

COVANTA HOLDING CORP

Form 424B5

January 19, 2007

Table of Contents

The information contained in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state or jurisdiction where the offer or sale is not permitted.

Subject to Completion, dated January 19, 2007

**Filed Pursuant to Rule 424(b)(5)
File No. 333-134173**

PROSPECTUS SUPPLEMENT

(To Prospectus dated May 16, 2006)

Shares

Common Stock

This is an offering of \$125,000,000 in gross proceeds of shares of the common stock of Covanta Holding Corporation. We will receive all of the net proceeds from the sale of such common stock.

Our common stock is listed on The New York Stock Exchange under the symbol CVA. The closing sale price of our common stock on January 18, 2007 was \$21.66 per share.

Concurrently with the offering of our common stock, we are offering, pursuant to a separate prospectus supplement, \$325.0 million aggregate principal amount of % Senior Convertible Debentures due 2027. Our subsidiary, Covanta Energy Corporation, is also negotiating the terms of new senior secured first lien credit facilities with the intention of entering into the new credit facilities in the amount of \$1,300 million, after the closing of this offering. The closing of this offering of our common stock is not conditioned on the closing of the concurrent offering of the % Senior Convertible Debentures due 2027 or the closing of the new credit facilities.

Investing in our common stock involves risks. See Risk Factors beginning on page S-5 of this prospectus supplement.

	Per Share	Total
Price to the public	\$	\$
Underwriting discounts and commissions	\$	\$
Proceeds to Covanta (before expenses)	\$	\$

We have granted the underwriters an option to purchase \$18,750,000 in gross proceeds of additional shares of common stock on the same terms and conditions set forth above if the underwriters sell more than \$125,000,000 in gross proceeds of shares of common stock in this offering.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed on the adequacy or accuracy of this prospectus supplement. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver the shares on or about January , 2007.

Lehman Brothers	<i>Joint Book-Running Managers</i> JPMorgan	Merrill Lynch & Co.
Banc of America Securities LLC	Barclays Capital	Pacific Growth Equities, LLC
January , 2007		UBS Investment Bank

TABLE OF CONTENTS

Prospectus Supplement	Page
<u>About this Prospectus Supplement</u>	i
<u>Where You Can Find More Information</u>	ii
<u>Incorporation By Reference</u>	ii
<u>Prospectus Supplement Summary</u>	S-1
<u>The Offering</u>	S-4
<u>Risk Factors</u>	S-5
<u>Forward-Looking Statements</u>	S-18
<u>Use of Proceeds</u>	S-19
<u>Price Range of Our Common Stock</u>	S-20
<u>Dividend Policy</u>	S-20
<u>Capitalization</u>	S-21
<u>Description of Proposed New Credit Facilities</u>	S-23
<u>Description of Our Capital Stock</u>	S-26
<u>Certain United States Federal Income Tax Considerations For Non-U.S. Holders of Common Stock</u>	S-29
<u>Underwriting</u>	S-32
<u>Experts</u>	S-37
<u>Legal Matters</u>	S-38
 Prospectus	 Page
About This Prospectus	1
Where You Can Find More Information	1
Incorporation By Reference	2
Risk Factors	3
Forward-Looking Statements	3
Covanta Holding Corporation	3
Use of Proceeds	4
Description of the Securities	4
Selling Stockholders	4
Experts	4
Legal Matters	5

ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of this offering of our common stock and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference in this prospectus supplement and the accompanying prospectus.

The second part is the accompanying prospectus, which gives more general information, some of which does not apply to this offering. If the description of this offering of our common stock varies between this prospectus supplement and the accompanying prospectus, you should rely only on the information contained in or incorporated by reference in this prospectus supplement.

You should rely only on the information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not, and the underwriter has not, authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the underwriter is not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted.

You should not assume that the information contained in or incorporated by reference in this prospectus supplement or the accompanying prospectus is accurate as of any date other than the date on this prospectus supplement or the documents incorporated by reference subsequent to the date of this prospectus supplement. Our business, financial condition, results of operations and prospects may have changed since that date. You should read this prospectus supplement and the accompanying prospectus, including the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, when making your investment decision. You should also read and consider the information in the documents we have referred you to in the **Where You Can Find More Information** section.

Table of Contents

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the information and reporting requirements of the Securities Exchange Act of 1934, as amended, referred to as the Exchange Act in this prospectus supplement, under which we file annual, quarterly and special reports, proxy statements and other information with the Securities and Exchange Commission, referred to as the SEC in this prospectus supplement. You may read and copy any materials we file with the SEC at the SEC's public reference room at 100 F Street, N.E., Room 1580, Washington, DC 20549. Copies of such material also can be obtained at the SEC's website, www.sec.gov or by mail from the SEC's public reference room, at prescribed rates. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. Our SEC filings are also available to the public on our corporate website, www.covantaholding.com. Our common stock is traded on the New York Stock Exchange, referred to as the NYSE in this prospectus supplement. Materials filed by us can be inspected at the offices of the New York Stock Exchange at 20 Broad Street, New York, NY 10005.

Information on our website is not incorporated into this prospectus supplement or other filings made by us with the SEC and is not a part of this prospectus supplement.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus supplement, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below which have been filed with the SEC:

1. Our Annual Report on Form 10-K for the year ended December 31, 2005, filed on March 14, 2006;
2. Our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2006, filed on May 4, 2006, our Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2006, filed on August 3, 2006, and our Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2006, filed on October 30, 2006;
3. Covanta Energy's Annual Report on Form 10-K/A for the fiscal year ended December 31, 2004, filed on April 22, 2005 (only with respect to the consolidated financial statements of Covanta Energy and subsidiaries for the fiscal year ended December 31, 2003);
4. Exhibit No. 99.2 of our Current Report on Form 8-K filed on April 7, 2005 (only with respect to the consolidated financial statements of ARC Holdings, Inc. (f/k/a American Ref-Fuel Holdings Corp.) as of December 31, 2004 and 2003 and for the year ended December 31, 2004, the period from December 12, 2003 through December 31, 2003 and the period from January 1, 2003 through December 12, 2003 and the consolidated financial statements of Ref-Fuel Holdings LLC as of December 31, 2004 and 2003 and for the year ended December 31, 2004, the period from December 12, 2003 through December 31, 2003, the period from January 1, 2003 through December 12, 2003 and the year ended December 31, 2002);
5. Exhibit No. 99.4 of our Current Report on Form 8-K/A filed on May 12, 2005 (only with respect to the consolidated financial statements of ARC Holdings, Inc. (f/k/a American Ref-Fuel Holdings Corp.) as of and for the three months ended March 31, 2005);

6. Our Current Reports on Form 8-K filed on February 24, 2006, March 6, 2006, March 15, 2006 (as amended by our Current Report on Form 8-K/A filed on January 19, 2007), March 20, 2006, April 3, 2006, April 7, 2006, May 31, 2006, June 2, 2006, August 17, 2006, September 25, 2006, November 17, 2006, and January 19, 2007; and

7. The description of our common stock on Form 8-A/A filed on November 17, 2006.

Table of Contents

All documents filed by us under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (other than any information furnished pursuant to Item 2.02 or Item 7.01 of any Current Report on Form 8-K unless we specifically state in such Current Report that such information is to be considered filed under the Exchange Act, or we incorporate it by reference into a filing under the Securities Act of 1933, as amended, or the Exchange Act) from the date of this prospectus supplement until the sale of all securities registered hereunder shall be deemed to be incorporated by reference in this prospectus supplement. Any statement contained in this prospectus supplement or in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained in any subsequently filed document which is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement.

We will provide to each person, including any beneficial owner, to whom a prospectus supplement is delivered, upon written or oral request, a copy of any or all of the reports or documents that have been incorporated by reference in this prospectus supplement but not delivered with the prospectus supplement. You may access a copy of any or all of these filings, free of charge, at our web site, www.covantaholding.com, or by writing us at the following address or telephoning us at the number below:

Covanta Holding Corporation
Attn: Gavin A. Bell
40 Lane Road
Fairfield, New Jersey 07004
(973) 882-7001

You may also direct your requests via e-mail to gbell@covantaholding.com

Table of Contents

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information contained elsewhere or incorporated by reference in this prospectus supplement and the accompanying prospectus. This summary does not contain all the information that you should consider before investing in our common stock. You should read the entire prospectus supplement and the accompanying prospectus carefully, including the Risk Factors section and our financial statements (including the notes thereto) included or incorporated by reference in this prospectus supplement and the accompanying prospectus before making an investment decision. This prospectus supplement and the accompanying prospectus contain forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from the results anticipated in these forward-looking statements as a result of factors described under the Risk Factors section and elsewhere in this prospectus supplement.

Unless the context otherwise requires, references in this prospectus supplement to Covanta, we, our, us and similar terms refer to Covanta Holding Corporation and our subsidiaries; references to Covanta Energy refer to Covanta Energy Corporation and its subsidiaries; references to ARC Holdings refer to Covanta ARC Holdings, Inc. and its subsidiaries; and references to TransRiver refer to TransRiver Marketing Company, L.P.

Unless otherwise specifically indicated, all information in this prospectus supplement assumes that the underwriters option to purchase additional shares of common stock is not exercised.

Overview

We are a leading developer, owner and operator of infrastructure for the conversion of energy-from-waste, waste disposal, renewable energy production and independent power production in the United States and abroad. Through our operating subsidiaries, we own or operate 51 energy generation facilities, 41 of which are in the United States and 10 of which are located outside of the United States. Our energy generation facilities use a variety of fuels, including municipal solid waste, water (hydroelectric), natural gas, coal, wood waste, landfill gas and heavy fuel oil. We also own or operate several businesses that are associated with our energy-from-waste business, including a waste procurement business, two landfills and several waste transfer stations. We also operate one water treatment facility which is located in the United States.

The fundamental purpose of our energy-from-waste projects is to provide waste disposal services, typically to municipal clients who sponsor the projects. The electricity or steam generated is generally sold to local utilities or industrial customers, and most of the resulting revenues reduce the overall cost of waste disposal services to the municipal clients. These projects are capable of providing waste disposal services and generating electricity or steam, if properly operated and maintained, for several decades. Generally, we provide these waste disposal services and sell the electricity or steam generated under long-term contracts, which expire on various dates between 2008 and 2027. Many of our service contracts may be renewed for varying periods of time, at the option of the municipal client.

We receive revenue in the form of fees pursuant to the waste disposal services contracts, and in some cases, energy purchase agreements, at facilities we own or operate. TransRiver, one of our subsidiaries, markets waste disposal services to third parties predominantly to efficiently utilize that portion of the waste disposal capacity of our energy-from-waste projects which is not dedicated to municipal clients.

Our Business Strategy

We believe our business offers solutions to public sector leaders around the world in two related elements of critical infrastructure: post-recycling waste disposal and energy generation. We further believe the environmental benefits of energy-from-waste, as an alternative to landfilling, are clear and compelling: utilizing energy-from-waste reduces greenhouse gas emissions, lowers the risk of groundwater contamination and conserves land. At the same time, energy-from-waste generates clean reliable energy from a renewable fuel source, thus reducing dependence on fossil fuels. As public planners address their needs for more environmentally sensitive waste disposal and energy generation in the years ahead, we believe energy-from-waste will be an increasingly attractive alternative.

S-1

Table of Contents

Our mission is to be the world's leading energy-from-waste company, with a complementary network of waste disposal and energy generation assets. We expect to build value for our stockholders by satisfying our clients' waste disposal and energy generation needs with safe, reliable and environmentally superior solutions. In order to accomplish this mission, we intend to:

leverage our core competencies by:

- providing outstanding client service,
- utilizing an experienced management team,
- developing and utilizing world-class technologies and operational expertise, and
- applying proven asset management and cost control;

maximize the long-term value of our existing portfolio by:

- continuing to operate at historical production levels,
- continuing to execute effective maintenance programs,
- extending operating contracts, and
- enhancing the value of facilities we own after expiration of existing contracts; and

capitalize on growth opportunities by:

- expanding our existing energy-from-waste facilities in attractive markets,
- seeking new ownership opportunities or operating contracts for energy-from-waste and other energy generation and waste disposal projects,
- seeking to expand our business in selected international markets where our energy-from-waste expertise adds value and market and regulatory conditions are favorable, and
- developing TransRiver and seeking additional opportunities in businesses ancillary to our existing business, including additional waste transfer, transportation, processing and landfill businesses.

Our principal executive offices are located at 40 Lane Road, Fairfield, New Jersey 07004, and our telephone number is (973) 882-9000.

Concurrent Offering of Debentures

Concurrently with this offering of our common stock, we are offering \$325.0 million aggregate principal amount of % Senior Convertible Debentures due 2027, which we refer to as the Debentures in this prospectus supplement, plus up to an additional \$48.75 million aggregate principal amount of Debentures if the underwriters' overallotment option to purchase additional Debentures from us is exercised in full. This prospectus supplement is not an offer of the Debentures or a solicitation of an offer to buy the Debentures. The completion of this offering of our common stock is

not conditioned on the completion of the offering of the Debentures.

Proposed New Credit Facilities

Concurrently with this offering of our common stock and the concurrent offering of the Debentures, Covanta Energy is negotiating the terms of new senior secured first lien credit facilities in the amount of \$1,300 million, which it intends to enter into after the closing of this offering. We refer to these proposed credit facilities as the New Credit Facilities in this prospectus supplement. Under the New Credit Facilities, the lenders are expected to provide borrowings in the amount of up to \$1,300 million, consisting of a secured term loan facility in the amount of \$680 million that matures in 2014, a secured revolving credit facility in the amount of \$300 million that terminates in 2013 and a secured funded letter of credit facility in the amount of \$320 million that terminates in 2014. The New Credit Facilities are expected to be guaranteed by us and certain subsidiaries of Covanta Energy and secured by a first priority lien on substantially all of the assets of

S-2

Table of Contents

Covanta Energy and certain of its subsidiaries, subject to certain exclusions. Our guarantee of the obligations under the New Credit Facilities will be secured by a first priority lien on all of the capital stock of Covanta Energy owned by us. The closing of this offering of our common stock is not conditioned on the closing of the New Credit Facilities, which will occur, if at all, after the closing of this offering of our common stock. The closing of the New Credit Facilities, which will occur, if at all, after the closing of this offering. The closing of the New Credit Facilities is conditioned upon our raising in this offering and our concurrent offering of the Debentures, a minimum amount to be agreed with the lenders, which amount will be at least \$400 million but no more than \$450 million. See Description of Proposed New Credit Facilities.

Tender Offers and Consent Solicitations

Concurrently with this offering of our common stock, we expect to commence cash tender offers and related consent solicitations to purchase any and all of the following outstanding notes, with principal amounts as of September 30, 2006:

\$195.8 million aggregate principal amount of 8.50% senior secured notes due 2010 of MSW Energy Finance Co., Inc. and MSW Energy Holdings, LLC, referred to as the MSW I Notes in this prospectus supplement;

\$224.1 million aggregate principal amount of 7.375% senior secured notes due 2010 of MSW Energy Finance Co. II, Inc. and MSW Energy Holdings II, LLC, referred to as the MSW II Notes in this prospectus supplement; and

\$211.6 million aggregate principal amount of 6.26% senior notes due 2015 of ARC, referred to as the ARC Notes and, collectively with the MSW I Notes and the MSW II Notes, as the Outstanding Notes in this prospectus supplement.

Subsequent to September 30, 2006, we made scheduled principal repayments on the ARC Notes in the amount of \$19.6 million. Therefore, the principal amount of ARC Notes we intend to repurchase is \$192.0 million.

We refer to such tender offers and related consent solicitations as the tender offers in this prospectus supplement. We intend to use the net proceeds from this offering, together with the net proceeds from the concurrent offering of the Debentures, a portion of the borrowings under the New Credit Facilities and available cash on hand, to repurchase the Outstanding Notes. See Use of Proceeds. The completion of each tender offer is conditioned upon, among other things, the closings of this offering of our common stock, the concurrent offering of the Debentures and the New Credit Facilities. Nothing in this prospectus supplement should be construed as an offer to purchase any Outstanding Notes.

Table of Contents

THE OFFERING

Common stock offered by us	\$125 million in gross proceeds of shares (\$143.75 million in gross proceeds of shares if the underwriters' option to purchase additional shares is exercised in full).
Common stock outstanding immediately after this offering	_____ shares (_____ shares if the underwriters' option to purchase additional shares is exercised in full).
Use of proceeds	We estimate that our net proceeds from this offering will be approximately \$118.5 million, after deducting the underwriting discounts and commission and estimated offering expenses totaling \$6.5 million (\$136.3 million if the underwriters' option to purchase additional shares is exercised in full). We intend to use the net proceeds of this offering, together with the net proceeds from the concurrent offering of the Debentures and available cash on hand, to repurchase the Outstanding Notes, pursuant to the tender offers or by redemptions, pay accrued and unpaid interest and related premiums thereon and pay other related expenses. In the event we do not enter into the New Credit Facilities, or such tender offers are not successfully consummated, we intend to use the net proceeds of this offering and the concurrent offering of the Debentures for general corporate purposes, which may include construction of new facilities, expansions of existing facilities, or possible investments or acquisitions permitted under Covanta Energy's existing credit facilities or, if we receive waivers from the lenders under Covanta Energy's existing credit facilities, the repurchase of the MSW I Notes and/or MSW II Notes. See Use of Proceeds.
Dividend policy	We do not intend to declare cash dividends on our common stock in the foreseeable future. See Dividend Policy.
Risk factors	An investment in our common stock is very risky. You should consider carefully the risk factors beginning on page S-5 of this prospectus supplement, and additional risks described in the documents incorporated by reference in this prospectus supplement, before investing in our common stock.
NYSE Symbol for our common stock	Our common stock is listed on the NYSE under the symbol CVA.

The number of shares of our common stock to be outstanding immediately after this offering shown above is based on the number of shares of our common stock outstanding as of January 17, 2007. All share information in this prospectus supplement:

includes 935,533 shares of restricted stock granted as compensation to our employees, which may be forfeited and cancelled in the future, if restrictions are not satisfied; and

excludes 1,029,664 shares issuable upon the exercise of outstanding options and 158,399 shares held as treasury stock.

S-4

Table of Contents

RISK FACTORS

An investment in our common stock is very risky. The following risk factors could have a material adverse effect on our business, financial condition and results of operations. You should carefully consider the following factors and other information contained or incorporated by reference in this prospectus supplement before deciding to invest in our common stock. Any of these risks could materially affect our business, financial condition, results of operations and cash flows, which could, in turn, materially affect the price of our common stock.

Our substantial indebtedness could adversely affect our business, financial condition and results of operations and our ability to meet our payment obligations under our indebtedness.

We do not currently have any indebtedness other than our guarantee of indebtedness under Covanta Energy's existing credit facilities. As of September 30, 2006, our subsidiaries had \$3,909 million of outstanding indebtedness and other liabilities, including \$629 million under Covanta Energy's existing credit facilities and approximately \$3,280 million of the Outstanding Notes, non-recourse project level indebtedness and other liabilities. As described more fully under the "Description of Proposed New Credit Facilities" section, Covanta Energy is currently negotiating the terms of the New Credit Facilities with a syndicate of lenders. If Covanta Energy is successful in entering into the New Credit Facilities and we are successful in consummating this offering of our common stock and the concurrent offering of the Debentures, as described under "Capitalization," Covanta Energy would repay the outstanding indebtedness under its existing credit facilities and would incur up to \$1,300 million of secured indebtedness under the New Credit Facilities, for which we would be a guarantor, and we would repurchase or redeem the Outstanding Notes by other indirect subsidiaries. Assuming this recapitalization occurs, we would have no indebtedness, outstanding other than the Debentures and our guarantee of indebtedness under the New Credit Facilities, and our subsidiaries would have approximately \$3,307 million of indebtedness, including Covanta Energy's indebtedness under the New Credit Facilities, non-recourse project level indebtedness and other liabilities outstanding.

Whether or not Covanta Energy is successful in entering into the New Credit Facilities, the level of our consolidated indebtedness could have significant consequences on our future operations, including:

- making it difficult for us to meet our payment and other obligations under our outstanding indebtedness, including the Debentures;

- resulting in an event of default if our subsidiaries fail to comply with the financial and other restrictive covenants contained in their debt agreements, which event of default could result in all of such debt becoming immediately due and payable;

- limiting our ability to obtain additional financing to fund working capital, capital expenditures, acquisitions and other general corporate purposes;

- subjecting us to the risk of increased sensitivity to interest rate increases on our indebtedness under Covanta's existing credit facilities or indebtedness under the New Credit Facilities;

- limiting our flexibility in planning for, or reacting to, and increasing our vulnerability to, changes in our business, the industries in which we operate and the general economy; and

- placing us at a competitive disadvantage compared to our competitors that have less debt or are less leveraged.

Any of the above-listed factors could have an adverse effect on our business, financial condition and results of operations, our ability to meet our subsidiaries' debt and the price of our common stock.

We cannot be certain that our net operating loss carryforwards will continue to be available to offset tax liability.

Our net operating loss carryforwards, referred to as "NOLs" in this prospectus supplement, will expire in various amounts, if not used, between 2007 and 2023. The Internal Revenue Service, referred to in this

S-5

Table of Contents

prospectus supplement as the IRS, has not audited any of our tax returns for any of the years during the carryforward period including those returns for the years in which the losses giving rise to the NOLs were reported. We cannot assure you that we would prevail if the IRS were to challenge the availability of the NOLs. If the IRS were successful in challenging our NOLs, all or some portion of the NOLs would not be available to offset our future consolidated taxable income, and we may not be able to satisfy our obligations to Covanta Energy under a tax sharing agreement, or to pay taxes that may be due from our consolidated tax group. The loss of a significant portion of NOLs could also trigger an event of default under Covanta Energy's existing credit facilities.

As of December 31, 2005, we estimated that we had approximately \$489 million of NOLs. In order to utilize the NOLs, we must generate consolidated taxable income which can offset such carryforwards. The NOLs are also utilized by income from certain grantor trusts that were established as part of the reorganization in 1990 of certain of our subsidiaries engaged in the insurance business and are administered by state regulatory agencies. As a result of uncertainty regarding the administration of certain of these grantor trusts during June 2006, we reduced the aggregate amount of our available NOLs by \$46 million. During or at the conclusion of the administration of these grantor trusts, taxable income could result, which could utilize a portion of our NOLs and, in turn, could accelerate the date on which we may be otherwise obligated to pay incremental cash taxes.

In addition, if our existing insurance business were to require capital infusions from us in order to meet certain regulatory capital requirements, and we were to fail to provide such capital, some or all of our subsidiaries comprising our insurance business could enter insurance insolvency or bankruptcy proceedings. In such event, such subsidiaries may no longer be included in our consolidated tax return, and a portion, which could constitute a significant portion, of our remaining NOLs may no longer be available to us. In such event, there may be a significant inclusion of taxable income in our federal consolidated income tax return.

The market price of our common stock may fluctuate significantly, and this may make it difficult for you to resell our common stock when you want or at prices you find attractive.

The price of our common stock on the NYSE constantly changes. We expect that the market price of our common stock will continue to fluctuate. Consequently, there can be no assurance as to the liquidity of an investment in our common stock or as to the price you may realize upon the sale of our common stock.

The market price of our common stock may fluctuate as a result of a variety of factors, many of which are beyond our control. These factors include:

changes in the waste and energy market conditions;

quarterly variations in our operating results;

our operating results that vary from the expectations of management, securities analysts and investors;

changes in expectations as to our future financial performance;

announcements of strategic developments, significant contracts, acquisitions and other material events by us or our competitors;

the operating and securities price performance of other companies that investors believe are comparable to us;

future sales of our equity or equity-related securities;

changes in the economy and the financial markets;

departures of key personnel;

changes in governmental regulations; and

geopolitical conditions, such as acts or threats of terrorism or military conflicts.

S-6

Table of Contents

In addition, in recent years, the stock market in general has experienced extreme price and volume fluctuations. This volatility has had a significant effect on the market price of securities issued by many companies for reasons often unrelated to their operating performance. These broad market fluctuations may adversely affect the market price of our common stock, regardless of our operating results.

Future issuances of our common stock will dilute the ownership interests of stockholders and may adversely affect the trading price of our common stock.

Except as described under the Underwriting section, we are not restricted from issuing additional shares of our common stock, or securities convertible into or exchangeable for our common stock, and have no obligation to consider your interests for any reason. Future sales of substantial amounts of our common stock or equity-related securities in the public market, or the perception that such sales could occur, could materially and adversely affect prevailing trading prices of our common stock. Any sales in the public market of our common stock issuable upon such conversion could adversely affect prevailing market prices of our common stock.

Concentrated stock ownership may discourage unsolicited acquisition proposals.

As of November 22, 2006, SZ Investments, L.L.C., together with its affiliate, EGI-Fund (05-07) Investors, L.L.C., referred to as Fund 05-07 and, collectively with SZ Investments, L.L.C. SZ Investments, Third Avenue Trust, on behalf of Third Avenue Value Fund, referred to as Third Avenue, and D. E. Shaw Laminar Portfolios, L.L.C., referred to as Laminar, separately own or will have the right to acquire approximately 15.71%, 5.97% and 9.9%, respectively, or when aggregated, approximately 31.6% of our outstanding common stock. Although there are no agreements among SZ Investments, Third Avenue and Laminar regarding their voting or disposition of shares of our common stock, the level of their combined ownership of shares of our common stock could have the effect of discouraging or impeding an unsolicited acquisition proposal.

Further, as a result, these stockholders may continue to have the ability to influence the election or removal of our directors and influence the outcome of matters presented for approval by our stockholders. Circumstances may occur in which the interests of these stockholders could be in conflict with the interests of other stockholders.

Anti-takeover provisions could negatively impact our stockholders.

Provisions of our restated certificate of incorporation, as amended, and bylaws could make it more difficult for a third party to acquire control of us. For example, our restated certificate of incorporation authorizes our board of directors to issue preferred stock without requiring any stockholder approval, and preferred stock could be issued as a defensive measure in response to a takeover proposal. These provisions could make it more difficult for a third-party to acquire us even if an acquisition might be in the best interest of our stockholders.

Covanta Energy's debt agreements contain covenant restrictions that may limit our ability to operate our business.

Covanta Energy's existing credit facilities contain, Covanta Energy's New Credit Facilities are expected to contain, and any of our other future debt agreements may contain covenants that impose significant operating and financial restrictions on Covanta Energy and certain of its subsidiaries and require Covanta Energy to meet certain financial tests. Complying with these covenant restrictions may have a negative impact on our business, results of operations and financial condition by limiting our ability to engage in certain transactions or activities, including:

incurring additional indebtedness or issuing guarantees;

creating liens;

making certain investments;

S-7

Table of Contents

entering into transactions with our affiliates;

selling certain assets;

redeeming capital stock or making other restricted payments;

declaring or paying dividends or making other distributions to stockholders; and

merging or consolidating with any person.

Covanta Energy's ability to comply with these covenants is dependent on our future performance, which will be subject to many factors, some of which are beyond our control, including prevailing economic conditions. As a result of these covenants, our ability to respond to changes in business and economic conditions and to obtain additional financing, if needed, may be significantly restricted, and we may be prevented from engaging in transactions that might otherwise be beneficial to us. In addition, the failure to comply with these covenants in Covanta Energy's existing credit facilities or in the New Credit Facilities could result in a default thereunder [and a default under the Debentures]. Upon the occurrence of such an event of default, the lenders under Covanta Energy's existing credit facilities or in the New Credit Facilities could elect to declare all amounts outstanding under such agreement, together with accrued interest, to be immediately due and payable. If the lenders accelerate the payment of the indebtedness under Covanta Energy's existing credit facilities or the New Credit Facilities, we cannot assure you that the assets securing such indebtedness would be sufficient to repay in full that indebtedness and our other indebtedness.

We may not have access to the cash flow and other assets of our subsidiaries that may be needed to make payment on our debt.

All of our business is conducted through our subsidiaries. Our ability to make payments on our debt is dependent on the earnings and the distribution of funds from our subsidiaries.

Certain of our subsidiaries and affiliates are currently subject to project and other financing arrangements that restrict their ability to make dividends or distributions to us. Covanta Energy derives its cash flow principally from its domestic and international project operations and businesses. A material portion of Covanta Energy's domestic cash flows are expected to be derived from projects where financial test and other covenants contained in respective debt arrangements must be satisfied in order for project subsidiaries to make cash distributions to Covanta Energy's intermediate subsidiaries and, in turn, to us. We cannot assure you that our project subsidiaries will be able to satisfy such financial tests and covenants in the future, and that we, indirectly through Covanta Energy, will be able to receive cash distributions from such subsidiaries. In addition, Covanta Energy's existing credit facilities limit Covanta Energy from making cash distributions or dividends to us in respect of any of our cash payment obligations on the Debentures, and the New Credit Facilities may similarly limit Covanta Energy from making such distributions or dividends. See Item 7 Management's Discussion and Analysis of Financial Condition and Results of Operations Management's Discussion and Analysis of Liquidity and Capital Resources Waste and Energy Services Segment, of the 2005 Form 10-K and also see Note 18 Long-Term Debt to the Notes to the Consolidated Financial Statements for a more complete description of the terms of Covanta Energy's existing credit facilities and the Description of Proposed New Credit Facilities section for a description of the proposed terms of the New Credit Facilities. We cannot assure you that certain of the agreements governing the current and future indebtedness of our subsidiaries will permit our subsidiaries to provide us with sufficient dividends, distributions or loans to fund payments on our indebtedness when due.

Operation of our facilities and the expansion of facilities involve significant risks.

The operation of our waste and energy facilities and the construction of new or expanded facilities involve many risks, including:

the inaccuracy of our assumptions with respect to the timing and amount of anticipated revenues;

supply interruptions;

S-8

Table of Contents

the breakdown or failure of equipment or processes;

difficulty or inability to find suitable replacement parts for equipment;

the unavailability of sufficient quantities of waste;

decreases in the fees for solid waste disposal;

decreases in the demand or market prices for recovered ferrous or non-ferrous metal;

disruption in the transmission of electricity generated;

permitting and other regulatory issues, license revocation and changes in legal requirements;

labor disputes and work stoppages;

unforeseen engineering and environmental problems;

unanticipated cost overruns;

weather interferences, catastrophic events including fires, explosions, earthquakes, droughts and acts of terrorism;

the exercise of the power of eminent domain; and

performance below expected levels of output or efficiency.

We cannot predict the impact of these risks on our business or operations. These risks, if they were to occur, could prevent Covanta Energy and its subsidiaries from meeting their obligations under their operating contracts.

A failure to identify suitable acquisition candidates and to complete acquisitions could have an adverse effect on our strategy and growth plans.

As part of our business strategy, we intend to continue to pursue acquisitions of complementary businesses. Although we regularly evaluate acquisition opportunities, we may not be able successfully to identify suitable acquisition candidates; to obtain sufficient financing on acceptable terms to fund acquisitions or to complete acquisitions.

The rapid growth of our operations could strain our resources and cause our business to suffer.

We have experienced rapid growth and this growth has placed and potential future growth will continue to place a strain on our management systems, infrastructure and resources. Our ability to successfully offer services and implement our business plan in a rapidly evolving market requires an effective planning and management process. We expect that we will need to continue to improve our financial and managerial controls, reporting systems and procedures. We will also need to expand, train and manage our workforce worldwide. Furthermore, we expect that we will be required to manage an increasing number of relationships with various customers and other third parties. Failure to expand in any of the foregoing areas efficiently and effectively could interfere with the growth of our business as a whole.

Our efforts to grow our business will require us to incur significant costs in business development, often over extended periods of time, with no guarantee of success.

Our efforts to grow our waste and energy business will depend in part on how successful we are in developing new projects and expanding existing projects. The development period for each project may occur over several years, during which we incur substantial expenses relating to siting, design, permitting, community relations, financing and professional fees associated with all of the foregoing. Not all of our development efforts will be successful, and we may decide to cease developing a project for a variety of reasons. If the cessation of our development efforts were to occur at an advanced stage of development, we may have incurred a material amount of expenses for which we will realize no return.

S-9

Table of Contents

Development, construction and operation of new projects may not commence as scheduled, or at all.

The development and construction of new waste and energy facilities involves many risks including siting, permitting, financing and construction delays and expenses, start-up problems, the breakdown of equipment and performance below expected levels of output and efficiency. New facilities have no operating history and may employ recently developed technology and equipment. Our businesses maintain insurance to protect against risks relating to the construction of new projects; however, such insurance may not be adequate to cover lost revenues or increased expenses. As a result, a new facility may be unable to fund principal and interest payments under its debt service obligations or may operate at a loss. In certain situations, if a facility fails to achieve commercial operation, at certain levels or at all, termination rights in the agreements governing the facility's financing may be triggered, rendering all of the facility's debt immediately due and payable. As a result, the facility may be rendered insolvent and we may lose our interest in the facility.

Our insurance and contractual protections may not always cover lost revenues, increased expenses or liquidated damages payments.

Although our businesses maintain insurance, obtain warranties from vendors, require contractors to meet certain performance levels and, in some cases, pass risks we cannot control to the service recipient or output purchaser, the proceeds of such insurance, warranties, performance guarantees or risk sharing arrangements may not be adequate to cover lost revenues, increased expenses or liquidated damages payments.

Performance reductions could materially and adversely affect us and our projects may operate at lower levels than expected.

Most service agreements for our energy-from-waste facilities provide for limitations on damages and cross-indemnities among the parties for damages that such parties may incur in connection with their performance under the service agreement. In most cases, such contractual provisions excuse our businesses from performance obligations to the extent affected by uncontrollable circumstances and provide for service fee adjustments if uncontrollable circumstances increase our costs. We cannot assure you that these provisions will prevent our businesses from incurring losses upon the occurrence of uncontrollable circumstances or that if our businesses were to incur such losses they would continue to be able to service their debt.

Covanta Energy and certain of its subsidiaries have issued or are party to performance guarantees and related contractual obligations associated with its energy-from-waste, renewable energy, independent power and water facilities. With respect to its domestic businesses, Covanta Energy and certain of its subsidiaries have issued guarantees to its municipal clients and other parties that Covanta Energy's subsidiaries will perform in accordance with contractual terms, including, where required, the payment of damages or other obligations. The obligations guaranteed will depend upon the contract involved. Many of Covanta Energy's subsidiaries have contracts to operate and maintain energy-from-waste facilities. In these contracts, the subsidiary typically commits to operate and maintain the facility in compliance with legal requirements; to accept minimum amounts of solid waste; to generate a minimum amount of electricity per ton of waste; and to pay damages to contract counterparties under specified circumstances, including those where the operating subsidiary's contract has been terminated for default. Any contractual damages or other obligations incurred by Covanta Energy and certain of its subsidiaries could be material, and in circumstances where one or more subsidiary's contract has been terminated for its default, such damages could include amounts sufficient to repay project debt. Additionally, damages payable under such guarantees on Covanta Energy's owned energy-from-waste facilities could expose Covanta Energy to recourse liability on project debt. Covanta Energy and certain of its subsidiaries may not have sufficient sources of cash to pay such damages or other obligations. We cannot assure you that Covanta Energy and such subsidiaries will be able to continue to avoid incurring material payment

obligations under such guarantees or that, if Covanta Energy did incur such obligations, that Covanta Energy would have the cash resources to pay them.

S-10

Table of Contents

Our businesses generate revenue primarily under long-term contracts and must avoid defaults under those contracts in order to service their debt and avoid material liability to contract counterparties.

Covanta Energy's subsidiaries must satisfy performance and other obligations under contracts governing energy-from-waste facilities. These contracts typically require Covanta Energy's subsidiaries to meet certain performance criteria relating to amounts of waste processed, energy generation rates per ton of waste processed, residue quantity and environmental standards. The failure of Covanta Energy's subsidiaries to satisfy these criteria may subject them to termination of their respective operating contracts. If such a termination were to occur, Covanta Energy's subsidiaries would lose the cash flow related to the projects and incur material termination damage liability, which may be guaranteed by Covanta Energy or certain of its subsidiaries. In circumstances where the contract of one or more subsidiaries has been terminated due to the default of one of Covanta Energy's subsidiaries they may not have sufficient sources of cash to pay such damages. We cannot assure you that Covanta Energy's subsidiaries will be able to continue to perform their respective obligations under such contracts in order to avoid such contract terminations, or damages related to any such contract termination, or that if they could not avoid such terminations that they would have the cash resources to pay amounts that may then become due.

Covanta Energy and certain of its subsidiaries have provided guarantees and support in connection with its subsidiaries' projects.

Covanta Energy and certain of its subsidiaries are obligated to guarantee or provide financial support for its subsidiaries' projects in one or more of the following forms:

- support agreements in connection with service or operating agreement-related obligations;
- direct guarantees of certain debt relating to three of its facilities;
- contingent obligations to pay lease payment installments in connection with three of its facilities;
- contingent credit support for damages arising from performance failures;
- environmental indemnities; and
- contingent capital and credit support to finance costs, in most cases in connection with a corresponding increase in service fees, relating to uncontrollable circumstances.

Many of these contingent obligations cannot readily be quantified, but, if we were required to provide this support, it may be material to our cash flow and financial condition.

Covanta Energy may face increased risk of market influences on its domestic revenues after its contracts expire.

Covanta Energy's contracts to operate energy-from-waste projects expire on various dates between 2008 and 2023, and our contracts to sell energy output generally expire when the project's operating contract expires. Expiration of these contracts will subject Covanta Energy to greater market risk in entering into new or replacement contracts or pricing levels which will generate comparable or enhanced revenues. As its operating contracts at municipally-owned projects approach expiration, Covanta Energy will seek to enter into renewal or replacement contracts to continue operating such projects. However, we cannot assure you that Covanta Energy will be able to enter into renewal or replacement contracts on terms favorable to it, or at all. Covanta Energy will seek to bid competitively for additional contracts to operate other facilities as similar contracts of other vendors expire. The expiration of existing energy sales contracts, if

not renewed, will require Covanta Energy to sell project energy output either into the electricity grid or pursuant to new contracts.

At some of our facilities, market conditions may allow Covanta Energy to effect extensions of existing operating contracts along with facility expansions. Such extensions and expansions are currently being considered at a limited number of our facilities in conjunction with Covanta Energy's clients. If Covanta Energy is unable to reach agreement with its municipal clients on the terms under which they would implement such extensions and expansions, or if the implementation of these extensions, including renewals

S-11

Table of Contents

and replacement contracts, and expansions are materially delayed, this may adversely affect our cash flow and profitability. We cannot assure you that Covanta Energy will be able to enter into such contracts or that the terms available in the market at the time will be favorable to it.

Our businesses depend on performance by third parties under contractual arrangements.

Our waste and energy businesses depend on a limited number of third parties to, among other things, purchase the electric and steam energy produced by our facilities, and supply and deliver the waste and other goods and services necessary for the operation of our energy facilities. The viability of our facilities depends significantly upon the performance by third parties in accordance with long-term contracts, and such performance depends on factors which may be beyond our control. If those third parties do not perform their obligations, or are excused from performing their obligations because of nonperformance by our waste and energy businesses or other parties to the contracts, or due to force majeure events or changes in laws or regulations, our businesses may not be able to secure alternate arrangements on substantially the same terms, if at all, for the services provided under the contracts. In addition, the bankruptcy or insolvency of a participant or third party in our facilities could result in nonpayment or nonperformance of that party's obligations to us.

Concentration of suppliers and customers may expose us to heightened financial exposure.

Our waste and energy businesses often rely on single suppliers and single customers at our facilities, exposing such facilities to financial risks if any supplier or customer should fail to perform its obligations.

For example, our businesses often rely on a single supplier to provide waste, fuel, water and other services required to operate a facility and on a single customer or a few customers to purchase all or a significant portion of a facility's output. In most cases, our businesses have long-term agreements with such suppliers and customers in order to mitigate the risk of supply interruption. The financial performance of these facilities depends on such customers and suppliers continuing to perform their obligations under their long-term agreements. A facility's financial results could be materially and adversely affected if any one customer or supplier fails to fulfill its contractual obligations and we are unable to find other customers or suppliers to produce the same level of profitability. We cannot assure you that such performance failures by third parties will not occur, or that if they do occur, such failures will not adversely affect the cash flows or profitability of our businesses.

In addition, for their energy-from-waste facilities, our subsidiaries rely on their municipal clients as a source not only of waste for fuel but also of revenue from the fees for disposal services our subsidiaries provide. Because contracts of our subsidiaries with their municipal clients are generally long-term, our subsidiaries may be adversely affected if the credit quality of one or more of their municipal clients were to decline materially.

Our business is subject to pricing fluctuations caused by the waste disposal and energy markets.

While our businesses sell the majority of their waste disposal capacity and energy output pursuant to long-term contracts, a material portion of this capacity and output is subject to market price fluctuation. Consequently, our operating results may be adversely affected by fluctuations in waste disposal and energy prices.

Our waste operations are concentrated in one region, and expose us to regional economic or market declines.

The majority of our waste disposal facilities are located in the northeastern United States, primarily along the Washington, D.C. to Boston, Massachusetts corridor. Adverse economic developments in this region could affect regional waste generation rates and demand for waste disposal services provided by us. Adverse market developments caused by additional waste disposal capacity in this region could adversely affect waste disposal pricing. Either of

these developments could have a material adverse effect on our revenues and cash generation.

S-12

Table of Contents

Some of our energy contracts involve greater risk of exposure to performance levels which could result in materially lower revenues.

Eight of our 31 energy-from-waste facilities receive 100% of the energy revenues they generate. As a result, if we are unable to operate these facilities at their historical performance levels for any reason, our revenues from energy sales could materially decrease.

Exposure to international economic and political factors may materially and adversely affect our international businesses.

Our international operations expose us to legal, tax, currency, inflation, convertibility and repatriation risks, as well as potential constraints on the development and operation of potential business, any of which can limit the benefits to us of a foreign project.

Our projected cash distributions from existing international facilities come from facilities located in countries with sovereign ratings below investment grade, including Bangladesh, the Philippines and India. The financing, development and operation of projects outside the United States can entail significant political and financial risks, which vary by country, including:

changes in law or regulations;

changes in electricity tariffs;

changes in foreign tax laws and regulations;

changes in United States federal, state and local laws, including tax laws, related to foreign operations;

compliance with United States federal, state and local foreign corrupt practices laws;

changes in government policies or personnel;

changes in general economic conditions affecting each country, including conditions in financial markets;

changes in labor relations in operations outside the United States;

political, economic or military instability and civil unrest;

expropriation and confiscation of assets and facilities; and

credit quality of entities that purchases our power.

The legal and financial environment in foreign countries in which we currently own assets or projects also could make it more difficult for us to enforce our rights under agreements relating to such projects.

Any or all of the risks identified above with respect to our international projects could adversely affect our revenue and cash generation. As a result, these risks may have a material adverse effect on our business, consolidated financial condition and results of operations.

Exposure to foreign currency fluctuations may affect our costs of operations.

We participate in projects exclusively in jurisdictions where limitations on the convertibility and expatriation of currency have been lifted by the host country and where such local currency is freely exchangeable on the international markets. In most cases, components of project costs incurred or funded in the currency of the United States are recovered with limited exposure to currency fluctuations through negotiated contractual adjustments to the price charged for electricity or service provided. This contractual structure may cause the cost in local currency to the project's power purchaser or service recipient to rise from time to time in excess of local inflation. As a result, there is a risk in such situations that such power purchaser or service recipient will, at least in the near term, be less able or willing to pay for the project's power or service.

S-13

Table of Contents

Exposure to fuel supply prices may affect our costs and results of operations for our international projects.

Changes in the market prices and availability of fuel supplies to generate electricity may increase our cost of producing power, which could adversely impact our energy businesses' profitability and financial performance.

The market prices and availability of fuel supplies for some of our international facilities fluctuate. Any price increase, delivery disruption or reduction in the availability of such supplies could affect our ability to operate the facilities and impair their cash flow and profitability. We may be subject to further exposure if any of our future international operations are concentrated in facilities using fuel types subject to fluctuating market prices and availability. We may not be successful in our efforts to mitigate our exposure to supply and price swings.

Our inability to obtain resources for operations may adversely affect our ability to effectively compete.

Our energy-from-waste facilities depend on solid waste for fuel, which provides a source of revenue. For most of our facilities, the prices we charge for disposal of solid waste are fixed under long-term contracts and the supply is guaranteed by sponsoring municipalities. However, for some of our energy-from-waste facilities, the availability of solid waste to us, as well as the tipping fee that we must charge to attract solid waste to our facilities, depends upon competition from a number of sources such as other energy-from-waste facilities, landfills and transfer stations competing for waste in the market area. In addition, we may need to obtain waste on a competitive basis as our long-term contracts expire at our owned facilities. There has been consolidation and there may be further consolidation in the solid waste industry which would reduce the number of solid waste collectors or haulers that are competing for disposal facilities or enable such collectors or haulers to use wholesale purchasing to negotiate favorable below-market disposal rates. The consolidation in the solid waste industry has resulted in companies with vertically integrated collection activities and disposal facilities. Such consolidation may result in economies of scale for those companies as well as the use of disposal capacity at facilities owned by such companies or by affiliated companies. Such activities can affect both the availability of waste to us for disposal at some of our energy-from-waste facilities and market pricing.

Compliance with environmental laws could adversely affect our results of operations.

Costs of compliance with federal, state and local existing and future environmental regulations could adversely affect our cash flow and profitability. Our waste and energy businesses are subject to extensive environmental regulation by federal, state and local authorities, primarily relating to air, waste (including residual ash from combustion) and water. We are required to comply with numerous environmental laws and regulations and to obtain numerous governmental permits in operating our facilities. Our businesses may incur significant additional costs to comply with these requirements. Environmental regulations may also limit our ability to operate our facilities at maximum capacity or at all. If our businesses fail to comply with these requirements, we could be subject to civil or criminal liability, damages and fines. Existing environmental regulations could be revised or reinterpreted and new laws and regulations could be adopted or become applicable to us or our facilities, and future changes in environmental laws and regulations could occur. This may materially increase the amount we must invest to bring our facilities into compliance. In addition, lawsuits or enforcement actions by federal and/or state regulatory agencies may materially increase our costs. Stricter environmental regulation of air emissions, solid waste handling or combustion, residual ash handling and disposal, and waste water discharge could materially affect our cash flow and profitability. Certain environmental laws make us potentially liable on a joint and several basis for the remediation of contamination at or emanating from properties or facilities we currently or formerly owned or operated or properties to which we arranged for the disposal of hazardous substances. Such liability is not limited to the cleanup of contamination we actually caused. Although we seek to obtain indemnities against liabilities relating to historical contamination at the facilities we own or operate, we cannot provide any assurance that we will not incur liability relating to the remediation of contamination, including

contamination we did not cause.

S-14

Table of Contents

Our businesses may not be able to obtain or maintain, from time to time, all required environmental regulatory approvals. If there is a delay in obtaining any required environmental regulatory approvals or if we fail to obtain and comply with them, the operation of our facilities could be jeopardized or become subject to additional costs.

Energy regulation could adversely affect our revenues and costs of operations.

Our waste and energy businesses are subject to extensive energy regulations by federal, state and foreign authorities. We cannot predict whether the federal, state or foreign governments will modify or adopt new legislation or regulations relating to the solid waste or energy industries. The economics, including the costs, of operating our facilities may be adversely affected by any changes in these regulations or in their interpretation or implementation or any future inability to comply with existing or future regulations or requirements.

The Federal Power Act, commonly referred to as the FPA, regulates energy generating companies and their subsidiaries and places constraints on the conduct of their business. The FPA regulates wholesale sales of electricity and the transmission of electricity in interstate commerce by public utilities. Under the Public Utility Regulatory Policies Act of 1978, commonly referred to as PURPA, our domestic facilities (other than our facilities with net power production capacities in excess of 30mw) are exempt from most provisions of the FPA and state rate regulation. Our foreign projects are also exempt from regulation under the FPA.

The Energy Policy Act of 2005 enacted comprehensive changes to the domestic energy industry which may affect our businesses. The Energy Policy Act removed certain regulatory constraints that previously limited the ability of utilities and utility holding companies to invest in certain activities and businesses, which may have the effect over time of increasing competition in energy markets in which we participate. In addition, the Energy Policy Act includes provisions that may remove some of the benefits provided to non-utility electricity generators, like us, after our existing energy sale contracts expire. As a result, we may face increased competition after such expirations occur.

If our businesses lose existing exemptions under the FPA or lose the ability under PURPA to require utilities to purchase our electricity, the economics and operations of our energy projects could be adversely affected, including as a result of rate regulation by the Federal Energy Regulatory Commission, with respect to our output of electricity, which could result in lower prices for sales of electricity. In addition, depending on the terms of the project's power purchase agreement, a loss of our exemptions could allow the power purchaser to cease taking and paying for electricity under existing contracts. Such results could cause the loss of some or all contract revenues or otherwise impair the value of a project and could trigger defaults under provisions of the applicable project contracts and financing agreements. Defaults under such financing agreements could render the underlying debt immediately due and payable. Under such circumstances, we cannot assure you that revenues received, the costs incurred, or both, in connection with the project could be recovered through sales to other purchasers.

Failure to obtain regulatory approvals could adversely affect our operations.

Our waste and energy businesses are continually in the process of obtaining or renewing federal, state and local approvals required to operate our facilities. While our businesses currently have all necessary operating approvals, we may not always be able to obtain all required regulatory approvals, and we may not be able to obtain any necessary modifications to existing regulatory approvals or maintain all required regulatory approvals. If there is a delay in obtaining any required regulatory approvals or if we fail to obtain and comply with any required regulatory approvals, the operation of our facilities or the sale of electricity to third parties could be prevented, made subject to additional regulation or subject our businesses to additional costs or a decrease in revenue.

Table of Contents

The energy industry is becoming increasingly competitive, and we might not successfully respond to these changes.

We may not be able to respond in a timely or effective manner to the changes resulting in increased competition in the energy industry in both domestic and international markets. These changes may include deregulation of the electric utility industry in some markets, privatization of the electric utility industry in other markets and increasing competition in all markets. To the extent competitive pressures increase and the pricing and sale of electricity assumes more characteristics of a commodity business, the economics of our business may come under increasing pressure.

Changes in technology may have a material adverse effect on our profitability.

Research and development activities are ongoing to provide alternative and more efficient technologies to dispose of waste or produce power. It is possible that advances in these or other technologies will reduce the cost of waste disposal or power production from these technologies to a level below our costs. Furthermore, increased conservation efforts could reduce the demand for power or reduce the value of our facilities. Any of these changes could have a material adverse effect on our revenues and profitability.

Our reputation could be adversely affected if opposition to our efforts to grow our business results in adverse publicity or our businesses were to fail to comply with United States or foreign laws or regulations.

With respect to our efforts to renew our contracts and grow our waste and energy business both domestically and internationally, we sometimes experience opposition from advocacy groups or others intended to halt a development effort or other opportunity we may be pursuing. Such opposition is often intended to discourage third parties from doing business with us and may be based on inaccurate, incomplete or inflammatory assertions. We cannot provide any assurance that our reputation would not be adversely affected as a result of adverse publicity resulting from such opposition. Some of our projects and new business may be conducted in countries where corruption has historically penetrated the economy to a greater extent than in the United States. It is our policy to comply, and to require our local partners and those with whom we do business to comply, with all applicable anti-bribery laws, such as the U.S. Foreign Corrupt Practices Act and with applicable local laws of the foreign countries in which we operate. We cannot provide any assurance that our reputation would not be adversely affected if we were reported to be associated with corrupt practices or if we or our local partners failed to comply with such laws.

We will have broad discretion as to the use of the proceeds of this offering.

Subject to certain plans and limitations as described in the Use of Proceeds section, we will have significant flexibility in allocating the net proceeds of this offering. In the event that we are unsuccessful in refinancing indebtedness under Covanta Energy's existing credit facilities with the New Credit Facilities, then we would be prohibited by the terms of such credit facilities from repurchasing the Outstanding Notes. In that case, the net proceeds from this offering of our common stock and the concurrent offering of the Debentures, if successful, would be used for general corporate purposes, which may include construction of new facilities, expansions of existing facilities or possible permitted investments or acquisitions or, repurchase or redemption of the MSW I Notes and/or the MSW II Notes if we are successful in obtaining waivers from Covanta Energy's current lenders. If we fail to spend these funds effectively, it could harm our financial condition and result in lost business opportunities.

Our controls and procedures may not prevent or detect all errors or acts of fraud.

Our management, including our Chief Executive Officer and Chief Financial Officer, believes that any disclosure controls and procedures or internal controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a

control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control

S-16

Table of Contents

systems, they cannot provide absolute assurance that all control issues and instances of fraud, if any, within our companies have been prevented or detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by an unauthorized override of the controls. The design of any systems of controls also is based in part upon certain assumptions about the likelihood of future events, and we cannot assure you that any design will succeed in achieving its stated goals under all potential future conditions. Accordingly, because of the inherent limitations in a cost effective control system, misstatements due to error or fraud may occur and may not be detected.

Failure to maintain an effective system of internal control over financial reporting may have an adverse effect on our stock price.

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, and the rules and regulations promulgated by the SEC to implement Section 404, we are required to furnish a report by our management to include in our annual report on Form 10-K regarding the effectiveness of our internal control over financial reporting. The report includes, among other things, an assessment of the effectiveness of our internal control over financial reporting as of the end of our fiscal year, including a statement as to whether or not our internal control over financial reporting is effective. This assessment must include disclosure of any material weaknesses in our internal control over financial reporting identified by management.

We have in the past discovered, and may potentially in the future, discover areas of internal control over financial reporting which may require improvement. If we are unable to assert that our internal control over financial reporting is effective now or in any future period, or if our auditors are unable to express an opinion on the effectiveness of our internal controls, we could lose investor confidence in the accuracy and completeness of our financial reports, which could have an adverse effect on our stock price.

Table of Contents

FORWARD-LOOKING STATEMENTS

Cautionary Note Regarding Forward-Looking Statements

This prospectus supplement and the related prospectus and registration statement, including documents incorporated by reference therein, contain statements that may constitute forward-looking statements as defined in Section 27A of the Securities Act of 1933, as amended, Section 21E of the Exchange Act, the Private Securities Litigation Reform Act of 1995, referred to as the PSLRA in this prospectus supplement, or in releases made by the SEC, all as may be amended from time to time. Such forward-looking statements involve known and unknown risks, uncertainties and other important factors that could cause the actual results, performance or achievements of us and our subsidiaries, or industry results, to differ materially from any future results, performance or achievements expressed or implied by such forward-looking statements. Statements that are not historical facts are forward-looking statements.

Forward-looking statements can be identified by, among other things, the use of forward-looking language, such as the words plan, believe, expect, anticipate, intend, estimate, project, may, will, would, could, scheduled to, or other similar words, or the negative of these terms or other variations of these terms or comparable language, or by discussion of strategy or intentions. These cautionary statements are being made pursuant to the Securities Act of 1933, the Exchange Act and the PSLRA with the intention of obtaining the benefits of the safe harbor provisions of such laws. We caution investors that any forward-looking statements made by us are not guarantees or indicative of future performance. Important assumptions and other important factors that could cause actual results to differ materially from those forward-looking statements with respect to us include, but are not limited to, the risks and uncertainties affecting our businesses described in the Risk Factors section in this prospectus supplement and in registration statements and other filings with the SEC made by us and our subsidiaries.

Although we believe that our plans, intentions and expectations reflected in or suggested by such forward-looking statements are reasonable, actual results could differ materially from a projection or assumption in any of our forward-looking statements. Our future financial condition and results of operations, as well as any forward-looking statements, are subject to change and inherent risks and uncertainties. The forward-looking statements contained in this prospectus supplement and related prospectus and registration statement are made only as of the date hereof and we do not have or undertake any obligation to update or revise any forward-looking statements whether as a result of new information, subsequent events or otherwise, unless otherwise required by law.

Table of Contents

USE OF PROCEEDS

We estimate that our net proceeds from this offering will be approximately \$118.5 million, after deducting the underwriting discounts and commissions and estimated offering expenses totaling \$6.5 million (\$136.3 million if the underwriter's option to purchase additional shares of common stock is exercised in full). We estimate that our net proceeds from this offering, together with the estimated net proceeds of \$315.9 million from our concurrent offering of \$325.0 million of the Debentures (\$363.4 million of net proceeds if the underwriters' option to purchase additional Debentures is exercised in full), will be approximately \$434.4 million (\$499.7 million if the underwriters' options to purchase additional shares of common stock and additional Debentures are both exercised in full).

We expect to use the net proceeds from this offering, together with the net proceeds from our concurrent offering of the Debentures, a portion of the borrowings under the New Credit Facilities and available cash on hand, to repurchase, pursuant to the tender offers or by redemptions, the Outstanding Notes issued by our subsidiaries, pay accrued and unpaid interest and related premiums thereon and pay related expenses thereto. The Outstanding Notes of our subsidiaries expected to be repurchased, with principal amounts as of September 30, 2006 reflected, consist of the following:

\$195.8 million in principal amount of 8.50% MSW I Notes;

\$224.1 million in principal amount of 7.375% MSW II Notes; and

\$211.6 million in principal amount of 6.26% ARC Notes.

Subsequent to September 30, 2006, we made scheduled principal repayments on the ARC Notes in the amount of \$19.6 million. Therefore, the principal amount of the ARC Notes we intend to repurchase is \$192.0 million.

Although we have had significant negotiations with possible lenders for the New Credit Facilities, Covanta Energy has not entered into any definitive agreements as of the date hereof. Consequently, we cannot assure you that we will be able to use the net proceeds from this offering in the manner described above. In the event that we are unsuccessful in refinancing indebtedness under Covanta Energy's existing credit facilities with the New Credit Facilities, then we would be prohibited by the terms of such credit facilities from repurchasing or redeeming any of the Outstanding Notes. In that case, the net proceeds from this offering and the concurrent offering of the Debentures, if successful, would be used for general corporate purposes, which may include construction of new facilities, expansions of existing facilities, possible permitted investments or acquisitions, or, if we receive waivers from the lenders under Covanta Energy's existing credit facilities, the repurchase or redemption of the Outstanding Notes. Although we examine various acquisition opportunities from time to time and may submit indications of interest, we do not have a binding agreement to acquire another business at this time. We may also elect to seek waivers from the lenders under Covanta Energy's existing credit facilities to the restriction on repurchasing, pursuant to the tender offers or by redemption, the MSW I Notes and the MSW II Notes, which have higher interest rates and earlier due dates than the ARC Notes. If we obtain waivers from the lenders under Covanta Energy's existing credit facilities, but our concurrent offering of our Debentures is not consummated, we may, using the proceeds from this offering and cash on hand, repurchase, pursuant to a tender offer or by redemption, the MSW I Notes. We cannot assure you that in such situations the tender offers will be subscribed for in any amount or that we will be successful in obtaining waivers from the lenders under Covanta Energy's existing credit facilities.

Table of Contents**PRICE RANGE OF OUR COMMON STOCK**

Our common stock is listed on the NYSE under the symbol CVA. On January 18, 2007 there were approximately 1,054 holders of record of common stock. On January 18, 2007, the closing sale price of our common stock on the NYSE was \$21.66 per share.

The following table sets forth the range of high and low composite prices of our common stock for the periods indicated. These prices are as reported on the American Stock Exchange Composite Tape with respect to dates through the close of business on October 4, 2005 and these prices are as reported on the NYSE Composite Tape with respect to dates on and after October 5, 2005. Effective as of the close of trading on October 4, 2005, we voluntarily delisted our shares from the American Stock Exchange and as of October 5, 2005, our shares have been listed for trading on the NYSE.

	2007 (to January 18, 2007)		2006		2005		2004	
	High	Low	High	Low	High	Low	High	Low
First Quarter	\$ 22.74	\$ 21.62	\$ 18.15	\$ 14.61	\$ 17.34	\$ 7.95	\$ 10.03	\$ 2.87
Second Quarter			18.60	14.36	17.70	10.42	10.40	5.40
Third Quarter			21.84	16.04	13.64	11.67	7.15	5.52
Fourth Quarter			22.84	18.52	15.06	10.41	8.60	6.00

The prices above reflect the impact of a rights offering announced in December 2003 and completed on May 18, 2004, a rights offering announced in February 2005 and completed on June 24, 2005 and a rights offering announced in January 2006 and completed on February 24, 2006.

DIVIDEND POLICY

We have never declared cash dividends on our common stock and have no present intention of declaring cash dividends in the foreseeable future. Instead, we intend to retain any earnings to finance the growth and development of our business. Our current financing arrangements impose, and the New Credit Facilities Covanta Energy expects to enter into shortly after the consummation of this offering will impose, restrictions on the ability of our subsidiaries to transfer funds to us in the form of cash dividends, loans or advances that would likely limit the future payment of dividends on our common stock. Any of our future financing arrangements may contain similar restrictions on the payment of dividends. In addition, any future determination to pay dividends would be at the discretion of our board of directors and will be dependent upon then existing conditions, including our financial condition, results of operations, contractual restrictions, capital requirements, business prospects, and other factors our board of directors deems relevant. See Description of Proposed New Credit Facilities for descriptions of restrictions imposed by our current financing arrangements and expected to be imposed by the New Credit Facilities.

Table of Contents

CAPITALIZATION

The following table sets forth our capitalization as of September 30, 2006:

on an actual basis;

on a pro forma basis, with adjustments assuming and giving effect to:

our issuance of shares of common stock in this offering assuming net proceeds of approximately \$118.5 million based on an assumed public offering price of \$21.66 per share (the last reported sale price of our common stock on the NYSE on January 18, 2007), after deducting underwriting discounts and commissions and estimated offering expenses of \$6.5 million; and

our concurrent issuance of \$325.0 million in aggregate principal amount of the Debentures offered by us pursuant to a separate prospectus supplement, after deducting underwriting discounts and commissions and estimated offering expenses of \$9.1 million;

on a pro forma as adjusted basis, with adjustments assuming and giving effect to:

the funding of the New Credit Facilities; and

the use of the borrowings under the New Credit Facilities, together with the use of estimated net proceeds from this offering, the concurrent offering of the Debentures and available cash on hand, to repay \$629 million of outstanding indebtedness under Covanta Energy's existing credit facilities (and an additional \$5.2 million in call premiums) and to repurchase, pursuant to the tender offers, the outstanding ARC Notes, to pay related tender premiums thereon of approximately \$32 million, and to pay other related expenses.

The table excludes (as of September 30, 2006) 1,029,664 shares of common stock issuable upon the exercise of outstanding stock options.

This table should be read in conjunction with the information set forth under the "Use of Proceeds" section and our consolidated financial statements and the notes thereto contained in the documents incorporated by reference in this prospectus supplement.

Table of Contents

	As of September 30, 2006		
	Actual	Pro Forma (In thousands)	Pro Forma As Adjusted
Cash and Cash Equivalents and Restricted Funds held in trust:			
Cash and Cash Equivalents	\$ 227,562	\$ 661,937	\$ 79,468
Restricted Funds held in trust	464,782	464,782	444,782
Total Cash and Cash Equivalents and Restricted Funds held in trust	\$ 692,344	\$ 1,126,719	\$ 524,250
Debt:			
Project debt (non-recourse)	1,451,363	1,451,363	1,451,363
Other long-term debt (non-recourse)	135	135	135
8.50% MSW I Notes due 2010 ⁽¹⁾	195,785	195,785	
7.375% MSW II Notes due 2010 ⁽¹⁾	224,100	224,100	
6.26% ARC Notes due 2015 ⁽¹⁾	211,600	211,600	
Unamortized premium on project debt	49,915	49,915	49,915
Unamortized premium on Outstanding Notes	21,311	21,311	
Covanta Energy's existing senior secured credit facilities			
First lien term loan facility	369,312	369,312	
Second lien term loan facility	260,000	260,000	
Covanta Energy's new senior secured credit facilities ⁽²⁾			
First lien term loan facility			680,000
Debentures		325,000	325,000
Total debt	\$ 2,783,521	\$ 3,108,521	\$ 2,506,413
Stockholders' equity:			
Preferred stock (\$0.10 par value; authorized 10,000 shares; none issued on an actual, pro forma or pro forma as adjusted basis)	\$	\$	\$
Common stock (\$0.10 par value; authorized 250,000 shares; issued 147,657 shares and outstanding 147,500 shares on an actual basis; issued 153,428 shares and outstanding 153,271 shares on a pro forma and pro forma as adjusted basis)	14,766	15,343	15,343
Additional paid-in capital	615,422	733,345	733,345
Accumulated other compensation income	991	991	(1,131)
Accumulated earnings	88,833	88,833	66,542
Treasury stock, at par	(16)	(16)	(16)
Total stockholders' equity	\$ 719,966	\$ 838,496	\$ 814,083

Total capitalization	\$ 3,503,517	\$ 3,947,017	\$ 3,320,496
----------------------	--------------	--------------	--------------

- (1) We have assumed that all of the Outstanding Notes are validly tendered prior to the consent deadline and accepted for payment by us in the tender offers.
- (2) The New Credit Facilities provide \$620 million of availability, of which \$321 million would be issued in the form of letters of credit in connection with the recapitalization described above.

S-22

Table of Contents

DESCRIPTION OF PROPOSED NEW CREDIT FACILITIES

Concurrently with this offering, Covanta Energy is negotiating the terms of the New Credit Facilities with a syndicate of lenders led by JPMorgan Chase Bank, N.A. and certain other financial institutions, which is expected to be entered into after the closing of this offering. Assuming Covanta Energy successfully completes negotiations for the New Credit Facilities, the proceeds of the New Credit Facilities will be used to refinance Covanta Energy's existing credit facilities and will be available for the working capital and general corporate needs of Covanta Energy and its subsidiaries, including the repurchase of the Outstanding Notes of our indirect subsidiaries. Although many of the material terms have been negotiated with the lead arrangers, we cannot assure you that Covanta Energy will enter into the New Credit Facilities upon substantially the terms described below or at all. In addition, Covanta Energy's ability to enter into the New Credit Facilities is conditioned upon our raising in this offering and the concurrent offering of our common stock a minimum amount to be agreed with the lenders which amount will be at least \$400 million but no more than \$450 million. The following is a description of the general terms of the New Credit Facilities.

Overview. Under the proposed New Credit Facilities, the lenders will agree to provide credit extensions in the amount of up to \$1,300 million, consisting of the following:

- a secured term loan facility in the amount of \$680 million that matures in 2014;
- a secured revolving credit facility in the amount of \$300 million that terminates in 2013; and
- a secured funded letter of credit facility in the amount of \$320 million that terminates in 2014.

Upon the request of Covanta Energy, and subject to the satisfaction of certain conditions set forth in the New Credit Facilities, up to \$400 million in additional term loan facilities and/or revolving credit facility may become available to Covanta Energy, and Covanta Energy may obtain incremental funded letter of credit facilities in order that the aggregate amount of all funded letter of credit facility commitments in effect at any time is \$400 million.

Term loan principal payments. The term loan facility has a mandatory amortization, paid in quarterly installments, equal to 1% per annum for the first 27 quarters and on the maturity date the balance thereof.

Interest. For purposes of calculating interest, loans under the New Credit Facilities are designated, at Covanta Energy's election, as eurodollar rate loans or base rate loans (except for certain swing line loans under the revolving credit facility, which may only be base rate loans). Eurodollar loans bear interest at a reserve adjusted British Bankers Association Interest Settlement Rate, commonly referred to as LIBOR, for deposits in dollars plus a borrowing margin which is still under negotiation. Base rate loans bear interest at a rate per annum equal to the greater of the prime rate designated in the New Credit Facilities or the federal funds rate plus 0.50%, in each case plus a borrowing margin as described below. Unreimbursed draws on letters of credit issued under the revolving credit facility will accrue interest at the then-effective rates applicable to base rate loans made under the revolving credit facility, plus 2.0%. Unreimbursed draws on letters of credit issued under the funded letter of credit facility will accrue interest at the then-effective rates applicable to base rate loans made under the term loan facility.

Fees. In addition to the interest described above, Covanta Energy will agree to pay the following fees:

- a commitment fee equal to 0.50% per annum (with a possible stepdown based on leverage to be determined), multiplied by the average unused portion of the revolving credit facility;

a letter of credit fee equal to the borrowing margin per annum for revolving eurodollar loans, multiplied by the aggregate average daily maximum amount available to be drawn under the letters of credit that have been issued under the revolving credit facility;

a funded letter of credit fee equal, to (i) the sum of (x) the borrowing margin per annum for funded letters of credit plus (y) an additional per annum percentage to be agreed of at least 0.10%, multiplied by the average daily amount of the funded letter of credit facility;

S-23

Table of Contents

a fronting fee equal to 0.125% per annum, multiplied by the aggregate average daily maximum amount available to be drawn under the letters of credit that have been issued under the revolving credit facility; and

a fronting fee equal to 0.125% per annum, multiplied by the aggregate average daily maximum amount available under letters of credit that have been issued under the funded letter of credit facility.

Guarantee. We and certain of Covanta Energy's domestic subsidiaries will guarantee the obligations of Covanta Energy under the New Credit Facilities. Our guarantee of the obligations under the New Credit Facilities will be secured by a first priority lien on all of the capital stock of Covanta Energy owned by us.

Security. Covanta Energy's obligations under the New Credit Facilities will be secured by a first priority lien on substantially all of the assets of Covanta Energy and certain of its subsidiaries, subject to certain exclusions. Assets securing Covanta Energy's obligations include all of the capital stock of certain of our material domestic subsidiaries and 65% of the capital stock of certain of our foreign subsidiaries.

Covenants. The New Credit Facilities contain customary affirmative and negative covenants and financial covenants. During the term of the New Credit Facilities, we expect that the negative covenants will restrict the ability of Covanta Energy and its restricted subsidiaries to take specified actions, subject to specified exceptions. Subject to limitations and conditions, Covanta Energy may designate certain of its subsidiaries as unrestricted subsidiaries which shall not be subject to such restrictions and not included in any calculations for purposes of the financial covenants.

In particular, one of these covenants will restrict the ability of Covanta Energy and its restricted subsidiaries to declare or pay dividends to, make distributions to, or make redemptions or repurchases from, us or other equity holders (subject to certain exceptions, including to make regularly scheduled payments of interest on the Debentures, and other exceptions that may be utilized, subject to satisfaction of certain conditions, to satisfy conversion obligations in respect of, or repurchase for cash when required, the Debentures).

These covenants also include, but are not limited to:

incurring additional indebtedness, including guarantees of indebtedness;

creating, incurring, assuming or permitting to exist liens on property and assets;

making loans and investments and entering into certain types of mergers, consolidations and acquisitions;

engaging in sales, transfers and other dispositions of their property or assets;

paying, redeeming or repurchasing debt, or amending or modifying the terms of certain material debt or certain other agreements (including, with respect to us, certain amendments to the terms of the Debentures);

changing the lines of business in which we and Covanta Energy engage;

repaying the MSW I Notes, MWS II Notes and ARC Notes by a date certain;

entering into certain affiliate transactions; and

entering into agreements that would restrict the ability of Covanta Energy's subsidiaries to pay dividends and make distributions.

Financial covenants under the New Credit Facilities include the following:

maximum leverage ratio, which measures the consolidated adjusted debt (net of certain limited restricted cash) of Covanta Energy, as defined in the New Credit Facilities, and certain of its subsidiaries to the adjusted earnings before income, taxes, depreciation and amortization of Covanta Energy and certain of its subsidiaries;

maximum capital expenditures of Covanta Energy and its subsidiaries; and

S-24

Table of Contents

minimum interest coverage ratio, which measures the adjusted earnings before income, taxes, depreciation and amortization of Covanta Energy and certain of its subsidiaries to their total interest expense (including the amounts of payments by Covanta Energy to us applied to interest payable by us under the Debentures).

Mandatory Prepayments. Covanta Energy will be required to make mandatory prepayments of its obligations under the term loan facility, in the amounts set forth in the New Credit Facilities, in the event it receive proceeds from the following specified sources:

50%, 25% or 0% of excess cash flow (as defined in the loan documentation) depending on the leverage ratio level during the applicable period;

net cash proceeds of any property or asset sale, subject to certain exceptions and reinvestment requirements;

net insurance and condemnation proceeds, subject to certain exceptions and reinvestment provisions; and

net cash proceeds of certain debt issuances, subject to certain exceptions.

Events of Default. The New Credit Facilities will contain customary events of default for a senior bank financing, including, but not limited to, failure to make payments when due, cross defaults to certain other debt of Covanta Energy and its subsidiaries, and certain change of control events. Upon the occurrence and during the continuance of events of default under the New Credit Facilities, the administrative agents and/or the lenders under the New Credit Facilities may accelerate Covanta Energy's payment obligations thereunder and the collateral agents may foreclose upon, and exercise other rights with respect to, assets in which security interests have been granted.

Table of Contents

DESCRIPTION OF OUR CAPITAL STOCK

For purposes of this section entitled Description of Our Capital Stock, the terms we, us and Company refer only to Covanta Holding Corporation and not its subsidiaries.

General

The following description of our capital stock is only a summary. This description includes our common stock and our preferred stock. For more complete information, you should refer to our certificate of incorporation and bylaws, which are incorporated by reference in the registration statement of which this prospectus supplement forms a part. In addition, you should refer to the general corporation laws of Delaware, which also govern our structure, management and activities. See Where You Can Find More Information.

We are authorized to issue 260,000,000 shares of capital stock. The number of shares of common stock authorized is 250,000,000 with each share having a par value of \$0.10 per share, and the number of shares of preferred stock authorized is 10,000,000 with each share having a par value of \$0.10 per share. As of January 18, 2007, there were 147,656,721 shares of our common stock outstanding and no shares of preferred stock outstanding. After giving effect to our concurrent offering of our common stock, we expect to have shares of our common stock outstanding and no shares of preferred stock outstanding.

Preferred Stock

We are authorized to issue shares of preferred stock without stockholders approval. Our board of directors is authorized to establish from time to time a series of preferred stock specifying, among other terms, the number of shares to be included in the series and the designation, preferences, limitations and relative rights of the shares of the series.

For any series of preferred stock that we may issue, our board of directors will determine and the prospectus supplement to such series will describe:

the designation and number of shares of such series;

the rate and time at which, and the preferences and conditions under which, any dividends will be paid on shares of such series, as well as whether such dividends are cumulative or non-cumulative and participating or non-participating;

any provisions relating to convertibility or exchangeability of the shares of such series;

the rights and preferences, if any, of the holders of shares of such series;

any provisions relating to the redemption of the shares of such series;

any limitations on our ability to pay dividends or make distributions on, or acquire or redeem, other securities while shares of such series are outstanding;

any conditions or restrictions on our ability to issue additional shares of such series or other securities; and

any other relative power, preferences and participating, optional or special rights of shares of such series, and the qualifications, limitations or restrictions thereof.

Common Stock

Voting Rights

Each holder of an outstanding share of our common stock is entitled to cast one vote for each share registered on all matters submitted to a vote of our stockholders. Stockholders are not permitted to cumulate their votes to elect our directors. Stockholders holding a majority of the outstanding shares of each class of our stock entitled to vote constitute a quorum at all meetings of the stockholders.

S-26

Table of Contents

With certain exceptions, which are described below, a majority of the votes entitled to be cast and represented in person or by proxy at a meeting of stockholders is required to approve any matter on which stockholders vote.

Any consolidation or merger pursuant to which shares of our common stock would be converted into or exchanged for any securities or other consideration would require the affirmative vote of holders of a majority of the outstanding shares of the common stock.

Dividends

Subject to the rights and preferences of any outstanding preferred stock, we will award dividends on common stock from time to time payable out of our funds legally available for the payments of dividends, if and when our board of directors declares them, subject to the provisions of the laws of the State of Delaware and any contractual restrictions we may be subject to. However, we will not pay any dividend, set aside payment for dividends, or distribute dividends on common stock unless:

we have paid or set apart all accrued and unpaid dividends for any preferred stock and any stock ranking on its parity; and

we have set apart sufficient funds for the payment of the dividends for the current dividend period with respect to any preferred stock and any stock ranking on its parity.

Our current financing arrangements impose, and the New Credit Facilities Covanta Energy expects to enter into after the consummation of this offering will impose, restrictions on the ability of our subsidiaries to transfer funds to us in the form of cash dividends, loans or advances that would likely limit the future payment of dividends on our common stock. See Dividend Policy.

Rights in Liquidation

Upon our liquidation, dissolution or winding up, all holders of our common stock are entitled to share ratably in any assets available for distribution to holders of our common stock, after payment of any preferential amounts due to the holders of any series of our preferred stock and satisfaction of prior distribution rights of preferred stock, if any, outstanding.

Miscellaneous

Shares of our common stock do not entitle a stockholder to any preemptive rights to purchase additional shares of our common stock or to any conversion rights or other subscription rights, and there are no redemption or sinking fund provisions applicable to our common stock. All of the outstanding shares of our common stock are fully paid and nonassessable. Our board of directors is authorized to issue shares of common stock without approval of stockholders. The rights and privileges of our common stock may be subordinate to the rights and preferences of any of our preferred stock, if issued.

Anti-Takeover Effects of Our Certificate of Incorporation and Bylaws

Certain provisions of our certificate of incorporation and bylaws, which are summarized in the following paragraphs, may have an anti-takeover effect and may delay, defer or prevent a tender offer or takeover attempt that a stockholder might consider in its best interest.

Board of Directors

Vacancies in a directorship may be filled only by a vote of a majority of the remaining directors, although if a director was removed by the stockholders, the vacancy may be filled at the meeting at which the removal took place by the affirmative vote of a majority of the shares entitled to vote. The number of directors may be fixed by a resolution of the board of directors, but must be no less than 6 nor more than 11 unless otherwise determined by a majority vote of the board of directors.

S-27

Table of Contents

Supermajority Voting

The affirmative vote of holders of at least two-thirds of the shares entitled to vote is required to approve amendments to our bylaws. In addition, our certificate of incorporation provides that the provision in our certificate of incorporation relating to the indemnification of directors and officers may only be amended by a vote of at least 80% of the voting power of all of the outstanding shares of our stock entitled to vote.

Advance Notice of Stockholder Nominations

Any holder of 20% or more of our outstanding voting securities has the right to nominate one qualified candidate for election as a director and to be included as a nominee in our proxy statement; provided that such holder notifies us of such nominee within the time periods set forth in our proxy statement.

Undesignated preferred stock

The ability to authorize undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to acquire us.

S-28

Table of Contents

**CERTAIN UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS
FOR NON-U.S. HOLDERS OF COMMON STOCK**

The following is a summary of certain U.S. federal income tax consequences to non-U.S. holders of the purchase, ownership, and disposition of our common stock, as of the date hereof. Except where noted, this summary deals only with common stock held as a capital asset and it does not deal with special situations. For example, this summary does not address:

tax consequences to holders who may be subject to special tax treatment, such as dealers in securities or currencies, traders in securities that elect to use the mark-to-market method of accounting for their securities, financial institutions, regulated investment companies, real estate investment trusts, tax-exempt entities or insurance companies;

tax consequences to investors in pass-through entities;

tax consequences to persons holding common stock as part of a hedging, integrated, constructive sale or conversion transaction or a straddle;

tax consequences to holders of common stock whose functional currency is not the U.S. dollar;

alternative minimum tax consequences, if any; or

any state, local or foreign tax consequences.

The discussion below is based upon the provisions of the Internal Revenue Code of 1986, as amended, and regulations, rulings and judicial decisions as of the date hereof. Those authorities may be changed, perhaps retroactively, so as to result in U.S. federal income tax consequences different from those discussed below. This summary does not address all aspects of U.S. federal income taxes and does not deal with all tax consequences that may be relevant to holders in light of their personal circumstances.

If a partnership (or other entity classified as a partnership for U.S. federal income tax purposes) holds shares of our common stock, the tax treatment of a partner will generally depend upon the status of the partner and the activities of the partnership. If you are a partner of a partnership holding common stock, you should consult your own tax advisors.

Special rules may apply to certain non-U.S. holders such as controlled foreign corporations, passive foreign investment companies, corporations that accumulate earnings to avoid federal income tax or, in certain circumstances, individuals who are U.S. expatriates. Such non-U.S. holders should consult their own tax advisors to determine the U.S. federal, state, local and other tax consequences that may be relevant to them.

No rulings have been sought or are expected to be sought from the IRS with respect to any of the U.S. federal income tax consequences regarding this particular offering. As a result, we cannot assure you that the IRS will agree with the tax characterizations and the tax consequences described below.

If you are considering purchasing common stock, you should consult your own tax advisors concerning the U.S. federal income tax consequences in light of your particular situation and any consequences arising under the laws of any other taxing jurisdiction.

Non-U.S. Holder Defined

The term **non-U.S. holder** means a beneficial owner of shares of our common stock (other than a partnership or other entity classified as a partnership for U.S. federal income tax purposes) that, for U.S. federal income tax purposes, is not a U.S. person. For purposes of this discussion, a U.S. person is:

an individual citizen or resident of the United States;

a corporation (or any other entity treated as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States, any state thereof or the District of Columbia;

an estate the income of which is subject to U.S. federal income taxation regardless of its source; or

S-29

Table of Contents

a trust if it (1) is subject to the primary supervision of a court within the United States and one or more U.S. persons have the authority to control all substantial decisions of the trust or (2) has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person.

Dividends

If distributions are made on shares of our common stock, those payments will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. To the extent those distributions exceed both our current and accumulated earnings and profits, they will constitute a return of capital and will first reduce your adjusted tax basis in our common stock, but not below zero, and then will be treated as gain from the sale of stock. See, **Sale, Exchange, Redemption or Other Disposition of Shares of Common Stock** below.

In general, any dividend paid to you with respect to shares of our common stock that is not effectively connected with your conduct of a U.S. trade or business will be subject to withholding tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty.

Dividends that are effectively connected with the conduct of a trade or business within the United States and, where a tax treaty applies, are attributable to a U.S. permanent establishment, generally are not subject to the withholding tax, but instead are subject to U.S. federal income tax on a net income basis at applicable graduated individual or corporate rates. Certain certification and disclosure requirements must be complied with in order for effectively connected income to be exempt from withholding. Any such effectively connected dividends received by a foreign corporation may, under certain circumstances, be subject to an additional branch profits tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty.

A non-U.S. holder of shares of common stock who wishes to claim the benefit of an applicable treaty rate is required to satisfy applicable certification and other requirements. Non-U.S. holders should consult their own tax advisors regarding their entitlement for benefits under a relevant tax treaty and the manner of claiming the benefits.

If you are eligible for a reduced rate of U.S. withholding tax pursuant to an income tax treaty, you may obtain a refund of any excess amounts withheld by filing an appropriate claim for refund with the IRS.

Sale, Exchange, Redemption or Other Disposition of Shares of Common Stock

Any gain realized upon the sale, exchange, or redemption of a share of our common stock generally will not be subject to U.S. federal income tax unless:

that gain is effectively connected with the conduct of a trade or business in the United States by you (and, if required by an applicable income tax treaty, is attributable to a U.S. permanent establishment);

you are an individual who is present in the United States for 183 days or more in the taxable year of that disposition, and certain other conditions are met; or

we are or have been a U.S. real property holding corporation for U.S. federal income tax purposes.

A non-U.S. holder that is engaged in a trade or business in the United States will generally be subject to U.S. federal income tax on gain that is effectively connected with such trade or business (and, if required by an applicable income tax treaty, is attributable to a U.S. permanent establishment) under regular graduated U.S. federal income tax rates

and, in the case of a non-U.S. holder that is a foreign corporation, may be subject to a branch profits tax at a 30% rate or a lower rate if so specified by an applicable income tax treaty. An individual non-U.S. holder who is present in the United States for 183 days or more in the taxable year of the disposition will generally be subject to a flat 30% U.S. federal income tax on the gain derived from the sale, exchange, redemption, or other disposition of our shares of common stock, if certain other conditions are met.

We believe that we are not and do not anticipate becoming a U.S. real property holding corporation for U.S. federal income tax purposes. If we are or become a United States real property holding corporation and our common stock is and continues to be regularly traded on an established securities market, only a

S-30

Table of Contents

non-U.S. holder of our common stock who actually or constructively holds or held (at any time during the shorter of the five year period preceding the date of disposition or the holder's holding period) more than 5% of our common stock will be subject to U.S. federal income tax on the disposition of such common stock pursuant to the rules regarding U.S. real property holding corporations.

Backup Withholding and Information Reporting

In general, if you are a non-U.S. holder of our common stock, you will not be subject to backup withholding with respect to payments of dividends that we make to you provided that we do not have actual knowledge or reason to know that you are a U.S. person and you have provided proper certification (usually on an IRS Form W-8BEN) of your status as a non-U.S. person. We must report annually to the IRS and to each non-U.S. holder the amount of dividends paid to such holder and the tax withheld with respect to such dividends, regardless of whether withholding was required.

In addition, if you are a non-U.S. holder of our common stock, payments of the proceeds of a sale of shares of our common stock within the United States or conducted through certain U.S.-related financial intermediaries are generally subject to both backup withholding and information reporting unless you certify under penalties of perjury that you are a non-U.S. holder (and the payor does not have actual knowledge or reason to know that you are a U.S. person) or you otherwise establish an exemption. Payments of the proceeds from the sale of our common stock effected outside the United States by a non-U.S. holder made by or through a foreign office of a foreign broker generally will not be subject to information reporting or backup withholding.

Any amounts withheld under the backup withholding rules may be allowed as a credit against your U.S. federal income tax liability, provided the required information is furnished to the IRS.

Table of Contents**UNDERWRITING**

Lehman Brothers Inc., J.P. Morgan Securities Inc. and Merrill Lynch, Pierce, Fenner & Smith Incorporated are acting as representatives of the underwriters and as joint-book running managers of this offering. Under the terms of an underwriting agreement, which will be filed as an exhibit to our current report on Form 8-K and incorporated by reference into this prospectus supplement and the accompanying prospectus, each of the underwriters named below has severally agreed to purchase from us the respective principal amount of shares of common stock shown opposite its name in the following table:

Underwriters	Number of Shares
Lehman Brothers Inc.	
J.P. Morgan Securities Inc.	
Merrill Lynch, Pierce, Fenner & Smith Incorporated	
Banc of America Securities LLC.	
Barclays Capital LLC.	
UBS Securities LLC.	
Pacific Growth Equities, LLC.	

Total

The underwriting agreement provides that the underwriters' obligation to purchase the shares of common stock depends on the satisfaction of the conditions contained in the underwriting agreement including:

the obligation to purchase all of the shares of common stock offered hereby (other than those covered by their option to purchase additional shares of common stock as described below), if any of the shares of common stock are purchased;

the representations and warranties made by us to the underwriters are true;

there is no material adverse change in our business or in the financial markets; and

we deliver the customary closing documents to the underwriters.

Commissions and Expenses

The following table summarizes the underwriting discounts and commissions we will pay to the underwriters. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase an additional \$18.75 million in gross proceeds of shares of common stock. The underwriting discounts and commissions are the difference between the initial price to the public and the amount the underwriters pay to us for the shares of common stock.

No **Full**

Per share of common stock
Total

The representatives of the underwriters have advised us that the underwriters propose to offer the shares of common stock directly to the public at the public offering price on the cover of this prospectus supplement and to selected dealers, which may include the underwriters, at such offering price less a selling concession not in excess of \$ per share of common stock.

The expenses of the offering that are payable by us are estimated to be approximately \$0.25 million (exclusive of underwriting discounts and commissions).

S-32

Table of Contents

Option to Purchase Additional Shares of Common Stock

We have granted the underwriters an option to purchase, for a 30 day period beginning and including the date of original issuance of the shares of common stock, from time to time, in whole or in part, up to an aggregate of an additional \$18.75 million in gross proceeds of shares of common stock at the public offering price less underwriting discounts and commissions, solely to cover over-allotments, if any. This option may be exercised if the underwriters sell more than \$125.0 million in gross proceeds of shares of common stock in connection with this offering. To the extent that this option is exercised, each underwriter will be obligated, subject to certain conditions, to purchase its pro rata portion of these additional shares of common stock based on the underwriters' percentage underwriting commitment in the offering as indicated in the table at the beginning of this Underwriting section.

Lock-Up Agreements

We and all of our directors and executive officers and certain stockholders have agreed that, subject to certain exceptions, including the sale of up to an aggregate of 40,200 shares of our common stock held by certain of our executive officers without the prior written consent of Lehman Brothers Inc., we and they will not, directly or indirectly, (1) offer for sale, sell, pledge, or otherwise dispose of (or enter into any transaction or device that is designed to, or could be expected to, result in the disposition by any person at any time in the future of) any shares of common stock (including, without limitation, shares of common stock that may be deemed to be beneficially owned by us or them in accordance with the rules and regulations of the SEC and shares of common stock that may be issued upon exercise of any options or warrants) or securities convertible into or exercisable or exchangeable for common stock, other than certain pledges and transfers not involving any sale for value where the recipient agrees to be bound by the terms of such lock-up, (2) enter into any swap or other derivatives transaction that transfers to another, in whole or in part, any of the economic benefits or risks of ownership of the common stock, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of common stock or other securities, in cash or otherwise, (3) make any demand for or exercise any right or file or cause to be filed a registration statement, including any amendments thereto, with respect to the registration of any shares of common stock or securities convertible, exercisable or exchangeable into common stock or any of our other securities, or (4) publicly disclose the intention to do any of the foregoing for a period of 60 calendar days after the date of this prospectus supplement.

The 60-day restricted period described in the preceding paragraph will be extended if:

during the last 17 calendar days of the 60-day restricted period we issue an earnings release or material news or a material event relating to us occurs; or

prior to the expiration of the 60-day restricted period, we announce that we will release earnings results during the 16-day period beginning on the last day of the 60-day period;

in which case the restrictions described in the preceding paragraph will continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release or the announcement of the material news or material event, unless such extension is waived in writing by the representatives.

Lehman Brothers Inc., in its sole discretion, may release the common stock and other securities subject to the lock-up agreements described above in whole or in part at any time with or without notice. When determining whether or not to release common stock and other securities from lock-up agreements, Lehman Brothers Inc. will consider, among other factors, the holder's reasons for requesting the release, the number of shares of common stock and other securities for which the release is being requested and market conditions at the time.

SZ Investments, Third Avenue and Laminar did not exercise their registration rights to participate in this offering.

S-33

Table of Contents

Indemnification

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act of 1933, and to contribute to payments that the underwriters may be required to make for these liabilities.

Stabilization, Short Positions and Penalty Bids

The representatives may engage in stabilizing transactions, short sales and purchases to cover positions created by short sales, and penalty bids or purchases for the purpose of pegging, fixing or maintaining the price of the shares of common stock, in accordance with Regulation M under the Exchange Act:

Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum.

A short position involves a sale by the underwriters of shares in excess of the number of shares of common stock the underwriters are obligated to purchase in the offering, which creates the syndicate short position. This short position may be either a covered short position or a naked short position. In a covered short position, the number of shares of common stock involved in the sales made by the underwriters in excess of the number of shares of common stock they are obligated to purchase is not greater than the number of shares of common stock that they may purchase by exercising their option to purchase additional shares of common stock. In a naked short position, the number of shares of common stock involved is greater than the number of shares of common stock in their option to purchase additional shares of common stock. The underwriters may close out any short position by either exercising their option to purchase additional shares of common stock and/or purchasing shares of common stock in the open market. In determining the source of shares of common stock to close out the short position, the underwriters will consider, among other things, the price of shares of common stock available for purchase in the open market as compared to the price at which they may purchase shares of common stock through their option to purchase additional shares of common stock. A naked short position is more likely to be created if the underwriters are concerned that there could be downward pressure on the price of the shares of common stock in the open market after pricing that could adversely affect investors who purchase in the offering.

Syndicate covering transactions involve purchases of the shares of common stock in the open market after the distribution has been completed in order to cover syndicate short positions.

Penalty bids permit the representatives to reclaim a selling concession from a syndicate member when the shares of common stock originally sold by the syndicate member are purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our shares of common stock or preventing or retarding a decline in the market price of our shares of common stock. As a result, the price of our shares of common stock may be higher than the price that might otherwise exist in the open market. These transactions may be effected on the NYSE and, if commenced, may be discontinued at any time.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our shares of common stock. In addition, neither we nor any of the underwriters make any representation that the representatives will engage in these stabilizing transactions or that any transaction, once commenced, will not be discontinued without notice.

Electronic Distribution

A prospectus in electronic format may be made available on the Internet sites or through other online services maintained by one or more of the underwriters and/or selling group members participating in this offering, or by their affiliates. In those cases, prospective investors may view offering terms online and,

S-34

Table of Contents

depending upon the particular underwriter or selling group member, prospective investors may be allowed to place orders online. The underwriters may agree with us to allocate a specific number of shares of common stock for sale to online brokerage account holders. Any such allocation for online distributions will be made by the representatives on the same basis as other allocations.

Other than the prospectus in electronic format, the information on any underwriter's or selling group member's website and any information contained in any other web site maintained by an underwriter or selling group member is not part of the prospectus or the registration statement of which this prospectus supplement and the accompanying prospectus forms a part, has not been approved and/or endorsed by us or any underwriter or selling group member in its capacity as underwriter or selling group member and should not be relied upon by investors.

Stamp Taxes

If you purchase shares of common stock offered in this prospectus supplement and the accompanying prospectus, you may be required to pay stamp taxes and other charges under the laws and practices of the country of purchase, in addition to the offering price listed on the cover page of this prospectus supplement.

Other Relationships

Certain of the underwriters and their related entities have engaged and may engage in commercial and investment banking transactions with us in the ordinary course of their business. They have received customary compensation and expenses for these commercial and investment banking transactions. In addition, certain of the underwriters are also serving either as joint book-running managers or co-managers in our concurrent offering of common stock, and Lehman Brothers Inc. is acting as the dealer manager in connection with our tender offers to repurchase the Outstanding Notes. Furthermore, J.P. Morgan Securities Inc. will act as a lead arranger and a book-runner and an affiliate thereof as the administrative agent, Lehman Brothers Inc. will act as a lead arranger and a book-runner and an affiliate thereof as a co-syndication agent, and an affiliate of Merrill Lynch, Pierce, Fenner & Smith Incorporated will act as a lead arranger, a book-runner and a co-syndication agent for the New Credit Facilities.

Notice to Prospective Investors in the European Economic Area

In relation to each member state of the European Economic Area that has implemented the Prospectus Directive (each, a relevant member state), with effect from and including the date on which the Prospectus Directive is implemented in that relevant member state (the relevant implementation date), an offer of shares of common stock described in this prospectus supplement may not be made to the public in that relevant member state prior to the publication of a prospectus in relation to the shares of common stock that has been approved by the competent authority in that relevant member state or, where appropriate, approved in another relevant member state and notified to the competent authority in that relevant member state, all in accordance with the Prospectus Directive, except that, with effect from and including the relevant implementation date, an offer of securities may be offered to the public in that relevant member state at any time:

to any legal entity that is authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities or

to any legal entity that has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than 43,000,000 and (3) an annual net turnover of more than 50,000,000, as shown in its last annual or consolidated accounts or

in any other circumstances that do not require the publication of a prospectus pursuant to Article 3 of the Prospectus Directive.

Each purchaser of shares of common stock described in this prospectus supplement located within a relevant member state will be deemed to have represented, acknowledged and agreed that it is a qualified investor within the meaning of Article 2(1)(e) of the Prospectus Directive.

S-35

Table of Contents

For purposes of this provision, the expression an offer to the public in any relevant member state means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe the securities, as the expression may be varied in that member state by any measure implementing the Prospectus Directive in that member state, and the expression Prospectus Directive means Directive 2003/71/EC and includes any relevant implementing measure in each relevant member state.

The sellers of the shares of common stock have not authorized and do not authorize the making of any offer of shares of common stock through any financial intermediary on their behalf, other than offers made by the underwriters with a view to the final placement of the shares of common stock as contemplated in this prospectus supplement. Accordingly, no purchaser of the shares of common stock, other than the underwriters, is authorized to make any further offer of the shares of common stock on behalf of the sellers or the underwriters.

Notice to Prospective Investors in the United Kingdom

This prospectus supplement is only being distributed to, and is only directed at, persons in the United Kingdom that are qualified investors within the meaning of Article 2(1)(e) of the Prospectus Directive, referred to herein as Qualified Investors, that are also (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, referred to herein as the Order, or (ii) high net worth entities, and other persons to whom it may lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as relevant persons). This prospectus supplement and its contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other persons in the United Kingdom. Any person in the United Kingdom that is not a relevant persons should not act or rely on this document or any of its contents.

Notice to Prospective Investors in France

Neither this prospectus supplement nor any other offering material relating to the shares of common stock described in this prospectus supplement has been submitted to the clearance procedures of the Autorité des Marchés Financiers or by the competent authority of another member state of the European Economic Area and notified to the Autorité des Marchés Financiers. The shares of common stock have not been offered or sold and will not be offered or sold, directly or indirectly, to the public in France. Neither this prospectus supplement nor any other offering material relating to the shares of common stock has been or will be

released, issued, distributed or caused to be released, issued or distributed to the public in France or

used in connection with any offer for subscription or sale of the shares of common stock to the public in France.

Such offers, sales and distributions will be made in France only

to qualified investors (investisseurs qualifiés) and/or to a restricted circle of investors (cercle restreint d'investisseurs), in each case investing for their own account, all as defined in, and in accordance with, Article L.411-2, D.411-1, D.411-2, D.734-1, D.744-1, D.754-1 and D.764-1 of the French Code monétaire et financier or

to investment services providers authorized to engage in portfolio management on behalf of third parties or

in a transaction that, in accordance with article L.411-2-II-1°-or-2°-or 3° of the French Code monétaire et financier and article 211-2 of the General Regulations (Règlement Général) of the Autorité des Marchés Financiers, does not constitute a public offer (appel public à l'épargne).

The shares of common stock may be resold directly or indirectly, only in compliance with Articles L.411-1, L.411-2, L.412-1 and L.621-8 through L.621-8-3 of the French Code monétaire et financier.

S-36

Table of Contents

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements and schedules included in our Annual Report on Form 10-K for the year ended December 31, 2005, and management's assessment of the effectiveness of our internal control over financial reporting as of December 31, 2005 as set forth in their reports, which are incorporated by reference in this prospectus supplement. Our financial statements and schedules and management's assessment are incorporated by reference in reliance on Ernst & Young LLP's reports, given on their authority as experts in accounting and auditing.

The consolidated financial statements of Quezon Power, Inc. as of December 31, 2005 and 2004, and for each of the years ended December 31, 2005, 2004 and 2003, incorporated by reference in this prospectus supplement and the accompanying prospectus have been audited by Sycip Gorres Velayo & Co., a member practice of Ernst & Young Global, independent registered public accounting firm, as set forth in their report thereon incorporated by reference in this prospectus supplement and are incorporated in reliance upon such report given on the authority of such firm as an expert in accounting and auditing.

The audited historical financial statements for the year ended December 31, 2004 and the period from December 12, 2003 to December 31, 2003 of ARC Holdings and Subsidiaries included in Exhibit 99.2 of our Current Report on Form 8-K dated April 7, 2005 have been incorporated by reference in this prospectus supplement and are so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The audited historical financial statements for the period from January 1, 2003 to December 12, 2003 of ARC Holdings and Subsidiaries included in Exhibit 99.2 of our Current Report on Form 8-K dated April 7, 2005 have been incorporated by reference in this prospectus supplement and are so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The audited historical financial statements of Ref-Fuel Holdings LLC and subsidiaries for the year ended December 31, 2004 and the period from December 12, 2003 to December 31, 2003, included in Exhibit 99.2 of our Current Report on Form 8-K dated April 7, 2005 have been incorporated by reference in this prospectus supplement and have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The audited historical financial statements of Ref-Fuel Holdings LLC and subsidiaries for the period from January 1, 2003 to December 12, 2003 and for the year ended December 31, 2002, have been incorporated by reference herein in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The consolidated financial statements and the related financial statement schedules of Covanta Energy (Debtor in Possession) and subsidiaries as of December 31, 2003 and for each of the two years in the period ended December 31, 2003, incorporated into this prospectus supplement by reference from the Annual Report on Form 10-K/A of Covanta Energy for the year ended December 31, 2004, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report (which report expresses an unqualified opinion and includes explanatory paragraphs relating to Covanta Energy and various domestic subsidiaries having filed voluntary petitions for reorganization under Chapter 11 of the Federal Bankruptcy Code, the Bankruptcy Court having entered an order confirming Covanta Energy's plan of reorganization which became effective after the close of business on March 10,

2004, substantial doubt about Covanta Energy's ability to continue as a going concern, Covanta Energy's adoption of Statement of Financial Accounting Standards, referred to in this prospectus supplement as SFAS, No. 143,

Accounting for Asset Retirement Obligations in 2003, SFAS No. 142, Goodwill and Other Intangible Assets, SFAS No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets in 2002, and the restatements described in Note 35) which is incorporated by reference in this prospectus supplement, and have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

S-37

Table of Contents

LEGAL MATTERS

The validity of the our common stock offered hereby will be passed upon for us by Neal, Gerber & Eisenberg LLP of Chicago, Illinois. Certain legal matters in connection with this offering of our common stock will be passed upon for the underwriters by Simpson Thacher & Bartlett LLP of New York, New York.

S-38

Table of Contents

PROSPECTUS

COVANTA HOLDING CORPORATION

COMMON STOCK

PREFERRED STOCK

WARRANTS

SENIOR DEBT SECURITIES

SUBORDINATED DEBT SECURITIES

Covanta Holding Corporation may offer, from time to time, common stock, preferred stock, warrants, senior debt securities or subordinated debt securities. In addition, selling stockholders to be named in a prospectus supplement may offer, from time to time, shares of our common stock.

We will provide the specific terms of any offering and the offered securities in supplements to this prospectus. Any prospectus supplement may also add, update or change information contained in this prospectus. You should read this prospectus and the accompanying prospectus supplement carefully before you make your investment decision.

This prospectus may not be used to consummate any sales of securities unless accompanied by a prospectus supplement which will describe the method and terms of the offering.

Our common stock is traded on the New York Stock Exchange under the symbol CVA. Our principal executive offices are located at 40 Lane Road, Fairfield, New Jersey 07004, and our telephone number is (973) 882-9000.

In order to avoid an ownership change for federal tax purposes, our certificate of incorporation prohibits any person from becoming a beneficial owner of 5% or more of our outstanding common stock, except under limited circumstances. Consequently, no person may acquire shares of common stock if, after giving effect to that acquisition, the person would beneficially own, either directly or indirectly, 5% or more of our common stock.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is May 16, 2006.

TABLE OF CONTENTS

<u>ABOUT THIS PROSPECTUS</u>	1
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	1
<u>INCORPORATION BY REFERENCE</u>	2
<u>FORWARD-LOOKING STATEMENTS</u>	3
<u>USE OF PROCEEDS</u>	4
<u>DESCRIPTION OF THE SECURITIES</u>	4
<u>SELLING STOCKHOLDERS</u>	4
<u>EXPERTS</u>	4
<u>LEGAL MATTERS</u>	5

Table of Contents

About This Prospectus

Unless the context otherwise requires, references in this prospectus to Covanta we, our, us and similar terms refer to Covanta Holding Corporation and its subsidiaries; references to Covanta Energy refer to Covanta Energy Corporation and its subsidiaries; references to ARC Holdings refer to Covanta ARC Holdings, Inc. and its subsidiaries; references to Ref-Fuel Holdings refer to Covanta Ref-Fuel Holdings LLC; and references to NAICC refer to National American Insurance Company of California and its subsidiaries.

The prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, referred to in this prospectus as the SEC, using a shelf registration process. Under this shelf registration process, (1) we may, from time to time, sell any combination of common stock, preferred stock, warrants, senior debt securities or subordinated debt securities as described in this prospectus, in one or more offerings and (2) selling stockholders to be named in a prospectus supplement may, from time to time, sell common stock in one or more offerings. This prospectus provides you with a general description of the securities that we may offer. Each time that securities are sold, a prospectus supplement containing specific information about the terms of that offering will be provided. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement together with additional information described under the heading *Where You Can Find More Information*.

You should rely only on the information contained or incorporated by reference in this prospectus and any prospectus supplement. We have not authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. Covanta and the selling stockholders are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted.

You should assume that the information in this prospectus is accurate only as of the date of this prospectus.

Where You Can Find More Information

Covanta Holding Corporation

We are subject to the information and reporting requirements of the Securities Exchange Act of 1934, under which we file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Room 1580, Washington, DC 20549. Copies of such material also can be obtained at the SEC's website, www.sec.gov or by mail from the Public Reference Room of the SEC, at prescribed rates. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. Our SEC filings are also available to the public on our corporate website, www.covantaholding.com. Our common stock is traded on the New York Stock Exchange. Material filed by us can be inspected at the offices of the New York Stock Exchange at 20 Broad Street, New York, N.Y. 10005.

Information on our website is not incorporated into this prospectus or other securities filings and is not a part of these filings.

Covanta Energy Corporation

As of June 30, 2005, Covanta Energy has not filed periodic reports or other information with the SEC. Covanta Energy's historic reports and other information filed by Covanta Energy with the SEC can be read and copied at the public reference room of the SEC at the address set forth above. Copies of such material also can be obtained at the

SEC's website, www.sec.gov or by mail from the public reference room of the SEC, at prescribed rates. Please call the SEC at the number set forth above for further information on the public reference room. Information on Covanta Energy is also available to the public on our corporate website at www.covantaholding.com.

Table of Contents

Covanta ARC Holdings, Inc.

ARC Holdings is a wholly-owned subsidiary of Covanta and does not currently file periodic reports or other information with the SEC. However, both MSW Energy Holdings LLC and MSW Energy Finance Co. Inc., collectively, and MSW Energy Holdings II LLC, and MSW Energy Finance Co. II, Inc., collectively (both of MSW Energy Holdings II LLC, and MSW Energy Finance Co. II, Inc. are subsidiaries of ARC Holdings), file periodic reports and other information with the SEC. Such reports and other information filed by these entities with the SEC can be read and copied at the public reference room of the SEC at the address set forth above. Copies of such material also can be obtained at the SEC's website, www.sec.gov or by mail from the public reference room of the SEC, at prescribed rates. Please call the SEC at the number set forth above for further information on the public reference room. These SEC filings are also available to the public on our corporate website at www.covantaholding.com.

Incorporation By Reference

The SEC allows us to incorporate by reference the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below which have been filed with the SEC:

1. Annual Report on Form 10-K for the fiscal year ended December 31, 2005, filed on March 14, 2006;
2. Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2006, filed on May 4, 2006;
3. Our Current Reports on Form 8-K filed April 7, 2005, February 24, 2006, March 6, 2006, March 15, 2006 (Form 8-K including pro forma condensed consolidated statement of operations for the year ended December 31, 2005), March 20, 2006, April 3, 2006 and April 7, 2006 and our Current Report on Form 8-K/A filed on May 12, 2005; and
4. The description of our common stock on Form 8-A filed on September 28, 2005.

All documents filed by us under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 from the date of this prospectus until the sale of all securities registered hereunder or the termination of the registration statement shall be deemed to be incorporated by reference in this prospectus. Any statement contained in this prospectus or in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in any subsequently filed document which is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, upon written or oral request, a copy of any or all of the reports or documents that have been incorporated by reference in this prospectus but not delivered with the prospectus. You may access a copy of any or all of these filings, free of charge, at our web site, www.covantaholding.com, or by writing us at the following address or telephoning us at the number below:

Covanta Holding Corporation
Attn: Elizabeth O Melia

40 Lane Road
Fairfield, New Jersey 07004
(973) 882-4193

You may also direct your requests via e-mail to eomelia@covantaholding.com.

Table of Contents

Risk Factors

Please carefully consider the risk factors described in our periodic reports filed with the SEC, which are incorporated by reference in this prospectus. Before making investment decisions, you should carefully consider these risks as well as other information we include or incorporate by reference in this prospectus or include in any applicable prospectus supplement. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations.

Forward-Looking Statements

This prospectus, the documents incorporated by reference in this prospectus and other written reports and oral statements made from time to time by us may contain statements that may constitute forward-looking statements as defined in Section 27A of the Securities Act of 1933, Section 21E of the Securities Exchange Act of 1934, the Private Securities Litigation Reform Act of 1995, referred to as the PSLRA in this prospectus, or in releases made by the SEC, all as may be amended from time to time. Such forward-looking statements involve known and unknown risks, uncertainties and other important factors that could cause the actual results, performance or achievements of us and our subsidiaries, or industry results, to differ materially from any future results, performance or achievements expressed or implied by such forward-looking statements. Statements that are not historical fact are forward-looking statements. Forward-looking statements can be identified by, among other things, the use of forward-looking language, such as the words plan, believe, expect, anticipate, intend, estimate, project, may, will, w should, seeks, or scheduled to, or other similar words, or the negative of these terms or other variations of these terms or comparable language, or by discussion of strategy or intentions. These cautionary statements are being made pursuant to the Securities Act of 1933, the Exchange Act of 1934 and the PSLRA with the intention of obtaining the benefits of the safe harbor provisions of such laws. We caution investors that any forward-looking statements made by us are not guarantees or indicative of future performance. Important assumptions and other important factors that could cause actual results to differ materially from those forward-looking statements with respect to us include, but are not limited to, the risks and uncertainties affecting our businesses described in Item 1A Risk Factors of our Annual Report on Form 10-K for the year ended December 31, 2005 and in registration statements and other securities filings by us and our subsidiaries.

Although we believe that our plans, intentions and expectations reflected in or suggested by such forward-looking statements are reasonable, actual results could differ materially from a projection or assumption in any of its forward-looking statements. Our future financial condition and results of operations, as well as any forward-looking statements, are subject to change and inherent risks and uncertainties. The forward-looking statements contained in this prospectus and registration statement are made only as of the date hereof and we do not have or undertake any obligation to update or revise any forward-looking statements whether as a result of new information, subsequent events or otherwise, unless otherwise required by law.

Covanta Holding Corporation

We are a holding company incorporated in Delaware on April 16, 1992. We changed our name as of September 20, 2005 from Danielson Holding Corporation to Covanta Holding Corporation. We primarily operate in the waste and energy markets through Covanta Energy. We acquired Covanta Energy on March 10, 2004 and acquired ARC Holdings (formerly known as American Ref-Fuel Holdings Corp.) and subsidiaries on June 24, 2005. Substantially all of our operations were conducted in the insurance industry prior to our acquisition of Covanta Energy through our indirect subsidiaries, NAICC and related entities.

Covanta Energy develops, constructs, owns and operates for itself and others infrastructure for the conversion of waste-to-energy, waste disposal, independent power production and water treatment businesses in the United States and abroad. Following its acquisition of ARC Holdings, an owner and operator of six waste-to-energy projects and related businesses in the northeast United States, Covanta Energy owns or operates 55 energy generation facilities, 43 of which are in the United States and 12 of which are located outside of the United States. Covanta Energy's energy generation facilities use a variety of fuels, including municipal solid waste, water (hydroelectric), natural gas, coal, wood waste, landfill gas and heavy fuel oil. Covanta Energy also owns or operates

Table of Contents

several businesses that are associated with its waste-to-energy business, including a waste procurement business, two landfills, and several waste transfer stations. Covanta Energy also operates one water treatment facility which is located in the United States.

The nature of our business, the risks attendant to such business and the trends that we face have been significantly altered by the acquisitions of Covanta Energy and ARC Holdings. Accordingly, our financial results prior to the acquisitions of Covanta Energy in March 2004 and ARC Holdings in June 2005 are not directly comparable to current and future financial results.

Our principal executive offices are located at 40 Lane Road, Fairfield, New Jersey 07004, and our telephone number is (973) 882-9000.

Use of Proceeds

Unless otherwise indicated in the applicable prospectus supplement or other offering material, we will use the net proceeds from the sale of the securities for general corporate purposes. We will not receive proceeds from sales of our common stock by selling stockholders except as may otherwise be stated in an applicable prospectus supplement.

Description of The Securities

We may issue from time to time, in one or more offerings the following securities:

- shares of common stock, \$0.10 par value per share;
- shares of preferred stock, \$0.10 par value per share;
- warrants exercisable for common stock; or
- debt securities, which may be senior or subordinated.

We will set forth in the applicable prospectus supplement a description of the common stock, preferred stock, warrants, senior debt securities or subordinated debt securities that may be offered under this prospectus. The terms of the offering of securities, the initial offering price and the net proceeds to us will be contained in the prospectus supplement, and other offering material, relating to such offering.

Selling Stockholders

Information about selling stockholders, where applicable, will be set forth in a prospectus supplement, in a post-effective amendment, or in filings we make with the SEC under the Securities Exchange Act of 1934 which are incorporated by reference.

Experts

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements and schedules included in our Annual Report on Form 10-K for the year ended December 31, 2005, and management's assessment of the effectiveness of our internal control over financial reporting as of December 31, 2005 as set forth in their reports, which are incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements and schedules and management's assessment are incorporated by reference in reliance on Ernst & Young LLP's reports, given on their authority as experts in accounting and auditing.

The consolidated financial statements of Quezon Power, Inc. as of December 31, 2005 and 2004, and for each of the years ended December 31, 2005, 2004 and 2003, incorporated by reference in this prospectus and registration statement have been audited by Sycip Gorres Velayo & Co., a member practice of Ernst & Young Global, independent registered public accounting firm, as set forth in its report thereon incorporated by reference in this prospectus and registration statement and are incorporated in reliance upon such report given on the authority of such firm as an expert in accounting and auditing.

Table of Contents

The audited historical financial statements as of December 31, 2004 and 2003, and for the year ended December 31, 2004, and the period from December 12, 2003 to December 31, 2003 of ARC Holdings and Subsidiaries included in Exhibit 99.2 of our Current Report on Form 8-K dated April 7, 2005 have been incorporated by reference in this prospectus and registration statement in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The audited historical financial statements for the period from January 1, 2003 to December 12, 2003 of ARC Holdings and Subsidiaries included in Exhibit 99.2 of our Current Report on Form 8-K dated April 7, 2005 have been incorporated by reference herein in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The consolidated financial statements of ARC Holdings and subsidiaries for the year ended December 31, 2002, included in Exhibit 99.2 of our Current Report on Form 8-K dated April 7, 2005, have been incorporated by reference in this prospectus and registration statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, and upon the authority of said firm as experts in accounting and auditing. We have agreed to indemnify and hold KPMG harmless against and from any and all legal costs and expenses incurred by KPMG in successful defense of any legal action or proceeding that arises as a result of KPMG's consent to the incorporation by reference of its report on ARC Holdings' past consolidated financial statements incorporated by reference in this registration statement.

The audited historical financial statements of Ref-Fuel Holdings LLC and subsidiaries as of December 31, 2004 and 2003, for the year ended December 31, 2004, and the period from December 12, 2003 to December 31, 2003, included in Exhibit 99.2 of our Current Report on Form 8-K dated April 7, 2005 have been incorporated by reference herein in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The audited historical financial statements of Ref-Fuel Holdings LLC and subsidiaries for the period from January 1, 2003 to December 12, 2003 and for the year ended December 31, 2002, have been incorporated by reference herein in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

Legal Matters

The validity of the securities offered hereby will be passed upon for us by Neal, Gerber & Eisenberg LLP of Chicago, Illinois.

Table of Contents

LOGO

Shares

Covanta Holding Corporation

Common Stock

PROSPECTUS SUPPLEMENT

January , 2007

Joint Book-Running Managers

Lehman Brothers

JPMorgan

Merrill Lynch & Co.

Banc of America Securities LLC

Barclays Capital

Pacific Growth Equities, LLC

UBS Investment Bank