 virus.

### Issued securities

At the date of this report, the Company has on issue 1,204,817,778 fully paid ordinary shares, 47,592,601 performance share rights and 22,495,400 unlisted options. The share rights and options are subject to various performance targets and continuous employment periods.

### AGM

The Company has advised that it will hold its next Annual General Meeting (AGM) at 9.00am on 19 November 2021. Shareholders will be advised of further details regarding the AGM in a separate Notice of Meeting, which will be provided to shareholders on or before 19 October 2021. The Notice of Meeting will also be available on the ASX Company Announcements Platform and the Company's website.

## Uranium market

The uranium market appreciated sharply in August and September, with the spot price trading up to a nine-year high of over US\$50 before softening to close the quarter at US\$42.20, an increase of approximately 30% since 30 June 2021. Liquidity also rose sharply with record transaction volumes attained in August and September.

This appreciation was driven predominantly by spot market purchases by new investment entity, Sprott Physical Uranium Trust (**SPUT**). Sprott Asset Management announced in April 2021 that it would take over Uranium Participation Corp (UPC) and create the SPUT with Canadian and US dollar units to be listed in Canada. The transaction was completed in July 2021 and an At-The-Market (**ATM**) capital raising facility became operational on 18 August 2021. In the following 30 trading days, SPUT raised approximately US\$450 million via the ATM facility and purchased almost 11Mlbs of U<sub>3</sub>O<sub>8</sub>.

This increase in market activity generated interest in term contract activity and price reporters advised that the term contract price had increased to US\$45/lb by the end of the quarter.

The prospects for nuclear power have continued to improve, in particular due to the energy crisis in Europe, China and elsewhere highlighting the key attributes that make it so attractive. Nuclear power provides consistent clean baseload energy, is resilient to all climatic conditions and offers superior energy security over other energy sources.

Nuclear power continued to gain traction and bipartisan support in the United States, the world's largest market for uranium. In particular, the Illinois State Legislature passed the Clean Energy Bill which prevented the Byron and Dresden nuclear power plants from being prematurely closed.

In the context of the energy crisis occurring in the lead-up to COP26, President Macron announced that France would implement an ambitious development plan to develop, manufacture and export small modular reactors. A further announcement by an alliance of 10 pro-nuclear EU states, led by France, has buoyed hopes for a timely inclusion of nuclear energy within the EU's green finance taxonomy. In Japan, new Prime Minister Fumio Kishida has supported the crucial restart of idled reactors. British Prime Minister Boris Johnson called for the country to increase its nuclear power installed capacity and confirmed that the UK government is in discussions regarding new nuclear power plants.

The World Nuclear Association released the 2021 Nuclear Fuel Report, a flagship publication which considered supply and demand scenarios for uranium and other components of nuclear fuel. Bannerman CEO, Brandon Munro, co-chairs the Demand Working Group, the body responsible for determining projected nuclear fuel demand to 2040 across three scenarios. The Report projected strong growth for nuclear power in the reference and upper scenarios and concluded that intense development of new uranium projects will be required this decade to avoid serious supply disruption.

**This ASX release was authorised on behalf of the Bannerman Board by:**

Brandon Munro, Managing Director and Chief Executive Officer

14 October 2021

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## ABOUT BANNERMAN ENERGY (ASX:BMN, OTCQB:BNNLF)

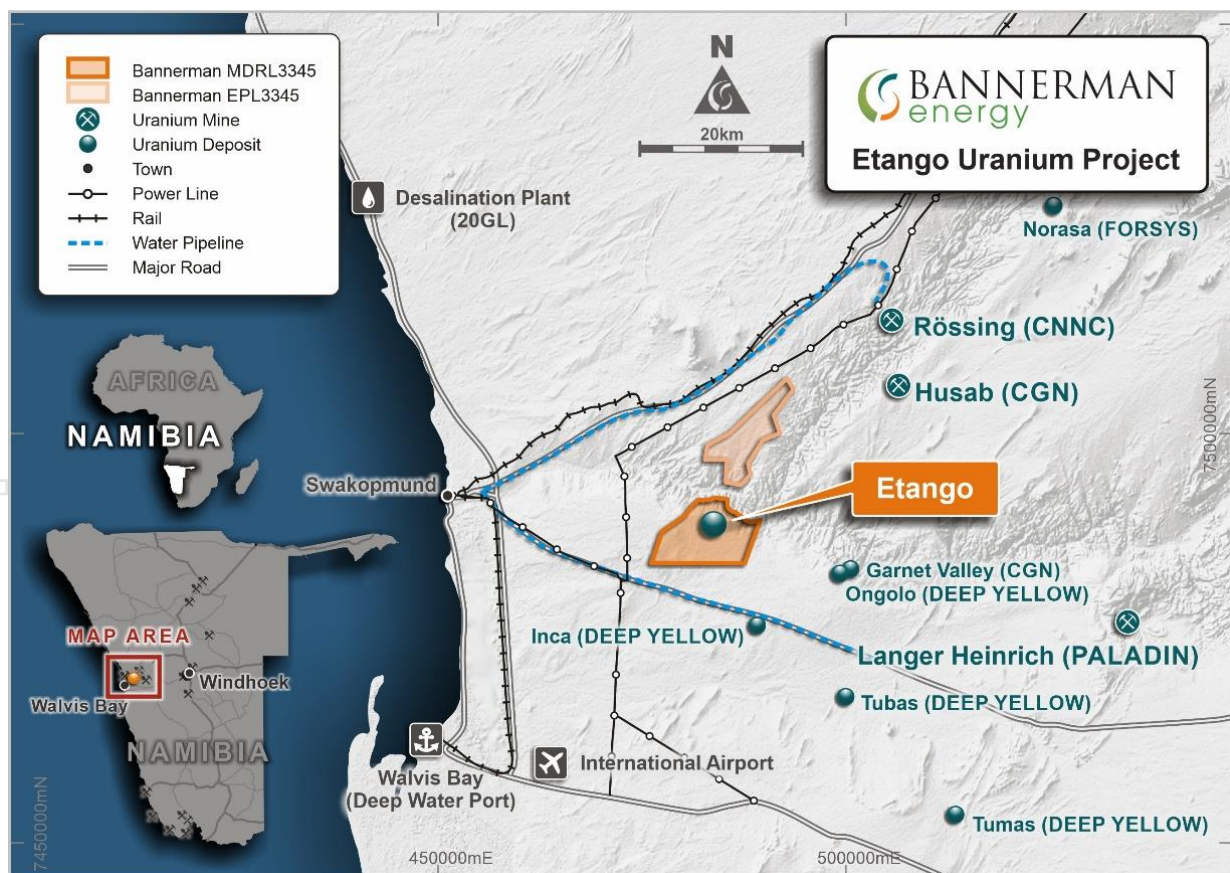
Bannerman Energy Ltd is a uranium development company listed on the Australian, OTC Markets and Namibian stock exchanges. Its flagship asset is the advanced Etango Uranium Project located in the Erongo Region of Namibia. Bannerman has long established itself as an Environmental, Social and Governance (ESG) leader in the uranium and nuclear energy sector.

Etango has benefited from extensive exploration and feasibility activity over the past 15 years. The Etango tenements possess a globally large-scale uranium mineral resource<sup>1</sup>. A 20Mtpa development at Etango was the subject of a Definitive Feasibility Study (DFS) completed in 2012 and a DFS Optimisation Study completed in 2015<sup>2</sup>. Bannerman constructed and operated a Heap Leach Demonstration Plant at Etango, which comprehensively de-risked the acid heap leach process to be utilised on the Etango ore.

Namibia is a premier uranium investment jurisdiction, with a 45-year history of uranium production and export, excellent infrastructure and support for uranium mining from both government and community. As the world's fourth largest producer of uranium, Namibia is an ideal development jurisdiction boasting political stability, security, a strong rule of law and an assertive development agenda.

Etango has environmental approvals for the proposed mine and external infrastructure, based on a 12-year environmental baseline. Bannerman is a CSR leader within Namibia and exercises best-practice governance in all aspects of its business.

In August 2021, a Pre-Feasibility Study (PFS) was completed on Etango-8. The PFS confirmed that this accelerated, streamlined project is strongly amenable to development – both technically and economically. A DFS on Etango-8 has commenced with expected completion in 3Q CY2022.



<sup>1</sup> Refer to Section 3 of Bannerman's ASX release dated 2 August 2021, *Etango-8 Project Pre-Feasibility Study*. Bannerman confirms that it is not aware of any new information or data that materially affects the information included in that release. All material assumptions and technical parameters underpinning the estimates in that ASX release continue to apply and have not materially changed.

<sup>2</sup> Refer to Bannerman's ASX release dated 11 November 2015, *Outstanding DFS Optimisation Study Results*.

## Forward Looking Statements

The information in this announcement is not intended to guide any investment decisions in Bannerman Energy Ltd. This material contains certain forecasts and forward-looking information, including possible or assumed future performance, costs, production levels or rates, reserves and resources, prices and valuations and industry growth and other trends. Such forecasts and information are not a guarantee of future performance and involve many risks and uncertainties, as well as other factors. Actual results and developments may differ materially from those implied or expressed by these statements and are dependent on a variety of factors. The Company believes that it has a reasonable basis for making the forward looking statements in the announcement, based on the information contained in this and previous ASX announcements.

Bannerman is not aware of any new information or data that materially affects the information included in this ASX release, and Bannerman confirms that, to the best of its knowledge, all material assumptions and technical parameters underpinning the estimates in this release continue to apply and have not materially changed.

## Competent Person's Statement

The information in this announcement as it relates to Exploration Results is based on, and fairly represents, information and supporting documentation prepared by Mr Marthinus Prinsloo. Mr Prinsloo is a full time employee of Bannerman Energy Ltd and is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Prinsloo has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration, and to the activities, which he is undertaking. This qualifies Mr Prinsloo as a "Competent Person" as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' and a Qualified Person as defined by Canadian National Instrument 43-101. Mr Prinsloo consents to the inclusion in this announcement in the form and context in which it appears. Mr Prinsloo holds shares and performance rights in Bannerman Energy Ltd.

## Listing Rule 5.3.3 tenement schedule:

BANNERMAN ENERGY LTD CONSOLIDATED BASIS				
SCHEDULE OF INTERESTS IN MINING TENEMENTS				
Project	Mining tenements held	Location of tenements	Beneficial % interest at end of the quarter	Change in the quarter
<b>Etango</b>	Mineral Deposit Retention Licence (MDRL) 3345	Namibia	95%	-
<b>Etango</b>	Exclusive Prospecting Licence (EPL) 3345	Namibia	95%	-