

25 July 2016

## ASX Release

**Byron Energy Independent Reserves and Resources**

Byron Energy Limited (“Byron or the Company”) (ASX:BYE) is pleased to provide a summary of the independent reserves and resources estimate for the Company’s projects in the shallow waters of the Gulf of Mexico. The report covers South Marsh Island Block 70/71 (“SM 71”), Eugene Island Block 63/76 (“EI 76”), Grand Isle Block 95 (“GI 95”) and Bivouac Peak.

The independent reserves and resources estimates were prepared by Collarini Associates (“Collarini”), based in Houston, Texas, USA.

The combined reserves and resources, net to Byron, are:

<b>Byron Energy Limited - Reserves and Resources (Net to Byron)</b>			
<b>Gulf of Mexico, Offshore Louisiana, USA</b>			
<b>June 30, 2016</b>	<b>Oil MBBL</b>	<b>Gas MMCF</b>	<b>MBOE (6:1)</b>
<b>Reserves (Undeveloped)</b>			
<b>Proved (1P)</b>	<b>582</b>	<b>404</b>	<b>649</b>
Probable Reserves	1,797	1,627	2,068
<b>Proved and Probable (2P)</b>	<b>2,379</b>	<b>2,031</b>	<b>2,718</b>
Possible Reserves	968	1,065	1,146
<b>Proved, Probable &amp; Possible (3P)</b>	<b>3,347</b>	<b>3,096</b>	<b>3,863</b>
<b>Contingent Resource</b>			
<b>CR1C</b>	<b>19</b>	<b>9,407</b>	<b>1,587</b>
<b>CR2C</b>	<b>151</b>	<b>41,780</b>	<b>7,114</b>
<b>CR3C</b>	<b>52</b>	<b>22,467</b>	<b>3,797</b>
<b>Total Contingent Resource</b>	<b>222</b>	<b>73,654</b>	<b>12,498</b>
<b>Total Prospective Resource Best Estimate (unrisked)</b>	<b>20,180</b>	<b>333,359</b>	<b>75,740</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 - MBBL = thousand barrels; MMCF = million cubic feet; MBOE = thousand barrels of oil equivalent (“BOE”) with a BOE determined 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*

## Key Highlights

**South Marsh Island 71:** The net reserve additions to Byron's SM 71 project reflect the significant oil discovery announced by Byron in July 2016 as a result of drilling Byron's SM 71 #1 well. On a gross BOE basis, 1 P reserves increased by 139% while 2P reserves increased by 507%. While Byron chose to farm-out a 50% interest to Otto Energy Limited ("Otto") (ASX: OEL) leveraging capital and reducing risk exposure, Byron's net 1P reserves notably increased by 20% and net 2P reserves increased by 204% over Byron's 2015 report. These significant upward revisions and additions in 1P, 2P and 3P reserves at SM71 between Byron's 30 June 2015 and 30 June 2016 reports reflect the re-classification of the D5 Sand from prospective resources in 2015 to 1P, 2P and 3P reserves in 2016. Byron's 2P Net reserves at SM71 are 2,272 MBOE in 2016 up ~204%, from 748 MBOE in 2015. Additionally, new prospective resource opportunities have been identified using RTM and 3D Inversion data on the block that can be drilled and evaluated in future D5 Sand development wells.

South Marsh Island 71 30 June 2016	Gross		Net to Byron		Net to Byron
	Oil (Mbbbl)	Gas(MMcf)	Oil (Mbbbl)	Gas(MMcf)	(MBOE 6:1)
1P - Proved	1,432	994	582	404	649
2P: 1P + Probable	4,992	3,601	2,028	1,463	2,272
3P: 2P + Possible	6,321	4,518	2,568	1,836	2,874
Prospective Resources	5,027	4,896	2,042	1,989	2,374

**Bivouac Peak:** The Company's onshore Louisiana Bivouac Peak prospect is included in the 2016 report for the first time and has added significant prospective resource potential to Byron's exploration portfolio. High quality 3D seismic data has been used to define gross prospective resource potential of 15,990 Mbbbl and 177,666 Mmcf on Byron's Bivouac Peak leases. Byron currently holds a 90% Working Interest ("WI") and a 67.05% Net Revenue Interest ("NRI") at Bivouac Peak. Byron's Bivouac Peak 90% WI is subject to a promoted farm-in by both Otto and Metgasco Energy Limited ("Metgasco") (ASX: MEL). Both companies currently have the option to—earn a working interest, Otto 45%WI and MEL 10%WI, in the Bivouac Peak lease by electing to participate in the initial well and paying their disproportionate share of drilling costs and drilling to a specified earning depth. If both companies elect to participate, and upon earning, Byron's working and net revenue interest would be reduced proportionately. An initial test well is planned at Bivouac Peak in 2017, which will expose Byron and its potential farm-in partners to 32,270 MBOE (gross).

Bivouac Peak 30 June 2016	Gross		Net to Byron		Net to Byron
	Oil (Mbbbl)	Gas(MMcf)	Oil (Mbbbl)	Gas(MMcf)	(MBOE 6:1)
Prospective Resources	15,990	177,666	10,722	119,124	30,576

Byron's net share of prospective resources, based on its current NRI of 67.05% is shown in the table above. Should both Otto and Metgasco exercise their options Byron's interest in the Bivouac Peak leases would reduce to 35%WI and 26.075% NRI, resulting in net prospective resources (net to Byron) of 4,169 Mbbbl and 46,326 MMcf.

**Eugene Island 63/76 Project:** Proprietary RTM seismic processing, similar to that utilized at SM71, has been used by Byron at the EI 63/76 salt dome to identify a number of prospects with aggregate gross prospective resource potential of 8,753 Mbbl and 211,434 Mmcf. These prospects will test up to seven sands that lie updip to previously produced water drive reservoirs or are updip of wells with high quality wet sands. Historically, this same stratigraphic interval has produced 6,500 Mbbl and 360,000 Mmcf from other portions of the salt dome.

Eugene Island 63/76 30 June 2016	Gross		Net to Byron		Net to Byron
	Oil (Mbbl)	Gas(MMcf)	Oil (Mbbl)	Gas(MMcf)	(MBOE 6:1)
2P: Probable Only	433	699	351	568	446
Prospective Resources	8,753	211,434	7,112	171,790	35,743

**Grand Island 95** – GI 95, a dry gas project, has been reclassified from Reserves to Contingent Resource, reflecting lower gas prices in 2016 compared to 2015, the Company's focus on the development of SM 71 and the plans to drill Bivouac Peak in 2017 ahead of GI 95. The GI 95 lease expires in September 2017 which is an additional factor contributing to reclassification to Contingent Resource.

**South Marsh Island 6** – As reported on 7 July 2016, due to increased risk and expense from higher than expected pressure encountered while drilling the SM6 #2 well in 2016 and possible mechanical issues with that wellbore, the Company has decided not to attempt to re-enter the well and attempt to continue drilling to the primary target G 20 Sand target. Byron has re-assessed the status of the SM6 project based solely on the net hydrocarbon pay intersected in the F Sands in the SM6 #1 BP02 and SM6 #2 wells and is in the process of evaluating the future economics of producing the hydrocarbons logged in the F Sands in Byron's earlier wells. Consequently, the SM 6 reserves and prospective resources previously attributed to SM 6 have been removed from the Company's 2016 Reserves and Resources report pending a final decision.

**Commenting on the reserves report, Byron's CEO Mr Maynard Smith said,** *"The 2016 Collarini report marks an important milestone in Byron's history. The success of Byron's SM71 #1 well not only puts our company on a path to production, but gives Byron a significant increase in the important 1P and 2P categories. Despite farming down our interest to preserve capital and reduce risk, we succeeded in moving last year's prospective resources into 1P, 2P and 3P categories with an overall increase across the board at SM71. Using advanced processing technologies and additional post #1 well interpretative work we have identified another layer of prospective resource potential at SM71".*

**Mr Smith Added,** *"The addition of Bivouac Peak to the report, and the scope of our other existing Prospective Resource projects, underscores the tremendous opportunities within Byron's exploration portfolio. Bivouac Peak offers the Company a chance to test a multiple objective, amplitude supported high value prospect with our first well. Our project inventory reflects Byron's consistent stated strategy of employing the highest technology available to unlock new hydrocarbon potential in a mature basin like the Gulf of Mexico".*

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Further details are included in Appendices A-E.

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### **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 the reserves report represent NYMEX base, starting on July 1, 2016 of \$US 50.21 per barrel with a final price of \$US 59.97 per barrel on December 1, 2024 and held constant thereafter; gas prices used in this report represent Henry Hub base, starting on July 1, 2016 of \$US 3.10 per MMBtu, rising to a final price of \$US 4.68 per MMBtu on December 1, 2029 and held constant thereafter.*

## Appendix A - Projects

At 30 June 2016, Byron's portfolio of projects in the shallow waters of the Gulf of Mexico, offshore Louisiana, USA comprised:-

Properties	Operator*	Interest WI/NRI** (%)	Lease Area (Km2)	Lease Expiry date	Comments
South Marsh Island					
Blocks 70 & 71	Byron	50.00/40.625	22.13	Jul-17	Reserves and resources included in this reserves report
Block 6	Byron	100.00/81.25	20.23	Dec-16	No reserves or resources included in this reserves report
Eugene Island					
Block 63	Byron	100.00/81.25	20.23	Apr-20	Reserves and resources included in this reserves report
Block 76	Byron	100.00/81.25	20.23	May-18	Reserves and prospective resources included in this reserves report
Block 18	Byron	100.00/78.75	2.18	May-18	Early stage of evaluation; not included in this report
Grand Isle					
Block 95	Byron	100.00/79.75	18.37	Sep-17	Contingent resources included in this reserves report
Transitional Zone					
Bivouac Peak#	Byron	90.00/67.05	9.7	Sep-18	Prospective resources included in this reserves report

\* Through a wholly owned subsidiary, Byron Energy Inc

\*\* WI = working interest and NRI = net revenue interest i.e. net of royalties

# Otto Energy (OEL) has acquired an option to farm in to Byron's interest in Bivouac Peak. If OEL exercises its option, it will reduce Byron's interest a 45% WI and a 33.525% NRI

# Metgasco Energy Limited (MEL) has a right to acquire an option to farm in to Byron's interest in Bivouac Peak. If MEL exercises its right and option, Byron's interest will reduce to a 35% WI and a 26.075% NRI

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**Appendix B – Reserves as at 30 June 2016**

Byron Energy Limited Reserves (Net to Byron)										
Gulf of Mexico, offshore Louisiana, USA										
Reserves Reconciliation	Oil (MBBL)					Gas (MMCF)				
	30/06/2015	Farm-out	Production	Revisions	30/06/2016	30/06/2015	Farm-out	Production	Revisions	30/06/2016
<b>SM 71 (Undeveloped)</b>										
Proved (1P)	498	-249	0	333	582	269	-135	0	270	404
Probable Reserves	188	-94	0	1,352	1,446	102	-51	0	1,008	1,059
Proved and Probable (2P)	686	-343	0	1,685	2,028	371	-186	0	1,278	1,463
Possible Reserves	354	-177	0	363	540	275	-138	0	236	373
Proved, Probable & Possible (3P)	1,040	-520	0	2,048	2,568	646	-323	0	1,513	1,836
<b>EI 76 (Undeveloped)</b>										
Proved (1P)	0		0	0	0	0		0	0	0
Probable Reserves	352		0	-1	351	569		0	-1	568
Proved and Probable (2P)	352		0	-1	351	569		0	-1	568
Possible Reserves	428		0	0	428	692		0	0	692
Proved, Probable & Possible (3P)	780		0	-1	779	1,261		0	-1	1,260
<b>GI 95 (Undeveloped)</b>										
Proved (1P)	19		0	-19	0	9,407		0	-9,407	0
Probable Reserves	151		0	-151	0	41,780		0	-41,780	0
Proved and Probable (2P)	170		0	-170	0	51,187		0	-51,187	0
Possible Reserves	52		0	-52	0	22,467		0	-22,467	0
Proved, Probable & Possible (3P)	222		0	-222	0	73,654		0	-73,654	0
<b>SM 6 (Undeveloped)</b>										
Proved (1P)	1,134		0	-1,134	0	11,237		0	-11,237	0
Probable Reserves	1,856		0	-1,856	0	6,040		0	-6,040	0
Proved and Probable (2P)	2,990		0	-2,990	0	17,277		0	-17,277	0
Possible Reserves*	1,344		0	-1,344	0	-3,944		0	3,944	0
Proved, Probable & Possible (3P)	4,334		0	-4,334	0	13,333		0	-13,333	0
<b>Grand Total (Undeveloped)</b>										
Proved (1P)	1,651	-249	0	-820	582	20,913	-135	0	-20,375	404
Probable Reserves	2,547	-94	0	-656	1,797	48,491	-51	0	-46,813	1,627
Proved and Probable (2P)	4,198	-343	0	-1,476	2,379	69,404	-186	0	-67,188	2,031
Possible Reserves	2,178	-177	0	-1,033	968	19,490	-138	0	-18,288	1,065
Proved, Probable & Possible (3P)	6,376	-520	0	-2,509	3,347	88,894	-323	0	-85,475	3,096

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**Appendix C – Contingent Resource as at 30 June 2016\***

<b>Byron Energy Limited Contingent Resources (net to Byron)</b>			
<b>Gulf of Mexico, offshore Louisiana, USA</b>			
<b>Contingent Resource 30 June 2016</b>	<b>Oil MBBL</b>	<b>Gas MMCF</b>	<b>MBOE (6:1)</b>
<b><u>GI 95</u></b>			
<b>Contingent Resource 1C</b>	<b>19</b>	<b>9,407</b>	<b>1,587</b>
<b>Contingent Resource 2C</b>	<b>151</b>	<b>41,780</b>	<b>7,114</b>
<b>Contingent Resource 3C</b>	<b>52</b>	<b>22,467</b>	<b>3,797</b>
	<b>222</b>	<b>73,654</b>	<b>12,498</b>

\*There was no Contingent Resource as at 30 June 2015. In 2016 GI 95 was re-classified from Reserves to Contingent Resource.

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**Appendix D – Prospective Resource as at 30 June 2016\***

<b>Byron Energy Limited Prospective Resources (net to Byron)</b>			
<b>Gulf of Mexico, offshore Louisiana, USA</b>			
<b>Best Estimate Unrisked 30 June 2016</b>	<b>Oil MBBL</b>	<b>Gas MMCF</b>	<b>MBOE (6:1)</b>
<b><u>SM 71</u></b>			
<b>Total Prospective Resource</b>	<b>2,042</b>	<b>1,989</b>	<b>2,374</b>
<b><u>EI 76</u></b>			
<b>Total Prospective Resource</b>	<b>7,112</b>	<b>171,790</b>	<b>35,744</b>
<b><u>GI 95</u></b>			
<b>Total Prospective Resource</b>	<b>304</b>	<b>40,456</b>	<b>7,047</b>
<b><u>Bivouac Peak</u></b>			
<b>Total Prospective Resource</b>	<b>10,722</b>	<b>119,124</b>	<b>30,576</b>
<b><u>Grand Total</u></b>			
<b>Total Prospective Resource 2016</b>	<b>20,180</b>	<b>333,359</b>	<b>75,740</b>
<b>Total Prospective Resource 2015</b>	<b>19,183</b>	<b>334,066</b>	<b>74,861</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

**LR 5.36 re Bivouac Peak**

*Bivouac Peak Prospective Resource has increased from 6.2 MMbo and 69.2 Bcf, net to Byron, at time of initial release of Prospective Resource for the project (BYE ASX release dated 5 November 2015, based on Byron's internal estimate) to 10.7 MMbo and 119.2 Bcf, net to Byron, as at 30 June 2016, based on estimates by Collarini Associates, before exercise of options by Otto and Metgsaco, if any. The increase is mainly due to additional 3D seismic data licensed and evaluated over the Bivouac Peak lease area. This data has documented a deeper prospect on Byron's acreage that has increased the Prospective Resource expectations for the Bivouac Peak project. In addition, further analogue work was undertaken on the initial prospect areas which resulted in upgraded reserve expectations.*

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## **Appendix E – Notes to Annual 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. The 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.

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

- (i) *The reserves, contingent resource and prospective resources information in this document is effective as at 30 June, 2016 (Listing Rule (LR) 5.25.1)*
- (ii) *The reserves, contingent resource 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, contingent resource and prospective resources information in this document is reported according to the Company's economic interest in each of the reserves, contingent resource and prospective resource net of royalties (LR 5.25.5)*
- (iv) *The reserves, contingent resource and prospective resources information in this document has been estimated and prepared using the deterministic method (LR 5.25.6)*
- (v) *The reserves, contingent resource 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, contingent resource 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) *All of Byron's reserve, contingent resources and prospective resources are located in the shallow waters of the Gulf of Mexico, offshore Louisiana; furthermore, all of Byron's reserves are undeveloped as at 30 June 2016 (LR 5.39.1)*

**Appendix E – Notes to Annual Reserves and Resources Statement con't**

<b><u>Contingent Resources Material Oil and Gas Projects – GI 95</u></b>	
LR 5.33.1 Permits or Licenses	Grand Isle Block 95 ("GI 95") is located in the shallow waters of the Gulf of Mexico, offshore Louisiana, USA
LR 5.33.2 The basis for confirming the existence of a significant quantity of potentially moveable hydrocarbons and the determination of a discovery	GI 95 – producibility of contingent resources is based on producing horizons in the old GI 95 field, no longer on production, but has produced over 950 billion cubic feet of gas, much of this production is associated with seismic amplitudes, along with AVO attributes.
LR 5.33.3 A brief description of:	
- Analytical procedures used to estimate the contingent resources	GI 95 – Contingent resources are estimated using a combination of structure mapping from conventionally processed Pre-Stack Time 3D seismic. In addition, well logs and production histories of previously producing wells on this block and adjacent blocks have been incorporated into the evaluations.
- Key contingencies	GI 95 – a dry gas project; has been reclassified from Reserves to Contingent Resource, reflecting lower gas prices in 2016 compared to 2015. The GI 95 lease expires in September 2017, which is an additional factor contributing to reclassification to Contingent Resource.
- Any further appraisal drilling and evaluation work to be undertaken to assess the potential for commercial recovery, and to progress the "material oil and gas project"	GI 95 – This project is targeting contingent resources and will require production infrastructure to be constructed, subject to successful drilling, as there is no existing production infrastructure in these blocks.
LR 5.33.4 – If the reported estimates of contingent resources are contingent on technology under development, a brief explanation of: - whether the technology is under active development; - whether a pilot for the technology is planned and budgeted; and - whether the technology has been demonstrated to be commercially viable in analogous reservoirs and, if not, whether it has been demonstrated to be commercially viable in other reservoirs	GI 95 - not applicable as reported estimates of contingent resources are not contingent on technology under development.
LR 5.33.5 – Unconventional petroleum resources	GI 95 - not applicable, as GI 95 is not an unconventional petroleum project.

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