

November 25, 2011

GRADEK ENERGY INC.

(Incorporated under the Canada Business Corporations Act)

CONSOLIDATED, RESTATED AND AMENDED CONVERTIBLE SECURED DEBENTURE REPLACING DEBENTURES N^{OS} 2010-1, 2011-1, 2011-2 AND 2011-3

Maturing on April 30, 2018

Principal: CDN \$7,500,000

Holder: Dundee Corporation (or any subsidiary or entity as may be determined from time to time by Dundee Corporation)

WHEREAS Gradek Energy Inc. (the "Corporation") issued to Dundee Corporation (the "Holder") the following debentures:

- a. a convertible secured debenture in the amount of \$2,000,000 issued as of September 15, 2010 under N^o 2010-1 ("Debenture 2010-1");
- b. a convertible secured debenture in the amount of \$1,000,000 issued as of February 25, 2011 under N^o 2011-1 ("Debenture 2011-1");
- c. a convertible secured debenture in the amount of \$1,000,000 issued as of June 15, 2011 under N^o 2011-2 ("Debenture 2011-2");
- d. a convertible secured debenture in the amount of \$1,500,000 issued as of September 2, 2011 under N^o 2011-3 ("Debenture 2011-3" and, collectively with Debenture 2010-1, Debenture 2011-1 and Debenture 2011-2, the "Debentures");

WHEREAS Gradek Energy Canada Inc. ("GEC"), a subsidiary of the Corporation, is a party to the Debentures and has, *inter alia*, promised to repay the Debentures.

WHEREAS some terms and conditions of the Debentures have been amended pursuant to that certain Memorandum of Understanding entered into as of November 18, 2011 among the Holder, the Corporation, GEC, R H S T Development Inc. and Thomas Gradek;

WHEREAS the outstanding aggregate amount due under the Debentures as of the date hereof is \$5,500,000 (the "Outstanding Amount");

WHEREAS the Holder has agreed to advance and loan to the Corporation and GEC an additional amount of \$2,000,000 (the "New Loan");

WHEREAS Dundee, the Corporation and GEC desire to (1) have the Debentures restated, consolidated, amended and replaced by a new debenture and (2) have the Outstanding Amount and the New Loan, including its repayment, interest and all other aspects thereof, be governed by such new debenture.

THEREFORE, THE DEBENTURES ARE HEREBY CONSOLIDATED, RESTATED, AMENDED AND REPLACED AND A NEW DEBENTURE IS HEREBY ISSUED AS FOLLOWS:

FOR VALUE RECEIVED, Gradek Energy Inc. and Gradek Energy Canada Inc. hereby solidarily promise to pay to Dundee Corporation (or any subsidiary or entity as may be determined from time to time by Dundee Corporation) or its registered successors and assigns, at the Maturity Date, or on such earlier date as the principal and interests hereof may become due in accordance with the provisions of this Debenture, the principal sum of SEVEN MILLION FIVE HUNDRED THOUSAND DOLLARS (CDN \$7,500,000) (the "**Principal**") in lawful money of Canada, upon presentation and surrender of this Debenture at the registered office of the Corporation and to pay interest on the Principal from the date hereof until complete payment of the Principal, whether before or after the Maturity Date, conversion or Event of Default, in like money, at the Prime Rate, calculated and compounded daily and payable with the Principal at the Maturity Date. For the purposes hereof, the Prime Rate shall mean the annual interest rate quoted publicly by the Royal Bank of Canada as the reference rate of interest for commercial demand loans made in Canadian dollars and commonly known as such bank's prime rate, as adjusted daily on the basis of the Prime Rate in effect on such date.

This Debenture is secured and convertible, in the cases provided herein, into Common Share Units at the Conversion Price, subject to adjustment on the occurrence of certain events as provided herein.

This Debenture provides for, *inter alia*, the acceleration of the Maturity Date of this Debenture in the case of an Event of Default.

THIS DEBENTURE IS SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS:

1. INTERPRETATION

1.1 Definitions

In this Debenture, the following terms and expressions shall have the following meanings, namely:

- 1.1.1 "**Assets**" means all of the assets, rights and properties of the Corporation, of whatsoever nature, kind or description, whether movable or immovable, real or personal, tangible or intangible and wheresoever situated;
- 1.1.2 "**BDC**" means the Business Development Bank of Canada;
- 1.1.3 "**Business Day**" means any day, other than Saturday, Sunday or any statutory holiday in the City of Montreal, Province of Quebec;
- 1.1.4 "**Close of Business**" means 5:00 P.M. on a Business Day;
- 1.1.5 "**Common Shares**" means, with respect to an Issuer, the common shares in the share capital of such Issuer as they exist at the date hereof, as well as the Shares or other securities issued by such Issuer as a result of any consolidation,

amalgamation, merger, share split, conversion, reorganization or other change pertaining to such Issuer or the said shares;

- 1.1.6 "**Common Share Unit**" means a unit comprised of one Common Share of the Corporation and one Warrant;
- 1.1.7 "**Conversion Date**" means in all cases the date on which the Corporation receives, at its registered office, the Debenture with the Election of Holder's Conversion Privilege duly completed by the Holder;
- 1.1.8 "**Conversion Period**" means the period commencing on the date of issuance of this Debenture and ending on the Close of Business on the Maturity Date;
- 1.1.9 "**Conversion Price**" means \$2.33 per Common Share Unit, as adjusted in accordance with the provisions hereof or, for the purposes of Section 4.6, \$2.33 per Common Share, as adjusted in accordance with the provisions hereof;
- 1.1.10 "**Conversion Rights**" means the irrevocable rights and privileges granted herein by the Corporation and GEC to the Holder to convert all or any part of this Debenture during the Conversion Period and upon the respective terms and conditions set forth herein;
- 1.1.11 "**Converted Amount**" means: (i) with respect to an Election of Holder's Conversion Privilege, the converted amount specified therein; and (ii) with respect to a Forced Conversion under Article 6, all of the Principal (less the aggregate of all amounts previously converted on account of Principal) plus any accrued and unpaid interest thereon;
- 1.1.12 "**Corporation**" means Gradek Energy Inc. and any successor corporation which shall have complied with the provisions of Article 17;
- 1.1.13 "**Debenture**" means this \$7,500,000 convertible secured debenture maturing at the Maturity Date, as modified, supplemented or replaced from time to time, including without limitation, in accordance with the provisions of Article 4 or 16;
- 1.1.14 "**Election of Holder's Conversion Privilege**" means the form of election to exercise the Conversion Rights, substantially in the form set forth in Paragraph 3.3;
- 1.1.15 "**Event of Default**" has the meaning ascribed to such term in Paragraph 12.1;
- 1.1.16 "**Forced Conversion**" has the meaning ascribed to such term in Article 6;
- 1.1.17 "**GEC**" means Gradek Energy Canada Inc. and any successor corporation which shall have complied with the provisions of Article 17;
- 1.1.18 "**Guarantor**" means Mr. Thomas Gradek.

- 1.1.19 "**Holder**" means the Person from time to time entered in the corporate records of the Corporation as holder of the Debenture;
- 1.1.20 "**Hypothec**" means the security granted by the Corporation and GEC in favour of the Holder pursuant to the provisions of Article 14;
- 1.1.21 "**Indebtedness**" means the Principal, the interest outstanding and all other amounts now or in the future payable under this Debenture at any given date;
- 1.1.22 "**Issuer**" means either the Corporation or GEC;
- 1.1.23 "**Master Agreement**" means the master agreement entered into on June 15, 2011 between, the Holder and the Corporation with respect to this Debenture and the Shareholder's Agreement, as such master agreement may be amended from time to time;
- 1.1.24 "**Maturity Date**" or "**Maturity**" means the earlier: (i) of April 30, 2018; or (ii) the date that is set forth in a written notice sent by the Holder to the Corporation and GEC setting out an earlier Maturity Date than that found in (i) and which date shall not be less than six (6) months from date of receipt by the Corporation of said notice;
- 1.1.25 "**Person**" means an individual, legal or moral person, corporation, cooperative, partnership, trust, unincorporated association or governmental body;
- 1.1.26 "**Project**" means the building of a bead and equipment manufacturing facility, as further described in Schedule A hereto;
- 1.1.27 "**Register**" has the meaning ascribed to such term in Article 13;
- 1.1.28 "**Reorganization**" has the meaning ascribed to such term in Paragraph 5.1;
- 1.1.29 "**Share**" and "**Shares**" means any and all the issued and outstanding shares of all classes of the share capital of the Corporation and/or GEC;
- 1.1.30 "**Shareholders Agreement**" means the shareholders' agreement to be entered into on or prior to December 31, 2011 among, *inter alios*, the Holder, the Corporation, R H S T Development Inc. and Cinetic Venture 1 Limited Partnership as further amended from time to time;
- 1.1.31 "**SNC Indebtedness**" means those amounts due by the Corporation to SNC-Lavalin pursuant to a contract for study dated December 12, 2001, which amounts are disclosed in the financial statements of the Corporation;
- 1.1.32 "**Successor Corporation**" has the meaning ascribed to such term in Paragraph 17.1;
- 1.1.33 "**this Debenture**", "**herein**", "**hereby**", "**hereof**", "**hereunder**" and similar expressions mean or refer to this Debenture; and

1.1.34 **"Warrant"** means a common share purchase warrant entitling the Holder to acquire one Common Shares of the Corporation or of GEC or a combination thereof at a price and at the conditions set out in Article 4.

1.2 **Gender and Number**

Words importing the singular number shall include the plural and vice versa and words importing the masculine gender shall include the feminine gender.

1.3 **Headings**

The headings of all the Articles and Paragraphs hereof are inserted for convenience of reference only and shall not affect the interpretation of this Debenture.

1.4 **Applicable Law**

This Debenture shall be governed by and interpreted in accordance with the laws of the Province of Quebec and the federal laws of Canada applicable therein.

2. **PREPAYMENT**

The Corporation and/or GEC shall have the right to prepay, in whole but not in part, the Indebtedness upon a sixty (60) day prior written notice provided, however, that the Holder shall be entitled to exercise its Conversion Rights in accordance with Article 3 hereunder during the said sixty (60) day period provided in the notice.

3. **CONVERSION OF THE DEBENTURE BY THE HOLDER**

3.1 **Conversion Right**

Subject to and upon compliance with the provisions of this Article 3 and the other terms and conditions of this Debenture, the Holder may at its option elect to convert the Debenture, in whole or in part, at any time and from time to time during the Conversion Period, into a number of Common Share Units.

For the purposes hereof, the number of Common Share Units to be issued pursuant to the foregoing shall be equal to the Converted Amount divided by the Conversion Price.

The unconverted portion of this Debenture, if any, is payable at the Maturity Date.

3.2 **Conversion Procedure by the Holder**

In order to exercise the Conversion Right granted under Paragraph 3.1, the Holder shall surrender the Debenture to the Corporation at its registered office with the Election of Holder's Conversion Privilege duly completed. The endorsement and surrender of the Debenture by the Holder together with the delivery of the Election of Holder's Conversion Privilege shall constitute a contract between the Holder and the Corporation and/or GEC in respect of the issuance of the Common Share Units, whereby: (i) the Holder subscribes for the number of Common Shares of the Corporation which it shall be entitled to receive upon such conversion; (ii) the Corporation and/or GEC shall issue

the number of Warrants (which shall be equal to the number of Common Shares issued pursuant to paragraph (i) above) to the Holder to which it is entitled; and (iii) the Corporation agrees that the surrender of the Debenture for conversion, in whole or in part, constitutes full payment of the subscription price and price for the Common Shares and Warrants issuable on such conversion.

At the Conversion Date, the Corporation shall issue or cause to be issued and deliver or cause to be delivered to the Holder a certificate or certificates in the name of the Holder for the number of Common Shares of the Corporation deliverable upon the conversion of the Debenture, as well as the Warrants deliverable upon such conversion.

Such conversion shall be effected at the Close of Business on the Conversion Date and, at such date and time, the rights of the Holder to receive, in respect of the Debenture so converted, the Principal thereof, and interest thereon, shall cease and the Holder, upon such conversion, shall become, on such date and time, the holder of record of the Common Shares represented thereby.

3.3 Form of Election

If the Holder wishes to make an Election of Holder's Conversion Privilege under this Debenture, it shall execute and deliver to the Corporation and GEC a notice substantially in the following form:

"The undersigned hereby irrevocably elects to convert the amount of \$ _____, being \$ _____ of Principal and \$ _____ of interest of the Debenture no.: 2011-4 into Common Shares and Warrants of _____ at the Conversion Price. Please issue the share certificates for said Common Shares and Warrants as follows:

*Number of Common Shares: _____
Number of Warrants: _____
Date: _____"*

4.

WARRANTS

- 4.1 The Warrants may only be exercised in GEC pursuant to an initial public offering of (i) treasury or (ii) already issued shares, of GEC (either of which offerings is hereinafter referred to as an "IPO").
- 4.2 Up to and including October 31, 2014 (which period is hereinafter referred to as the "First Period") each Warrant shall entitle the Holder to acquire one Common Share of GEC at an exercise price equal to the IPO price per share, less fifteen percent (15%).
- 4.3 Should an IPO commence within the three (3) month period prior to the expiry of the First Period, then the First Period shall be extended accordingly to provide the Holder with a clear three (3) month period from the close of the IPO to exercise the Warrants.
- 4.4 Should an IPO of GEC have not commenced within the First Period but occurs prior to January 30, 2018 (the "Second Period") then for each one and a half (1.5) Warrants

held by the Holder, it shall be entitled to acquire one (1) Common Share of GEC at the IPO price per share, less fifteen percent (15%).

4.5 Should an IPO commence within the three (3) month period prior to the expiry of the Second Period, then the Second Period shall be extended accordingly to provide the Holder with a clear three (3) month period from the close of the IPO to exercise the Warrants. V66720

4.6 If, by the expiry of the Second Period, GEC has not commenced an IPO, then for each two (2) Warrants held by the Holder, it shall be entitled to acquire one (1) Common Share of the Corporation at the Conversion Price.

4.7 Should the Conversion Rights be exercised by the Holder pursuant to (i) a Forced Conversion; or (ii) a prepayment event under Article 2; then, in each such case, the exercise of each Warrant entitles the Holder to acquire one (1) Common Share of the Corporation or GEC, or such combination of Common Shares of the Corporation or GEC at the option of the Holder, for an exercise price of \$2.79 per underlying share.

4.8 All unexercised Warrants shall lapse on April 30, 2018.

5. CONVERSION PRICE ADJUSTMENT, FRACTIONAL SHARES, ACCRUED INTEREST AND OTHER CONVERSION MATTERS

5.1 No Impairment - Reorganization

The Corporation and GEC may not proceed with any corporate reorganization or modify its share capital without providing for an equitable and reasonable adjustment mechanism for the conversion of this Debenture. The Corporation and GEC shall also make all appropriate adjustments so as to ensure that the Holder shall be, after conversion, in substantially the same position as if the conversion would have been completed prior to such reorganization or modification.

Without in any way limiting the generality of the foregoing, the Corporation and GEC will not, by amendment of their constating documents, or through any other forms of corporate reorganization, or through recapitalization, subdivision, redesignation, reclassification, consolidation, dividend, split, regrouping, combination, transfer of Assets, amalgamation, merger, dissolution, issue, exchange or sale of securities, declaration of stock dividends, modification or reorganization of issued share capital or stated capital account, or through any other similar re-capitalizations or voluntary action (collectively a "**Reorganization**"), avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Corporation and GEC, without providing for an adequate equitable and reasonable adjustment mechanism for the Conversion Rights of the Holder hereunder.

The Corporation and GEC shall make all appropriate adjustments so as to ensure that the Holder shall be, after conversion, in substantially the same position as if the conversion would have been completed prior to such Reorganization. Such adjustments shall be made successively whenever any Reorganization shall occur. The Corporation and GEC shall also, at all times and in good faith, assist in the carrying out of all the

provisions of this Debenture and in the taking of all such actions as may be necessary or appropriate in order to protect the Conversion Rights of the Holder against impairment.

5.2 No Fractional Shares

Notwithstanding any other provision hereof, the Corporation and GEC shall in no case be required to issue fractional Common Shares. If any fractional Common Shares would be deliverable upon the conversion of the Debenture, the number of Common Shares shall be rounded off to the nearest whole number of Common Shares. One half (1/2) of a Common Share will be rounded off to one (1) Common Share.

5.3 Setting the Record Date and a Certificate for Adjustments

The Corporation and GEC shall fix a record date for any event referred to in Paragraph 5.1. The Corporation and GEC shall, immediately after the occurrence of any event which requires an adjustment as above provided, obtain a certificate of the Corporation's auditors specifying the nature of the event requiring the adjustment and the adjustment thereby necessitated and setting forth in reasonable detail the method of calculation and the facts upon which such calculation is based. Such certificate shall be delivered to the Holder for review and approval as soon as it is so obtained.

5.4 Reclassifications

In case of any reclassification of or change to the Shares (other than as a result of a subdivision or consolidation), or in case of any amalgamation of the Corporation and/or GEC with, or merger of the Corporation and/or GEC into, any other corporation (other than an amalgamation or merger which does not result in any reclassification or change of the Shares), or in case of any sale, transfer or other disposition of all or substantially all of the Assets, the Corporation, GEC or the corporation formed by such amalgamation or the corporation into which the Corporation and/or GEC shall have been merged or the corporation which shall have acquired such assets or enterprise, as the case may be, shall execute and deliver to the Holder a supplemental debenture providing that the Holder will have the right to convert the Debenture into the kind and number of shares, warrants and other securities and property receivable upon such reclassification, change, amalgamation, merger, sale, transfer or other disposition into which the Debenture might have been converted immediately prior to such reclassification, change, amalgamation, merger, sale, transfer or other disposition. Such supplemental debenture shall provide for adjustments which are substantially similar to the adjustments provided for in this Article 4. The foregoing provisions of this Paragraph shall also apply to successive reclassifications, changes, amalgamations, mergers, sales, transfers or other dispositions.

5.5 Cancellation of Debenture

Once the Debenture is surrendered for conversion, it shall be cancelled by the Corporation and no debenture shall be issued in substitution thereof.

5.6 **Reservation of Common Shares**

The Corporation and GEC shall, at all times while the Debenture remains convertible into Common Share Units as herein provided, reserve and keep available out of its authorized but unissued share capital, for the purpose of effecting the conversion of the Debenture, such number of Common Shares and Warrants as shall from time to time be sufficient to effect the conversion of the outstanding Debenture. As a condition precedent to the taking of any action which would require an adjustment to the Conversion Price, the Corporation and GEC shall take any corporate action which may, in the opinion of its counsel, be necessary in order that the Corporation and GEC shall have unissued and reserved in its authorized share capital, and may validly and legally issue, the Common Shares and Warrants to which the Holder is entitled on the full exercise of its Conversion Rights.

5.7 **Governmental Requirements**

If any Common Shares of the Corporation and/or GEC reserved or to be reserved for the purpose of conversion of the Debenture or exercise of the Warrants provided for hereunder require registration with or approval of any governmental authority under any Canadian or provincial law or pursuant to the regulations of any stock exchange upon which the Corporation's and/or GEC's Shares are then listed, before such Common Shares may be validly issued upon conversion, the Corporation and GEC will take such action as may be necessary to secure such registration or approval, as the case may be.

5.8 **Conversion's Costs and Documentation**

In the event that this Debenture is converted pursuant to any of the provisions hereof, the Corporation and GEC shall assume all costs associated with such conversion, including, without restrictions, the reasonable fees and expenses of the Holder's legal and/or financial advisers, and will prepare and produce all required legal documentation supporting such conversion, including a favourable legal opinion of the Corporation's and GEC's legal counsel addressed to the Holder and its counsel all in a form and content that is reasonably acceptable to the Holder and its counsel.

6. **FORCED CONVERSION**

Subject to the Corporation and GEC not being in default of any of their obligations hereunder, then as of the Maturity Date, the Corporation and GEC shall have the right, but not the obligation, to force the conversion of this Debenture (the "**Forced Conversion**"), in whole but not in part, into a number of Common Share Units.

For the purposes hereof, the number of Common Share Units to be issued pursuant to the foregoing shall be equal to the Converted Amount divided by the Conversion Price.

The provisions of Article 5 shall apply *mutatis mutandis* to any such Forced Conversion.

7. **REPLACEMENT OF THE DEBENTURE AND FURTHER ASSURANCE**

In the event that this Debenture is lost, destroyed or stolen, the Corporation shall, upon demand, issue and deliver to the Holder, at the Holder's cost and upon receipt of evidence satisfactory to the Corporation of such loss and upon being furnished with an indemnity satisfactory to it, a new debenture which will bear the same date, the same amount of Principal, and the same form as this Debenture, in exchange for and as a replacement to this Debenture.

The Corporation and GEC shall do all such further acts and execute and deliver all such further documents as shall be reasonably required in order to fully perform and carry out the terms of this Debenture and notably issue, or cause to be issued, the Common Shares and Warrants which may be issued upon conversion of this Debenture as, in the case of such Common Shares and the Common Shares issued pursuant to the exercise of the Warrants, fully paid and non assessable Shares of the Corporation.

8. **REPRESENTATIONS AND WARRANTIES OF THE HOLDER**

8.1 The Holder has the requisite power, authority, legal capacity and competency to execute and deliver this Debenture.

8.2 The Holder is duly incorporated and validly subsisting under the laws of its jurisdiction of incorporation.

9. **REPRESENTATIONS AND WARRANTIES OF THE CORPORATION AND GEC**

9.1 The Corporation, GEC, each of their subsidiaries and R H S T Development Inc. (collectively, the "Subject Entities") have been duly incorporated and organized and are validly existing as corporations in good standing under the laws of their respective jurisdictions of incorporation, with corporate power and authority to own, lease and operate their property and assets, to conduct their business as now conducted and as currently proposed to be conducted and to carry out the provisions of this Debenture, and are in good standing under the laws of each other jurisdiction in which they own or lease properties or conduct any business, except where the failure to do so would not have a material adverse effect on the business, general affairs, management, financial position, shareholders' equity or results of operations of the Corporation on a consolidated basis.

9.2 The minute books of each of the Subject Entities are complete and accurate in all material respects.

9.3 The Corporation and GEC are private issuers within the meaning of National Instrument 45-106 of the Canadian Securities Administrators and other applicable laws.

9.4 The consolidated financial statements of the Corporation for the year ended December 31, 2009 and the quarterly financial statements of the Corporation and GEC issued thereafter are true and correct, present fairly the financial position and condition of the Corporation as at the dates indicated therein and the results of its operations for the periods specified reflect all material liabilities (absolute, accrued, contingent or

otherwise) of the Corporation on a consolidated basis as at the dates indicated therein and have been prepared in conformity with generally accepted accounting principles applied on a consistent basis.

- 9.5 Since December 31, 2009: (i) there has not been any change in the share capital of the Corporation except for a subdivision of the shares of the Corporation, the result of which is reflected in the shareholdings provided for in Paragraph 9.9; (ii) none of the Subject Entities has incurred any liabilities or obligations (absolute, accrued, contingent or otherwise) or entered into any transactions not in the ordinary course of business that are material to it, except as disclosed to the Holder in Schedule B; and (iii) there has not been any material adverse change in or affecting the business, management, financial position, shareholders' equity or results of operations of any of the Subject Entities.
- 9.6 Since December 31, 2009: (i) the Corporation has not paid or declared any dividends; (ii) none of the Subject Entities has incurred any material capital expenditures or made any commitment therefor outside of the ordinary course of business, except as disclosed to the Holder in Schedule B; and (iii) except as disclosed to the Holder in Schedule B, none of the Subject Entities has incurred any obligation or liability, direct or indirect, contingent or otherwise, or entered into any transactions, except for obligations or liabilities or for transactions entered into in the ordinary course of business which are not material to the business, management, financial position, shareholders' equity or results of operations of the Subject Entities.
- 9.7 Except as disclosed to the Holder in Schedule C, with such exceptions as are not material to the business, general affairs, management, financial position, shareholders' equity or results of operations of the Subject Entities on a consolidated basis: (i) each of the Subject Entities has duly and on a timely basis filed all tax returns required to be filed by it, has paid all taxes due and payable by it and has paid all assessments and reassessments and all other taxes, governmental charges, penalties, interest and other fines due and payable by it and which are claimed by any governmental authority to be due and owing and adequate provision has been made for taxes payable for any completed fiscal period for which tax returns are not yet required to be filed; and (ii) there are no agreements, waivers or other arrangements providing for an extension of time with respect to the filing of any tax return or payment of any tax, governmental charge or deficiency by any of the Subject Entities and there are no actions, suits, proceedings, investigations or claims pending, or, to the knowledge of the Corporation, threatened against any of the Subject Entities in respect of taxes, governmental charges or assessments, nor are there any matters under discussion with any governmental authority relating to taxes, governmental charges or assessments asserted by any such authority.
- 9.8 Each of the Subject Entities has good title to all intellectual, personal or movable and real or immovable property owned by it which is material, individually or in the aggregate, to the Subject Entities on a consolidated basis.
- 9.9 As of the date hereof, 6,800,000 Common Shares of the Corporation, and no other shares, are issued and outstanding. As of the date hereof, R H S T Development Inc. is the registered and beneficial owner of 6,596,000 Common Shares and Cinetic Venture

1 Limited Partnership is the registered and beneficial owner of 204,000 Common Shares.

9.10 As of the date hereof, 10,000,000 Common Shares of GEC, and no other shares, are issued and outstanding. As of the date hereof, the following persons are the registered and beneficial owners of the number of Common Shares set out in the following table:

Name of the Shareholders	Number of Common Shares
Corporation (Gradek Energy Inc.)	8,946,500
Cinetic Venture 1, Limited Partnership	300,000
Keith McCrae	300,000
Ron Dooley	200,000
David Schafer	200,000
Robert Evershed	10,000
William Pristanski	10,000
Bambury Pristanski	10,000
Peter Der	10,000
Howard Sterling	7,500
Joseph Mah	3,500
Geof Norquay	2,500

- 9.11 All of the issued and outstanding securities of the share capital of each of the Subject Entities have been duly authorized and validly issued as fully paid and non-assessable.
- 9.12 Other than the 600,000 options that have been issued to subscribe for 600,000 (in the aggregate) common shares of GEC, no holder of outstanding shares in the capital of any of the Subject Entities or other securities of any of the Subject Entities, nor any other person, is entitled to any pre-emptive or any similar rights to subscribe for or otherwise acquire any shares or other securities of any of the Subject Entities and except as disclosed earlier in this subsection and as contemplated by this Debenture, no shares or rights, options to acquire or instruments convertible into or exchangeable for any shares in the capital of any of the Subject Entities, or obligations for any of the Subject Entities to purchase or redeem any such securities, are outstanding.
- 9.13 The Common Shares comprised in the Common Share Units and issuable upon the exercise of the Warrants, when issued and delivered by the Corporation and/or GEC, shall be duly authorized and validly issued as fully paid and non-assessable.
- 9.14 None of the Subject Entities is in violation of its constating documents or by-laws or of the resolutions of its directors or shareholders or, except for the SNC Indebtedness, in default in the performance of any indenture, mortgage, deed of trust, loan agreement, lease or other agreement or instrument to which it is a party or by which it is bound or to which any of its property or assets is subject, which violation, default or defaults, individually or in the aggregate, would have a material adverse effect on the business, management, financial position, shareholders' equity or results of operations of the Subject Entities on a consolidated basis.
- 9.15 The compliance by the Corporation and GEC with all of the provisions of this Debenture and the consummation of the transactions contemplated therein will not:
- 9.15.1 conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, or result in the creation or imposition of any lien, charge or encumbrance on any of the property or assets of any of the Corporation and GEC pursuant to the terms of, any indenture, mortgage, deed of trust, loan agreement, lease or other agreement or instrument to which any of the Corporation or GEC is a party or by which any of the Corporation or GEC is bound or to which any of the property or assets of any of the Subject Entities is subject, except where such breach, violation or default would not have a material adverse effect on the business, management, financial position, shareholders' equity or results of operations of the Subject Entities on a consolidated basis; or
- 9.15.2 result in any violation of the provisions of the constating documents, by-laws or resolutions of the directors or shareholders of any of the Corporation or GEC or result in any violation of any statute or any order, rule or regulation of any court or governmental agency or body having jurisdiction over any of the Subject Entities or any of their properties, except where such default would not have a material adverse effect on the business, general affairs, management, financial position, shareholders' equity or results of operations of the Subject Entities on a consolidated basis.

- 9.16 All consents, approvals, permits, authorizations or filings as may be required to be obtained or made by the Corporation and GEC under applicable law necessary to the execution and delivery of and the performance by the Corporation and GEC of their obligations under this Debenture have been obtained or made, as applicable.
- 9.17 Except for a judgment obtained by SNC-Lavalin in connection with the SNC Indebtedness, none of the Subject Entities has been served with or otherwise received notice of any legal or governmental proceedings and there are no legal or governmental proceedings pending to which any of the Subject Entities is a party or of which any property or assets of any of the Subject Entities is the subject which is reasonably likely, individually or in the aggregate, to have a material adverse effect on the business, management, financial position, shareholders' equity or results of operations of the Subject Entities on a consolidated basis, or which might reasonably be expected to materially and adversely affect the consummation by any of the Subject Entities of the transactions contemplated by this Debenture and, to the knowledge of the Corporation, no such proceedings are threatened (implicitly or otherwise) or contemplated by any governmental or regulatory authorities or any other parties.
- 9.18 Except as otherwise disclosed herein, none of the Subject Entities is in violation of any law, ordinance, administrative or governmental rule or regulation or court decree applicable to them, which violation would, individually or in the aggregate, have a material adverse effect on the business, general affairs, management, financial position, shareholders' equity or results of operations of the Subject Entities on a consolidated basis, or which might reasonably be expected to materially and adversely affect the consummation by the any of the Subject Entities of the transactions contemplated by this Debenture.
- 9.19 The Corporation is not aware of any legislation or regulation which would materially and adversely affect the business, management, financial position, shareholders' equity or results of operations of the Subject Entities on a consolidated basis.
- 9.20 This Debenture has been duly and validly authorized, executed and delivered by the Corporation and constitutes a valid and binding obligation of the Corporation and GEC, enforceable against them in accordance with its terms, subject to the qualification that enforcement thereof is subject to applicable bankruptcy, insolvency, reorganization or other laws affecting creditors' rights generally and the qualification that specific performance and injunctive relief are awarded at the discretion of the court before which they may be validly sought.
- 9.21 The Corporation has not withheld, and will not withhold, from the Holder any facts relating to the Subject Entities that would have a materially adverse effect on the business or operations of any of the Subject Entities.

10. SURVIVAL OF THE REPRESENTATIONS AND WARRANTIES

Except for those representations and warranties contained in Paragraphs 9.1, 9.3, 9.9, 9.10, 9.11, 9.12, 9.13 and 9.20, which shall all survive indefinitely, the representations and warranties made by the Corporation pursuant to Article 9 shall be valid until the later of: (i) the date which the Debenture is repaid in full, (ii) the date at which the

Debenture is fully converted into Common Share Units and (iii) the third anniversary of the date hereof.

11. CERTAIN COVENANTS OF THE CORPORATION

The Corporation hereby covenants and agrees with the Holder as follows:

11.1 To Pay Principal and Interest

The Corporation and GEC shall pay or cause to be paid to the Holder the Principal and interest accrued thereon by certified cheque in accordance with the terms and conditions mentioned herein. The Corporation and GEC shall also pay to the Holder all reasonable fees and costs (including legal fees and fees of external consultants) incurred in relation with the enforcement by the Holder of its rights under this Debenture and the Hypothec and with the publication of the Hypothec, such fees and costs to be payable to the Holder on demand and to bear interest at the Prime Rate, calculated daily and compounded monthly if not paid on demand.

11.2 To Carry on Business, Etc.

The Corporation and GEC shall do or cause to be done all things which it may lawfully do or cause to be done to preserve and keep in force and effect its corporate existence and its right to carry on its business and shall comply with all laws applicable to the Corporation and GEC.

11.3 Common Shares

The Corporation and GEC covenant that all Common Shares which will be issued or delivered upon conversion of the Debenture or exercise of the Warrants will be issued as fully paid and non assessable Shares of the Corporation and/or GEC.

11.4 Reservation of Common Shares and Warrants

The Corporation and GEC undertake to ensure that sufficient Common Shares and Warrants are reserved and allotted for issuance upon the conversion of this Debenture and the exercise of the Warrants.

11.5 Maintain its Records to Date

The Corporation and GEC undertake to maintain their corporate records, including the Register, up to date.

11.6 Respects its Obligations Under Agreements

The Corporation and GEC undertake to perform their obligations under the Shareholders' Agreement, the Master Agreement and debentures issued to the Holder and those obligations contained in any other agreements entered into with the Holder. Nothing contained in this Debenture shall permit the Corporation and GEC to do anything in contravention with the Shareholders' Agreement, the Master Agreement or any other agreement with the Holder.

11.7 Disbursement and Use of Proceeds

The Corporation undertakes to use the Principal only for the purpose of those expenditures specifically pre-approved in writing by the Holder. The New Loan will be held in escrow by Lapointe Rosenstein Marchand Melançon LLP until authorized to be disbursed in accordance with the foregoing. Notwithstanding any provisions hereof, any amount held in escrow by Lapointe Rosenstein Marchand Melançon LLP shall not bear interest until such time such amount is disbursed in favour of the Corporation.

11.8 Notify in Case of Event of Default

The Corporation and GEC undertake to forthwith notify the Holder of the occurrence of any Event of Default within the meaning of Section 12.1 hereof or any event of which it is aware which with notice or lapse of time or both would constitute such an Event of Default.

11.9 Prevent Encumbrance

The Corporation and GEC shall not create or permit to exist any security interest in any of its Assets, business or properties, except security interests in respect of borrowings of money from BDC or another financial institution approved by the Holder in writing, acting reasonably.

11.10 Issuance of Shares

The Corporation and GEC shall not issue any Shares, or grant to any person any right or other entitlement to acquire any Shares nor shall it redeem, repurchase or acquire any of its outstanding share capital, except (i) in accordance with the provisions of the Shareholders' Agreement, (ii) if the proceeds of such issuance are required to repay this Debenture or (iii) with the written consent of the Holder.

11.11 Declaration of Dividends

The Corporation shall not declare or pay any dividends, make any distribution to shareholders nor set aside funds for any of the foregoing purposes except with the written consent of the Holder.

11.12 Equity Interests

The Corporation shall not in any way alienate, transfer, assign, sell or otherwise dispose of any of the shares of GEC presently held by it, nor take any action nor permit any action to be taken that would have the effect of diluting its equity position in GEC.

12. ACCELERATION, DEFAULT AND ENFORCEMENT

12.1 Acceleration Upon an Event of Default

Upon the happening of any one or more of the following events (the "Events of Default"), namely if:

- 12.1.1 the Corporation and/or GEC fails to pay the Principal and interest payable on the Debenture when the same become due and payable, which default is not cured within a grace period of five (5) days after same has become due and payable;
- 12.1.2 the Corporation and/or GEC fails to deliver the correct number of Common Share Units upon the exercise of the Conversion Rights or the automatic conversion of this Debenture and any such default shall have continued for a period of ten (10) days after receipt of written notice from the Holder;
- 12.1.3 the Corporation and/or GEC becomes insolvent or bankrupt, a petition in bankruptcy is filed against the Corporation or the Corporation becomes subject to the provisions of the *Winding Up Act* or the *Bankruptcy and Insolvency Act* or goes into liquidation or dissolution, either voluntarily or under an order of a court of competent jurisdiction, or otherwise acknowledges its insolvency or a liquidator, receiver, manager or trustee in bankruptcy is appointed with regard to the Corporation, GEC or their property;
- 12.1.4 the Corporation and/or GEC make an assignment for the benefit of its creditors;
- 12.1.5 any proceedings with respect to the Corporation and/or GEC are commenced under the *Companies' Creditors Arrangement Act* (or any Act substituted therefore) or any other similar Act;
- 12.1.6 a judgment is executed against all or a significant part of the Assets, the result of which would be material to the Corporation;
- 12.1.7 the Corporation and/or GEC is in default under any contract or commitment, which default may have a material adverse effect on the Corporation and/or on GEC and any such default shall have continued for a period of thirty (30) days after receipt of written notice from the Holder;
- 12.1.8 the Corporation and/or GEC is in default with respect to any debt (other than amounts due hereunder) and such default shall have continued for a period of thirty (30) days;
- 12.1.9 the Corporation and/or GEC has failed to pay when due any obligation to pay a sum owed to the Debenture holder pursuant to any writing or agreement, including, without limitation, any other debenture, present and future, issued by the Corporation and/or GEC in favour of the Holder;
- 12.1.10 a third party having security on the Assets takes possession of same or proceedings in execution of any final judgement are instituted against the Corporation or GEC and such taking of possession is not stayed within the following thirty (30) days;
- 12.1.11 a representation, warranty, covenant or undertaking of the Corporation to or for the benefit of the Holder contained in this Debenture or in the Master Agreement or the Shareholders' Agreement proves to be false or inaccurate or

is breached by the Corporation and/or GEC and, in the case of a covenant or undertaking, to the extent curable, is not remedied within a period of thirty (30) days after receipt of written notice from the Holder;

12.1.12 the Corporation or GEC cease or threaten to cease to operate its business or make or agree to make a sale of all or substantially all of the Assets otherwise than as provided herein; or

then in each and every such event the Holder may in its discretion, unless such Event of Default has been waived by the Holder:

- (a) declare the Principal and interest on the Debenture to be due and payable and the same shall forthwith become immediately due and payable to the Holder without presentation, demand, protest or other notice of any nature to which the Corporation and GEC hereby expressly renounce, notwithstanding any provisions to the contrary effect in this Debenture, and the Corporation and GEC shall forthwith pay to the Holder the amount of the Principal and interest then accrued and all other monies payable under the provisions hereof together with interest at the Prime Rate; and/or
- (b) convert this Debenture, in whole or in part, into a number of Common Share Units equal to the Converted Amount divided by the Conversion Price. The unconverted portion of this Debenture, if any, is payable as provided in (a) above.

12.2 Remedies Cumulative

No remedy herein conferred upon or reserved to the Holder is intended to be exclusive of any other remedy, but each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or existing at law. All recourses of the Holder can be exercised independently or together. Furthermore, exercise of the Conversion Rights shall not be interpreted as a waiver of the right to require total repayment of this Debenture for the non-converted balance. In addition, failure to exercise a recourse does not invalidate said recourse and shall not be interpreted as a waiver of default.

13. REGISTER

The Corporation shall at all times, while the Debenture is outstanding, keep a register (the "Register") at its registered office in which shall be entered the names and addresses of the Holder and its permitted assigns, as the case may be. No transfer of the Debenture shall be valid unless made in compliance with the provisions of Section 20 and registered on such Register by the registered Holder (or its executors or administrators or its or their attorney duly appointed by an instrument in writing).

14. HYPOTHEC

As a general and continuing collateral security for the performance of the obligations of the Corporation and GEC pursuant to this Debenture, present and future, direct and

indirect, absolute and contingent, presently due and hereafter due to the Holder by the Corporation and GEC, including, without limiting the generality of the foregoing, (i) the performance of the obligations of the Corporation and GEC towards the Holder under this Debenture, (ii) the obligation to repay in principal, interest and accessories and upon the terms and conditions provided for under this Debenture, the Indebtedness and any and all other monies owing under this Debenture, as well as (iii) all present and future advances or loans made by the Holder to the Corporation or GEC, each of the Corporation and GEC hereby hypothecates, to and in favour of the Holder, the universality of its movable property, present and future, wherever located, of any nature and kind whatsoever, to the extent of the sum of CAD\$7,500,000.00, with interest thereon at the rate of twenty-five percent (25%) per annum.

The Corporation and GEC hereby covenant and undertake to take forthwith all steps required under applicable law in order to render this Hypothec legally enforceable and opposable to third parties.

Moreover, as additional security for the performance of the obligations of the Corporation and GEC pursuant to this Debenture, present and future, direct and indirect, absolute and contingent, presently due and hereafter due to the Holder by the Corporation and GEC, including, without limiting the generality of the foregoing, (i) the performance of the obligations of the Corporation and GEC towards the Holder under this Debenture, (ii) the obligation to repay in principal, interest and accessories and upon the terms and conditions provided for under this Debenture, the Indebtedness and any and all other monies owing under this Debenture, as well as (iii) all present and future advances or loans made by the Holder to the Corporation or GEC, the Corporation hereby pledges and hypothecates with delivery, to the Holder, all of the issued and outstanding shares that it holds in the share capital of GEC (the "GEC Shares") and any proceeds from the GEC Shares. The Corporation hereby directs that the Holder should receive the original certificate(s) representing such GEC Shares (the "GEC Certificate(s)"), and may retain the GEC Certificate(s) for so long as the foregoing pledge remains in effect. The Corporation will endorse the GEC Certificates for transfer to the Holder and, as applicable, undertakes to do the same in respect of and to forthwith deliver to the Holder: (i) any property that may at any time be received or receivable or otherwise distributed or distributable to the Corporation in respect of, in substitution for, as an addition to or in exchange for the GEC Shares; and (ii) all distributions and other amounts paid or payable including, without limitation, proceeds of disposition or collection, in respect of (i) or the GEC Shares. For so long as the Corporation is not in default of its obligations under this Debenture, it shall be entitled to exercise the voting rights associated with the pledged shares. Notwithstanding any provisions of this Debenture, the provisions of Articles 2759 and 2714.6 of the *Civil Code of Québec* shall not apply to the pledge of the GEC Certificate(s).

The Holder hereby covenants and undertakes to take forthwith all steps required under applicable law in order to subordinate its rights pursuant to the Hypothec to any and all security hereafter held by BDC and/or another financial institution approved by the Holder, acting reasonably, in respect of the assets charged by the Hypothec, if so required by BDC or such other financial institution, as the case may be.

15. **GUARANTEE**

The Guarantor hereby acknowledges having taken cognizance of the provisions of this Debenture and hereby declares having an interest in guaranteeing the performance of the obligations of the Corporation and GEC hereunder.

For good and valuable consideration, the Guarantor hereby unconditionally guarantees that the Corporation and GEC will perform all of their obligations towards the Holder under this Debenture, up to a maximum amount of \$7,500,000.00 (the "**Guaranteed Obligations**").

This Guarantee shall bind the Guarantor solidarily with the Corporation and GEC. For greater certainty, the Corporation, GEC and the Guarantor shall be solidary debtors of the Holder in respect of the Guaranteed Obligations.

The term of this Guarantee shall be 10 years from the date hereof, unless the Guaranteed Obligations are fulfilled earlier in which case this Guarantee shall cease forthwith to subsist. The Guarantor shall also pay to the Holder all costs and disbursements (including attorney's fees) reasonably incurred by the Holder for the recovery of any sums due to it pursuant to the Guaranteed Obligations.

This Guarantee shall oblige the Guarantor to pay to the Holder, on demand, any amount due by the Guarantor to the Holder hereunder, upon default of the Corporation to pay any sums due pursuant to any of the Guaranteed Obligation.

This Guarantee shall remain in effect notwithstanding any change in the constitution, business or objects of the Corporation. Notwithstanding any amalgamation of the Corporation with another corporation, the Guarantor shall continue to be bound by this Guarantee.

The liability of the Guarantor shall not be reduced or modified if the Holder grants extensions of time to the Corporation or to GEC. The Guarantor shall remain liable for the Guaranteed Obligations even if the Corporation or GEC is released from the Guaranteed Obligations by reason of bankruptcy, a proposal or an arrangement.

The Guarantor waives all benefits of division and discussion. The Holder shall not be obliged to exercise or exhaust its recourses against the Corporation or GEC or against any other security it may hold before exercising its rights hereunder. The Holder may accept compositions, compromises and transactions, grant extensions, releases, discharges and time, take and give up security and otherwise deal with the Corporation, GEC and other security as it deems fit, the whole without in any way limiting or lessening the liability of the Guarantor under this Guarantee.

Any delay of the Holder in exercising any of its options, powers or rights, or partial or single exercise thereof, shall not constitute a waiver thereof. No waiver of any of the Holder's rights hereunder and no modification or amendment of this Guarantee shall be deemed to be made by the Holder unless same is in writing, duly signed on behalf of the Holder.

This Guarantee shall bind the Guarantor to the Holder and to the Holder's successors and assigns.

As security for the performance of the Guaranteed Obligations, present and future, direct and indirect, absolute and contingent, presently due and hereafter due to the Holder by the Corporation, GEC or the Guarantor, including, without limiting the generality of the foregoing, (i) the performance of the obligations of the Corporation, GEC or the Guarantor towards the Holder under this Debenture and under this Guarantee, (ii) the obligation to repay in principal, interest and accessories and upon the terms and conditions provided for under this Debenture and this Guarantee, the Indebtedness and any and all other monies owing under this Debenture and this Guarantee, as well as (iii) all present and future advances or loans made by the Holder to the Corporation, GEC or the Guarantor, the Guarantor hereby pledges and hypothecates with delivery, to the Holder, all of the issued and outstanding shares that it holds in the share capital of R H S T Development Inc. (the "RHST Shares") and any proceeds from the RHST Shares. The Guarantor hereby directs that the Holder should receive the original certificate(s) representing such RHST Shares (the "RHST Certificate(s)"), and may retain the RHST Certificate(s) for so long as the foregoing pledge remains in effect. The Guarantor will endorse the RHST Certificates for transfer to the Holder and, as applicable, undertakes to do the same in respect of and to forthwith deliver to the Holder: (i) any property that may at any time be received or receivable or otherwise distributed or distributable to the Guarantor in respect of, in substitution for, as an addition to or in exchange for the RHST Shares; and (ii) all distributions and other amounts paid or payable including, without limitation, proceeds of disposition or collection, in respect of (i) or the RHST Shares. Notwithstanding any provisions of this Debenture, the provisions of Articles 2759 and 2714.6 of the *Civil Code of Québec* shall not apply to the pledge of the RHST Certificate(s).

* Subject to: (i) R H S T Development Inc. remaining the owner of the Confidential Information, the Know-How, the Polymer and the Process (as all such terms are defined pursuant to the amended and restated licensing agreement entered into by R H S T Development Inc., as Licensor, and the Corporation, as Licensee) dated May 15, 2001 (collectively, the "Intellectual Property") and (ii) the Intellectual Property remaining free and clear of any encumbrances whatsoever, the Holder's recourse pursuant to this Guarantee shall be limited to the right to enforce against the RHST Shares and any proceeds thereof. *

Section 8.2 of the Master Agreement shall apply to this Debenture as if recited in full herein.

16. DENOMINATIONS

This Debenture may be exchanged for an equal aggregate Principal amount of debentures of the same maturity date in any denominations. The Debenture tendered for exchange pursuant to this Article 16 shall be delivered to the secretary of the Corporation at the Corporation's registered office (or such other location as may be designated in writing by the Corporation from time to time) and shall be cancelled by the said secretary.

17. **CONSOLIDATION AND AMALGAMATION**

17.1 **Successor Corporation**

The Corporation and GEC shall not consolidate, amalgamate or merge with any other corporation or transfer its enterprise and/or Assets as a whole or substantially as a whole to another Person unless the corporation resulting from any such consolidation, amalgamation or merger or the Person to whom such transfer is made (herein referred to as the "Successor Corporation") is lawfully entitled to acquire and operate the enterprise and/or Assets and unless as part of such consolidation, amalgamation, merger or transfer and in consideration thereof the Successor Corporation shall enter into a covenant with the Holder to pay when due the Principal and interest and other monies due or which may become due hereunder, if any, and to punctually perform and observe all the obligations of the Corporation and GEC hereunder and shall sign and execute all such other deeds and documents as may be necessary or advisable in relation to the foregoing.

Provided that the consolidation, amalgamation, merger or transfer is made on such terms and at such times and in such manner as approved by the Corporation and GEC and by the Holder as not being prejudicial to the interests of the Holder and as preserving and not impairing the rights of the Holder hereunder, the Holder shall facilitate same in all respects, and shall give such consents and sign, execute or join in such documents and do such acts required in order that such consolidation, amalgamation, merger or transfer may be carried out. The Corporation and GEC shall furnish to the Holder an opinion of its counsel to the effect that such consolidation, amalgamation, merger or transfer is on such terms as will substantially preserve and not impair the rights of the Holder hereunder and that all the provisions of this Article have been respected.

17.2 **Successor to Possess Powers of the Corporation**

In case of any consolidation, amalgamation or merger as aforesaid, or in case of such transfer of the undertaking and Assets as a whole or substantially as a whole, the Successor Corporation, upon executing appropriate deeds and documents as provided in Paragraph 17.1, shall succeed to and be substituted for the Corporation and/or GEC and shall possess and may exercise each and every right of the Corporation and/or GEC hereunder.

18. **SATISFACTIONS AND DISCHARGE**

18.1 **Cancellation Upon Payment**

Once all sums owing under the Debenture have been paid, the Holder shall forthwith after payment deliver the Debenture to the Corporation.

18.2 **Discharge**

Upon the delivery of the Debenture to the Corporation in accordance with the provisions of Paragraph 19.1, the Holder shall execute and deliver to the Corporation

and GEC such deeds or other instruments as shall be required to evidence the satisfaction and discharge of the Debenture and the Hypothec and to release the Corporation from its covenants herein contained.

19. NOTICES

19.1 Notice to the Corporation

Any notice to the Corporation sent in accordance with the provisions hereof shall be valid and effective if delivered by messenger or given by prepaid registered letter postage addressed to the registered office of the Corporation located at 162 Brunswick Blvd., Pointe-Claire, Québec H9R 5P9, c/o the President.

19.2 Notice to the Holder

Unless herein otherwise expressly provided, any notice to be given hereunder to the Holder shall be valid and effective if delivered by messenger or given by prepaid registered letter postage addressed to the Holder at its address appearing on the Register or on any other registers of the Corporation, c/o Legal Affairs.

19.3 Deemed Delivery and Change of Mailing Address

Any notice to be given hereunder shall be conclusively deemed to have been effectively received by the Corporation, GEC or the Holder, as the case may be, on the Business Day following the day on which it is delivered by messenger or, if sent by registered letter postage prepaid, on the second Business Day following the day on which it is mailed. The Corporation, GEC and the Holder may, from time to time, notify the other party of a change in address which, until changed by like notice, shall be the address of the party for all purposes.

20. ASSIGNMENTS AND TRANSFERS

The Corporation and GEC may not assign its rights and benefits under this Debenture.

The Holder may assign its rights and obligations under this Debenture at any time. The Holder shall provide notice to the Corporation of any such assignment.

This Debenture shall enure to the benefit of and be binding upon the parties hereto and their respective successors (including any successor by reason of amalgamation or statutory arrangement of any party) and permitted assigns.

21. RANK

This 2011-4 Debenture ranks in preference to the ordinary creditors of the Corporation.

22. **NO DECLARATION OR PAYMENT OF DIVIDENDS**

No dividends may be declared and/or paid in respect of any class of Shares until such times as this Debenture or any part thereof remains outstanding, without the prior written consent of the Holder.

23. **EXPENSES**

The Corporation will be responsible for all expenses related to this Debenture, including all reasonable fees and all disbursements of its legal counsel in the preparation of the Debenture, filing fees, registration of security costs and fees and all sales taxes in connection with the foregoing amounts.

24. **CHOICE OF LANGUAGE**

The Corporation and GEC acknowledges that it has required that this Debenture be drawn up in English. *Chacune de la Société et GEC reconnaît avoir exigé la rédaction en anglais de la présente Débenture.*

[Signatures on following page]

IN WITNESS WHEREOF, this Debenture has been duly executed by the Corporation as of November _____, 2011.

GRADEK ENERGY INC.

Per: _____
Thomas Gradek

IN WITNESS WHEREOF, this Debenture has been duly executed by the Holder as of November _____, 2011.

DUNDEE CORPORATION

Per: _____

Per: _____

IN WITNESS WHEREOF, this Debenture has been duly executed by GEC as of November _____, 2011.

GRADEK ENERGY CANADA INC.

Per : _____
Thomas Gradek

IN WITNESS WHEREOF, this Debenture has been duly executed by the Guarantor as November _____, 2011.

THOMAS GRADEK

(#1266491v4)

Schedule A – Description of the Project

The Corporation proposes to build a bead and an equipment manufacturing facility in the Montreal area. The facility is expected to produce RHS polymer beads and equipment to supply GEC and other licensees in connection with bitumen/mineral recovery and soil remediation activities.

GEC proposes to build a modular pilot plant having a capacity of 3.5 tonnes per hour of tailings slurry feed. It would use both the beads and the equipment manufactured by the Corporation. The plant is expected to be located in Montréal, Québec and is intended to be a continuous flow process in extracting and recovery of bitumen, naphtha and other mineral resources from fine tailings streams and from tailings pond mature fine tailings that are expected to be provided by Syncrude. The plant may also treat the water effluent to render it suitable for recycling to oil sand operators and recover waste heat in the process for sale to the oil sands operator.

The project will entail a number of steps first comprising research and development activities to test the approach to ensure that it is capable of operating within the range of proposed parameters for the material handling aspect and develop the line-up of equipment to be capable of a commercially viable process. This will also necessitate the development of a scaled-up manufacturing process of RHS beads that are the principal separation tool used for the bitumen removal instead of chemicals and air floatation.

The specially designed equipment and products would be used to explicitly determine the existence, extent and quality of the mineral resource that can be recovered, by undergoing an extensive optimization program and further refined processing for increasing the concentration and quality of the extracted material, in order to determine whether it can reach commercial viability.

Schedule B – Other Disclosures

- Loans and agreements entered into with Dundee Corporation;
- On August 23, 2010, the Corporation issued Purchase Orders in the aggregate amount of approximately \$200,000 to Rampf and BHS in connection with equipment required for the project, as disclosed to the Holder;
- On November 3, 2010 the corporation issued purchase order in the aggregate amount of approximately \$1,360,000 to Rampf in connection with equipment required for the project, as disclosed to the Holder;
- A convertible loan from Gilles Martel in the principal amount of \$100,000 is outstanding;
- The Corporation and Labrosse Developments have entered into a verbal lease agreement with respect to those premises located at 162 Brunswick Blvd., Pointe-Claire, Québec. A formal lease agreement in writing is in discussion representing approximately \$20,000 per month in rent;
- The Corporation and GEC have retained the services of Gemini to prepare technical drawings and provide engineering services;
- The Corporation has retained the services of Seneca to prepare technical drawings and provide engineering services;
- The Corporation has entered into discussions with Parachem in order to secure a lease agreement for establishing the pilot plant in Montreal at their facilities;
- The corporation has issued a purchase order in the amount of approximately \$46,000 to Allied Building for the supply of a steel shelter to house the pilot plant, to be delivered beginning December 2011;
- The Corporation is in discussion with UQAR to formalize a study with NSERC Engage program for oil spills response, the study is expected to be eligible for SRED expenses;
- The Corporation is in discussion with McGill and the Center of Excellence to formalize a study involving the pilot plant operations which is expected to be partially subsidized through government grants, in the realm of energy recovery, carbon footprint and resource valuation. This will form the basis for validation of CRCE potential. The study is expected to be eligible for SRED expenses;
- By the end of December of 2011, the Corporation will have occurred approximately \$95,000 of expenses associated with CRCE eligible expenses for heat/energy recovery in relation to equipment/facility installations;
- The Corporation is in discussion with Bitumar for the sub-leasing of tank rail cars for the

transportation of the Syncrude tailings from Ft. McMurray to Montreal;

- Lionel Schwartz may claim to be entitled to a commission of up to 3% of the financing to be completed pursuant to this Debenture and to the private placement. The Corporation never entered into any consulting or finders' fee arrangement with Mr. Schwartz despite the fact that Mr. Schwartz submitted to the Corporation a consulting agreement for government grant provided for a 3% commission, which was never signed by the Corporation. Mr. Schwartz has had telephone conversations with Harold Gordon and Dave Anderson at the end of November of 2009 and appears to make these telephone conversations a basis for a fee claim;
- GEC acquired from 169335 Canada Inc. (Thorburn Equipment) industrial equipment which is subject to various bank liens for an aggregate amount of \$170,000. A down payment in the amount of \$100,000 has been made and the equipment has been delivered to the GEC's place of business. The remainder of the funds were to be paid upon delivery of the equipment. However, there is a material discrepancy between certain equipment delivered and what was acquired, and GEC elected to retain the remainder of the purchase price so long as the commercial dispute is not resolved. 169335 Canada Inc. has filed a court claim against GEC for the unpaid amount, which claim GEC intends to contest vigorously.

Schedule C – Tax Disclosure

Revenu Québec has issued an assessment against R H S T Development Inc. with respect to the capital tax payable in connection with capitalized development costs. The aggregate amount of the assessment in tax payable, interest and penalties is approximately \$54K. R H S T Development Inc. contests this assessment in good faith.

AMENDMENT TO THE CONSOLIDATED, RESTATED AND AMENDED CONVERTIBLE SECURED DEBENTURE BEARING NUMBER 2011-4 AND DATED AS OF NOVEMBER 29, 2011 (the "Debenture") entered into as of May 14, 2012 at Montreal, Quebec.

BETWEEN: **GRADEK ENERGY INC.**, a corporation duly constituted under the laws of Canada, having its head office at 366, De la Roseaie Street, Rosemère (Quebec), J7A 4N2, herein acting and represented by Thomas GRADEK, its president and secretary, duly authorized for all purposes hereof as he so declares;

(hereinafter called the "**Corporation**")

AND: **GRADEK ENERGY CANADA INC.**, a corporation duly constituted under the laws of Canada, having its head office at 1000, Sherbrooke West Street, 27th floor, Montreal (Quebec), H3A 3G4, herein acting and represented by Thomas GRADEK, its president and secretary, duly authorized for all the purposes hereof as he so declares;

(hereinafter called "**GEC**");

AND: **DUNDEE CORPORATION**, a corporation duly constituted under the laws of Canada, having its head office at 1 Adelaide Street E., Toronto, Ontario M5C 2V9, herein acting and represented by Brahm GELFAND, duly authorized for all purposes hereof as he so declares;

(hereinafter called "**Dundee**").

RECITALS

- A. The parties hereto have agreed to some modifications to the Debenture and the Corporation and GEC have agreed to such modifications.
- B. The parties wish to amend the Debenture in order to reflect modifications to the Warrants.

THEREFORE, THE PARTIES AGREE AS FOLLOWS:

Unless the context otherwise requires, capitalized terms used in this Amendment shall have the same meaning as in the Debenture.

1. The parties have agreed to modify the definition of "Master Agreement" in Section 1.1.23 of the Debenture as follows:

"1.1.23 "Master Agreement" means the master agreement entered into on September 15, 2010 between, inter alios, the Holder, the Corporation and GEC with respect to the Debenture

and the Shareholder's Agreement, as such master agreement may be amended from time to time;

2. The parties have agreed to modify the warrant structure in Sections 4.5 and 4.7 of the Debenture as follows

X

"4.5. Should an IPO of GEC have not commenced within the First Period but occurs prior to January 30, 2018 (the "Second Period") then for each three quarters (3/4) of a Warrant held by the Holder, it shall be entitled to acquire one (1) Common Share of GEC at the IPO price per share, less fifteen percent (15%)."

X

"4.7. If, by the expiry of the Second Period, GEC has not commenced an IPO, then for each half (1/2) Warrant held by the Holder, it shall be entitled to acquire one (1) Common Share of the Corporation at the Conversion Price."

3. All the other terms and conditions of the Debenture remain unchanged and are hereby confirmed and restated as though recited at length.
4. The Parties hereto have requested that this Amendment be drafted in the English language; *les Parties aux présentes ont exigé que cet amendement soit rédigé en langue anglaise.*

IN WITNESS WHEREOF the parties (and the Guarantor to confirm its acknowledgment to the modifications set out herein) have duly executed this Agreement as of the date and year first above written.

GRADEK ENERGY INC.

Per:


Thomas Gradek

GRADEK ENERGY CANADA INC.

Per:


Thomas Gradek

DUNDEE CORPORATION

Per: *Robert Yeckel*

Intervention of the Guarantor

Thomas Gradek
THOMAS GRADEK

(#1296578-v3)

SECOND AMENDMENT TO THE CONSOLIDATED, RESTATED AND AMENDED CONVERTIBLE SECURED DEBENTURE BEARING NUMBER 2011-4 AND DATED AS OF NOVEMBER 29, 2011 entered into as of this 13th day of June, 2013 at Montreal, Quebec.

BETWEEN: **GRADEK ENERGY INC.**, a corporation duly constituted under the laws of Canada, having its head office at 366, De la Roseaie Street, Rosemère (Quebec), J7A 4N2, herein acting and represented by Thomas GRADEK, its president and secretary, duly authorized for all purposes hereof as he so declares;

(hereinafter called the "**Corporation**")

AND: **GRADEK ENERGY CANADA INC.**, a corporation duly constituted under the laws of Canada, having its head office at 1000, Sherbrooke West Street, 27th floor, Montreal (Quebec), H3A 3G4, herein acting and represented by Thomas GRADEK, its president and secretary, duly authorized for all the purposes hereof as he so declares;

(hereinafter called "**GEC**");

AND: **DUNDEE CORPORATION**, a corporation duly constituted under the laws of Canada, having its head office at 1 Adelaide Street E., Toronto, Ontario M5C 2V9, herein acting and represented by Brahm GELFAND, duly authorized for all purposes hereof as he so declares;

(hereinafter called "**Dundee**").

RECITALS

- A. On November 29, 2011, the parties hereto have entered into that certain *Consolidated, Restated and Amended Convertible Secured Debenture Bearing Number 2011-4* (hereinafter referred to as the "**Debenture**").
- B. On May 14, 2012, the parties executed an *Amendment to the Consolidated, Restated and Amended Convertible Secured Debenture bearing number 2011-4* in order to reflect, *inter alia*, modifications to the Warrants (hereinafter referred to as the "**First Amendment**").
- C. The parties wish to further amend the Debenture in order to reflect the fact that the interest accrued on the Outstanding Amount as of the date of the Debenture continues to accrue and remains payable under the Debenture.

THEREFORE, THE PARTIES AGREE AS FOLLOWS:

Unless the context otherwise requires, capitalized terms used in this Amendment shall have the same meaning as in the Debenture.

1. The parties have agreed to replace the following paragraph:

*"WHEREAS the outstanding aggregate amount due under the Debentures as at the date hereof is \$5,500,000 (the "**Outstanding Amount**")"*

by the paragraph hereinafter provided:

*"WHEREAS the outstanding aggregate principal amount due under the Debentures as at the date hereof is \$5,500,000 (the "**Outstanding Amount**")"*

2. The parties have agreed to replace the following paragraph:

*"FOR VALUE RECEIVED, Gradek Energy Inc. and Gradek Energy Canada Inc. hereby solidarily promise to pay to Dundee Corporation (or any subsidiary or entity as may be determined from time to time by Dundee Corporation) or its registered successors and assigns, at the Maturity Date, or on such earlier date as the principal and interests hereof may become due in accordance with the provisions of this Debenture, the principal sum of SEVEN MILLION FIVE HUNDRED THOUSAND DOLLARS (**CDN \$7,500,000**) (the "**Principal**") in lawful money of Canada, upon presentation and surrender of this Debenture at the registered office of the Corporation and to pay interest on the Principal from the date hereof until complete payment of the Principal, whether before or after the Maturity Date, conversion or Event of Default, in like money, at the Prime Rate, calculated and compounded daily and payable with the Principal at the Maturity Date. For the purposes hereof, the Prime Rate shall mean the annual interest rate quoted publicly by the Royal Bank of Canada as the reference rate of interest for commercial demand loans made in Canadian dollars and commonly known as such bank's prime rate, as adjusted daily on the basis of the Prime Rate in effect on such date."*

by the paragraph hereinafter provided:

*"FOR VALUE RECEIVED, Gradek Energy Inc. and Gradek Energy Canada Inc. hereby solidarily promise to pay to Dundee Corporation (or any subsidiary or entity as may be determined from time to time by Dundee Corporation) or its registered successors and assigns, at the Maturity Date, or on such earlier date as the principal and interests hereof may become due in accordance with the provisions of this Debenture, the principal sum of SEVEN MILLION FIVE HUNDRED THOUSAND DOLLARS (**CDN \$7,500,000**) (the "**Principal**") in lawful money of Canada, upon presentation and surrender of this Debenture at the registered office of the Corporation and to pay Accrued Interest and interest on the Principal from the date hereof until complete payment of the Principal, whether before or after the Maturity Date, conversion or Event of Default, in like money, at the Prime Rate, calculated and compounded daily and payable with the Principal at the Maturity Date. For the purposes hereof, the Prime Rate shall mean the annual interest rate quoted publicly by the Royal Bank of Canada as the reference rate of interest for commercial demand loans made in Canadian dollars and commonly known as such bank's prime rate, as adjusted daily on the basis of the Prime Rate in effect on such date."*

3. The parties have agreed to add the following definition to section 1.1 of the Debenture entitled "Definitions":

"Accrued Interest" means all interest accrued on the Outstanding Amount as of the date hereof and payable in accordance with the terms of the Debentures;"

4. All the other terms and conditions of the Debenture, as amended pursuant to the First Amendment, remain unchanged and are hereby confirmed and restated as though recited at length,
5. The Parties hereto have requested that this Amendment be drafted in the English language; *les Parties aux présentes ont exigé que cet amendement soit rédigé en langue anglaise.*

IN WITNESS WHEREOF the parties (and the Guarantor to confirm its acknowledgment to the modifications set out herein) have duly executed this Agreement as of the date and year first above written.

GRADEK ENERGY INC.

Per: _____
Thomas Gradek

GRADEK ENERGY CANADA INC.

Per : _____
Thomas Gradek

DUNDEE CORPORATION

Per: _____

Intervention of the Guarantor

THOMAS GRADEK