

27 October 2021

**ASX Release**

**Byron Energy Adds Significant Production and Reserves with SM69 E2 Discovery Well**

- The Byron operated SM69 E2 well is currently producing from the K4 Sand at a stabilised daily rate of 1,130 barrels of oil per day (bopd) and 0.43 million cubic feet of gas per day (MMcfgpd)
- Byron's total net daily oil production has increased by 77%, and is now averaging 2,063 bopd vs 1,155 bopd as a result of the E2 production
- Byron's total net daily gas production is currently averaging 7.35 MMcfgpd following E2 production coming on-line
- The SM69 E2 well has added 1.1 Mmbo and 0.52 bcfg of net 1P Proven Developed Reserves to Byron, based on the Collarini post E2 revised reserve assessment
- Byron's companywide total net 1P Proven Developed Oil and Gas Reserves increased by 59% on oil to 2.9 Mmbo, up from 1.8 Mmbo, and 11% on gas to 5.2 Bcfg up from 4.7 Bcfg

**Byron Energy Limited (Byron or the Company) (ASX: BYE)** is pleased to provide an update of the SM69 E2 initial production rates and a summary of the independently assessed estimates of reserves and resources for the Company's SM58/69 project in the shallow waters of the Gulf of Mexico.

As announced on 13 September 2021, the Byron operated South Marsh Island 69 E2 (E2) well reached total depth of 8,157 feet Measured Depth 7,648 feet True Vertical Depth; the well was subsequently completed for production and the drilling rig was released on 8 October, 2021. The E2 well logged 113 feet MD (68 feet TVT) of net feet of oil pay in three productive oil zones, the K Sand (B55), K4 Sand (B65) and the L2 Sand with thickness and quality in line with pre-drill expectations. The well also tested an apparent oil water contact near a seismic amplitude limit in the M6 (D5) Sand. The E2 well was successfully completed with a high-rate gravel pack with sliding sleeves in the primary K4 Sand with the L2 zone perforated and isolated as a future low-cost downhole zone change.

After the drilling rig was released, construction crews tied the well into topside equipment and flowlines before oil and gas production from the E2 well was initiated on 21 October 2021 (USCDT). The E2 has stabilised gross production rates of 1,130 bopd, 0.43 MMcfgpd and no water with a flowing tubing pressure of 840 psi from perforations across the K4 (B65) Sand. This equates to an 80% increase to Byron's aggregate daily net oil production at a time of strong commodity prices.

At current pricing the E2 is expected to payout its total well cost in less than a year. Although located on the SM69 E platform, production from the 100% WI owned E2 well flows to the Byron operated SM58 G facilities free of any third-party processing fees.

Proven Developed Reserves have now been assigned to the three productive oil sands totalling 1,397 Mbo and 0.67 Bcfg (gross), or 1,093 Mbo and 0.52 Bcfg (net to Byron). An additional 856 Mbo and 857

Mmcfg of post-drill Gross Prospective Resources (or 662 Mbo + 663 Mmcfg Net) are assigned to the M6 Sand for a possible future wellbore.

Independently assessed reserves and resources estimates for the E2 were prepared and updated post completion by Collarini Associates ("Collarini"), based in Houston, Texas, USA.

The Supplemental Reserve Report table below reflects the revisions attributable to the E2 only, as of 31 October 2021 and are as follows:

**Supplemental SM69 – E2 Post Drill Reserve Table as at 27 October, 2021 (SM69 E2 component only)**

Byron Energy Limited - Reserves and Resources					
SM69 E2 Post Drill Reserve Table	Gross		Net to Byron		
October 27, 2021	Oil Mbbbl	Gas MMcf	Oil Mbbbl	Gas MMcf	Mboe (6:1)
<i>Reserves (developed and undeveloped)</i>					
<b>Proved Developed Producing (PDP)</b>	911	367	717	289	765
<b>Proved Developed Behind Pipe (PdBP)</b>	486	301	376	232	415
<b>Proved (1P)</b>	<b>1,397</b>	<b>668</b>	<b>1,093</b>	<b>521</b>	<b>1,180</b>
Probable Reserves	0	0	0	0	0
<b>Proved and Probable (2P)</b>	<b>1,397</b>	<b>668</b>	<b>1,093</b>	<b>521</b>	<b>1,180</b>
Possible Reserves	0	0	0	0	0
<b>Proved, Probable, &amp; Possible (3P)</b>	<b>1,397</b>	<b>668</b>	<b>1,093</b>	<b>521</b>	<b>1,180</b>

<b>Total Prospective Resources Best Estimate (unrisked)</b>	<b>856</b>	<b>857</b>	<b>662</b>	<b>663</b>	<b>773</b>
---	------------	------------	------------	------------	------------

***Reserves** - The aggregate 1P may be a very conservative estimate and the aggregate 3P may be a very optimistic estimate due to the portfolio effects of arithmetic summation*

***Conversion to boe** - using a ratio of 6,000 cubic feet of natural gas to one barrel of oil – 6:1 conversion ratio is based on an energy equivalency conversion method and does not represent value equivalency*

***Prospective Resource** - The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbon*

The impact of the E2 revisions on the SM58/69 Project (E Area) as at 31 October 2021 is presented in Appendix A and replaces that as at 30 June, 2021 and reflects the combined remaining reserves and prospective resources, net to Byron, for the SM58/69 E Area Project only. Appendix A contains a project summary and Appendices B and C contain additional notes on Reserves and Resources.

**E2 Production and Reserve Highlights include:**

**Reserve Additions/Revisions:**

- 1,093 Mbo + 0.52 Bcfg Net to Byron were converted to Proved Developed Reserves from Prospective Resources attributable to the successful drilling and discovery of multiple oil sands in the SM69 E2; and
- Additionally, 662 Mbo + 0.663 Bcfg Net to Byron were assigned to Prospective Resources for the high quality M6 Sand, in-line with pre-drill expectations.

**Production and Performance:**

- The E2 well is currently producing at a stabilised gross daily rate of 1,130 bopd and 0.43 MMcfcpd (908 bopd and 0.35 MMcfcpd net); Byron will continue to assess the performance to achieve optimal rate and recovery;
- The high quality K4 Sand was completed with a high-rate water gravel pack allowing for production at a significant rate with necessary sand control over the life of the completion;

- The E2 production will flow through the previously laid E-to-G flowline and be processed through the Byron operated SM58 Facilities and unlike the E1 well production, E2 production is not subject to any third-party processing fees;
- Byron's existing per unit FY2021 field level cash OPEX, of less than \$5.50/boe during the FY2021 period, is expected to be further improved by the increase in production through the SM58 G Facility with minimal corresponding increase in cash operating expenses resulting in increased margins on existing investments;
- Unhedged forecasted net daily production for 4Q/21 is expected to increase to approximately 70%, up from approximately 45% unhedged the previous quarter; allowing Byron to take better advantage of the current pricing environment. The share of unhedged production is forecasted to further increase to greater than 75% in 1Q/22 and beyond as Byron's total hedged production volume drops to 400 bopd in January for the remainder of 2022; and
- Schematic A depicts the layout of the SM58 G and SM69 E platforms and recaps the production system for the E2 well to flow to the SM58 G platform.

**Ongoing/Future Activity:**

- The E2 will contribute significantly to Byron's free cash flow position as the Company looks to internally fund our near term drilling program;
- Byron is currently in discussions with Enterprise Offshore Drilling Company to drill the SM58 G3 and G4 wells and subject to rig availability, Byron expects to drill the G3 in the Northern Hemisphere spring of 2022 and the G4 in the summer of 2022. The rig schedule for the Enterprise 264 jack up drilling rig is being coordinated with other Gulf of Mexico operators and is expected to be finalized in early December 2021;
- Byron has submitted DOCD permits for wells on several leases and each permit is under review by the Bureau of Ocean Energy Management ("BOEM"). With the recent rise in natural gas prices, Byron is also advancing technical and permitting work on two initial exploration wells, one at SM60 and the other at SM66. Both wells target large high quality gas prospects which will complement the current and future oil production at SM58; and
- Byron is in the late stages of preparation for the SM71 F4 recompletion in the J1 Sand and expects this work to take place in the next few weeks.

**Commenting on the SM69 E2 well result, Mr. Maynard Smith, CEO, said:**

*"The success of the E2, and subsequent significant increase in both production and proven reserves, is a milestone for Byron which reduces the risk profile of the company and also accelerates the planned development drilling at SM58 without the need for any further equity capital. Adding significant unhedged production at this time also allows us to take full advantage of the current price environment.*

*It is particularly pleasing that we have now been able to diversify our production across three leases and leverage off the SM58 Fieldwood purchase in 2019 in order to farm-in to the SM69 E2 well. This required a very detailed and focused approach by the Byron team and is testament to the experience and skill of all involved.*

*I congratulate the entire team on this result and very much look forward to continued success with the upcoming development wells at SM58."*

*Authorised by: Board of Directors*

For further information, contact: -

Maynard Smith  
Chief Executive Officer, Byron Energy Limited  
+61 3 8610 6583

Peter Love  
Investor relations  
+61 7 3121 5674

### About Byron:

**Byron Energy Limited** ("Byron or the Company") (**ASX: BYE**) is an independent oil and natural gas exploration and production company, headquartered in Australia, with operations in the shallow water offshore Louisiana in the Gulf of Mexico. The Company has grown through exploration and development and currently has working interests in a portfolio of leases in federal and state waters. Byron's experienced management team has a proven record of accomplishment and of advancing high quality oil and gas projects from exploration to production in the shallow water in the Gulf of Mexico. For more information on Byron please visit the Company's website at [www.byronenergy.com.au](http://www.byronenergy.com.au).

### Glossary

Bbl = barrels

Bcf = billion cubic feet

Bcfg = billion cubic feet of gas

Boe = barrels of oil equivalent

Bopd = barrels of oil per day

Btu = British Thermal Units

mcfg = thousand cubic of gas

mmcfg = million cubic feet of gas

mcfcpd = thousand cubic feet of gas per day

mmcf = million cubic feet

Mbo/Mbbl = thousand barrels of oil

MMbo/MMbbl = million barrels of oil

Mboe = thousand barrels of oil equivalent

MMboe = million barrels of oil equivalent

Mcf = thousand cubic feet

MMcf = million cubic feet

mmbtu = million British Thermal Units

psi = pounds per square inch

## Appendix A -Project Summary

### Reserves Summary (Update to project Summary as at 30 June 2021)

#### SM 58, E1 well bore, E2 well bore and SM69 E Platform

Byron owns a 53% WI and a 44.17% NRI in the joint area reservoirs from the surface to a depth of 7,490 feet TVD, located in the S1/2 of the SE1/4 of the SE1/4 of SM58, as well as a 53% working interest in the SM 69 E platform. Ankor Energy, LLC (ANKOR) is the designated operator of this portion of the block to facilitate the surface operatorship of the jointly owned SM 58 E1 well and E platform which is located in the NE corner of the SM 69 block.

Byron also holds a 100% WI farm-in right under the Joint Exploration Agreement (JEA) with ANKOR group under which Byron has now earned 100% WI in the E2 wellbore and associated acreage less a 3.0% overriding royalty interest ("ORRI"), converting to a 6% ORRI after project payout. Project payout in this case includes the recovery of all incurred construction, pipeline, drilling and completion, royalty, and OPEX through the date of actual payout. The E2 well will flow through a Byron owned flowline to SM58 facilities for processing and sales, unlike the E1 well, free of third party processing fees.

As announced on 13 September 2021, the Byron operated South Marsh Island 69 E2 well reached total depth of 8,157 feet Measured Depth 7,648 feet True Vertical Depth. The SM69 E2 well logged three productive oil sands, including the primary target K (B55), K4 (B65) and L2 (C10) Sands and tested an apparent oil water contact near the seismic amplitude limit in the M6 (D5) Sand, as planned. The three primary targets encountered and logged high-quality oil sands, consistent with pre-drill expectations with post drill Proved Reserves now assigned to these three sands equalling a total of 1,397 Mbo and 0.67 Bcfg Gross, or 1,093 Mbo and 0.52 Bcfg Net, to Byron. An additional 856 Mbo and 857 Mmcfg of post-drill Gross prospective resources (or 662 Mbo + 663 Mmcfg Net) are assigned to the fourth sand encountered in the E2 well with observed sand quality consistent with expectations.

Previously, a total of 2.3 Mmbo and 2.0 Bcf (net to Byron), in prospective resources was allocated to Fault Block B and had been assigned by Collarini to the SM69 E2 well which was being drilled at the time of the Collarini prepared 2021 Annual Reserve and Resource Report. The well has since been drilled and those resources have been revised to reflect the successful drilling of multiple oil bearing sands with significant movement into Proved Reserves as stated in the *SM69 E2 Only Post Drill* reserve table and the *Consolidated SM58-E1 and SM69 E2 Post Drill* reserve table that follow.

#### SM69 E2 (only) Reserve and Resource Table (E2 Post Drill)

Byron Energy Limited - Reserves and Resources					
SM69 E2 Post Drill Reserve Table	Gross		Net to Byron		
	Oil Mbbl	Gas MMcf	Oil Mbbl	Gas MMcf	Mboe (6:1)
<b>October 27, 2021</b>					
<i>Reserves (developed and undeveloped)</i>					
<b>Proved (1P)</b>	<b>1,397</b>	<b>668</b>	<b>1,093</b>	<b>521</b>	<b>1,180</b>
Probable Reserves	0	0	0	0	0
<b>Proved and Probable (2P)</b>	<b>1,397</b>	<b>668</b>	<b>1,093</b>	<b>521</b>	<b>1,180</b>
Possible Reserves	0	0	0	0	0
<b>Proved, Probable, &amp; Possible (3P)</b>	<b>1,397</b>	<b>668</b>	<b>1,093</b>	<b>521</b>	<b>1,180</b>
<b>Total Prospective Resources</b>					
<b>Best Estimate (unrisked)</b>	<b>856</b>	<b>857</b>	<b>662</b>	<b>663</b>	<b>773</b>

SM58-E1, E1ST & SM69 E2 Consolidated Reserve and Resource Table (E2 Post Drill)

Byron Energy Limited -Reserves and Resources					
Consolidated: SM 58 (WI 53%/NRI 44.165% & SM69 NE 1/4 (WI 100%/NRI 80.33 to 77.83%))					
<i>Estimated as at 27 October 2021</i> <i>Updated for SM69 E-2 Post Drill &amp; E1 production:</i>	Gross		Net to Byron		
October 27, 2021	Oil Mbbl	Gas MMcf	Oil Mbbl	Gas MMcf	Mboe (6:1)
<i>Reserves (developed and undeveloped)</i>					
<b>Proved (1P)</b>	<b>2,812</b>	<b>2,734</b>	<b>1,717</b>	<b>1,435</b>	<b>1,957</b>
Probable Reserves	56	15	25	7	26
<b>Proved and Probable (2P)</b>	<b>2,868</b>	<b>2,749</b>	<b>1,742</b>	<b>1,442</b>	<b>1,983</b>
Possible Reserves	0	0	0	0	0
<b>Proved, Probable, &amp; Possible (3P)</b>	<b>2,868</b>	<b>2,749</b>	<b>1,742</b>	<b>1,442</b>	<b>1,983</b>
<b>Total Prospective Resources</b>					
<b>Best Estimate (unrisked) [E3 -M6 Sand]</b>	<b>856</b>	<b>857</b>	<b>662</b>	<b>663</b>	<b>773</b>



## SM69 E Platform



### Ownership:

Byron Energy 53% WI  
ANKOR 47% WI

### Operator:

ANKOR

### Slots:

2 Slots

### Wells:

E2 Byron WI:100% NRI: 80.33%\*\*

Gross Daily Prod: **1130 bopd + 0.43 mmcf** 26/10/21

Processed through Byron SM58 G

E1 Byron WI 53% NRI 44.165%

Gross Daily Prod: **191 bopd + .09 mmcf** 24/10/21

Processed through ANKOR SM69 B

### Flowline:

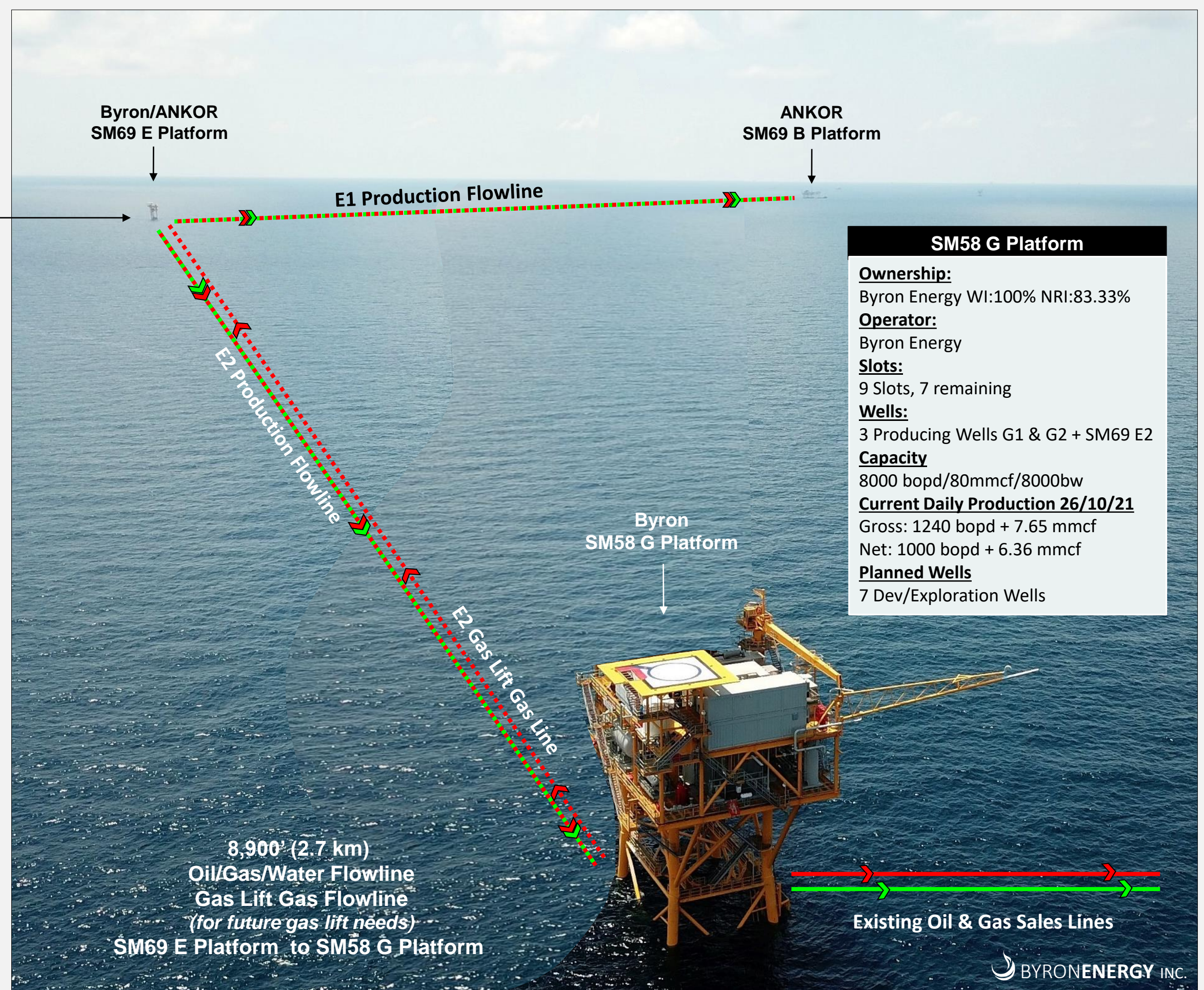
2.7 km production flowline and gas lift gas line between the SM69 E platform to the SM58 G platform

### Future SM69 E Wells

E1 Attic

Gross 2P: **1,486 mbo + 2.1 bcf\***

Produced oil and gas from the SM69 E2 well will flow to the Byron operated SM58 G platform where it will be processed before being transported to sales through existing oil and gas sales lines.



## SM58 G Platform

### Ownership:

Byron Energy WI:100% NRI:83.33%

### Operator:

Byron Energy

### Slots:

9 Slots, 7 remaining

### Wells:

3 Producing Wells G1 & G2 + SM69 E2

### Capacity

8000 bopd/80mmcf/8000bw

### Current Daily Production 26/10/21

Gross: 1240 bopd + 7.65 mmcf

Net: 1000 bopd + 6.36 mmcf

### Planned Wells

7 Dev/Exploration Wells



## **Appendix B – Notes to Reserves and Resources Statement**

### **Reserves and Resources Governance**

Byron's reserves estimates are compiled annually. Byron engages Collarini and Associates, a qualified external petroleum engineering consultant, to conduct an independent assessment of the Company's reserves. Collarini and Associates is an independent petroleum engineering consulting firm that has been providing petroleum consulting services in the USA for more than fifteen years. Collarini and Associates does not have any financial interest or own any shares in the Company. The fees paid to Collarini and Associates are not contingent on the reserves outcome of the reserves report.

### **Competent Persons Statement**

The information in this report that relates to oil and gas reserves and resources was compiled by technical employees of independent consultants Collarini and Associates, under the supervision of Mr Mitch Reece BSc PE. Mr Reece is the President of Collarini and Associates and is a registered professional engineer in the State of Texas and a member of the Society of Petroleum Evaluation Engineers (SPEE), Society of Petroleum Engineers (SPE), and American Petroleum Institute (API). The reserves and resources included in this report have been prepared using definitions and guidelines consistent with the 2007 Society of Petroleum Engineers (SPE)/World Petroleum Council (WPC)/American Association of Petroleum Geologists (AAPG)/Society of Petroleum Evaluation Engineers (SPEE) Petroleum Resources Management System (PRMS). The reserves and resources information reported in this Statement are based on, and fairly represents, information and supporting documentation prepared by, or under the supervision of, Mr Reece. Mr Reece is qualified in accordance with the requirements of ASX Listing Rule 5.41 and consents to the inclusion of the information in this report of the matters based on this information in the form and context in which it appears.

### **Reserves Cautionary Statement**

Oil and gas reserves estimates are expressions of judgment based on knowledge, experience and industry practice. Estimates that were valid when originally calculated may alter significantly when new information or techniques become available. Additionally, by their very nature, reserve and resource estimates are imprecise and depend to some extent on interpretations, which may prove to be inaccurate. As further information becomes available through additional drilling and analysis, the estimates are likely to change. This may result in alterations to development and production plans which may, in turn, adversely impact the Company's operations. Reserves estimates and estimates of future net revenues are, by nature, forward looking statements and subject to the same risks as other forward looking statements.

### **Prospective Resources Cautionary Statement**

The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

### **Forward Looking Statements**

This document may contain forward-looking information. Forward-looking information is generally identifiable by the terminology used, such as "expect", "believe", "estimate", "should", "anticipate" and "potential" or other similar wording. Forward-looking information in this document includes, but is not limited to, references to: well drilling programs and drilling plans, estimates of potentially recoverable resources, and information on future production and project start-ups. By their very nature, the forward-looking statements contained in this document require Byron and its management to make assumptions that may not materialise or that may not be accurate. Although Byron believes its expectations reflected in these statements are reasonable, such statements involve risks and uncertainties, and no assurance can be given that actual results will be consistent with these forward-looking statements.



## **ASX Reserves and Resources Reporting Notes**

- (i) *The reserves and prospective resources information in this document is effective as at 27 October, 2021 (Listing Rule (LR) 5.25.1)*
- (ii) *The reserves and prospective resources information in this document has been estimated and is classified in accordance with SPE-PRMS (Society of Petroleum Engineers - Petroleum Resources Management System) (LR 5.25.2)*
- (iii) *The reserves and prospective resources information in this document is reported according to the Company's economic interest in each of the reserves and prospective resource net of royalties (LR 5.25.5)*
- (iv) *The reserves and prospective resources information in this document has been estimated and prepared using the deterministic method (LR 5.25.6)*
- (v) *The reserves and prospective resources information in this document has been estimated using a 6:1 BOE conversion ratio for gas to oil; 6:1 conversion ratio is based on an energy equivalency conversion method and does not represent value equivalency (LR 5.25.7)*
- (vi) *The reserves and prospective resources information in this document has been estimated on the basis that products are sold on the spot market with delivery at the sales point on the production facilities (LR 5.26.5)*
- (vii) *The method of aggregation used in calculating estimated reserves was the arithmetic summation by category of reserves. As a result of the arithmetic aggregation of the field totals, the aggregate 1P may be a very conservative estimate and the aggregate 3P may be a very optimistic estimate due to the portfolio effects of arithmetic summation (LR 5.26.7 & 5.26.8)*
- (viii) *Prospective resources are reported on a best estimate basis (LR 5.28.1)*
- (ix) *For prospective resources, the estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons (LR 5.28.2)*
- (x) *SM69E project reserves and prospective resources are located in the shallow waters of the Gulf of Mexico, offshore Louisiana.*

## Appendix C - ASX LR 5.31 Reserves SM69 E2 Project

SM69 E2 project	
LR 5.31.1 – Material economic assumptions used to calculate the estimates of petroleum reserves	<p><b>Oil and gas prices</b> – Oil prices used in this report represent January 15, NYMEX West Texas Intermediate (WTI) Strip prices through 2023 and Reuters consensus for 2024, starting on July 1, 2021, of \$72.98 per barrel, with a final price of \$60.00 per barrel on January 1, 2024, and held constant thereafter. Gas prices used in this report represent a Henry Hub base July 15, NYMEX Strip prices through 2023 and Reuters consensus for 2024, starting on July 1, 2021, of \$3.411 per MMBtu, declining to \$2.750 per MMBtu on January 1, 2024, then held constant thereafter. These prices were then adjusted to account for transportation cost, basis difference, Light Louisiana Sweet (LLS) vs WTI oil gravity.</p> <p><b>Capex</b> – gross capital costs were estimated by Byron covering drilling and completion, recompletion and abandonment costs considered necessary to recover the reserve. Capital costs were considered reasonable by Collarini.</p> <p><b>Opex</b> - gross operating costs were estimated by Byron and are considered reasonable by Collarini</p> <p><b>Discount rate</b> - pre-tax discount rate of 10%</p>
LR 5.31.2 Operator or non-operator interests	Byron Energy Inc, a wholly owned subsidiary of Byron Energy Limited, is the operator of SM69 E2 well and has a 100% working interest in SM69E2 project.
LR 5.31.3 Permits or Licenses	SM69 E2 project is on the SM69 lease located in the shallow waters of the Gulf of Mexico, offshore Louisiana, USA
LR 5.31.4 Description of:	
- Basis for confirming commercial producibility and booking reserves.	The commercial producibility of reserves is based on stabilised production rates from SM69 E2 well and close analogy to nearby production from similar stratigraphic sands with similar trapping style.
- Analytical procedures used to estimate the petroleum reserves	Reserves are estimated using a combination of structure mapping from 3D and RTM seismic and well logs.
- Proposed extraction method and any specialised processing required following extraction required	Water drive reservoirs with sand control completions.
LR 5.31.5 – Estimated quantities to be recovered	See table above at the start of Appendix A.
LR 5.31.6 – Undeveloped petroleum reserves; a brief statement regarding:-	Not applicable, as SM69 E2 has developed reserves.
<ul style="list-style-type: none"> <li>- Status of the project</li> <li>- When development is anticipated</li> <li>- Marketing arrangements</li> <li>- Access to transportation infrastructure</li> <li>- Environmental approvals required</li> </ul>	
LR 5.31.7 – Unconventional petroleum resources	Not applicable, as SM69 E2 does not have unconventional resources
LR 5.31.8 Why in the absence of 1P, 2P and 3P have been determined and reported	Not applicable, as project contains only proved reserves.
LR 5.32 – Project estimates that have materially changed from when the estimates were previously reported	Not applicable, as reserves included for the first time