

07/06/2012

Form PTO-1595 (Rev. 03-11)  
OMB No. 0651-0027 (exp. 03/31/2012)

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U.S. DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office

## PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

## 1. Name of conveying party(ies)

Aither Chemicals LLC

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

## 3. Nature of conveyance/Execution Date(s):

Execution Date(s) June 20, 2012☐ Assignment☐ Merger☒ Security Agreement☐ Change of Name☐ Joint Research Agreement☐ Government Interest Assignment☐ Executive Order 9424, Confirmatory License☐ Other \_\_\_\_\_

## 2. Name and address of receiving party(ies)

Name: Renewable Manufacturing Gateway, Inc.Internal Address: Attention: Steven Adelskoff, PresidentStreet Address: 1603 Stanwix, Gateway Two, Suite 1825City: PittsburghState: PennsylvaniaCountry: United States of America Zip: 15222Additional name(s) & address(es) attached? ☐ Yes ☒ No

## 4. Application or patent number(s):

☐ This document is being filed together with a new application.

A. Patent Application No.(s)

B. Patent No.(s)

U.S. Provisional Patent Application No. 61/448,441

U.S. Provisional Patent Application No. 13/408,759

Additional numbers attached? ☐ Yes ☒ No

## 5. Name and address to whom correspondence concerning document should be mailed:

Name: Marc R. WeintraubInternal Address: Bailey & Glasser, LLPStreet Address: 209 Capitol StreetCity: CharlestonState: West VirginiaZip: 25301Phone Number: 304 345-6555Fax Number: 304 342-1110

Email Address: \_\_\_\_\_

6. Total number of applications and patents involved: One (1)7. Total fee (37 CFR 1.21(h) & 3.41) \$ 80.00☐ Authorized to be charged to deposit account☒ Enclosed☐ None required (government interest not affecting title)

## 8. Payment Information

Deposit Account Number \_\_\_\_\_

Authorized User Name: 07/06/2012 H1011 00000023 61448441

## 9. Signature:

Marc Weintraub  
Signature

06/29/2012

Date

Marc R. Weintraub

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

21

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:  
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450PATENT  
REEL: 028524 FRAME: 0313

## SECURITY AGREEMENT

**THIS SECURITY AGREEMENT** (this "Agreement") made and entered into as of the 20th day of June, 2012, between **AITHER CHEMICALS LLC**, a West Virginia limited liability company (hereinafter sometimes referred to as the "Debtor"), having an office and place of business at 1740 Union Carbide Drive, South Charleston, West Virginia 25303, and **Renewable Manufacturing Gateway, Inc.** (hereinafter sometimes referred to as the "Secured Party"), having an office and place of business at 603 Stanwix, Gateway Two, Suite 1825, Pittsburgh, PA 15222.

### WITNESSETH:

WHEREAS, Secured Party has agreed to loan up to \$262,500.00 to Debtor; and

WHEREAS, Debtor has agreed to secure the performance of its loan repayment and other obligations to Secured Party, as provided herein;

NOW THEREFORE, in consideration of the premises, said loan and the provisions and agreements herein contained, the parties hereto agree as follows:

1. **Grant of Security Interest.** As security for the timely payment and performance of the Obligations (as hereinafter defined) and the performance of the obligations under the Note (as hereinafter defined) and this Agreement, Debtor does hereby sell, assign, transfer and set over unto the Secured Party and grant to the Secured Party a security interest in and lien on the Collateral (as hereinafter defined) and agrees that the Secured Party shall have the rights stated in this Agreement, in addition to the other rights which the Secured Party may have pursuant to other documents and by law.

2. **Collateral.** The word "Collateral" means the following described property of the Debtor, whether now owned or hereafter acquired, whether now existing or hereafter existing, and wherever located.

- a. All of Debtor's right, title and interest in and to all cash, working capital, Equipment, Accounts, General Intangibles, Goods, Inventory, Chattel Paper, Payment Intangibles, Instruments, Supporting Obligations, Documents, Letter of Credit Rights, and Software, as such capitalized terms are defined in the West Virginia Uniform Commercial Code §§46-9-101, et seq. (the "UCC");
- b. All general intangibles and all intangible intellectual or other similar property of Debtor of any kind or nature, associated with or arising out of any of the aforementioned properties and assets including all renewals, extensions, modifications, reissues, divisions or continuations and not otherwise described above; and all proceeds of any and all of the foregoing Collateral (including license royalties, rights to payments, accounts and proceeds of infringement suits)

and, to the extent not otherwise included, all payments of insurance (whether or not Secured Party is the loss payee thereof) or any indemnity, warranty or guaranty payable by reason of loss or damage to or otherwise with respect to the Collateral;

- c. General intangibles and intellectual property specifically includes, but is not limited to, (i) all right, title and interest of Debtor to any patents and patent applications including, but not limited to, (y) United States Provisional Patent Application No. 61/448,441 filed with the United States Patent and Trademark Office on March 2, 2011, by Mark Nunley, Parvez Wadia, George Keller, William Etzkorn and Madan Bhasin (collectively, the "Inventors"), and assigned by the Inventors to Mid-Atlantic Technology Research and Innovation Center, Inc. ("MATRIC"), and further assigned by MATRIC to Debtor by an Assignment dated May 25, 2011, and (z) United States Provisional Patent Application No. 13/408759 filed with the United States Patent and Trademark Office on February 29, 2012 by (note that each of (y) and (z) are subject to international patent filings as well including, without limitation, Patent Cooperation Treaty filing PCT/US12/27103 filed Feb 29, 2012 and Gulf Coast Cooperative filing App No. 2012/20661 filed March 3, 2012), together with the inventions and improvements described and claimed in any patent application of Debtor, and all reissues, divisions, continuations, renewals, substitutions, extensions and continuations-in part of any patents and patent applications of Debtor, and all income, royalties, damages and payments now or hereafter due and/or payable under and with respect to any of the foregoing, including, without limitation, payments under all licenses entered into in connection therewith and damages and payments for past, present and future infringements or dilutions thereof, and the right to sue for past, present and future infringements and dilutions of any of the foregoing, and (ii) all exclusive or nonexclusive patent licenses held by the Debtor including, but not limited to, all rights of Debtor under that certain License Agreement dated May 20, 2011, between Debtor and Mid-Atlantic Holdings, Inc. (all of the foregoing being collectively referred to as the "Intellectual Property");
- d. To the extent not included in the terms of Collateral as set forth above, the term "Collateral" shall also include:
  - i. All attachments, Accessions, as such term is defined in the UCC, accessories, tools, parts, supplies, increases, and additions to and all replacements of and substitutions for any property described in this Collateral section.
  - ii. All Products and Proceeds, as such terms are defined in the UCC, of any of the property described in this Collateral section including license royalties, rights to payment, Accounts and proceeds of infringement suits, and to the extent not otherwise included, all payments under insurance (whether or not Secured Party is the loss payee thereof) or any

indemnity, warranty, guaranty payable by reason of loss or damage to or otherwise with respect to the Collateral.

- iii. All Accounts, as such term is defined in the UCC, contract rights, General Intangibles, Instruments, as such terms are defined in the UCC, rents, monies, payments, and all other rights, arising out of a sale, lease, or other disposition of any of the property described in this Collateral section.
- iv. All cash and non-cash Proceeds, as such terms are defined in the UCC, (including insurance proceeds) from the sale, destruction, loss, or other disposition of any of the property described in this Collateral section.
- v. All records and data relating to any of the property described in this Collateral section, whether in the form of a writing, photograph, microfilm, microfiche, or electronic media, together with all of the Debtor's right, title, and interest in and to all computer software required to utilize, create, maintain, and process any such records or data on electronic media.
- vi. All moneys, credits and other property of any nature whatsoever of the Debtor now or hereafter in the possession of, in transit to or from, under the custody or control of, or on deposit with (whether held by the Debtor individually or jointly with another, and whether time or demand, general or special), the Secured Party or any affiliate of the Secured Party, including but not limited to cash collateral accounts.
- vii. All guaranties, claims, rights, remedies and privileges relating to any of the property described in this Collateral section.

3. **Obligations Secured.** The security interest, pledges and assignments granted in this agreement are to secure punctual payment and performance of the following, all of which are separately and collectively referred to as the "Obligations":

- a. That certain promissory note of even date herewith in the maximum principal sum of Two Hundred Sixty Two Thousand Five Hundred Dollars (\$262,500.00) titled "Secured Convertible Note and Investment Agreement" executed by Debtor and payable to the order of the Secured Party, and any and all extensions, renewals, modifications and rearrangements thereof (the "Note").
- b. Any and all other indebtedness, liabilities and obligations of Debtor to Secured Party arising under or pursuant to the Note or this Agreement.
- c. All costs and expenses of the Secured Party in the collection of the Collateral, including but not limited to reasonable attorneys' fees and expenses; and

- d All costs and expenses of the Secured Party incurred in the protection and preservation of its rights hereunder and in the protection, preservation and sale of the Collateral including, but not limited to, the payment of any taxes, levies, assessments, premiums of insurance on, repairs to, or maintenance or storage of the Collateral and any and all other out-of-pocket expenses of the Secured Party in connection with this Agreement or the Collateral including, but not limited to the cost of repair, if any, to realty or other property to which the Collateral is affixed and expenses in connection with any security therefor.

Debtor acknowledges that the security interest, pledges and assignments as applicable granted in this Agreement secure all *future advances* pursuant to the Note as well as any and all other indebtedness, liabilities and obligations of Debtor to Secured Party whether now in existence or hereafter arising pursuant to the Note or this Agreement.

4. **Use of Collateral.** Debtor represents, warrants and covenants that the collateral will be used by the Debtor solely for business use. Until default hereunder, Debtor shall be entitled to the possession of the Collateral and to use and enjoy the same.

5. **Representations and Warranties.** Debtor further represents, warrants to and agrees with the Secured Party as follows:

a. **Status of Debtor.** Debtor is a West Virginia limited liability company duly organized, validly existing and in good standing under the laws of West Virginia. Debtor is duly qualified or licensed to conduct business in each jurisdiction in which the nature of its business or assets requires such qualification or licensing under applicable law and is in good standing under the laws of each such jurisdiction. Debtor has the requisite power and authority to own and operate its assets and business, and to transact the business in which it is presently engaged and in which it proposes to engage and to grant to Secured Party the security interests in the Collateral as herein provided.

b. **Binding Agreement.** This Agreement has been duly authorized and constitutes the legal, valid and binding obligation of Debtor and is enforceable against Debtor in accordance with its terms.

c. **No Default or Required Consent.** Neither the execution and delivery of this Agreement by Debtor nor the effectuation by Secured Party of any of its rights and remedies hereunder, whether upon default or otherwise, will result in a breach of, or constitute a default under, the articles of organization or the operating agreement of the Debtor (collectively, the "**Organizational Documents**") or any other agreement or instrument to which Debtor is a party or by which any of the Collateral is bound, nor violate any law or any rule or regulation of any administrative agency, or any order, writ, injunction or decree of any court or administrative agency, nor does any of the foregoing require the consent of any person, entity or governmental agency or any notice or filing with any governmental or regulatory body.

d. Collateral. Except for the security interest listed on attached **Schedule 5d** and except for the security interest granted herein, Debtor has, or will obtain, and will at all times during the term hereof have, good and marketable title to all and every part of the Collateral, each free and clear of any mortgage, pledge, lien, security interest, encumbrance, adverse claim, conditional sales contract, lease or other title retention agreement. None of the account debtor or other persons obligated on any of the Collateral is a governmental authority covered by the Federal Assignment of Claims Act or like federal, state or local statute or rule in respect of such Collateral, and the Debtor holds no Commercial Tort Claims (as such term is defined in the UCC).

e. Priority. Upon the execution and delivery of this Agreement by Debtor and the filing of appropriate financing statements with the proper governmental agencies, or, if applicable, upon Secured Party's taking possession of the Collateral, Secured Party shall have a valid, enforceable and binding first priority lien on and security interest in the Collateral, subject only to those prior security interest liens listed on attached **Schedule 5d**.

f. No Litigation. There is no action, legal, administrative or other proceeding pending or threatened against Debtor's respective title to the Collateral or against Debtor's grant of a security interest therein hereunder, nor does Debtor know of any basis for the assertion of any such claim.

g. Location of Debtor's Records. The chief executive office of Debtor and Debtor's Organizational Documents and other books and records are and will remain at the business address of 1740 Union Carbide Drive, South Charleston, West Virginia 25303, or such other address as Debtor may designate in writing to Secured Party as set forth in the last sentence of this subsection "g" and subsections "8e" and "10e" below. Debtor represents that it has no other place of business or locations where any significant amount of Collateral is or will be located. If the Debtor desires to remove Collateral situate in South Charleston as aforesaid, establish a new location at which significant Collateral may be located, establish a new name in which it may do business, invoice account debtor or maintain records concerning the Collateral, or change its current chief executive office, Debtor shall first: (i) give the Secured Party at least thirty (30) days prior written notice of its intention to do so and provide the Secured Party with such information in connection therewith as the Secured Party may reasonably request; and (iii) take such action, satisfactory to the Secured Party, as may be necessary to maintain at all times the perfection and priority of the security interests in the Collateral granted to the Secured Party hereunder.

h. Credit Information. Any and all credit or other information previously furnished to Secured Party by Debtor in connection with the Obligations, the financial condition, assets, liabilities, business or prospects of Debtor, or the value or condition of the Collateral is true and correct, and all such information hereafter furnished to Secured Party by Debtor will be true and correct when furnished.

6. Affirmative Covenants. Debtor covenants and agrees with the Secured Party as follows:

a. Preservation of Collateral and Security Interest. Debtor will use the Collateral with reasonable care and caution, and, with the exception of the use and sale of Inventory in the ordinary course of business, will not part with ownership thereof or lease or hire out same to other third party without the written consent of the Secured Party, and will exhibit the same to the Secured Party upon demand. Debtor will not use, or permit the Collateral to be used, in violation of any federal, state, county or municipal law or regulation or for any unlawful purpose whatsoever. Except as herein provided, Secured Party does not authorize Debtor and Debtor will not hereafter (without the prior written consent of the Secured Party) sell, pledge, lease, encumber, assign or otherwise dispose of any of the Collateral or any rights thereunder, or permit any right of set off, lien or security interest to exist thereon except to the Secured Party. Debtor will defend the Collateral against all claims and demands of all persons at any time claiming the same or any interest therein.

b. Insurance. Risk of loss of, damage to or destruction of all Collateral is on the Debtor. Debtor will maintain at all times adequate insurance to the satisfaction of the Secured Party with insurers acceptable to the Secured Party against such risks of loss as are customarily insured against and in amounts customarily carried by persons owning similar properties; provided, that the amount of such insurance shall at all times be sufficient to prevent the Debtor from becoming a co-insurer under the terms of any insurance policy. Such insurance shall name Secured Party as a loss payee and shall provide for at least thirty (30) days' written notice to the Secured Party prior to cancellation, and, in this regard, the Debtor shall cause a certificate of insurance to be delivered to the Secured Party upon execution of this Agreement and no later than thirty (30) days prior to the expiration of any such insurance coverage. Debtor will also keep themselves adequately insured at all times against liability on account of injury to persons or property and comply with the insurance provisions of all applicable worker's compensation laws and will effect all such insurance under valid and enforceable policies issued by insurers of recognized responsibility. Schedules of all insurance of the Debtor will be submitted to the Secured Party upon request. Such schedules will contain a description of the risks covered, the amounts of insurance carried on each risk, the name of the insurer, the cost of such insurance to the Debtor, the then current value and market or determining value of the assets insured and the expiration date. Such schedules will be supplemented by the Debtor from time to time promptly to reflect any change in insurance coverage. All amounts payable in settlement of insurance losses may be applied, at the Secured Party's sole discretion, on the Obligations, or used to replace or restore the Collateral.

c. Maintenance of Licenses; Pursuit of Patents. Debtor shall do or cause to be done all things necessary to preserve in full force and effect its existence, properties, rights, trademarks, service marks, licenses, patents, patents pending, provisional patent applications and qualifications to carry on business in all applicable jurisdictions; and shall make all reasonable efforts to continue to seek patents for each and every provisional patent application heretofore or hereafter filed by Debtor. Debtor shall pay all renewal fees and other fees and costs associated with maintaining any patents and with the processing of any patents. At Debtor's sole expense, it shall take any and all action which Secured Party deems reasonably desirable to protect any patents, including, without limitation, the prosecution and defense of any infringement action.

d. Conduct of Business. Debtor shall: (i) comply with all laws, statutes and regulations pertaining to its use and ownership of its properties and its conduct of its business; (ii) care for and maintain all of its properties in good condition, free of misuse, abuse, waste and deterioration, reasonable wear and tear caused by normal use excepted; (iii) observe and perform promptly all contracts or agreements to which it is a party or by which any of its properties is bound; and (iv) carry on its business in the ordinary course.

e. Covenant to Comply with Terms. Debtor will keep, observe and perform all of the terms, provisions, covenants and agreements of this Agreement and the Note, to the extent applicable to Debtor.

f. Payment of Filing Fees. Debtor will pay all filing fees for the filing of this instrument or of financing statements filed to perfect the security interest provided in this Agreement or in connection with this Agreement.

g. Inspection. Debtor shall give Secured Party such information as may be requested concerning the Collateral and permit Secured Party and its agents and representatives to enter upon any premises upon which Debtor's records concerning the Collateral are located for the purpose of inspecting and auditing the same.

h. Other Documents. Debtor shall promptly deliver to Secured Party such documents and information pertaining to the status or condition of the Collateral and Secured Party's security interests therein as Secured Party may request from time to time.

i. Defense of Collateral. Debtor shall, at its sole cost and expense, appear in and defend any action or proceeding arising under, growing out of, or in any manner connected with the Collateral or the obligations, duties or liabilities of Debtor thereunder and hereunder, and shall pay on demand all costs and expenses, including, without limitation, attorneys' fees, which Secured Party may incur in connection with Secured Party's appearance, voluntary or otherwise, in any such action or proceeding.

j. Payment or Performance by the Secured Party. At its option, Secured Party may, but shall not be obligated to: (a) discharge taxes, liens, security interests or such other encumbrances as may attach to the Collateral; (b) pay for required insurance on the Collateral and other insurance required herein; (c) pay for the maintenance, appraisal or reappraisal, and preservation of the Collateral; and (d) otherwise perform, keep, observe and render true and correct Debtor's covenants, agreements, representations and warranties hereunder and under any other documents evidencing or securing the Obligations, in each case as determined by the Secured Party to be necessary. Debtor will reimburse the Secured Party on demand for any payment so made or any expense incurred by the Secured Party pursuant to the foregoing authorization, and the Collateral also will secure any advances or payments so made or expenses so incurred by the Secured Party.

k. Secured Party's Obligations and Duties. Anything herein to the contrary notwithstanding, Debtor shall remain obligated and liable under each contract or agreement relating to the Collateral to be observed or performed by Debtor thereunder. Secured Party shall



not have any obligation or liability under any such contract or agreement by reason of or arising out of this Agreement or the receipt by the Secured Party of any payment relating to any of the Collateral, nor shall the Secured Party be obligated in any manner to perform any of the obligations of the Debtor under or pursuant to any such contract or agreement, to make inquiry as to the nature or sufficiency of any payment received by the Secured Party in respect of the Collateral or as to the sufficiency of any performance by any party under any such contract or agreement, to present or file any claim, to take any action to enforce any performance or to collect the payment of any amounts which may have been assigned to the Secured Party or to which the Secured Party may be entitled at any time or times. Secured Party's sole duty with respect to the custody, safe keeping and physical preservation of the Collateral in its possession, under W. Va. Code § 46-9-207 of the UCC, shall be to deal with such Collateral in the same manner as the Secured Party deals with similar property for its own account.

l. Information and Actions Regarding Collateral. Debtor will furnish to the Secured Party from time to time if and as requested current lists of the Collateral; will continue to mark on the books of the Debtor appropriate entries evidencing the assignment of book accounts to the Secured Party and will mark chattel paper and instruments to evidence the assignment thereof to the Secured Party, if the Collateral includes such categories; and, if and when requested by the Secured Party from time to time, will furnish to it copies of all purchase orders, inventory lists, billings, contracts, shipping orders, correspondence and other instruments or writings in any way evidencing or relating to the Collateral or the proceeds thereof.

m. Possessory Collateral. Debtor will turn over physical possession to the Secured Party of all Collateral which requires the Secured Party to have possession thereof in order to perfect the Secured Party's security interest therein, all as the Secured Party may deem necessary or advisable from time to time in order to perfect and continue perfected said security interests as first priority security interests.

n. Collection of Accounts; Set Off. After the occurrence of an Event of Default (as hereinafter defined), if directed by the Secured Party, or as otherwise agreed to in writing by the Debtor and the Secured Party, Debtor will collect all of the Collateral consisting of Accounts or General Intangibles or any other receivables, and whenever the Debtor receives any payment of any of the foregoing, it will hold such payment in trust for the Secured Party and forthwith will deliver to the Secured Party the same in the form received by the Debtor without commingling with any funds belonging to Debtor, and promptly will deposit the same in a special collateral account with the Secured Party. Debtor authorizes the Secured Party, or any employee thereof, upon the occurrence of an Event of Default to endorse the name of the Debtor, as applicable, upon any checks, negotiable instruments or other items received in payment of any of Collateral consisting of Accounts or General Intangibles and to do all things necessary to reduce the same to cash. Upon the occurrence of an Event of Default, Debtor authorizes the Secured Party at any time without notice to appropriate and apply any balances, credits, deposits or accounts or money of the Debtor in its possession, custody or control to the payment of the Obligations, all of which may at all times be held and treated as additional Collateral.

o. Notification of Account Debtor. At any time after the occurrence of an Event of Default and without notice to Debtor, or as otherwise agreed to in writing by the Debtor

and the Secured Party, the Secured Party may notify any persons who are indebted to the Debtor on any Collateral consisting of Accounts or General Intangibles of the assignment thereof to the Secured Party and may direct such account debtor to make payment directly to the Secured Party of the amounts due. At the request of the Secured Party after the occurrence of an Event of Default, or as otherwise agreed to in writing by the Debtor and the Secured Party, the Debtor will direct any persons who are indebted to the Debtor on any Collateral consisting of Accounts or General Intangibles to make payment directly to the Secured Party. Secured Party is authorized to give receipts to such account debtor for any such payments and the account debtor will be protected in making such payments to the Secured Party.

p. Authorization to File Financing Statements; Authorization to Record this Agreement. Debtor hereby irrevocably authorizes the Secured Party at any time and from time to time to file in any filing office in any UCC jurisdiction any initial financing statements and amendments thereto that (a) indicate the Collateral (i) as all assets of the Debtor or words of similar effect, regardless of whether any particular asset comprised in the Collateral falls within the scope of the UCC; or (ii) as being of an equal or lesser scope or with greater detail; and (b) provide any other information required by the UCC for the sufficiency or filing office acceptance of any financing statement or amendment, including whether the Debtor is an organization, the type of organization and any organization identification number issued to such Debtor. Debtor agrees to furnish any such information to the Secured Party promptly upon the Secured Party's request. In addition, Debtor authorizes Secured Party to record this Agreement, together with a Patent Recordation Form Cover Sheet and such other documents and instruments as may be deemed necessary by the Secured Party, with the Director of the United States Patent and Trademark Office.

q. Further Acts. On a continuing basis, Debtor shall make, execute, acknowledge and deliver, and file and record in the proper filing and recording places, all such instruments and documents, and take all such action as may be necessary or advisable or may be requested by Secured Party to carry out the intent and purposes of this Agreement, or for assuring, confirming or protecting the grant or perfection of the security interest granted or purported to be granted hereby, to ensure Debtor's compliance with this Agreement or to enable Secured Party to exercise and enforce its rights and remedies hereunder with respect to the Collateral. In addition, Debtor authorizes Secured Party to file financing statements describing the Collateral in any UCC filing office deemed appropriate by Secured Party, and to record this Agreement and other related documents and instruments deemed appropriate by the Secured Party with the United States Patent and Trademark Office.

r. Other Actions. To further the attachment, perfection and first priority of, and the ability of the Secured Party to enforce, the Secured Party's security interest in the Collateral, and without limitation on the Debtor's other obligations in this Agreement, Debtor agrees, in each case at Debtor's expense, to take the following actions with respect to the following Collateral:

- i. Promissory Notes and Tangible Chattel Paper. If the Debtor shall at any time hold or acquire any Instruments or tangible Chattel Paper, Debtor shall forthwith endorse, assign and deliver the same to the Secured Party,

accompanied by such instruments of transfer or assignment duly executed in blank as the Secured Party may from time to time specify.

- ii. Collateral in the Possession of a Bailee. If any Collateral is at any time in the possession of a bailee, Debtor shall promptly notify the Secured Party thereof and, at the Secured Party's request and option, shall promptly obtain an acknowledgement from the bailee, in form and substance satisfactory to the Secured Party, that the bailee holds such Collateral for the benefit of the Secured Party, and that such bailee agrees to comply, without further consent of the Debtor, with instructions from the Secured Party as to such Collateral. Secured Party agrees with the Debtor that the Secured Party shall not give any such instructions unless an Event of Default has occurred and is continuing or would occur after taking into account any action by Debtor with respect to the bailee.
- iii. Letter-of-Credit Rights. If Debtor is at any time a beneficiary under a letter of credit, Debtor shall promptly notify the Secured Party thereof and, at the request and option of the Secured Party, Debtor shall, pursuant to an agreement in form and substance satisfactory to the Secured Party, either (i) arrange for the issuer and any confirmer or other nominated person of such letter of credit to consent to an assignment to the Secured Party of the proceeds of the letter of credit, or (ii) arrange for the Secured Party to become the transferee beneficiary of the letter of credit, with the Secured Party agreeing, in each case, that the proceeds of the letter of credit are to be applied to the Obligations.
- iv. Commercial Tort Claims. If the Debtor shall at any time hold or acquire a commercial tort claim, Debtor shall immediately notify the Secured Party in a writing signed by Debtor of the particulars thereof and grant to the Secured Party in such writing a security interest therein and in the proceeds thereof, all upon the terms of this Agreement, with such writing to be in form and substance satisfactory to the Secured Party.

7. Negative Covenants. Debtor covenants that so long as any Obligation remains outstanding:

- a. Sale or Hypothecation of Collateral. Debtor shall not directly or indirectly, whether voluntarily or involuntarily, by operation of law or otherwise:
  - i. sell, assign, transfer, exchange, lease, sell and lease back, lend or dispose of any of the Collateral, or any of Debtor's respective rights therein, except such as occurs in Debtor's ordinary course of business; nor
  - ii. cause, suffer or permit any of the Collateral, or any of Debtor's respective rights therein, to be affected by any encumbrance, security interest, equity infusion or adverse claim of any kind or nature whatsoever, except:

inchoate or statutory liens for taxes which have not been assessed and which are not delinquent or, if assessed, are being contested in good faith by appropriate proceedings and provided that, in any such case, the effect of such proceedings is to stay the enforcement of such liens.

The inclusion of "proceeds" as a component of the Collateral shall not be deemed a consent by Secured Party to any sale or disposition of all or any part of the Collateral.

b. Reorganization or Disposition of Assets, Etc. The Debtor shall not become a party to any transaction whereby all or a substantial part of its properties, undertakings or assets would become the property of any other person or entity, whether by way of liquidation, dissolution, reorganization, merger, transfer, sale, lease, sale and leaseback or any other disposition; nor shall Debtor make any material change in the character of its businesses as conducted on the date hereof.

c. Legal Status. Debtor shall not change its organizational identification number, type of organization, jurisdiction of organization or other legal structure, without first obtaining written consent from Secured Party.

8. a. Event of Default. The occurrence of any of the following shall constitute an event of default (each an "Event of Default") hereunder:

- i. A default in the prompt payment of the Note, or any part thereof, subject to applicable grace period, if any;
- ii. A default in the prompt and complete performance of any material term, condition or covenant in favor of Secured Party contained in the Note or in this Agreement subject to applicable grace period, if any;
- iii. If a representation or warranty of Debtor contained in this Agreement, the Note or in any document, certificate or instrument delivered pursuant hereto or thereto should prove to be materially false or misleading;
- iv. The occurrence of an "Event of Default" pursuant to the terms of the Note;
- v. If Debtor shall default with respect to any material agreement, loan or other indebtedness of Debtor;
- vi. An uninsured material loss, theft, damage or destruction to any of the Collateral, or the entry of any judgment against the Debtor or any lien against or the making of any levy, seizure or attachment of or on the Collateral;
- vii. The failure of the Secured Party to have at any time a first priority perfected security interest in the Collateral; provided however, that Secured Party acknowledges that said first priority perfected security

interest shall be subject to the prior security interest liens listed on attached **Schedule 5d**; and

- viii. Any person or third party shall contest or challenge the validity of the security interest and priority of the lien granted to the Secured Party pursuant to this Agreement.

b. Remedies. Upon the occurrence of any Event of Default by Debtor under this Agreement, Holder shall first be required to give written notice of such default to Debtor. Debtor, in such event, will have ten (10) days following the giving of such notice to cure a payment default and thirty (30) days following the giving of such notice to cure any other such default. If such default shall not be cured within the applicable ten or thirty day cure period, then Holder, at its option may:

- i. Declare any or all Obligations, or any part thereof, to be immediately due and payable without demand or notice of any kind and proceed to collect the same;
- ii. Peaceably by its own means or with judicial assistance enter the Debtor's premises and take possession of the Collateral;
- iii. Render the Collateral unusable;
- iv. Use, operate, manage, control, maintain, repair, alter or dispose of the Collateral on the Debtor's premises;
- v. Require the Debtor to assemble the Collateral and make it available to the Secured Party at a place designated by the Secured Party; or
- vi. Notify account debtors as contemplated above in this Agreement.
- vii. Notify the United States Postal Service to send Debtor's mail to the Secured Party.

Unless the Collateral is perishable or threatens to decline speedily in value or is of a type customarily sold on a recognized market, the Secured Party will give the Debtor reasonable notice (within the time established by subsection "c" below) of the time and place of any public sale thereof or of the time after which any private sale or any other intended disposition thereof is to be made. Debtor shall reimburse the Secured Party for its expenses of retaking, holding, preparing for sale, selling or the like (which expenses shall include but are not limited to the Secured Party's reasonable attorney's fees and legal expenses, incurred or expended by the Secured Party to enforce any payment due it under this Agreement either as against the Debtor, or in the prosecution or defense of any action, or concerning any matter growing out of or connection with such retaking, holding, preparing, selling or the like; and the Collateral also will secure any such Debtor reimbursement obligations. Debtor hereby waives all claims for

damages by reason of any seizure, repossession, retention, use or sale of the Collateral under the terms of this Agreement.

c. For the purpose of enabling the Secured Party to exercise rights and remedies under this Section 8 (including, without limiting the terms of Section 8, in order to take possession of, hold, preserve, process, assemble, prepare for sale, market for sale, sell or otherwise dispose of Collateral) at such time as Secured Party shall be lawfully entitled to exercise such rights and remedies following the occurrence and during the continuance of an Event of Default, Debtor hereby grants to Lender an irrevocable, nonexclusive license (exercisable without payment of royalty or other compensation to Debtor) to use, license or sublicense until the Obligations are paid in full and satisfied any Intellectual Property now owned or hereafter acquired by Debtor, and wherever the same may be located, and including in such license access to all media in which any of the licensed items may be recorded or stored and to all computer software and programs used for the compilation or printout thereof (but subject to any limitation on Debtor's right to grant such licenses or sublicenses as set forth in the terms of the licenses governing such Intellectual Property).

e. Application of Proceeds. The net proceeds arising from the disposition of the Collateral after deducting expenses incurred by the Secured Party will be applied to the Obligations in the order determined by the Secured Party. If any excess remains after the discharge of all of the Obligations, the same will be paid to the Debtor. If after exhausting all of the Collateral there should be a deficiency, the Debtor will be liable therefor to the Secured Party. Nothing contained herein will obligate the Secured Party to proceed against Debtor or any other party obligated under the Obligations or prior to proceeding against any other collateral for the Obligations prior to making a claim against the Collateral.

f. Notices. Whenever notice is required by law to be sent by the Secured Party to the Debtor of any sale, lease or other disposition of the Collateral, ten (10) days' written notice shall be sent to the Debtor's address as set forth in or pursuant to subsection "10e" of this Agreement.

g. Sales on Credit. If Secured Party sells any of the Collateral upon credit, Debtor will be credited only with payments actually made by the purchaser, received by Secured Party and applied to the indebtedness of the purchaser. In the event the purchaser fails to pay for the Collateral, Secured Party may resell the Collateral and Debtor shall be credited with the proceeds of the sale.

h. Marshalling. Secured Party has no obligation and shall not be required to marshal any assets (including without limitation, the Collateral) in favor of Debtor, or against or in payment of the Obligations or any other indebtedness owed to Secured Party by Debtor or any other Person or entity. To the extent that it lawfully may, Debtor hereby agrees that will not invoke any law relating to the marshalling of collateral which might cause delay in or impede the enforcement of Secured Party's rights and remedies under this Agreement or under any other instrument creating or evidencing any of the Obligations or under which any of the Obligations is outstanding or by which any of the Obligations is secured or payment thereof is otherwise

assured, and, to the extent that it lawfully may, the Debtor hereby irrevocably waives the benefits of all such laws.

i. Warranties. Secured Party may sell the Collateral without giving any warranties as to the Collateral. In accordance with the applicable provisions of the UCC, Secured Party may specifically disclaim any warranties of title or the like. This procedure will not be considered to adversely affect the commercial reasonableness of any sale of the Collateral.

## 9. General Provisions.

a. Rights and Remedies Cumulative. All rights and remedies granted the Secured Party hereunder and under any agreement referred to herein or otherwise available at law or in equity, shall be deemed concurrent and cumulative, and not alternative remedies, and the Secured Party may proceed with any number of remedies at the same time until the Obligations are satisfied in full.

b. Power of Attorney. Debtor hereby irrevocably constitutes and appoints the Secured Party and any officer thereof, with full power of substitution, as its true and lawful attorney-in-fact with full irrevocable power and authority in the place and stead of the Debtor or in its name, from time to time in the Secured Party's discretion for the purpose of carrying out the terms of this Agreement, to take any and all appropriate action and to execute any and all documents and instruments which may be necessary or desirable to accomplish the purposes of this Agreement. The appointment of Secured Party as Debtor's attorney-in-fact is coupled with an interest and is therefore irrevocable.

c. No Liability. Nothing in this Agreement shall be deemed to constitute an assumption by Secured Party of any liability or obligation of Debtor with respect to any of the Collateral.

d. Further Assurances. At any time and from time to time, upon demand of the Secured Party and at the Debtor's expense, Debtor will give, execute, file and record any notice, financing statement, continuation statement, amendment statement, instrument, document or agreement that the Secured Party may consider necessary or desirable to create, preserve, continue, perfect or validate any security interest granted hereunder or to enable the Secured Party to exercise or enforce its rights hereunder with respect to such security interest. Debtor hereby authorizes the Secured Party to file financing statements, continuation statements, amendments and other documents under the UCC relating to the Collateral without the signature of the Debtor, naming the Debtor, as debtor and the Secured Party, as secured party, or to file and/or record any documents, agreements or other instruments with the United States Patent and Trademark Office naming the Debtor, as conveying party, and the Secured Party, as the receiving party.

e. Notices. All notices to the parties to this Agreement which are required to be in writing by the provision hereof shall be deemed to have been given or made when delivered by hand, or when deposited in the mail, postage prepaid by registered or certified mail, return receipt requested, or, in the case of notice by facsimile transmission, when properly

transmitted, addressed as follows or to such other address as may be hereafter designated in writing by one party to the others:

If to Debtor:

Aither Chemicals LLC  
1740 Union Carbide Drive  
PO Box 8396  
South Charleston, WV 25303  
Attention: Leonard Dolhert  
Telephone No. 800-611-2296 x945  
Fax No. 304-720-6794

With copies not constituting notice to:

Mid-Atlantic Holdings, Inc.  
1740 Union Carbide Drive  
PO Box 8396  
South Charleston, WV 25303  
Attention: President  
Telephone No. 800-611-2296  
Fax No. 304-720-6794

And

Bailey & Glasser, LLP  
209 Capitol Street  
Charleston, WV 25301  
Attention: Marc Weintraub  
Telephone No. 304-345-6555  
Fax No. 304-342-1110

If to Secured Party:

Renewable Manufacturing Gateway, Inc.  
603 Stanwix  
Gateway Two  
Suite 1825  
Pittsburgh, PA 15222  
Telephone No. 412-567-1500  
Fax No. 412-567-1501  
Attention: Steven Adelkoff, President

f. Waiver. No delay or omission on the part of the Secured Party to exercise any right or power arising from any Event of Default will impair any such right or power or be considered a waiver of any such right or power or a waiver of any such Event of Default or an



acquiescence therein, nor will the action or non-action of the Secured Party in case of any Event of Default impair any right or power arising as a result thereof. Debtor waives any right it may have to require Secured Party to pursue any third person for any of the Obligations.

g. Illegality. In case any one or more of the provisions contained in this Agreement should be invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein shall not in any way be affected or impaired thereby.

h. Successors and Assigns. This Agreement will be binding upon and inure to the benefit of the Debtor and the Secured Party and their respective representatives, successors and assigns and will bind all persons who become bound as a debtor to this Agreement; provided, that the Debtor may not assign this Agreement in whole or in part without the prior written consent of the Secured Party and the Secured Party at any time may assign this Agreement in whole or in part, without the consent of Debtor.

i. Changes in Writing. No modification, amendment or waiver of any provision of this Agreement nor consent to any departure by the Debtor therefrom, will in any event be effective unless the same is in writing and signed by the Secured Party, and then such waiver or consent shall be effective only in the specific instance and for the purpose for which given. No notice to or demand on the Debtor in any case will entitle the Debtor to any other or further notice or demand in the same, similar or other circumstance.

j. Entire Agreement. This Agreement (including the documents and instruments referred to herein) constitutes the entire agreement and supersedes all other prior agreements and understandings, both written and oral, between the parties with respect to the subject matter hereof.

k. Governing Law; Severability. This Agreement, all amendments hereto, all supplements hereof, and all acts, transactions, agreements, certificates, assignments and transfers thereunder, and all rights of the parties hereto, shall be governed as to their validity, enforcement, construction and effect, and in all other respects by West Virginia law, except to the extent that the UCC provides for the application of the laws of another state. The provisions hereof are severable, and the invalidity or unenforceability of any provision shall not affect or impair the remaining provisions which shall continue in full force and effect.

l. Interpretation. Whenever used herein, the singular number will include the plural, the plural the singular and the use of the masculine, feminine or neuter gender will include all genders. The section headings of this Agreement are for convenience only, and will not limit or otherwise affect any of the terms hereof.

m. Consent to Jurisdiction. Debtor hereby agrees to the jurisdiction of any state or federal court located in the State of West Virginia, and consents that all service of process may (in addition to other lawful methods) be sent by nationally recognized overnight courier service directed to the Debtor at the Debtor's address set forth in subsection "5g" of this Agreement, and service so made will be deemed to be completed on the business day after

deposit with such courier; provided, that nothing contained herein will prevent the Secured Party from bringing any action or exercising any rights against the Debtor individually, or against any property of the Debtor within any other state or nation to enforce any award or judgment obtained in the venue specified above. Debtor waives any objection to venue and any objection based on a more convenient forum in any action instituted hereunder.

n. Waiver of Jury Trial. THE DEBTOR WAIVES ITS RIGHT TO A JURY TRIAL WITH RESPECT TO ANY ACTION OR CLAIM ARISING OUT OF ANY DISPUTE IN CONNECTION WITH THIS AGREEMENT, ANY RIGHTS OR OBLIGATIONS HEREUNDER OR THE PERFORMANCE OR ENFORCEMENT OF ANY SUCH RIGHTS OR OBLIGATIONS. Except as prohibited by law, the Debtor waives any right which it may have to claim or recover in any litigation referred to in the preceding sentence any special, exemplary, punitive or consequential damages or any damages other than, or in addition to, actual damages. The Debtor certifies that neither the Secured Party nor any representative, agent or attorney of the Secured Party has represented, expressly or otherwise, that the Secured Party would not, in the event of litigation, seek to enforce the foregoing waivers or other waivers contained in this Agreement.

o. Counterparts. This Agreement may be executed in two or more counterparts, all of which when taken together shall be considered one and the same Agreement. This Agreement shall become effective when all such counterparts have been signed and delivered. Any counterpart of this Agreement which has attached to it one or more separate signature pages, which together contain the signatures of all of the parties, shall for all purposes be deemed a fully executed original of this Agreement. Signatures of the parties transmitted by facsimile, e-mail or other electronic means shall be deemed to be their original signatures for all purposes.

[Remainder of page intentionally left blank; signatures appear on following page]

WITNESS the due execution and sealing hereof with the intent to be legally bound, this \_\_\_\_ day of June, 2012.

**AITHER CHEMICALS LLC**  
a West Virginia limited liability company



By: Leonard Dolhert, Manager

**RENEWABLE MANUFACTURING  
GATEWAY, INC.**, a Pennsylvania  
non-profit corporation

By: \_\_\_\_\_  
Its:

*[Signature page to Security Agreement]*

WITNESS the due execution and sealing hereof with the intent to be legally bound, this \_\_\_\_ day of June, 2012.

**AITHER CHEMICALS LLC**  
a West Virginia limited liability company

\_\_\_\_\_  
By: Leonard Dolhert, Manager

**RENEWABLE MANUFACTURING  
GATEWAY, INC.,** a Pennsylvania  
non-profit corporation

By: \_\_\_\_\_  
Its: \_\_\_\_\_

*[Signature page to Security Agreement]*

**SCHEDULE 5(d)**

1. Security interest granted in favor of WVJIT effective July 28, 2011.
2. Security interest granted in favor of INNOVA Commercialization Group, a program of the West Virginia High Technology Consortium Foundation, Inc. effective December 19, 2011.