

6 August 2018

## ASX Release

# SM71 Independent Reserve Report: Nearly 3-Fold Increase in Reserves

Byron Energy reports the following reserve increases as of 30 June 2018:

- **SM71 Gross 8/8ths Proved and Probable (2P) reserves of 14.5 MMBL oil and 10.4 BCF gas, or 16.2 MMBOE (90% oil), up from 5.6 MMBOE**
- **SM71 1P remaining reserves, net to Byron, 2.5 MMBOE, up from 0.6 MMBOE**
- **SM71 2P remaining reserves, net to Byron, of 6.6 MMBOE, up from 2.3 MMBOE**
- **SM71 3P remaining reserves, net to Byron, of 8.8 MMBOE, up from 2.8MMBOE**

Byron reports the following metrics for the SM71 Project:

- **Total gross project payout of US\$52 million is expected in less than 1 year**
- **Byron's SM71 net 2P Find and Development Cost at US\$5.38/boe**
- **Transportation and Production Costs are averaging around US\$8.50/boe**

**Byron Energy Limited ("Byron or the Company") (ASX: BYE)** is pleased to provide an update on the Company's reserves and resources position for the Byron operated South Marsh Island Block 71 ("SM71") oil producing project, in the shallow waters of the Gulf of Mexico, as independently assessed by Collarini Associates ("Collarini").

The Collarini report is effective as of 30 June 2018 and covers only the Byron operated SM71 oil and gas project, at this stage. This is the first independent reserve report for the SM71 project since production began from the Byron operated SM71 F platform in late March 2018. All reserves quoted below are remaining reserves, net of the SM71 production of approximately 349,000 barrels of oil and 300 mmbtu of gas (gross) through 30 June 2018.

The SM71 reserves and resources, net to Byron, are as follows.

Byron Energy Limited Reserves and Resources SM 71 (Net to Byron)			
Gulf of Mexico, offshore Louisiana, USA			
Remaining as at 30 June 2018	Oil MMBL	Gas MMCF	MBOE (6:1)
<b>Reserves (developed and undeveloped)</b>			
<b>Proved (1P)</b>	<b>2,226</b>	<b>1,372</b>	<b>2,455</b>
<b>Probable Reserves</b>	<b>3,668</b>	<b>2,833</b>	<b>4,140</b>
<b>Proved and Probable (2P)</b>	<b>5,894</b>	<b>4,205</b>	<b>6,595</b>
<b>Possible Reserves</b>	<b>1,890</b>	<b>1,613</b>	<b>2,159</b>
<b>Proved, Probable &amp; Possible (3P)</b>	<b>7,784</b>	<b>5,818</b>	<b>8,754</b>
<b>Total Prospective Resource</b>			
<b>Best Estimate (unrisked)</b>	<b>387</b>	<b>19,373</b>	<b>3,616</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 hydrocarbons

## Project Summary - South Marsh Island 71

Byron has delivered an increase of 4.3 mmbœ net to Byron, after factoring in the production to 30 June 2018, a near tripling of 2P reserves at its SM71 flagship oil project in 2018.

The significant increase in all key reserve categories is directly due to the success of the Company's appraisal and development drilling program in 2017/18. Both the thicker than expected oil zones and exceptional well performance to date from the D5 producing sands are contributing factors to the positive additions and revisions to the Company's reserves. For further discussion on the increase in reserves refer to Appendix A.

As noted in recent Company ASX releases, production from the Byron operated SM71 F platform began in March 2018. Two wells were completed in the primary D5 Sand and the third well in the secondary B65 Sand. The D5 Sand production from the SM71 F1 and F3 wells have exceeded expectations in respect to both rate and reserves. Current gross daily production rates, as of 3 August 2018, from the SM71 F1 & F3 wells are averaging approximately 4,000 barrels of oil and 3.0 million cubic feet of gas daily with no water production. SM71 platform sales have totalled approximately 349,000 barrels of oil and 300 mmbtu of gas (gross) through 30 June 2018.

Byron is the designated operator of SM71 and owns a 50% Working Interest ("WI") and a 40.625% Net Revenue Interest ("NRI") in the block, with ASX listed Otto Energy Limited (ASX: OEL) holding an equivalent WI and NRI in the block. In addition to the SM71 producing lease, Byron owns a 100% WI in four additional exploration lease blocks, South Marsh Island Blocks 57, 70, 59 and 74\* ("SM57", "SM70", "SM59", and "SM74") within the South Marsh Island Block 73 field.

The project metrics derived from the report underscore why the Gulf of Mexico is an attractive basin in which to explore and produce hydrocarbons. The US\$52 million SM71 project payback period, based on net cash flow to 30 June 2018 and the Collarini report estimated proved producing production from 1 July 2018, is less than one year. Byron's net 2P Finding and Development Cost for SM71 is calculated at US\$5.38/boe. Transportation and Production Costs are averaging around US\$8.50/boe, with transportation making up just less than US\$7.00/boe of such costs. Byron's realised prices, adjusted for transportation, processing fees and uplift, and quality adjustments for the June 2018 quarter averaged approximately West Texas Intermediate oil price less US\$2.80/bbl and Henry Hub gas price less US\$0.27/mmbtu.

Further details on SM71 reserves and resources are included in appendices A and B. Appendix C contains additional notes on the SM71 reserves and resources statement.

*\*Subject to a 30% WI earn-in by Metgasco Limited, as announced by Byron to ASX on 19 July 2018.*

### Other Byron Properties

The reserves and resources report for the remainder of Byron's assessed properties, including South Marsh Island Blocks 57, 59 and 74 and Eugene Island Blocks 62, 63, 76, 77, Grand Isle 95 and the Bivouac Peak Prospect, are currently being finalised by Collarini and are expected to be released later in the September quarter.

### CEO Comment:

#### Mr. Maynard Smith had this to say regarding the SM71 reserve report:

*"The SM71 project is an outstanding achievement for the Company and is expected to underpin our cashflow for many years to come. It is remarkable to have increased our SM71 2P net reserves to 6.6 MMboe and achieved nearly a three-fold increase over 2017. This reflects the successful appraisal and development drilling at SM71 over the past year. It should be noted that 72% of our 2P reserves are now categorized as producing or behind pipe, demonstrating the clear transformation of Byron over the past year from a junior explorer to an established and substantial oil and gas producer. We look forward to the finalization of the Collarini reserve assessment on the remainder of our projects, including Bivouac Peak and SM 74, both slated for drilling later this year."*

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### **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  
boe = barrels of oil equivalent  
Bopd = barrels of oil per day  
Btu = British Thermal Units  
mcf = thousand cubic feet of gas  
mcfcpd = thousand cubic feet of gas per day  
mmcf = million cubic feet

MBL = thousand barrels of oil  
MMBL = 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

## Appendix A - Additional Information on Remaining Reserves as at 30 June 2018

The following table shows a split of Byron's SM 71 remaining reserves as at 30 June 2018 into developed and undeveloped categories by product.

Byron Energy Limited - Remaining Reserves South Marsh Island 71 (net to Byron)				
Developed and Undeveloped by product	Developed		Undeveloped	
	Oil MBBL	Gas MMCF	Oil MBBL	Gas MMCF
June 30, 2018				
<b>Proved (1P)</b>	<b>1,656</b>	<b>1,020</b>	<b>570</b>	<b>352</b>
Probable Reserves	2,604	1,726	1,064	1,107
<b>Proved and Probable (2P)</b>	<b>4,260</b>	<b>2,746</b>	<b>1,634</b>	<b>1,459</b>
Possible Reserves	-	-	1,890	1,613
<b>Proved, Probable &amp; Possible (3P)</b>	<b>4,260</b>	<b>2,746</b>	<b>3,524</b>	<b>3,072</b>

*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*

On a boe basis, 73% and 71% of SM 71 1P and 2P reserves respectively are classified as developed. All of the possible reserves are classified as undeveloped.

The following table reconciles the movement in Byron's SM 71 reserves between 30 June 2017 and 30 June 2018.

Byron Energy Limited Reserves SM 71 (Net to Byron) Gulf of Mexico, offshore Louisiana, USA								
Reserves Reconciliation	Oil (MBBL)				Gas (MMCF)			
	Remaining 30/6/2017	Produc- tion 2018	Additions Revisions 2018	Remaining 30/6/2018	Remaining 30/6/2017	Produc- tion 2018	Additions Revisions 2018	Remaining 30/6/2018
<b>SM 71 (developed &amp; undeveloped)</b>								
<b>Proved (1P)</b>	<b>581</b>	<b>-142</b>	<b>1,503</b>	<b>2,226</b>	<b>403</b>	<b>-120</b>	<b>849</b>	<b>1,372</b>
Probable Reserves	1,445	0	2,223	3,668	1,058	0	1,775	2,833
<b>Proved and Probable (2P)</b>	<b>2,026</b>	<b>-142</b>	<b>3,726</b>	<b>5,894</b>	<b>1,461</b>	<b>-120</b>	<b>2,624</b>	<b>4,205</b>
Possible Reserves	536	0	1,354	1,890	370	0	1,243	1,613
<b>Proved, Probable &amp; Possible (3P)</b>	<b>2,562</b>	<b>-142</b>	<b>5,080</b>	<b>7,784</b>	<b>1,831</b>	<b>-120</b>	<b>3,867</b>	<b>5,818</b>

*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*

## Appendix A (cont)

### Material Changes to Reserves

#### ***Proved and Probable Reserves - Net of Actual Production***

The increase in proved and probable reserves is due to the successful SM71 F2 ("F2") appraisal well drilled in December 2017 and the SM71 F3 ("F3") development well drilled in January 2018. Significantly thicker than predicted oil bearing sands were logged in the drilling of the SM71 F2 and F3 wells in the D5 Sand which has resulted in reserve additions and upgrades. Additionally, flow rates from the F1 and F3 wells have continued to exceed pre-start-up predictions resulting in positive revisions to expected recoveries.

Drilling of the B65 Sand in the SM71 F2 well resulted in a positive reclassification of a portion of Prospective Resources to the Proved and Probable Reserves categories. Although the SM71 F2 well has experienced premature pressure depletion, suggesting the well is in an isolated compartment, the reservoir is mapped well beyond the small drainage area of the SM71 F2 well. Byron expects to side-track the F2 well in the future to intersect and produce those reserves.

72% of Byron's remaining proved reserves are classified as developed or behind pipe with the balance classified as undeveloped.

#### ***Possible Reserves***

The increase in possible reserves at SM71 is mainly due to: -

- (a) potential upside recoveries and drainage areas from the producing D5 reserves;
- (b) the reclassification to possible reserves of a material proportion of the prospective resource previously attributed to the B65 Sand; and
- (c) the addition of the possible reserves attributed to the B65, J-1 and D5 sands as result of the development drilling in 2017/18.

## Appendix B - Prospective Resource as at 30 June 2018

The following table shows Byron's SM 71 prospective resource as at 30 June 2018 compared to 30 June 2017.

Byron Energy Limited Prospective Resources (net to Byron) Gulf of Mexico, offshore Louisiana, USA			
Best Estimate Unrisked 30 June 2018	Oil MMBL	Gas MMCF	MMBOE (6:1)
SM71			
<b>Total Prospective Resource (2018)</b>	<b>387</b>	<b>19,373</b>	<b>3,616</b>
<b>Total Prospective Resource (2017)</b>	<b>2,402</b>	<b>21,495</b>	<b>5,985</b>

*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*

### Material Changes to Prospective Resources

The decrease in prospective resources is due to reclassification of all of the 2017 B65 Sand prospective resource to proved, probable and possible reserves in 2018 following successful appraisal and development drilling. This is consistent with Byron's corporate model of evaluating exploration assets with state of the art 3D seismic data, establishing prospective resource potential, and testing that potential with the drill bit. With success, Prospective Resource categories are effectively converted into Proved, Probable and Possible reserve categories.

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## Appendix C - Notes to SM71 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 and resource 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.

### Pricing Assumptions

Oil prices used in this report represent consensus base prices (Citi Research June 8, 2018 Bloomberg Street Consensus), starting on January 1, 2019, of \$US63.00 per barrel, with a final price of \$US62.75 per barrel on January 1, 2021, and held constant thereafter. Gas prices used in this report represent a Henry Hub base, starting on January 1, 2019, of \$US3.00 per MMBtu, rising to a final price of \$US3.15 per MMBtu on January 1, 2021, and held constant thereafter. These prices were adjusted to account for transportation cost, basis difference, and oil gravity resulting in lower realised prices.

### ASX Reserves and Resources Reporting Notes

- (i) The reserves and prospective resources information in this document is effective as at 30 June, 2018 (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) Prospective resources are reported on a best estimate basis (LR 5.28.1)
- (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) All of Byron's reserves and prospective resources are located in the shallow waters of the Gulf of Mexico, offshore Louisiana.

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