51-102F3 Material Change Report

Item 1 Name and Address of Company

E.S.I. Environmental Sensors Inc.
2071C Malaview Avenue West, Sidney, BC V8L 5X6

Item 2 Date of Material Change

February 15, 2011

Item 3 News Release

A press release in connection with a material change was issued via commercial news dissemination service on March 3, 2011, a copy of which is attached hereto as Schedule "A".

Item 4 Summary of Material Change

The Company has issued 30,000,000 common shares and 30,000,000 share purchase warrants to Avis Financial Corporation effective a Treasury Order dated February 15, 2011 in exchange for the retirement of $1,500,000 in outstanding debt owed to Avis Financial Corporation. ESI received a $1.5 million cash loan from Avis Financial Corporation in February of 2010. The share purchase warrants are exercisable at a price of $0.10 per common share and expire after one year on February 15, 2012. The shares and warrants have a four month hold period expiring on June 16, 2011. In addition, 2,400,000 common shares were issued as finder's fees in connection with the private placement.

Item 5 Full Description of Material Change

A full description of the material change is attached in "Schedule A"

Item 6 Reliance on subsection 7.1(2) of National Instrument 51-102

The Issuer is not relying on subsections 7.1 (5), (6) and (7) of National Instrument 51-102 concerning continuing obligations in respect of reports filed under subsection 7.1(2) of National Instrument 51-102.

Item 7 Omitted Information

No material information has been omitted from this report.

Item 8 Executive Officer

For further information you may contact Ian Middleton through Bernard Beauchesne at the corporate office for the Company (1.250.655.3211).

Item 9 Date of Report

Dated at Sidney, B.C. on March 3, 2011.

Schedule "A"

ESI Closes Previously Announced $1.5 Million Debt Conversion

Victoria, British Columbia, March 3, 2011 – E. S. I. Environmental Sensors Inc. ("ESI" or the "Company"), TSX-V: ESV is pleased to announce it has received TSX Venture Exchange ("Exchange") final acceptance of a debt conversion originally announced on September 8, 2010. The private placement consists of 30,000,000 Units at $0.05 per Unit for total value of $1,500,000, and with each Unit consisting of one common share and one share purchase warrant ("Warrant"). The Company has now issued 30,000,000 common shares and 30,000,000 Warrants. Each Warrant will be exercisable into an additional common share at a price of $0.10 until February 15, 2012. In addition, the shares and Warrants have a four month hold period expiring on June 16, 2011.

This transaction was originally announced in the form of a one year convertible debenture, however, the terms were revised to an equity private placement in order to comply with Exchange policies and now match the terms offered to other placees in an equity private placement of $750,000 also announced on September 8, 2010 and closed on November 4, 2010.

Background:
On September 8, 2010, the Company announced that an agreement was reached with Avis Financial Corporation ("Avis Financial") to convert a current demand loan on the Company's balance sheet into a convertible debenture. The principal amount of the debt owed to Avis Financial totaled $1.5 million. The new debenture was to be convertible into common shares at $0.05 per share for a period of one year from the closing date. In addition, the debenture was to bear interest at a rate of 12%. Due to the number of shares which could be issued on conversion of the debenture, at the Company's Annual General Meeting on September 29, 2010, the Company sought and received disinterested shareholder approval for the potential creation of a new control person, namely Avis Financial. The Company recently received final Exchange acceptance to close this transaction. The Company has paid a finder's fee of 2,400,000 common shares in connection with the private placement.

About Avis Financial Corporation
Avis Financial is an innovative, integrated business development engine that assists small and medium-sized enterprises (SMEs) in realizing their full potential. Involved at every step of the way, Avis Financial provides a truly comprehensive package of services to its portfolio companies, who further benefit from a high-profile brand, a major international network and extensive business expertise. Avis Financial's services include capital and operational restructuring, business development and placement preparation. To ensure that its portfolio companies receive support at every level, Avis Financial works with a large network of affiliates providing business and capital services.

About ESI
ESI is a leading manufacturer of patented and proprietary solutions for environments where understanding the presence, movement, and/or amount of water are important. Major market sectors include: agriculture, golf and turf, scientific research, civil engineering, mining, environmental monitoring and crude oil production. ESI solutions have been successfully introduced into more than 40 countries to enable customers to optimize their operations by monitoring the presence and movement of water, managing irrigation systems, and monitoring the integrity of landfill covers. In addition, ESI's Flo·Point™ instrument has been deployed in the oil industry to measure the volumetric presence of water pumped during crude oil extraction for characterization and optimization of the process. ESI differentiates itself by translating the best technology and science available into practical, easy to use solutions. Irrigation managers, reservoir engineers, and scientists have adopted ESI's products for their accuracy, ease of use, repeatability, and ability to operate in challenging environments. ESI is publicly traded on the TSX Venture Exchange under the symbol "ESV". Further information about ESI may be obtained through the Company's website at www.esica.com.

Investor Relations:
E.S.I. ENVIRONMENTAL SENSORS INC.
2071C Malaview Avenue West
Sidney, BC V8L 5X6
Tel: 250.655.3211 or 1-800.799.6324
Email: investor.relations@esica.com

Media and Investor Relations Contact:
Bernard M. Beauchesne
Email: bbeauchesne@esica.com
Tel: 250.655.3211 or 1-800.799.6324
www.esica.com