

COMPUTERSHARE TRUST COMPANY OF CANADA
("Computershare")

OFFICER'S CERTIFICATE

TO: Royal Bank of Canada, as Administrative Agent

AND TO: Royal Bank of Canada and Canadian Imperial Bank of Commerce, as Funding Agents, and Goldman Sachs Bank USA, as a Non-Conduit Purchaser

AND TO: Fair Hydro Trust ("the **Issuer**")

AND TO: BNY Trust Company of Canada, in its capacity as indenture trustee (the "**Indenture Trustee**") of the Issuer

AND TO: Ontario Power Generation Inc.

AND TO: DBRS Limited and Moody's Investors Service Inc.

AND TO: Osler, Hoskin & Harcourt LLP

AND TO: Torys LLP

RE: Commercially Sensitive aggregate principal amount of Floating Rate Variable Funding Notes 2017-1

AND RE: Commercially Sensitive aggregate principal amount of Floating Rate Variable Funding Subordinated Notes, Series 2017-1

AND RE: Commercially Sensitive aggregate principal amount Floating Rate Variable Funding Junior Subordinated Notes, Series 2017-1

The undersigned, Scott Markham, the duly appointed Assistant Secretary of Computershare, hereby certifies for and on behalf of Computershare, not in their personal capacity, and without personal liability, and intending that this certificate may be relied on by the addressees hereof without independent inquiry, that:

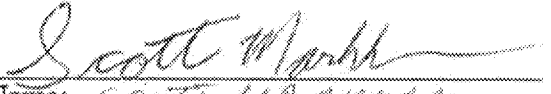
1. I have made or caused to be made such examinations or investigations as are, in my opinion, necessary to make the statements in this certificate.
2. Attached as Schedule A are true and complete copies of the articles of incorporation, articles of amendment and the letters patent of continuance of Computershare (the "**Articles**"). The Articles are in full force and effect at this date, have not been amended or waived and neither the directors nor the shareholders of Computershare have passed, confirmed or consented to any amendments or variation to the Articles.
3. Attached as Schedule B is a true and complete copy of by-law no. 4 of Computershare as amended and restated (the "**By-laws**"), being the only by-law in

effect other than one dealing with the share capital of Computershare. The By-laws are in full force and effect, unamended, at this date and neither the directors nor the shareholders of Computershare have passed, confirmed or consented to any resolutions amending or varying the By-laws.

4. Attached as Schedule C is a true and complete copy of a resolution of the board of directors of Computershare regarding the execution of documents and countersignatories, dated as of August 16, 2017. The resolution is in full force and effect, unamended, at this date and neither the directors nor the shareholders of Computershare have passed, confirmed or consented to any resolutions amending or varying such resolution.
5. Computershare has not taken any steps to terminate its existence, to surrender or cancel the Articles, to amalgamate, reorganize or to continue in any other jurisdiction. To the best of my knowledge, Computershare has not received any notice or other communication from any person or governmental authority indicating that there exists any situation which, unless remedied, could result in the termination of the corporate existence of Computershare.
6. To the best of my knowledge, no proceedings are pending for the winding-up, liquidation, bankruptcy, insolvency or dissolution of Computershare, including without limitation under the *Bankruptcy and Insolvency Act* (Canada), the *Companies' Creditors Arrangement Act* (Canada) or the *Trust and Loan Companies Act* (Canada).
7. To the best of my knowledge, as of the date hereof, no court action or proceeding has been instituted, nor has any governmental action been threatened before any court or governmental authority, nor has any order, judgement or decree been issued by any court or governmental authority to set aside, restrain, enjoin or prevent Computershare from generally carrying out its business as a trust company in Canada.
8. Computershare is a trust company established under the laws of Canada. No proceedings for the termination of such authorization have been commenced or are being contemplated by Computershare and Computershare has no knowledge of any such proceedings having been commenced or being contemplated in respect of Computershare. Computershare has not passed any resolutions which would restrict it from carrying on its business as a trust company in Canada.
9. Computershare's principal place of business, head office and registered office is located in Ontario.

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DATED the 21 day of December, 2017.


Name: SCOTT MARKHAM
Title: ASSTANT SECRETARY

Attachments

Schedule A - Articles
Schedule B - By-laws
Schedule C - Resolution regarding execution of
documents and countersignatories

SCHEDULE A

ARTICLES

See attached.



Industry Canada

Industrie Canada

**Certificate
of Incorporation**

**Canada Business
Corporations Act**

**Certificat
de constitution**

**Loi canadienne sur
les sociétés par actions**

3725529 Canada Inc.

372552-9

Name of corporation-Dénomination de la société

Corporation number-Numéro de la société

I hereby certify that the above-named corporation, the articles of incorporation of which are attached, was incorporated under the *Canada Business Corporations Act*.

Je certifie que la société susmentionnée, dont les statuts constitutifs sont joints, a été constituée en société en vertu de la *Loi canadienne sur les sociétés par actions*.

Director - Directeur

February 29, 2000 / le 29 février 2000

Date of Incorporation - Date de constitution

Canada

CANADA BUSINESS CORPORATIONS ACT

FORM 1

ARTICLES OF INCORPORATION

(SECTION 6)

1. Name of corporation:

3725529 Canada Inc.

2. The place in Canada where the registered office is to be situated:

City of Toronto, Province of Ontario

3. The classes and any maximum number of shares that the Corporation is authorized to issue:

An unlimited number of common shares.

4. Restrictions, if any, on share transfers:

No share shall be transferred without either (a) the consent of the directors of the Corporation expressed by a resolution passed by the board of directors or by an instrument or instruments in writing signed by all of such directors, or (b) the consent of the holders of shares to which are attached more than 50% of the voting rights attaching to all shares for the time being outstanding entitled to vote at such time expressed by a resolution passed by such shareholders at a meeting duly called and constituted for that purpose or by an instrument or instruments in writing signed by all of such shareholders.

5. Number (or minimum and maximum number) of directors:

A minimum of one (1) and a maximum of ten (10).

6. Restrictions, if any, on business the corporation may carry on:

None.

7. Other provisions, if any:

- (a) The number of shareholders of the Corporation, exclusive of persons who are in its employment and exclusive of persons who, having been formerly in the employment of the Corporation, were, while in that employment, and have continued after the termination of that employment to be, shareholders of the Corporation, is limited to not

more than 50, 2 or more persons who are the joint registered owners of 1 or more shares being counted as 1 shareholder;

- (b) Any invitation to the public to subscribe for any securities of the Corporation is prohibited; and
- (c) The directors may appoint one or more directors, who shall hold office for a term expiring not later than the close of the next annual meeting of shareholders, but the total number of directors so appointed may not exceed one third of the number of directors elected at the previous annual meeting of shareholders.

8. Incorporator:

Name

Brian M. Pukier

Address

46 Alcina Avenue
Toronto, Ontario M6G 2E8


Brian M. Pukier

Comp. No 372 552-9

FEB 29 2000

Certificate
of Amendment

Canada Business
Corporations Act

Certificat
de Modification

Loi canadienne sur
les sociétés par actions

Computershare Investor Services Inc.

372632-9

Name of corporation-Dénomination de la société

Corporation number-Numéro de la société

I hereby certify that the articles of the
above-named corporation were amended:

Je certifie que les statuts de la société
susmentionnée ont été modifiés:

- a) under section 13 of the *Canada Business Corporations Act* in accordance with the attached notice;
- b) under section 27 of the *Canada Business Corporations Act* as set out in the attached articles of amendment designating a series of shares;
- c) under section 179 of the *Canada Business Corporations Act* as set out in the attached articles of amendment;
- d) under section 191 of the *Canada Business Corporations Act* as set out in the attached articles of reorganization;



- a) en vertu de l'article 13 de la *Loi canadienne sur les sociétés par actions*, conformément à l'avis ci-joint;
- b) en vertu de l'article 27 de la *Loi canadienne sur les sociétés par actions*, tel qu'il est indiqué dans les clauses modificatrices ci-jointes désignant une série d'actions;
- c) en vertu de l'article 179 de la *Loi canadienne sur les sociétés par actions*, tel qu'il est indiqué dans les clauses modificatrices ci-jointes;
- d) en vertu de l'article 191 de la *Loi canadienne sur les sociétés par actions*, tel qu'il est indiqué dans les clauses de réorganisation ci-jointes;



Director - Directeur

May 1, 2000 / le 1 mai 2000

Date of Amendment - Date de modification



Industry Canada

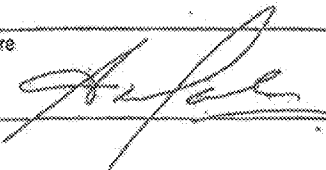
Industrie Canada

Canada Business
Corporations ActLoi canadienne sur
les sociétés par actionsFORM 4
ARTICLES OF AMENDMENT
(SECTION 27 OR 177)FORMULE 4
CLAUSES MODIFICATRICES
(ARTICLES 27 OU 177)

1 - Name of corporation - Dénomination de la société 3725529 Canada Inc.	2 - Corporation No. - N° de la société 372552-9
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3 - The articles of the above-named corporation are amended as follows: Les statuts de la société mentionnée ci-dessus sont modifiés de la façon suivante:

To change the name of the Corporation to Computershare Investor Services Inc.

Date April 19, 2000	Signature 	Title - Titre CHAIRMAN OF THE BOARD
		FOR DEPARTMENTAL USE ONLY - À L'USAGE DU MINISTÈRE SEULEMENT Filed - Dépôtée May 1, 2000

Canada

DSG 01/2000



Industry Canada

Industrie Canada

Certificate
of Amendment

Certificat
de modification

Canada Business
Corporations Act

Loi canadienne sur
les sociétés par actions

Computershare Investor Services Inc.

Services aux investisseurs Computershare Inc.

372552-9

Name of corporation-Dénomination de la société

Corporation number-Numéro de la société

I hereby certify that the articles of the
above-named corporation were amended:

Je certifie que les statuts de la société
susmentionnée ont été modifiés:

- a) under section 13 of the *Canada Business Corporations Act* in accordance with the attached notice;
- b) under section 27 of the *Canada Business Corporations Act* as set out in the attached articles of amendment designating a series of shares;
- c) under section 179 of the *Canada Business Corporations Act* as set out in the attached articles of amendment;
- d) under section 191 of the *Canada Business Corporations Act* as set out in the attached articles of reorganization;



- a) en vertu de l'article 13 de la *Loi canadienne sur les sociétés par actions*, conformément à l'avis ci-joint;
- b) en vertu de l'article 27 de la *Loi canadienne sur les sociétés par actions*, tel qu'il est indiqué dans les clauses modificatrices ci-jointes désignant une série d'actions;
- c) en vertu de l'article 179 de la *Loi canadienne sur les sociétés par actions*, tel qu'il est indiqué dans les clauses modificatrices ci-jointes;
- d) en vertu de l'article 191 de la *Loi canadienne sur les sociétés par actions*, tel qu'il est indiqué dans les clauses de réorganisation ci-jointes;

Director - Directeur

June 29, 2000 / le 29 juin 2000

Date of Amendment - Date de modification

Canada

Industry Canada

Industrie Canada

Canada Business
Corporations ActLoi canadienne sur
les sociétés par actionsFORM 4
ARTICLES OF AMENDMENT
(SECTION 27 OR 177)FORMULE 4
CLAUSES MODIFICATRICES
(ARTICLES 27 OU 177)

1 - Name of corporation - Dénomination de la société

Computershare Investor Services Inc.

2 - Corporation No. - N° de la société

372552-9

The articles of the above-named corporation are amended as follows:

Les statuts de la société mentionnée ci-dessus sont modifiés de la
façon suivante:

The articles of the Corporation be amended to authorize the Corporation to use its corporate name in either the existing English version or in the following French version:

Services aux investisseurs Computershare inc.

Date

June 27, 2000

Signature



Title - Titre

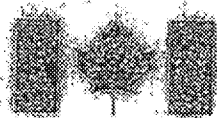
Chairman

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Filed - Déposée

JUN 29 2000



OSG 01/2000



Canada

*Letters Patent of
Continuance*

*Lettres patentes de
prorogation*

*Trust and Loan
Companies Act*

*Lai sur les sociétés
de fiducie et de prêt*

The Secretary of State (International
Financial Institutions), on behalf of the
Minister of Finance and pursuant to section
33 of the *Trust and Loan Companies Act*:

Au nom du ministre des Finances, et en
vertu de l'article 33 de la *Loi sur les sociétés
de fiducie et de prêt*, le secrétaire d'État
(Institutions financières internationales) :

- continues Computershare Investor
Services Inc. a company incorporated
under *Canada Business Corporations
Act*, as a company under the *Trust and
Loan Companies Act*;
- declares that the name of the company is
Computershare Trust Company of
Canada;
- declares that the head office of the
company shall be in the City of Toronto,
in the Province of Ontario; and
- declares that these letters patent are
effective on January 9, 2001.

- proroge Computershare Investor
Services Inc., une société constituée aux
termes de la *Loi sur les sociétés par
actions*, comme une société sous le
régime de la *Loi sur les sociétés de
fiducie et de prêt*;
- statue que la désignation sociale de la
société est Société de fiducie
Computershare du Canada;
- fixe le siège de la société dans la ville de
Toronto, dans la province de l'Ontario;
- statue que ces lettres patentes entrent en
vigueur le 9 janvier 2001.

Date: January 9, 2001

Date: Le 9 janvier 2001

Secretary of State
(International Financial Institutions)
Le secrétaire d'État
(Institutions financières internationales)

SCHEDULE B

BY-LAWS

See attached.

COMPUTERSHARE TRUST COMPANY OF CANADA

BY-LAW NO. 4, AS AMENDED AND RESTATED

Section 2.4 – Execution of Instruments

Deeds, transfers, assignments, contracts, obligations, certificates and other instruments may be signed on behalf of the Company by any two of the directors, Chairman of the Board, President, Chief Executive Officer, Chief Financial Officer, Treasurer, Secretary, Executive Vice-Presidents, Senior Vice-Presidents, Regional Vice-Presidents or Vice-Presidents. In addition, the board of directors or any two of the Chairman of the Board, President, Chief Executive Officer, Chief Financial Officer, Treasurer, Secretary, Executive Vice-Presidents, Senior Vice-Presidents, Regional Vice-Presidents or Vice-Presidents may from time to time direct the manner in which and the person or persons by whom any particular instrument or class of instruments may or shall be signed. Any signing officer may affix the corporate seal to any instrument requiring the same.

CERTIFIED to be a true and exact copy of an extract from By-Law No. 4 of the By-Laws of Computershare Trust Company of Canada, which By-Law is in full force and effect as of the date hereof.

DATED at Toronto, this 21 day of December, 2017.



Assistant Secretary

COMPUTERSHARE TRUST COMPANY OF CANADA

(the "Company")

BY-LAW NO. 4, AS AMENDED AND RESTATED

A by-law relating generally to the transaction of the business and affairs of the Company.

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BE IT ENACTED as a by-law of the Company as follows:

ARTICLE 1 INTERPRETATION

Section 1.1 Definitions.

(1) In the by-laws of the Company, unless the context otherwise requires:

“Act” means the *Trust and Loan Companies Act*, and any statute that may be substituted therefor, as from time to time amended.

“appoint” includes “elect” and vice versa.

“board” means the board of directors of the Company.

“by-laws” means this by-law and all other by-laws of the Company from time to time in force and effect.

“cheque” includes a draft.

“Company” means the Company continued under the Act on January 9th, 2001.

“letters patent” means the letters patent of the Company as from time to time amended or restated.

“meeting of shareholders” includes an annual meeting of shareholders and a special meeting of shareholders.

“non-business day” means Saturday, Sunday and any other day that is a holiday as defined in the *Interpretation Act* (Canada) as from time to time amended.

“ordinary resolution” means a resolution passed by a majority of the votes cast by the shareholders who voted in respect of that resolution or signed by all of the shareholders entitled to vote on that resolution.

“recorded address” means in the case of a shareholder his address as recorded in the securities register; and in the case of joint shareholders the address appearing in the securities register in respect of such joint holding or the first address so appearing if there are more than one; and in the case of a director (subject to the provisions of Section 11.1), officer, auditor or member of a committee of the board, his latest address as recorded in the records of the Company.

"resident Canadian" means an individual who is:

- (a) A Canadian citizen ordinarily resident in Canada;
- (b) A Canadian citizen not ordinarily resident in Canada who is a member of a class of persons prescribed in the regulations to the Act, as amended from time to time; or
- (c) A permanent resident within the meaning of the *Immigration Act* and ordinarily resident in Canada, except a permanent resident who has been ordinarily resident in Canada for more than one year after the time at which he first became eligible to apply for Canadian citizenship.

"signing officer" means, in relation to any instrument, any person authorized to sign the same on behalf of the Company by or pursuant to section 2.4.

"special meeting of shareholders" includes a meeting of any class or classes of shareholders and a special meeting of all shareholders entitled to vote at an annual meeting of shareholders.

"special resolution" means a resolution passed by a majority of not less than two-thirds of the votes cast by the shareholders who voted in respect of that resolution or signed by all the shareholders entitled to vote on that resolution.

"unanimous shareholder agreement" means a written agreement among all the shareholders of the Company or among all such shareholders and a person who is not a shareholder or a written declaration of the beneficial owner of all of the issued shares of the Company that restricts, in whole or in part, the powers of the directors to manage the business and affairs of the Company, as from time to time amended.

- (2) Save as aforesaid, words and expressions defined in the Act have the same meanings when used herein. Words importing the singular number include the plural and vice versa; words importing gender include the masculine, feminine and neuter genders; and words importing a person include an individual, partnership, association, body corporate, unincorporated organization, trustee, executor, administrator and legal representative.

Section 1.2 Conflict With Unanimous Shareholder Agreement.

Where any provision in the by-laws conflicts with any provision of a unanimous shareholder agreement the provision of such unanimous shareholder agreement shall govern.

ARTICLE 2 BUSINESS OF THE COMPANY

Section 2.1 Registered Office.

The registered office of the Company shall be at the place within Canada from time to time specified in the articles and at such address therein as the board may from time to time determine.

Section 2.2 Corporate Seal.

Until changed by the board, the corporate seal of the Company shall be in the form impressed hereon.

Section 2.3 Financial Year.

Until changed by the board, the financial year of the Company shall end on the last day of December in each year.

Section 2.4 Execution of Instruments.

Deeds, transfers, assignments, contracts, obligations, certificates and other instruments may be signed on behalf of the Company by any two of the directors, Chairman of the Board, President, Chief Executive Officer, Chief Financial Officer, Treasurer, Secretary, Executive Vice-Presidents, Senior Vice-Presidents, Regional Vice-Presidents or Vice-Presidents. In addition, the board of directors or any two of the Chairman of the Board, President, Chief Executive Officer, Chief Financial Officer, Treasurer, Secretary, Executive Vice-Presidents, Senior Vice-Presidents, Regional Vice-Presidents or Vice-Presidents may from time to time direct the manner in which and the person or persons by whom any particular instrument or class of instruments may or shall be signed. Any signing officer may affix the corporate seal to any instrument requiring the same.

Section 2.5 Banking Arrangements.

The banking business of the Company including, without limitation, the borrowing of money and the giving of security therefor, shall be transacted with such banks, trust companies or other bodies corporate or organizations or persons as may from time to time be designated by or under the authority of the board. Such banking business or any part thereof shall be transacted under such agreements, instructions and delegations of powers as the board may from time to time prescribe or authorize.

Section 2.6 Voting Rights in Other Bodies Corporate.

The person or persons authorized under Section 2.4 may execute and deliver proxies and arrange for the issuance of voting certificates or other evidence of the right to exercise the voting rights attaching to any securities held by the Company. Such instruments, certificates or other evidence shall be in favour of such person or

persons as may be determined by the said person or persons executing such proxies or arranging for the issuance of voting certificates or such other evidence of the right to exercise such voting rights. In addition, the board may from time to time direct the manner in which and the person or persons by whom any particular voting rights or class of voting rights may or shall be exercised.

Section 2.7 Divisions.

The board may cause the business and operations of the Company or any part thereof to be divided or segregated into one or more divisions upon such basis, including without limitation, character or type of businesses or operations, geographical territories, product lines or goods or services as the board may consider appropriate in each case. From time to time the board or, if authorized by the board, the chief executive officer may authorize, upon such basis as may be considered appropriate in each case:

- (a) **Sub-Division and Consolidation.** The further division of the business and operations of any such division into sub-units and the consolidation of the business and operations of any such divisions and sub-units;
- (b) **Name.** The designation of any such division or sub-unit by, and the carrying on of the business and operations of any such division or sub-unit under, a name other than the name of the Company; provided that the Company shall set out its name in legible characters in all contracts, invoices, negotiable instruments and orders for goods or services issued or made by or on behalf of the Company; and
- (c) **Officers.** The appointment of officers for any such division or sub-unit, the determination of their powers and duties, and the removal of any such officer so appointed without prejudice to such officer's rights under any employment contract or in law, provided that any such officers shall not, as such, be officers of the Company, unless expressly designated as such.

ARTICLE 3 BORROWING AND SECURITIES

Section 3.1 Borrowing Power.

- (1) Without limiting the borrowing powers of the Company as set forth in the Act, the board may from time to time on behalf of the Company, without authorization of the shareholders:
 - (a) Borrow money upon the credit of the Company;

- (b) Issue, reissue, sell or pledge bonds, debentures, notes or other evidences of indebtedness or guarantee of the Company, whether secured or unsecured;
 - (c) To the extent permitted by the Act, give a guarantee on behalf of the Company to secure performance of any present or future indebtedness, liability or obligation of any person; and
 - (d) Charge, mortgage, hypothecate, pledge, or otherwise create a security interest in all or any currently owned or subsequently acquired real or personal, movable or immovable, property of the Company, including book debts, rights, powers, franchises and undertakings, to secure any such bonds, debentures, notes or other evidences of indebtedness or guarantee or any other present or future indebtedness, liability or obligation of the Company.
- (2) Nothing in this section limits or restricts the borrowing of money by the Company on bills of exchange or promissory notes made, drawn, accepted or endorsed by or on behalf of the Company.

Section 3.2 Delegation.

The board may from time to time delegate to a committee of the board, one or more directors or officers of the Company or any other person as may be designated by the board all or any of the powers conferred on the board by section 3.1 or by the Act to such extent and in such manner as the board shall determine at the time of each such delegation.

ARTICLE 4 DIRECTORS

Section 4.1 Number of Directors and Quorum.

Until changed in accordance with the Act, the board shall consist of not fewer than one (1) director and not more than ten (10) directors. Subject to section 4.8, the quorum for the transaction of business at any meeting of the board shall consist of a majority of the number of directors or such greater number of directors as the board may from time to time determine.

Section 4.2 Qualification.

No person shall be qualified for election as a director if he is less than 18 years of age; if he is of unsound mind and has been so found by a court in Canada or elsewhere; if he is not an individual; or if he has the status of a bankrupt. A director need not be a shareholder. A majority of the directors shall be resident Canadians.

Section 4.3 Election and Term.

The election of directors shall take place at the first meeting and thereafter at each annual meeting of shareholders and all the directors then in office shall retire but, if qualified, shall be eligible for re-election. The number of directors to be elected at any such meeting shall, if a minimum and maximum number of directors is authorized, be the number of directors then in office unless the directors or the shareholders otherwise determine or shall, if a fixed number of directors is authorized, be such fixed number. The election shall be by ordinary resolution. If an election of directors is not held at the proper time, the incumbent directors shall continue in office until their successors are elected.

Section 4.4 Removal of Directors.

Subject to the provisions of the Act, the shareholders may by ordinary resolution passed at a special meeting of shareholders called for such purpose remove any director from office and the vacancy created by such removal may be filled at the same meeting, failing which it may be filled by the board.

Section 4.5 Termination of Office.

A director ceases to hold office when he dies; he is removed from office by the shareholders; he ceases to be qualified for election as a director; or his written resignation is sent or delivered to the Company, or, if a time is specified in such resignation, at the time so specified, whichever is later.

Section 4.6 Vacancies.

Subject to the provisions of the Act, a quorum of the board may fill a vacancy in the board, except a vacancy resulting from an increase in the number or minimum number of directors specified in the articles or from a failure of the shareholders to elect the number or minimum number of directors specified in the articles. In the absence of a quorum of the board, or if the vacancy has arisen from a failure of the shareholders to elect the number or minimum number of directors specified in the articles, the directors then in office shall forthwith call a special meeting of shareholders to fill the vacancy. If such directors fail to call such meeting or if there are no such directors then in office, any shareholder may call the meeting.

Section 4.7 Action by the Board.

Subject to any unanimous shareholder agreement, the board shall manage the business and affairs of the Company. Subject to sections 4.8 and 4.9, the powers of the board may be exercised by resolution passed at a meeting at which a quorum is present or by resolution in writing signed by all the directors entitled to vote on that resolution at a meeting of the board. Where there is a vacancy in the board, the remaining directors may exercise all the powers of the board so long as a quorum remains in office. Where the Company has only one director, that director may constitute a meeting.

Section 4.8 Canadian Majority at Meetings.

The board shall not transact business at a meeting, other than filling a vacancy in the board, unless a majority of the directors present are resident Canadians, except where:

- (a) A resident Canadian director who is unable to be present approves in writing or by telephone or other communications facilities the business transacted at the meeting; and
- (b) A majority of resident Canadians would have been present had that director been present at the meeting.

Section 4.9 Meeting by Telephone.

If all the directors of the Company consent, a director may participate in a meeting of the board or of a committee of the board by means of such telephone or other communications facilities as permit all persons participating in the meeting to hear each other, and a director participating in such a meeting by such means is deemed to be present at the meeting. Any such consent shall be effective whether given before or after the meeting to which it relates and may be given with respect to all meetings of the board and of committees of the board.

Section 4.10 Place of Meetings.

Meetings of the board may be held at any place in or outside Canada.

Section 4.11 Calling of Meetings.

Meetings of the board shall be held from time to time at such time and at such place as the board, the chairman of the board, the chief executive officer, the president or any two directors may determine.

Section 4.12 Notice of Meeting.

Notice of the time and place of each meeting of the board shall be given in the manner provided in Article Eleven to each director not less than 48 hours before the time when the meeting is to be held. A notice of a meeting of directors need not specify the purpose of or the business to be transacted at the meeting except where the Act requires such purpose or business to be specified, including, if required by the Act, any proposal to:

- (a) Submit to the shareholders any question or matter requiring approval of the shareholders;
- (b) Fill a vacancy among the directors or in the office of auditor;
- (c) Issue securities, except in the manner and on the terms authorized by the directors;

- (d) Declare dividends;
- (e) Purchase, redeem or otherwise acquire shares issued by the Company;
- (f) Pay a commission for the sale of shares;
- (g) Approve a management proxy circular referred to in the Act;
- (h) Approve a take-over bid circular or directors' circular referred to in the Act;
- (i) Approve any annual financial statements referred to in the Act; or
- (j) Adopt, amend or repeal by-laws.

Section 4.13 First Meeting of New Board.

Provided a quorum of directors is present, each newly elected board may hold its first meeting, without notice, immediately following the meeting of shareholders at which such board is elected.

Section 4.14 Adjourned Meeting.

Notice of an adjourned meeting of the board is not required if the time and place of the adjourned meeting is announced at the original meeting.

Section 4.15 Regular Meetings.

The board may appoint a day or days in any month or months for regular meetings of the board at a place and hour to be named. A copy of any resolution of the board fixing the place and time of such regular meetings shall be sent to each director forthwith after being passed, but no other notice shall be required for any such regular meeting except where the Act requires the purpose thereof or the business to be transacted thereat to be specified.

Section 4.16 Chairman.

The chairman of any meeting of the board shall be the first mentioned of such of the following officers as have been appointed and who is a director and is present at the meeting: chairman of the board, chief executive officer, president or a vice-president. If no such officer is present, the directors present shall choose one of their number to be chairman. If the secretary of the Company is absent, the chairman shall appoint some person, who need not be a director, to act as secretary of the meeting.

Section 4.17 Votes to Govern.

At all meetings of the board every question shall be decided by a majority of the votes cast on the question. In case of an equality of votes the chairman of the meeting shall not be entitled to a second or casting vote.

Section 4.18 Conflict of Interest.

A director or officer who is a party to, or who is a director or officer of or has a material interest in any person who is a party to, a material contract or proposed material contract with the Company shall disclose the nature and extent of his interest at the time and in the manner provided by the Act and such material interest shall be entered in the minutes of the meetings of directors or otherwise noted in the records of the Company. Any such contract or proposed contract shall be referred to the board or shareholders for approval even if such contract is one that in the ordinary course of the Company's business would not require approval by the board or shareholders. Such a director shall not vote on any resolution to approve the same except as provided by the Act.

Section 4.19 Remuneration and Expenses.

Subject to any unanimous shareholder agreement, the directors shall be paid such remuneration for their services as the board may from time to time determine. The directors shall also be entitled to be reimbursed for travelling and other expenses properly incurred by them in attending meetings of the board or any committee thereof. Nothing herein contained shall preclude any director from serving the Company in any other capacity and receiving remuneration therefor.

**ARTICLE 5
COMMITTEES**

Section 5.1 Committees of the Board.

The board may appoint one or more committees of the board, however designated, and delegate to any such committee any of the powers of the board except those which pertain to items which, under the Act, a committee of the board has no authority to exercise. A majority of the members of any such committee shall be resident Canadians.

Section 5.2 Conduct Review Committee.

The board shall establish a conduct review committee. The conduct review committee shall have such duties, powers and responsibilities as may be conferred upon it by the Act and such further duties, powers and responsibilities as the board may, by resolution delegate to it. Subject to the Act, the board may from time to time determine the size and composition of the conduct review committee.

Section 5.3 Audit Committee.

The board shall establish an audit committee. The audit committee shall have such duties, powers and responsibilities as may be conferred upon it by the Act and such further duties, powers and responsibilities as the board may, by resolution delegate to it. Subject to the Act, the board may from time to time determine the size and composition of the audit committee.

Section 5.4 Transaction of Business.

Subject to the provisions of section 4.9, the powers of a committee of the board may be exercised by a meeting at which a quorum is present or by resolution in writing signed by all members of such committee who would have been entitled to vote on that resolution at a meeting of the committee. Meetings of any such committee may be held at any place in or outside of Canada.

Section 5.5 Advisory Bodies.

The board may from time to time appoint such advisory bodies as it may deem advisable.

Section 5.6 Procedure.

Unless otherwise determined by the board, each committee and advisory body shall have power to fix its quorum at not less than a majority of its members, to elect its chairman, and to regulate its procedure.

ARTICLE 6 OFFICERS

Section 6.1 Appointment.

The board shall appoint from their number a chief executive officer. Subject to any unanimous shareholder agreement, the board may from time to time appoint a president, one or more vice-presidents (to which title may be added words indicating seniority or function), a secretary, a treasurer and such other officers as the board may determine, including one or more assistants to any of the officers so appointed. The board may specify the duties of and, in accordance with this by-law and subject to the provisions of the Act, delegate to such officers powers to manage the business and affairs of the Company. The chief executive officer may appoint such officers as he or she may determine and specify such officers' duties. At the next meeting of the board of directors following any such appointment by the chief executive officer, the board of directors may confirm the appointment of such officer. In the event that such appointment is not confirmed, such officer shall cease to hold the office appointed by the chief executive officer. Subject to sections 6.2 and 6.3, an officer may but need not be a director and one person may hold more than one office.

Section 6.2 Chairman of the Board.

The board may from time to time also appoint a chairman of the board who shall be a director. If appointed, the board may assign to him any of the powers and duties that are by any provisions of this by-law assigned to the chief executive officer or to the president, and he shall, subject to the provisions of the Act, have such other powers and duties as the board may specify. During the absence or disability of the chairman of the board, his duties shall be performed and his powers exercised by the chief executive officer.

Section 6.3 Chief Executive Officer.

The chief executive officer shall be ordinarily resident in Canada and shall be a director. The chief executive officer, subject to the authority of the board, shall have general supervision of the business and affairs of the Company; and he shall, subject to the provisions of the Act, have such other powers and duties as the board may specify.

Section 6.4 President.

If appointed, the president shall be the chief operating officer and, subject to the authority of the board, shall have such other powers and duties as the board may specify.

Section 6.5 Vice-President.

A vice-president shall have such powers and duties as the board or the chief executive officer may specify.

Section 6.6 Secretary.

The secretary shall enter or cause to be entered minutes of all proceedings of all meetings of the board, shareholders and committees of the board in records kept for that purpose; he shall give or cause to be given, as and when instructed, all notices to shareholders, directors, officers, auditors and members of committees of the board; he shall be the custodian of the stamp or mechanical device generally used for affixing the corporate seal of the Company and of all books, papers, records, documents, and instruments belonging to the Company, except when some other officer or agent has been appointed for that purpose; and he shall have such other powers and duties as the board or the chief executive officer may specify.

Section 6.7 Treasurer.

The treasurer shall keep or cause to be kept proper accounting records in compliance with the Act and shall be responsible for the deposit of money, the safekeeping of securities and the disbursement of the funds of the Company; he shall render or cause to be rendered to the board whenever required an account of all his transactions as treasurer and of the financial position of the Company; and he

shall have such other powers and duties as the board or the chief executive officer may specify.

Section 6.8 Powers and Duties of Other Officers.

The powers and duties of all other officers shall be such as the terms of their engagement call for or as the board or the chief executive officer may specify. Any of the powers and duties of an officer to whom an assistant has been appointed may be exercised and performed by such assistant, unless the board or the chief executive officer otherwise directs.

Section 6.9 Variation of Powers and Duties.

The board may from time to time and subject to the provisions of the Act, vary, add to or limit the powers and duties of any officer.

Section 6.10 Term of Office.

The board, in its discretion, may remove any officer of the Company, without prejudice to such officer's rights under any employment contract. Otherwise each officer appointed by the board shall hold office until his successor is appointed, or until his earlier resignation.

Section 6.11 Terms of Employment and Remuneration.

The terms of employment and the remuneration of an officer appointed by the board shall be settled by it from time to time.

Section 6.12 Conflict of Interest.

An officer shall disclose his interest in any material contract or proposed material contract with the Company in accordance with section 4.18.

Section 6.13 Agents and Attorneys.

Subject to the provisions of the Act, the Company, by or under the authority of the board shall have power from time to time to appoint agents or attorneys for the Company in or outside Canada with such powers of management, administration or otherwise (including the power to sub-delegate) as may be thought fit.

Section 6.14 Fidelity Bonds.

The board may require such officers, employees and agents of the Company as the board deems advisable to furnish bonds for the faithful discharge of their powers and duties, in such form and with such surety as the board may from time to time determine.

ARTICLE 7 PROTECTION OF DIRECTORS, OFFICERS AND OTHERS

Section 7.1 Limitation of Liability.

Every director and officer of the Company in exercising his powers and discharging his duties shall act honestly and in good faith with a view to the best interests of the Company and exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances. Subject to the foregoing, no director or officer shall be liable for the acts, receipts, neglects or defaults of any other director, officer or employee, or for joining in any receipt or other act for conformity, or for any loss, damage or expense happening to the Company through the insufficiency or deficiency of title to any property acquired for or on behalf of the Company, or for the insufficiency or deficiency of any security in or upon which any of the monies of the Company shall be invested, or for any loss or damage arising from the bankruptcy, insolvency or tortious acts of any person with whom any of the monies, securities or effects of the Company shall be deposited, or for any loss occasioned by any error of judgment or oversight on his part, or for any other loss, damage or misfortune whatever which shall happen in the execution of the duties of his office or in relation thereto; provided that nothing herein shall relieve any director or officer from the duty to act in accordance with the Act and the regulations thereunder or from liability for any breach thereof.

Section 7.2 Indemnity.

- (1) Subject to the limitations contained in the Act, the Company shall indemnify a director or officer, a former director or officer, or a person who acts or acted at the Company's request as a director or officer of a body corporate of which the Company is or was a shareholder or creditor, and his heirs and legal representatives, against all costs, charges and expenses, including an amount paid to settle an action or satisfy a judgment, reasonably incurred by him in respect of any civil, criminal or administrative action or proceeding to which he is made a party by reason of being or having been a director or officer of the Company or such body corporate, if:
 - (a) He acted honestly and in good faith with a view to the best interests of the Company; and
 - (b) In the case of a criminal or administrative action or proceeding that is enforced by a monetary penalty, he had reasonable grounds for believing that his conduct was lawful.
- (2) The Company shall also indemnify such person in such other circumstances as the Act permits or requires. Nothing in this by-law shall limit the right of any person entitled to indemnity to claim indemnity apart from the provisions of this by-law.

Section 7.3 Insurance.

Subject to the Act, the Company may purchase and maintain insurance for the benefit of any person referred to in section 7.2 against such liabilities and in such amounts as the board may from time to time determine and as are permitted by the Act.

**ARTICLE 8
SHARES**

Section 8.1 Allotment of Shares.

Subject to the Act, the articles and any unanimous shareholder agreement, the board may from time to time allot or grant options to purchase the whole or any part of the authorized and unissued shares of the Company at such times and to such persons and for such consideration as the board shall determine, provided that no share shall be issued until it is fully paid as provided by the Act.

Section 8.2 Commissions.

The board may from time to time authorize the Company to pay a reasonable commission to any person in consideration of his purchasing or agreeing to purchase shares of the Company, whether from the Company or from any other person, or procuring or agreeing to procure purchasers for any such shares.

Section 8.3 Registration of Share Transfer.

Subject to the provisions of the Act, no transfer of a share in respect of which a certificate has been issued shall be registered in a securities register except upon presentation of the certificate representing such share with an endorsement which complies with the Act made thereon or delivered therewith duly executed by an appropriate person as provided by the Act, together with such reasonable assurance that the endorsement is genuine and effective as the board may from time to time prescribe, upon payment of all applicable taxes and any reasonable fee, not to exceed \$3, prescribed by the board, upon compliance with such restrictions on transfer as are authorized by the articles.

Section 8.4 Transfer Agents and Registrars.

The board may from time to time appoint one or more agents to maintain, in respect of each class of securities of the Company issued by it in registered form, a central securities register and one or more branch securities registers. Such a person may be designated as transfer agent or registrar according to his functions and one person may be designated both registrar and transfer agent. The board may at any time terminate such appointment.

Section 8.5 Non-Recognition of Trusts.

Subject to the provisions of the Act, the Company may treat as absolute owner of any share the person in whose name the share is registered in the securities register as if that person had full legal capacity and authority to exercise all rights of ownership, irrespective of any indication to the contrary through knowledge or notice or description in the Company's records or on the share certificate.

Section 8.6 Share Certificates.

Every holder of one or more shares of the Company shall be entitled, at his option, to a share certificate, or to a non-transferable written certificate of acknowledgement of his right to obtain a share certificate, stating the number and class or series of shares held by him as shown on the securities register. Such certificates and certificates of acknowledgement of a shareholder's right to a share certificate, respectively, shall be in such form as the board may from time to time approve. Any share certificate shall be signed in accordance with section 2.4 and need not be under the corporate seal; provided that, unless the board otherwise determines, certificates representing shares in respect of which a transfer agent and/or registrar has been appointed shall not be valid unless countersigned by or on behalf of such transfer agent and/or registrar. The signature of one of the signing officers or, in the case of a certificate which is not valid unless countersigned by or on behalf of a transfer agent and/or registrar, and in the case of a certificate which does not require manual signature under the Act, the signatures of both signing officers, may be printed or mechanically reproduced in facsimile thereon. Every such facsimile signature shall for all purposes be deemed to be the signature of the officer whose signature it reproduces and shall be binding upon the Company. A certificate executed as aforesaid shall be valid notwithstanding that one or both of the officers whose facsimile signature appears thereon no longer holds office at the date of issue of the certificate.

Section 8.7 Replacement of Share Certificates.

The board or any officer or agent designated by the board may in its or his discretion direct the issue of a new share or other such certificate in lieu of and upon cancellation of a certificate that has been mutilated or in substitution for a certificate claimed to have been lost, destroyed or wrongfully taken on payment of such reasonable fee, not to exceed \$3, and on such terms as to indemnity, reimbursement of expenses and evidence of loss and of title as the board may from time to time prescribe, whether generally or in any particular case.

Section 8.8 Joint Holders.

If two or more persons are registered as joint holders of any share, the Company shall not be bound to issue more than one certificate in respect thereof, and delivery of such certificate to one of such persons shall be sufficient delivery to all of them. Any one of such persons may give effectual receipts for the certificate

issued in respect thereof or for any dividend, bonus, return of capital or other money payable or warrant issuable in respect of such share.

Section 8.9 Deceased Shareholders.

In the event of the death of a holder, or of one of the joint holders, of any share, the Company shall not be required to make any entry in the securities register in respect thereof or to make any dividend or other payments in respect thereof; except upon production of all such documents as may be required by law and upon compliance with the reasonable requirements of the Company and its transfer agents.

**ARTICLE 9
DIVIDENDS AND RIGHTS**

Section 9.1 Dividends.

Subject to the provisions of the Act, the board may from time to time declare dividends payable to the shareholders according to their respective rights and interest in the Company. Dividends may be paid in money or property or by issuing fully paid shares of the Company.

Section 9.2 Dividend Cheques.

A dividend payable in money shall be paid by cheque drawn on the Company's bankers or one of them to the order of each registered holder of shares of the class or series in respect of which it has been declared and mailed by prepaid ordinary mail to such registered holder at his recorded address, unless such holder otherwise directs. In the case of joint holders the cheque shall, unless such joint holders otherwise direct, be made payable to the order of all of such joint holders and mailed to them at their recorded address. The mailing of such cheque as aforesaid, unless the same is not paid on due presentation, shall satisfy and discharge the liability for the dividend to the extent of the sum represented thereby plus the amount of any tax which the Company is required to and does withhold.

Section 9.3 Non-Receipt of Cheques.

In the event of non-receipt of any dividend cheque by the person to whom it is sent as aforesaid, the Company shall issue to such person a replacement cheque for a like amount on such terms as to indemnity, reimbursement of expenses, and evidence of non-receipt and of title as the board may from time to time prescribe, whether generally or in any particular case.

Section 9.4 Record Date for Dividends and Rights.

The board may fix in advance a date, preceding by not more than 50 days the date for the payment of any dividend or the date for the issue of any warrant or

other evidence of the right to subscribe for securities of the Company, as a record date for the determination of the persons entitled to receive payment of such dividend or to exercise the right to subscribe for such securities; and notice of any such record date shall be given not less than 7 days before such record date in the manner provided for by the Act. If no record date is so fixed, the record date for the determination of the persons entitled to receive payment of any dividend or to exercise the right to subscribe for securities of the Company shall be at the close of business on the day on which the resolution relating to such dividend or right to subscribe is passed by the board.

Section 9.5 Unclaimed Dividends.

Any dividend unclaimed after a period of 6 years from the date on which the same has been declared to be payable shall be forfeited and shall revert to the Company.

ARTICLE 10 MEETINGS OF SHAREHOLDERS

Section 10.1 Annual Meetings.

The annual meeting of shareholders shall be held at such time in each year and, subject to section 10.3, at such place as the board, the chairman of the board, the chief executive officer, or the president may from time to time determine, for the purpose of considering the financial statements and reports required by the Act to be placed before the annual meeting, electing directors, appointing an auditor, and for the transaction of such other business as may properly be brought before the meeting.

Section 10.2 Special Meetings.

The board, the chairman of the board, the chief executive officer, or the president shall have power to call a special meeting of shareholders at any time.

Section 10.3 Place of Meetings.

Meetings of shareholders shall be held at the registered office of the Company or elsewhere in the municipality in which the registered office is situate or, if the board shall so determine, at some other place in Canada or, if all the shareholders entitled to vote at the meeting so agree, at some place outside Canada.

Section 10.4 Notice of Meetings.

Notice of the time and place of each meeting of shareholders shall be given in the manner provided in Article Eleven not less than 21 nor more than 50 days before the date of the meeting to each director, to the auditor, and to each shareholder who at the close of business on the record date for notice is entered in the securities

register as the holder of one or more shares carrying the right to vote at the meeting. Notice of a meeting of shareholders called for any purpose other than consideration of the financial statements and auditor's report, election of directors and reappointment of the incumbent auditor shall state the nature of such business in sufficient detail to permit the shareholder to form a reasoned judgment thereon and shall state the text of any special resolution to be submitted to the meeting. A shareholder and any other person entitled to attend a meeting of shareholders may in any manner waive notice of or otherwise consent to a meeting of shareholders.

Section 10.5 List of Shareholders Entitled to Notice.

For every meeting of shareholders, the Company shall prepare a list of shareholders entitled to receive notice of the meeting, arranged in alphabetical order and showing the number of shares held by each shareholder entitled to vote at the meeting. If a record date for the meeting is fixed pursuant to section 10.6, the shareholders listed shall be those registered at the close of business on such record date. If no record date is fixed, the shareholders listed shall be those registered at the close of business on the day immediately preceding the day on which notice of the meeting is given or, where no such notice is given, on the day on which the meeting is held. The list shall be available for examination by any shareholder during usual business hours at the registered office of the Company or at the place where the central securities register is maintained and at the meeting for which the list was prepared. Where a separate list of shareholders has not been prepared, the names of persons appearing in the securities register at the requisite time as the holder of one or more shares carrying the right to vote at such meeting shall be deemed to be a list of shareholders.

Section 10.6 Record Date for Notice.

The board may fix in advance a date, preceding the date of any meeting of shareholders by not more than 50 days and not less than 21 days, as a record date for the determination of the shareholders entitled to notice of the meeting, and notice of any such record date shall be given not less than 7 days before such record date, by newspaper advertisement in the manner provided in the Act. If no record date is so fixed, the record date for the determination of the shareholders entitled to receive notice of the meeting shall be at the close of business on the day immediately preceding the day on which the notice is given or, if no notice is given, the day on which the meeting is held.

Section 10.7 Meetings Without Notice.

A meeting of shareholders may be held without notice at any time and place permitted by the Act (a) if all the shareholders entitled to vote thereat are present in person or represented by proxy or if those not present or represented by proxy waive notice of or otherwise consent to such meeting being held, and (b) if the auditors and the directors are present or waive notice of or otherwise consent to

such meeting being held; so long as such shareholders, auditors or directors present are not attending for the express purpose of objecting to the transaction of any business on the grounds that the meeting is not lawfully called. At such a meeting any business may be transacted which the Company at a meeting of shareholders may transact. If the meeting is held at a place outside Canada, shareholders not present or represented by proxy, but who have waived notice of or otherwise consented to such meeting, shall also be deemed to have consented to the meeting being held at such place.

Section 10.8 Chairman, Secretary and Scrutineers.

The chairman of any meeting of shareholders shall be the first mentioned of such of the following officers as have been appointed and who is present at the meeting: chief executive officer, president, chairman of the board, or a vice-president who is a shareholder. If no such officer is present within 15 minutes from the time fixed for holding the meeting, the persons present and entitled to vote shall choose one of their number to be chairman. If the secretary of the Company is absent, the chairman shall appoint some person, who need not be a shareholder, to act as secretary of the meeting. If desired, one or more scrutineers, who need not be shareholders, may be appointed by a resolution or by the chairman with the consent of the meeting.

Section 10.9 Persons Entitled to be Present.

The only persons entitled to be present at a meeting of shareholders shall be those entitled to vote thereat, the directors and auditor of the Company and others who, although not entitled to vote, are entitled or required under any provision of the Act or the articles or by-laws to be present at the meeting. Any other person may be admitted only on the invitation of the chairman of the meeting or with the consent of the meeting.

Section 10.10 Quorum.

Subject to the Act, a quorum for the transaction of business at any meeting of shareholders shall be one person present in person, being a shareholder entitled to vote thereat or a duly appointed proxyholder or representative for an absent shareholder so entitled, and holding or representing by proxy not less than 51% of the outstanding shares of the Company carrying voting rights at the meeting. If a quorum is present at the opening of any meeting of shareholders, the shareholders present or represented by proxy may proceed with the business of the meeting notwithstanding that a quorum is not present throughout the meeting. If a quorum is not present at the opening of any meeting of shareholders, the shareholders present or represented by proxy may adjourn the meeting to a fixed time and place but may not transact any other business.

Section 10.11 Right to Vote.

Subject to the provisions of the Act as to authorized representatives of any other body corporate or association, at any meeting of shareholders for which the Company has prepared the list referred to in section 10.5, every person who is named in such list shall be entitled to vote the shares shown thereon opposite his name at the meeting to which such list relates except to the extent that, where the Company has fixed a record date in respect of such meeting pursuant to section 10.6, such person has transferred any of his shares after such record date and the transferee, having produced properly endorsed certificates evidencing such shares or having otherwise established that he owns such shares, has demanded not later than 10 days before the meeting that his name be included in such list. In any such case the transferee shall be entitled to vote the transferred shares at the meeting. At any meeting of shareholders for which the Company has not prepared the list referred to in section 10.5, every person shall be entitled to vote at the meeting who at the time of the commencement of the meeting is entered in the securities register as the holder of one or more shares carrying the right to vote at such meeting.

Section 10.12 Proxyholders and Representatives.

- (1) Every shareholder entitled to vote at a meeting of shareholders may appoint a proxyholder, or one or more alternate proxyholders, who need not be shareholders, to attend and act as his representative at the meeting in the manner and to the extent authorized and with the authority conferred by the proxy. A proxy shall be in writing executed by the shareholder or his attorney and shall conform with the requirements of the Act.
- (2) Alternatively, every such shareholder which is a body corporate or association may authorize by resolution of its directors or governing body an individual to represent it at a meeting of shareholders and such individual may exercise on the shareholder's behalf all the powers it could exercise if it were an individual shareholder. The authority of such an individual shall be established by depositing with the Company a certified copy of such resolution, or in such other manner as may be satisfactory to the secretary of the Company or the chairman of the meeting. Any such representative need not be a shareholder.

Section 10.13 Time for Deposit of Proxies.

The board may specify in a notice calling a meeting of shareholders a time, preceding the time of such meeting by not more than 48 hours exclusive of non-business days, before which time proxies to be used at such meeting must be deposited. A proxy shall be acted upon only if, prior to the time so specified, it shall have been deposited with the Company or an agent thereof specified in such notice or if, no such time having been specified in such notice, it has been received by the

secretary of the Company or by the chairman of the meeting or any adjournment thereof prior to the time of voting.

Section 10.14 Joint Shareholders.

If two or more persons hold shares jointly, any one of them present in person or duly represented by proxy at a meeting of shareholders may, in the absence of the other or others, vote the shares; but if two or more of those persons are present in person or represented by proxy and vote, they shall vote as one the shares jointly held by them.

Section 10.15 Votes to Govern.

At any meeting of shareholders every question shall, unless otherwise required by the articles or by-laws or by law, be determined by a majority of the votes cast on the question. In case of an equality of votes either upon a show of hands or upon a poll, the chairman of the meeting shall not be entitled to a second or casting vote.

Section 10.16 Show of Hands.

Subject to the provisions of the Act, any question at a meeting of shareholders shall be decided by a show of hands, unless a ballot thereon is required or demanded as hereinafter provided. Upon a show of hands every person who is present and entitled to vote shall have one vote. Whenever a vote by show of hands shall have been taken upon a question, unless a ballot thereon is so required or demanded, a declaration by the chairman of the meeting that the vote upon the question has been carried or carried by a particular majority or not carried and an entry to that effect in the minutes of the meeting shall be *prima facie* evidence of the fact without proof of the number or proportion of the votes recorded in favour of or against any resolution or other proceeding in respect of the said question, and the result of the vote so taken shall be the decision of the shareholders upon the said question.

Section 10.17 Ballots.

On any question proposed for consideration at a meeting of shareholders, and whether or not a show of hands has been taken thereon, the chairman or any person who is present and entitled to vote, whether as shareholder or proxyholder, on such question at the meeting may demand a ballot. A ballot so required or demanded shall be taken in such manner as the chairman shall direct. A requirement or demand for a ballot may be withdrawn at any time prior to the taking of the ballot. If a ballot is taken each person present shall be entitled, in respect of the shares which he is entitled to vote at the meeting upon the question, to that number of votes provided by the Act or the articles, and the result of the ballot so taken shall be the decision of the shareholders upon the said question.

Section 10.18 Adjournment.

The chairman at a meeting of shareholders may, with the consent of the meeting and subject to such conditions as the meeting may decide, adjourn the meeting from time to time and place to place. If a meeting of shareholders is adjourned for less than 30 days, it shall not be necessary to give notice of the adjourned meeting, other than by announcement at the earliest meeting that is adjourned. Subject to the Act, if a meeting of shareholders is adjourned by one or more adjournments for an aggregate of 30 days or more, notice of the adjourned meeting shall be given as for an original meeting.

Section 10.19 Resolution in Writing.

A resolution in writing signed by all the shareholders entitled to vote on that resolution at a meeting of shareholders is as valid as if it had been passed at a meeting of the shareholders unless a written statement with respect to the subject matter of the resolution is submitted by a director or the auditor in accordance with the Act.

Section 10.20 Only One Shareholder.

Where the Company has only one shareholder or only one holder of any class or series of shares, the shareholder present in person or duly represented by proxy constitutes a meeting.

ARTICLE 11 NOTICES

Section 11.1 Method of Giving Notices.

Any notice or document to be given pursuant to the Act, the regulations thereunder, the articles or the by-laws to a shareholder or director of the Company may be sent by prepaid mail addressed to, or may be delivered personally to the shareholder at his latest address as shown in the records of the Company or its transfer agent and the director at his latest address as shown on the records of the Company or in the last notice of directors or notice of change of directors filed under the Act. A notice or document sent in accordance with the foregoing to a shareholder or director of the Company shall be deemed to be received by him at the time it would be delivered in the ordinary course of mail unless there are reasonable grounds for believing that the shareholder or director did not receive the notice or document at the time or at all. The secretary may change or cause to be changed the recorded address of any shareholder, director, officer, auditor or member of a committee of the board in accordance with any information believed by him to be reliable. The foregoing shall not be construed so as to limit the manner or effect of giving notice by any other means of communication otherwise permitted by law.

Section 11.2 Notice to Joint Holders.

If two or more persons are registered as joint holders of any share, any notice shall be addressed to all of such joint holders but notice addressed to one of such persons shall be sufficient notice to all of them.

Section 11.3 Computation of Time.

In computing the date when notice must be given under any provision requiring a specified number of days' notice of any meeting or other event, the date of giving the notice shall be excluded and the date of the meeting or other event shall be included.

Section 11.4 Undelivered Notices.

If any notice given to a shareholder pursuant to section 11.1 is returned on three consecutive occasions because he cannot be found, the Company shall not be required to give any further notices to such shareholder until he informs the Company in writing of his new address.

Section 11.5 Omissions and Errors.

The accidental omission to give any notice to any shareholder, director, officer, auditor or member of a committee of the board or the non-receipt of any notice by any such person or any error in any notice not affecting the substance thereof shall not invalidate any action taken at any meeting held pursuant to such notice or otherwise founded thereon.

Section 11.6 Persons Entitled by Death or Operation of Law.

Every person who, by operation of law, transfer, death of a shareholder or any other means whatsoever, shall become entitled to any share, shall be bound by every notice in respect of such share which shall have been duly given to the shareholder from whom he derives his title to such share prior to his name and address being entered on the securities register (whether such notice was given before or after the happening of the event upon which he became so entitled) and prior to his furnishing to the Company the proof of authority or evidence of his entitlement prescribed by the Act.

Section 11.7 Waiver of Notice.

Any shareholder, proxyholder, other person entitled to attend a meeting of shareholders, director, officer, auditor or member of a committee of the board may at any time waive any notice, or waive or abridge the time for any notice, required to be given to him under any provision of the Act, the regulations thereunder, the articles, the by-laws or otherwise and such waiver or abridgement, whether given before or after the meeting or other event of which notice is required to be given, shall cure any default in the giving or in the time of such notice, as the case may be. Any such waiver or abridgement shall be in writing except a waiver of notice of a

meeting of shareholders or of the board or of a committee of the board which may be given in any manner.

ARTICLE 12 EFFECTIVE DATE

Section 12.1 Effective Date.

This by-law shall come into force when made by the board in accordance with the Act.

Section 12.2 Repeal.

All previous by-laws of the Company are repealed as of the coming into force of this by-law. Such repeal shall not affect the previous operation of any by-law so repealed or affect the validity of any act done or right, privilege, obligation or liability acquired or incurred under, or the validity of any contract or agreement made pursuant to, or the validity of any articles or predecessor charter documents of the Company obtained pursuant to, any such by-law prior to its repeal. All officers and persons acting under any by-law so repealed shall continue to act as if appointed under the provisions of this by-law and all resolutions of the shareholders or the board or a committee of the board with continuing effect passed under any repealed by-law shall continue good and valid except to the extent inconsistent with this by-law and until amended or repealed.

SCHEDULE C

**RESOLUTION REGARDING EXECUTION OF DOCUMENTS AND
COUNTERSIGNATORIES**

See attached.

COMPUTERSHARE TRUST COMPANY OF CANADA (the "Company")

**RESOLUTION REGARDING
EXECUTION OF DOCUMENTS AND COUNTERSIGNATURES**

RESOLVED that pursuant to the authority of the Board of Directors under the terms of Section 2.4 of By-Law No. 4 of the Company, the Company hereby makes the following designations, which shall supersede any previous designations pursuant to such By-law:

1. THAT for the purposes of this designation each person listed on the attached pages shall be designated as a Signing Officer of the Company as a holder of the positions set out next to his or her name for so long as each person remains an employee of the Company.
2. THAT for the purposes of this designation the Officers and Signing Officers of the Company shall be divided into the following classes:

CLASS A

President
Chief Executive Officer
Chief Financial Officer
Controller
Executive Vice President
Senior Vice President
Vice President
Treasurer
Secretary

CLASS B

General Manager
Branch Manager
Corporate Trust Officer
Director, Broker Products
Regional Manager, Service Delivery
Manager, Administration
Manager, Client Services
Manager, Client Services, Communication Services
Manager, Commercial Development, Communication Services
Manager, Corporate Actions
Manager, Corporate Administration
Manager, Corporate Trust
Manager, Employee Plans
Manager, MBS
Manager, Private Capital Solutions
Manager, Oil Royalties
Manager, Operations, Communication Services
Manager, Production Development, Communication Services
Manager, Registered Product Trustee Services
Manager, Stock Transfer
Manager, Stock Transfer &
Client Services
Manager, Stock Transfer & Operations
Professional, Administration
Professional, Client Services
Professional, Corporate Actions
Professional, Corporate Trust
Professional, Employee Plans
Professional, MBS
Professional, Service Delivery
Professional, Stock Transfer
Relationship Manager

CLASS C

Associate Relationship Manager
Manager, Disbursements
Manager, Investor Services
Manager, Trade Processing
Manager, Transfer Processing
Professional, Administrative Services
Professional, Product Specialist
Professional, SEDAR
Professional, Transfers
Team Leader, Bond Administration
Team Leader, Client Services,
Communication Services
Team Leader, Corporate Actions
Team Leader, Legals
Team Leader, MBS
Team Leader, Oil Royalties
Team Leader, Research
Team Leader, Security Flow
Team Leader, Trust Investments
Administrator, Audit
Administrator, Client Services
Administrator, Corporate Actions
Administrator, Corporate Trust
Administrator, Escrows
Administrator, MBS
Administrator, Oil Royalties
Administrator, Stock Transfer
Associate Trust Officer

3. THAT, any two Signing Officers listed in Class A or B, or both, or any one Class A or B Signing Officer together with one Class C Signing Officer may represent and act in the name of the Company, but only in the ordinary course of the Company's trust and agency services business activities including, without limitation, transfer agency, record keeping, plan administration and debt trusteeship. The above mentioned Signing Officers, on behalf of the Company, shall be authorized:
- (a) to execute and deliver all affidavits, agreements, certificates, contracts, deeds, indentures, notices, undertakings, conveyances or other documents required in the course of its operations including, without restricting the generality of the foregoing, documents evidencing any assignment, charge, co-ownership of immovable, conveyance, deposit, exchange, habitation, hypothec, insurance, lease, lien, loan, mortgage, partnership, pledge, privilege, purchase, registration of real rights, retrocession, sale, suretyship, usufruct or other like documents;
 - (b) to secure any loans or other sums owed by way of mortgage, hypothec, lien or other charges upon property, real or personal, moveable or immovable;
 - (c) to acquire, convey, dispose or sell, in whole or in part, by way of public or private sale, by auction or otherwise, of said property so mortgaged, hypothecated or otherwise given as security;
 - (d) to grant easements, encumbrances, servitudes, rights of way and other charges and liens upon immovable or real property;
 - (e) to grant partial or total acquittances, discharges, mainlevées and releases, with or without consideration, of charges, hypothecs, liens, mortgages, pledges, privileges and of any effect of a giving-in-payment clause or of a resolutive clause;
 - (f) to execute and deliver all agreements, contracts, deeds or other documents pertaining to the administration, the custody or the transfer of bonds, certificates of deposits, debentures, notes, options, shares, warrants or like securities and to receive funds and invest same in said instruments; and
 - (g) to accept, convey, issue, purchase, receive, sell, subscribe for or transfer bonds, certificates of deposits, debentures, notes, options, shares, warrants or like securities.

The Signing Officers are authorized to exercise all powers, responsibilities and rights and to execute all obligations required under the terms of any affidavit, agreement, certificate, contract, deed, indenture, notice or other empowering document in the course of the Company's operations and generally to do all such things as are necessary and useful to the fulfillment of the above objects, subject to any limitations imposed by law, in order to give full effect and purpose to the foregoing.

4. THAT the authorization contained herein does not include contracts and agreements for the purchase of goods and services by the Company for its own use which are excluded from the operation of this authorization.
5. THAT any one Signing Officer from Classes A, B or C, or any combination thereof, may sign and counter-sign bonds, debentures, stock certificates and other securities on behalf of the Company, when it acts as trustee, transfer agent and/or registrar.

6. THAT any Signing Officer may affix the corporate seal to any instrument requiring same.
7. THAT any officer holding a dual position shall sign only once.

DATED at Toronto, Ontario, as of the 16th day of August, 2017.

CERTIFIED TRUE COPY

I, Kelly Wood, Assistant Secretary of Computershare Trust Company of Canada, hereby certify that this copy of the Resolution Regarding Execution Of Documents and Countersignatures for Computershare Trust Company of Canada is a true copy of the original which was passed by the Board of Directors on August 16, 2017 and is of full force and effect as of the date hereof.

Certified at Toronto on this 21st day of December, 2017



Assistant Secretary

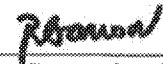
COMPUTERSHARE TRUST COMPANY OF CANADA

AUTHORIZED SIGNATURES


Morag Abraham, Corporate Trust Officer


Nico Avendano, Corporate Trust Officer

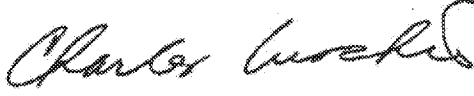

Rainier Andrew Balatbat, Administrator, MBS

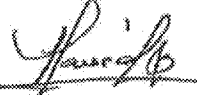

Rosanna Bancod, Administrator, MBS


Shelley Bloomberg, Manager, Corporate Trust


Aaron Cao, Professional, MBS


Warren A. Chang, Administrator, MBS


Charles Cuschieri, Associate Trust Officer


Trevor Davids, Manager- Registered
Product Trustee Services

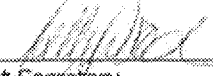

TonDe Luca, Senior Vice President, Corporate Trust


Eric L. Foronda, Professional, MBS


Sam Golder, Manager, Corporate Trust

I, Kelly Wood, Assistant Secretary of Computershare Trust Company of Canada, hereby certify that each of the above named persons holds the office set out beside his or her name and that the facsimile signature appearing with the name of each such person is a true exact copy of the signature of such person.

Certified at Toronto on this 21st day of December, 2017.


Assistant Secretary

COMPUTERSHARE TRUST COMPANY OF CANADA

AUTHORIZED SIGNATURES



Judy Kang, Corporate Trust Officer



Fiona Koch, Corporate Trust Officer



Lisa M. Kudo, Corporate Trust Officer



Stanley Kwan, Associate Trust Officer



Daniel Lee, Administrator, MBS



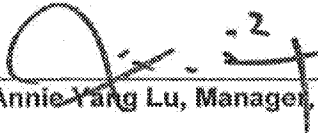
Samuel S. Liaw, Administrator, MBS



Si Min Liu, Administrator, MBS



George Logue, Corporate Trust Officer



Annie Yang Lu, Manager, MBS



Scott Markham, General Manager



Mircho Mirchev, Corporate Trust Officer



Julia Malr, Corporate Trust Officer

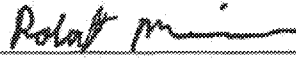
I, Kelly Wood, Assistant Secretary of Computershare Trust Company of Canada, hereby certify that each of the above named persons holds the office set out beside his or her name and that the facsimile signature appearing with the name of each such person is a true exact copy of the signature of such person.

Certified at Toronto on this 21st day of December, 2017.


Assistant Secretary

COMPUTERSHARE TRUST COMPANY OF CANADA

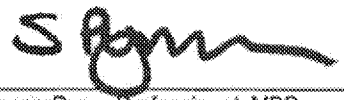
AUTHORIZED SIGNATURES

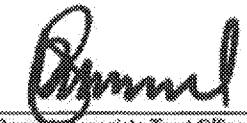

Robert Morrison, Corporate Trust Officer


Yana Nedyalkova, Corporate Trust Officer


Sebastian Pang, Administrator, MBS

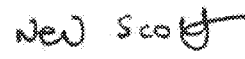

Ann Pierce, Team Leader, Bond Administration


Susanne Pynn, Professional, MBS


Ann Samuel, Associate Trust Officer


Aruna Santisaran, Team Leader, Trust Investments


Michelle Schultz, Associate Trust Officer


Neil Scott, Corporate Trust Officer


Mohaniv Shivprasad, Associate Trust Officer

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Certified at Toronto on this 21st day of December, 2017.


Assistant Secretary

COMPUTERSHARE TRUST COMPANY OF CANADA

AUTHORIZED SIGNATURES



Raji Sivalingam, Associate Trust Officer



Chanee A. Sioley, Administrator, MBS



Danny Elder, Corporate Trust Officer



Kelly Wood, Manager, Administration

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Certified at Toronto on this 21st day of December, 2017.


Assistant Secretary