

EEStor Corporation  
Toronto, Ontario, Canada  
(TSXV: ESU)

## **Eestor Announces Completion Of Phase 4 Testing Time Constants Increased 43% Over Previous Test Results**

**Toronto, Ontario – November 14, 2016** – EEStor Corporation (TSX VENTURE:ESU) (“EEStor” or the “Company”) today announced the completion of the fourth phase of testing of its composite modified barium titanate (“CMBT”) -based energy storage technology. This current phase of testing supports that the Company continues to make significant improvements to its products over previous phases, as well as demonstrates the unique “stacking effect” of its technology. The stacking effect enables increased energy storage times which positions the technology to directly compete as a market-leading solution in grid-related storage applications. An in-depth analysis of this stacking effect and related market impact can be found in the Company’s white paper which is available for download at [www.eestorcorp.com/stacking](http://www.eestorcorp.com/stacking) and at [www.sedar.com](http://www.sedar.com).

Significantly, the testing and associated improvements have been achieved using EEStor’s conventional epoxy host polymer. Development of highly polar host polymer versions, particularly targeted at high energy density applications, are being conducted in parallel, and the Company expects to announce the results of this development in the near future.

To ensure consistent testing protocols, Phase 4 testing was completed by Intertek Group plc, the same independent testing laboratory which conducted the Company’s previous three phases of product tests. For this round of testing, in addition to testing by Intertek, the Company also completed independent testing of the identical components with MRA Laboratories Inc. (“MRA”) to support Intertek’s results and to successfully benchmark the internal testing regime performed daily at the Company. The Intertek, MRA and internal EEStor results for Phase 4 were consistently within 2-3% of one another.

Ian Clifford, Founder and CEO of the Company commented: “We are extremely pleased with the results and advancements of the technology over the past year. By including MRA in this round of testing, we have complete confidence in the test results. This, alongside increased time constants and capacitance, should accelerate our discussions with potential capacitor partners who rely heavily on these leading testing organizations for validation.” Clifford added: “With the Company’s high energy density work underway, the imperative to realize sustainable and scalable solutions in energy storage has never been greater. I am confident that EEStor will become a leader in electrical energy storage as we continue to develop technology that will help replace non-renewable fossil fuels<sup>1</sup> and challenging electrolytic energy storage that has significant safety and scalability concerns.”<sup>2</sup>

### **Comparison of Four Phases of Testing**

When comparing successive iterations of the Company’s technology, as documented in Intertek testing Phases 1 through 3, it is important to note that there are many variables, including area of the part, voltage under test, thickness and number of layers. The first and most obvious improvement from Phase-to-Phase has been the increase in operating voltage and the dielectric strength of the test materials. In Intertek Phase 1 testing, the Company demonstrated the performance characteristics of twenty 1500-volt single layer samples and one 250-volt stack consisting of 6 combined layers. For Phase 2, test voltages increased to 750 volts in a 6-layer stack, and in Phase 3 a 2000 volt 8-layer stack was tested to 3400 volts.

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1 - <http://www.un.org/press/en/2011/sgsm13998.doc.htm>

2 - <http://news.mit.edu/2016/battery-challenges-cost-and-performance-1102>

In Phase 4, EESor had three separate stacks tested by both Intertek and MRA: a 4-layer, 8-layer and 16-layer stack. It also tested two single layer samples representing individual layers used to create the 4, 8 and 16 layer stacks. All parts tested in Phase 4 are 3000 volt components, and the individual layers have been tested by EESor to 4500 volts, demonstrating that the Company's technology is now capable of performing at both increased voltage levels and in larger stack layers, with consistent and predictable results.

For a direct comparison of performance improvements in EESor's CMBT-based technology, layer C5-1 (the 1500-volt single layer part tested at the highest voltage [2680 volts] in Phase 1 testing) can be directly compared to the single layer samples tested in Phase 4. The single layers in the current test kit have been successfully tested to 4500 Volts DC without failure, establishing a dielectric strength of over 69 volts per micron. By comparison, a review of Intertek Phase 3 results shows the highest voltage test results observed with the 2000 Volt 8-layer stack (S5), which was tested to 3400 volts, resulted in 47 volts per micron. In Phase 4 testing, EESor successfully tested stacks with twice as many layers (16) with each layer sustaining more applied voltage. In addition to the increased voltage, the resistance and time constants of the stacked parts increased significantly, and leakage current per volt decreased, demonstrating higher production quality in manufacturing.

In addition to confirming increased performance and durability of the Company's technology, Phase 4 of testing establishes the unique effects and benefits of EESor's patent pending stacking design. As illustrated in the Phase 4 results for the 4, 8 and 16 layer stacks, capacitance increases with the number of layers, as expected, but resistance decreases only moderately. Since time constants are a function of the relationship between capacitance and resistance, the stacking effect demonstrates the unique ability to add capacitance without significantly decreasing resistance, resulting in significantly increased time constants. This breakthrough development opens a number of grid storage related markets previously thought to be outside the immediately addressable markets for the Company. Ferroelectric capacitors, predominantly used in these applications, do not benefit from stacking effects due to currents flowing through the dielectric. In contrast, a unique advantage of EESor's paraelectric dielectric technology is that when used in a stacked configuration leakage current can be reduced by the buffer current induced in floating nodes. If this architecture was attempted with ferroelectric capacitors the current through the capacitors would disrupt the buffering field, so the capacitors would not exhibit the stacking effect.

For the full test reports please see:

Intertek: <http://www.eestorcorp.com/intertek1116.html>

MRA: <http://www.eestorcorp.com/mra1116.html>

The independent test reports have also been filed and are available for download and viewing at [www.sedar.com](http://www.sedar.com).

As a result of this patent pending stacking methodology, and the resulting field effect and time constant benefits, the Company believes it can build superior capacitors by continuing to increase the number of layers. Increasing the number of layers is a straight forward process for the Company.

With the improvements above that have been demonstrated in the latest round of testing, the Company plans to accelerate its licensing discussions and evaluation kit distribution with interested parties.

#### **About Intertek Group plc.**

Intertek Group plc is an industry leader with more than 40,000 employees in 1,000 locations in over 100 countries. Intertek delivers Quality Assurance solutions 24 hours a day, 7 days a week with its industry winning processes to help its customer ensure their products meet quality, health, environmental, safety, and social accountability standards for virtually any market around the world. Intertek holds extensive global accreditations, recognitions, and agreements, and its knowledge of and expertise in overcoming regulatory, market, and supply chain hurdles is unrivaled. Intertek's testing and certification services support the quality, performance, regulatory compliance, safety, benchmarking, evaluation, validation, analysis, and other requirements for products, components, raw materials, sites, and facilities.

### **About MRA Laboratories, Inc.**

MRA Laboratories, Inc. is a leading supplier of formulated ceramic dielectric materials and customized technology solutions to the multilayer ceramic capacitor (MLCC) industry. MRA offer a broad selection of formulated ceramic dielectric compositions for air-fired multilayer ceramic chip capacitors, customized electrode inks, new custom dielectric compositions, prototype production of electronic components and analytical services. MRA offers a broad spectrum of electrical characterization tools to evaluate dielectric materials and measure their performance in passive electronic components at variable temperatures, voltages, and frequencies.

### **About EESor Corporation**

The Company's mission is to be the provider of leading edge electrical energy storage and related capacitor technologies. The Company operates on the principle and belief that a fundamental breakthrough in energy storage will be the catalyst for positive environmental and economic change globally. The Company's current business strategy is focused on licensing and partnership opportunities across a broad spectrum of industries and applications building on its recent technology achievements related to capacitors.

The Company holds an approximate 71.3% as-converted equity and voting interest and certain technology rights to a solid-state capacitor and related energy storage technologies currently under development by EESor, Inc. The acquisition of the controlling interest in EESor Inc. aligned the businesses of both companies and now allows EESor Corporation to benefit from other revenue streams that should be available to EESor, Inc., including applications throughout the capacitor industry and not limited to high density energy storage applications.

The Company's success depends on the commercialization of the technology developed by EESor, Inc. and there is no assurance that it will be successful in the completion of the various enhancement phases to warrant the anticipated licensing opportunities in the technology. Readers are directed to the "Risk Factors" disclosed in the Company's public filings.

### **Forward-looking Statements**

Certain statements and documents referred to in this release, other than statements of historical fact, may include forward-looking information that involves various risks and uncertainties that face the Company; such statements may contain such words as "may", "would", "could", "will", "intend", "plan", "anticipate", "believe", "estimate", "expect" and similar expressions, and may be based on management's current assumptions and expectations related to all aspects of the capacitor and energy storage industries, consumer demand for such solutions and the global economy. Risks and uncertainties that may face the Company include, but are not restricted to: EESor may not be able to replicate test results in mass produced commercial products; the EESor capacitor and energy storage technology may not be successfully commercialized at all, in a manner providing the features and benefits expected while under development, or on a timely basis or the Company may not be able to successfully incorporate this technology into its current or proposed products or the products of others; steps taken by the Company to protect its proprietary rights may not be adequate or third parties may infringe or misappropriate the Company's proprietary rights; the Company has a history of losses from operations and may not be able to obtain financing, if and when required or on acceptable terms due to market conditions or other factors, to fund future expenditures for general administrative activities, including sales and marketing and research and development, expansion, strategic acquisitions or investment opportunities or to respond to competitive pressures; competitors may develop products which offer greater benefits to consumers, have greater market appeal or are more competitively priced than those offered by the Company; the Company may be exposed to product liability claims which exceed insurance policy limits; the Company is dependent on the ability and experience of a relatively small number of key personnel; new products introduced by the Company may not be accepted in the market or to the extent projected; new laws and regulations may be enacted or existing ones may be applied or governmental action may be taken in a manner which could limit or curtail the production or sale of the Company's products; and the Company may be negatively affected by reduced consumer spending due to the uncertainty of economic and geopolitical conditions. These risks and uncertainties may cause actual results to differ from information contained in this release, when estimates and assumptions have been used to measure and report results. There can be no assurance that any

statements of forward-looking information contained in this release will prove to be accurate. Actual results and future events could differ materially from those anticipated in such statements.

These and all subsequent written and oral statements containing forward-looking information are based on the estimates and opinions of management on the dates they are made and expressly qualified in their entirety by this notice. Except as required by applicable laws, the Company assumes no obligation to update forward-looking statements should circumstances or management's estimates or opinions change. Readers are cautioned not to place undue reliance on any statements of forward looking information that speak only as of the date of this release. Additional information identifying risks and uncertainties relating to the Company's business are contained under the heading "Risk Factors" in the Company's most recently filed Annual Information Form and its other filings with the various Canadian securities regulators which are available online at [www.sedar.com](http://www.sedar.com).

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