

## TECHNOLOGY ASSIGNMENT AGREEMENT

This Technology Assignment Agreement ("Agreement") is entered as of May 1, 2023 (the "Effective Date") between Reformed Energy, Inc., a Texas corporation ("Reformed Energy"), on the one hand, and Xcelplus International, Inc., a Nevada corporation ("Xcelplus") (Reformed Energy and Xcelplus each a "Party" and collectively the "Parties").

**WHEREAS**, Xcelplus develops technologies relating to the production of green-fuels and energy products through portable, scalable waste-gasification systems; and

**WHEREAS**, Reformed Energy was formed on November 17, 2022 by Billy R. Smith ("Smith"), Edward Evenson, and Daniel Frumkin, with a business plan to leverage plasma gasification technologies; and

**WHEREAS**, as of the date of Reformed Energy's formation, Smith (and Smith's company, GDI International, Inc., "GDI") had certain obligations to Xcelplus with respect to, among other things, non-competition and non-disclosure of Xcelplus' confidential information; and

**WHEREAS**, the Parties wish to quiet title to Xcelplus' confidential information in favor of Reformed Energy, and to release Smith from his obligations to Xcelplus for the sole purpose of Reformed Energy pursuing its business plan; and

**WHEREAS**, the Parties further wish to assign all of Xcelplus' rights, title and interest in certain gasification technologies to Reformed Energy.

**NOW, THEREFORE**, in consideration of the foregoing and for other good and valuable consideration, the sum and sufficiency of which is hereby acknowledged, the Parties agree as follows:

### 1. Assignment; Cooperation; No Liabilities.

1.1 Assignment. Xcelplus hereby assigns, transfers, delivers and conveys to Reformed Energy all of its rights, title and interest in and to the Assigned Technology. "Assigned Technology" shall mean: (i) the subject matter referred to in Exhibit A, (ii) all precursors, portions and work in progress with respect thereto and all inventions, works of authorship, mask works, technology, information, know-how, materials and tools relating thereto or to the development, support or maintenance thereof and (iii) all copyrights, patent rights, trade secret rights, trademark rights, mask works rights, *sui generis* database rights and all other intellectual property rights of any sort and all business, contract rights, causes of action (including all rights to sue and collect damages for past, present and future infringement), and goodwill in, incorporated or embodied in, used to develop, or related to any of the foregoing.

1.2 Cooperation. Xcelplus agrees to execute such documents as reasonably required by Reformed Energy to evidence, record and perfect the Section 1.1 assignment and to apply for and obtain and from time to time enforce, maintain, and defend the assigned rights. If Reformed Energy is unable for any reason whatsoever to secure Xcelplus's signature to any document requested by Reformed Energy under this Section 1.2, Xcelplus hereby irrevocably designates and appoints Reformed Energy and its duly authorized officers and agents as Xcelplus's agents and attorneys-in-fact, coupled with an interest and with full power of substitution, to act for and on such Xcelplus's behalf and instead of Xcelplus, to

execute and file any such document or documents and to do all other lawfully permitted acts to further the purposes of the foregoing with the same legal force and effect as if executed by Xcelplus.

1.3 Moral Rights. To the extent allowed by law, Section 1.1 includes all rights of paternity, integrity, disclosure and withdrawal and any other rights that may be known as or referred to as "moral rights," "artist's rights," "droit moral," or the like (collectively "Moral Rights"). To the extent Xcelplus retains any such Moral Rights under applicable law, Xcelplus hereby ratifies and consents to, and provides all necessary ratifications of and consents to, any action that may be taken with respect to such Moral Rights by, or authorized by, Reformed Energy; Xcelplus agrees not to assert any Moral Rights with respect thereto. Xcelplus will confirm any such ratifications, consents and agreements from time to time as requested by Reformed Energy.

## 2. Consideration.

2.1 Royalties. Reformed Energy shall pay Xcelplus a royalty (the "Royalty") of (i) 5% of the gross revenue received by Reformed Energy from any sales of any and all Plasma Gasifiers during the Term (each as herein defined), (ii) 5% of the total market retail value of Plasma Gasifiers that it uses at its sole benefit, and (iii) 5% of cash revenue received by Reformed Energy from any license fee or deposit from a third-party seeking to obtain a license to manufacture and sell Plasma Gasifiers; (iv) 15% of cash revenues received on a per-unit basis by Reformed Energy from royalties for the direct manufacture and sale of Plasma Gasifiers by third-parties in the case that Reformed Energy licenses manufacturing rights to build any Plasma Gasifiers.

2.2 Payments. Reformed Energy shall pay the Royalty within thirty (30) days following the end of each calendar quarter, accompanied by a report of gross revenues pertaining to the manufacturing and sales of Plasma Gasifiers which have been paid in full for the period, and shall keep complete and accurate records of all Plasma Gasifier sales and revenues for a period of at least five (5) years from the date of such sale or revenue.

2.3 Definitions. For purposes of this Agreement: (i) the term "sales" shall include without limitation, any and all revenue received by Reformed Energy, its subsidiaries, affiliates, or related entities, without deduction, from sales of Plasma Gasifiers, as well as cash received as revenue by Reformed Energy in the form of royalties received from any party to which Reformed Energy has granted manufacturing rights of its plasma gasification technology; (ii) "Plasma Gasifiers" refers to any and all plasma gasifiers, whether or not they share any commonality with the Assigned Technology.

2.4 Exclusions. Notwithstanding section 2.3 above, "sales" shall not include the first three (3) Plasma Gasifiers produced by Reformed Energy, which are used in any capacity for research and development.

2.5 Deductions. Reformed Energy may deduct reasonable, documented third-party expenses actually incurred by Reformed Energy in research and development as well as costs and expenses related to filing for and obtaining patent protection for the invention titled "Gasifier," invented by Andy Schlote, and disclosed in Exhibit A to this Agreement. For purposes of this Agreement, costs and expenses shall not include: (i) any costs or expenses incurred after the successful production of the initial three (3) gasifiers which are used in any capacity for research and development (except to the extent that such costs or expenses are directly related to obtaining patent protection as described above); (ii) any salaries or payments to any of Reformed Energy's affiliates, employees, officers, directors, agents, or related entities which are not directly related to the research and development of the initial three (3) plasma gasification

systems; (iii) any overhead or general administrative expenses; (iv) any legal or other professional fees incurred in connection with this Agreement or any disputes arising hereunder; (v) any taxes or other governmental fees imposed on Reformed Energy; or (vi) any costs or expenses that are not reasonable or that are not directly related to the commercialization or exploitation of gasification systems. All deductions shall be documented and identified separately in Reformed Energy's reports to Xcelplus pursuant to Section 2.7 of this Agreement. Xcelplus shall have the right to review and audit Reformed Energy's records relating to such deductions upon reasonable notice and during normal business hours at its own expense.

2.6 Reporting. Reformed Energy agrees to provide Xcelplus with a quarterly report detailing the gross revenue received by Reformed Energy for Plasma Gasification Sales, as well as any other information reasonably requested by Xcelplus to verify the accuracy of such report.

2.7 Audit. Xcelplus shall have the right, at its own expense and upon reasonable notice to contract an independent third party, to audit Reformed Energy's books and records to verify the accuracy of the reports provided under this agreement, so long as any information exchanged remains confidential to Reformed Energy and the independent third-party auditor.

2.8 Non-Circumvention. Reformed Energy agrees not to circumvent, avoid, or evade the payment of Royalties under this agreement, including without limitation by creating a new entity, or by transferring or assigning its rights or obligations under this agreement in any manner that would avoid the payment of Royalties.

### 3. Term and Termination.

3.1 Initial Term. This Agreement shall be effective from the Effective Date, and continuing until the fifteenth (15) anniversary of the Effective Date.

3.2 Extended Term. The Term of this Agreement shall be extended to a date that is fifteen (15) years following Xcelplus' actual receipt of the first Royalty payment under this Agreement. Notwithstanding the foregoing, this Agreement shall not be extended beyond the twentieth (20th) anniversary of the Effective Date.

3.3 Termination. This Agreement shall terminate: at the expiration of the Term (including any extension thereto).

### 4. Default and Remedy.

4.1 Events of Default. The following events shall constitute a default under this Agreement:

(a) Reformed Energy becomes insolvent, files for bankruptcy, makes an assignment for the benefit of its creditors, or has a receiver appointed for substantially all of its assets; or

(b) Reformed Energy fails to raise at least two million five hundred thousand dollars (\$2,500,000) for a Plasma Gasification system by the end of Q2 2024, or fails to make the first sale of a gasifier before the fifth (5th) anniversary of the Effective Date.

(c) Xcelplus becomes insolvent, files for bankruptcy, makes an assignment for the benefit of its creditors, or has a receiver appointed for substantially all of its assets.

#### 4.2 Remedies.

(a) Upon the occurrence of a default under Section 4.1(a) above, this Agreement shall automatically terminate. In such event, Xcelplus shall retain all rights to the Assigned Property, including without limitation any technology or intellectual property developed therefrom, and Reformed Energy shall immediately execute all necessary documents to effectuate such transfer of ownership. In the event that Reformed Energy fails to execute such documents, Reformed Energy hereby grants Xcelplus a power of attorney to execute such documents on its behalf.

(b) In the event of a default under Section 4.1(b) above, both Parties agree to grant each other a royalty-free, non-exclusive, non-transferable, and non-sublicensable cross-license to use any and all technologies (including patents, trade secrets, know-how, and any other intellectual property) in the gasification field developed, owned, or controlled by such Party. In addition, each Party shall share all information it has relating to any such technology with the other Party.

(c) In the event of a default under section 4.1(c) above, Reformed Energy shall retain all rights to the Assigned Property, including without limitation any technology or intellectual property developed therefrom, and Xcelplus shall immediately execute all necessary documents to effectuate such transfer of ownership. In the event that Xcelplus fails to execute such documents, Xcelplus hereby grants Reformed Energy a power of attorney to execute such documents on its behalf.

5. Confidential Information. Xcelplus agrees that it will not use or disclose to third parties anything assigned to Reformed Energy hereunder or any other technical or business information or plans of Reformed Energy, except to the extent Xcelplus can document that it is generally available (through no fault of any Xcelplus) for use and disclosure by the public without any charge, license or restriction.

#### 6. Release of Obligations.

6.1 Release. Xcelplus releases Smith and GDI from their respective obligations of non-disclosure of confidential information and non-competition, as well as any other duties or obligations owed by Smith and GDI to Xcelplus.

6.2 Scope of Release. The release of obligations set forth in this Section 6 of this Agreement is solely for the benefit of Reformed Energy and is not effective for any other companies or purposes. Neither Smith nor any other third-party shall be a beneficiary of this release of obligations.

#### 7. Warranties.

(a) Xcelplus represents and warrants to Reformed Energy that (i) Xcelplus has not assigned, transferred, licensed, pledged, or otherwise encumbered any Assigned Technology or agreed to do so, (ii) Xcelplus has full power and authority to enter into this Agreement and to make the assignment as provided herein and that the execution and performance of this Agreement has been duly and validly authorized by all necessary corporate action on the part of Xcelplus and does not violate or conflict with any right of (or any Xcelplus obligation to), or require the consent of, any third party, (iii) to Xcelplus's knowledge, the Assigned Technology does not violate, infringe or misappropriate any third party's rights, and (iv) Xcelplus, has not, at any time (a) made a general assignment for the benefit of creditors, or (b) filed, or had filed against it, any bankruptcy petition or similar filing.

(b) In the event that Xcelplus is found to have breached any of the Warranties listed in this Section 7, Reformed Energy has the right to terminate this agreement and retain all rights, title, and interest to the Assigned Technology.

8. Governing Law and Venue. This Agreement shall be governed by and construed in accordance with the laws of the State of Texas, without giving effect to its conflicts of law principles. Any legal action or proceeding arising out of or related to this Agreement shall be brought exclusively in the state or federal courts located in Houston, Texas, and each party irrevocably submits to the jurisdiction of such courts.

9. Binding Arbitration. Any dispute, controversy, or claim arising out of or relating to this Agreement or its breach, termination, or validity shall be finally settled by arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association (the "AAA") then in effect, and judgment upon the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof. The arbitration shall be conducted in Houston, Texas, before a single arbitrator selected in accordance with the rules of the AAA. The arbitration shall be conducted in English, and the arbitrator shall have the authority to award any legal or equitable remedy or relief that a court of competent jurisdiction could order or grant. The prevailing party in any such arbitration shall be entitled to recover its reasonable attorneys' fees and costs incurred in connection therewith.

10. Notices. Any notice, report, approval, or consent required or permitted hereunder shall be in writing and will be deemed to have been duly given if delivered personally or mailed by first-class, registered or certified U.S. mail, postage prepaid to the following addresses of the Parties:

**Reformed Energy:**

6575 West Loop S, Suite 500  
Bellaire, Texas, 77401  
Edward Evenson  
1-346-563-8209  
[edward@reformednrg.com](mailto:edward@reformednrg.com)

**Xcelplus International, Inc.:**

C/O The law Offices of Andrew Befumo, PLLC  
1629 K Street, NW, Suite 300  
Washington, DC 20006  
1-202-669-0619  
[andrew@befumolaw.com](mailto:andrew@befumolaw.com)

Either Party may change its address or contact information by providing written notice to the other Party at least ten (10) days prior to the effective date of the change.

11. Waiver and Delay. No failure to exercise, and no delay in exercising, on the part of either Party, any privilege, any power or any rights hereunder will operate as a waiver thereof, nor will any single or partial exercise of any right or power hereunder preclude further exercise of any other right hereunder.

12. Severability. If any provision of this Agreement shall be adjudged by any court of competent jurisdiction to be unenforceable or invalid, that provision shall be limited or eliminated to the minimum extent necessary so that this Agreement shall otherwise remain in full force and effect and enforceable.

13. Confidentiality. The terms of this Agreement are confidential to Reformed Energy and Xcelplus, and no press release or other written or oral disclosure of any nature regarding this Agreement shall be made by either Party without the prior written approval of the other Party; however, approval for such disclosure shall be deemed given to the extent such disclosure is required to comply with governmental rules.

14. Waivers and Amendments. Any waivers of any rights under, or amendments to this Agreement shall be effective only if made in writing and signed by the respective Parties.

15. Independent Counsel. Each Party acknowledges that it has had the opportunity to seek independent legal advice with respect to this Agreement and has either done so or voluntarily elected not to do so. This Agreement shall not be construed more favorably for one Party than for the other. In the event that any ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the Parties, and no presumption or burden of proof shall arise favoring or disfavoring either Party by virtue of authorship of any of the provisions of this Agreement.

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IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

**Reformed Energy, Inc.**

DocuSigned by:  
By: Edward Evenson  
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Name: Edward Evenson

Title: Chief Executive Officer

Date: May 01, 2023

**Xcelplus International, Inc.**

DocuSigned by:  
By: Andrew Befumo  
47E38834B0114A6...

Name: Andrew Befumo

Title: President (interim)

Date: 5/1/2023

## EXHIBIT A

### Assigned Technology

#### Assigned Technology

1. All technology developed by Xcelplus in relation to its CE50 gasifier, including the inventions subject of the Xcelplus' provisional patent application # 63250348 filed September 30, 2021.
2. To also include all gasifier design flow processes, operation manuals, engineering drawings, know-how and procedures related to the CE50 designed by Inventor Andy Schlote.

### **GASIFIER**

**INVENTOR ANDY SCHLOTE**

### **GASIFIER**

#### **BACKGROUND**

**[001]** The disclosure relates generally to gasifier systems, and more particularly, to gasification systems capable of using waste products as fuel to form clean synthesis gas (syngas) that is useful for power generation.

#### **SUMMARY**

**[002]**

**[003]** These and other embodiments are described in more detail below.

#### **BRIEF DESCRIPTION OF THE DRAWINGS**

**[004]** Figure 1 is a perspective view of the gasifier system.

**[005]** Figure 2 is schematic view of the gasifier of the gasifier system.

#### **DETAILED DESCRIPTION**

**[006]** As shown in Figures 1-2, a gasifier system 10 configured to generate synthesis gas (hereinafter "syngas") via thermal decomposition of materials at elevated temperatures in an inert atmosphere via pyrolysis is disclosed. The gasifier 10 includes numerous subsystems configured to increase the operational efficiency of the gasifier 10. For example, and not by means of limitation, the gasifier 10 may include a syngas recirculation system 12, a screenless ash removal system 14, a tar reduction system 16, a negative slope gasifier system 18 and a syngas catalyzer system 20.

**[007]** As shown in Figure 2, the syngas recirculation system 12 may be configured to recirculate heated syngas within the gasifier chamber 30 to increase efficiency of the gasifier system 10. The syngas recirculation system 12 may include a blower 32 at the top of the gasifier chamber 30 for syngas recirculation. The blower 32 may be located at the top of the gasifier chamber 30 with an



open bottom and open top. The blower 32 may be powered by a hydraulic motor for safety. The syngas recirculation system 12 may be configured such that syngas enters a center tube 34 thru an inlet 36 positioned near a bottom of the gasifier chamber 30. The syngas recirculation system 12 may include outlets 38 near the top of the fuel pile within the gasifier chamber 30 and an outlet at a diffuser and gasifier exhaust 40. The spinning blower 32 may generate flow and increased static pressure in order to force a portion of the syngas into the fuel pile to accomplish the following:

- i) transfer heat from the syngas to preheat the fuel pile;
- ii) boil water contained in the fuel pile to create steam;
- iii) volatilize a large portion of the light hydrocarbons contained within the fuel;
- iv) allow control of superficial velocity in order to increase the reaction rate of the fuel pile;
- v) allow conversion of carbon dust that was preferentially separated by its path through the blower;
- vi) take advantage of the catalytic action of the ash that was carried up through the tube and was preferentially separated by the blower 32 and blown into the top of the fuel pile.

**[008]** The syngas recirculation system 12 may include one or more tubes 34 positioned in the gasifier chamber 30 to direct syngas from near the bottom of the gasifier chamber 30 to the top of the fuel pile. In at least one embodiment, the tube 34 may be positioned in the center of the gasifier chamber 30 and extend from the bottom of the gasifier chamber 30 to the top of the fuel pile. The tube 34 may be positioned in the middle of the gasifier chamber 30 for recirculation. The tube 34 may be located in the center of the fuel pile and extends below the ash removal area. The tube 34 may be fabricated using materials such as, but not limited to, ceramic, metal and the like. A flow spinning device 42 may be located inside the tube 34 and near the blower in order to cause a rotational motion in the flow which forces carbon and ash particles to be blown by the blower 32 into the top of the fuel pile, where the carbon is converted into carbon monoxide and the ash acts as a catalyzing agent when it reaches the throat area. The section of the tube 34 from the bottom of the tube 34 to the throat area may be constructed using a material such as, but not limited to, a nickel superalloy with the following benefits:

- i) allowing pressurized air/oxygen to be fed from the exterior of the gasifier chamber 30 to the throat area to be injected from the ID of the fuel pile toward the OD of the fuel pile;
- ii) allowing heat exchange from the ash area and syngas heat to be used to pre-heat the combustion air;
- iii) allowing balance control of combustion air to be optimized between the air/oxygen injected from the fuel pile OD injected radially inward, and the tube air/oxygen injected from the fuel pile ID radially outward.

**[009]** The gasifier system 10 may also include one or more integral heat exchangers 44 for air pre-heat with balance valve. Air exhausted from the heat exchanger 44 may be configured for inside toward outside flow or outside toward inside flow, or both. In particular, the heat exchanger 44 may be configured to provide air or oxygen, or both, which may be pressurized by a roots blower and divided by balance valves with a portion injected at the top of the gasifier chamber 30 between the

outer shell 46 and the inner liner 48 where it picks up heat from the inner liner and is then injected radially inward at the throat of the fuel pile for outside toward inside flow, and another portion may be injected near the bottom of the gasifier chamber 30 where it picks up heat from the syngas and from the ash to be injected radially outward into the fuel pile for inside toward outside flow.

**[0010]** The gasifier system 10 may include a syngas catalyzer system 20 configured to catalyze syngas. In at least one embodiment, the syngas catalyzer system 20 is configured to pass syngas through ash such that the minerals in the ash, especially forms of potassium, such as KOH, when present with sufficient moisture and temperature, catalyze syngas and increase the production of methane within the gasifier system 10. In at least one embodiment, the gasifier system 10 include one or more flow paths through ash contained within the gasifier system 10. In at least one embodiment, the gasifier system 10 include a dual flowpath to utilize ash has been developed in this gasifier. The first path mixes syngas ash downstream of the throat as it progresses towards and through a brush filter 50. The second path may be a leakage path of the syngas through the brush filter 50, up the center tube 34, through the flow rotator 42 and through the blower 32 where it is blown into the top of the fuel pile. Once on the top of the fuel pile, the syngas may travels toward the throat area and can drive catalytic reactions anywhere conditions are right.

**[0011]** The gasifier system 10 may include a screenless ash removal system 14. The screenless ash removal system 14 eliminates problems that are often found in gasifier applications in which screens routinely clog or have carbon bind to them and cause other issues. The screenless ash removal system 14 of the gasifier system 10 eliminates all screens from the gasifier and incorporates a small brush 52 fabricated using materials, such as, but not limited to metal, such as Inconel (such as 625), that may be similar in appearance to a paint brush. The bristles are supported on one side by a rail, with the other side resting on a metal ledge. The flow path is designed to allow the syngas to travel a path that allows it to stir up and carry some of the ash toward the brush 52. The brush 52 separates the ash from the syngas and only allows a small portion through the brush 52. The bulk of the ash captured by the brush 52 travels down a chute to an auger 54 for removal. The auger 54 may be designed with a variable pitch to accomplish uniform ash removal from the gasifier chamber 30.

**[0012]** The gasifier system 10 may include a vibratory ash guide 60 for trouble-free operation. The vibratory ash guide 60 may be located just downstream of the throat. The vibratory ash guide 60 may direct ash into the desired spot. The vibratory ash guide 60 may be formed from materials, such as, but not limited to, metals, such as Inconel. The vibratory ash guide 60 may be formed from a generally converging shape. Such shape may cause the ash to pack and distort flow. To alleviate this risk, the vibratory ash guide 60 may include a yoke and vibrating motor assembly attached to the guide. The brush filter 50 may also be attached to the ash guide. Energizing the vibratory motor frees up any blockage as well as cleans the brush 54 of any blockage. The vibratory ash guide 60 may also function as an auto cleaning brush filter.

**[0013]** The gasifier system 10 may include an ash catalyst and filter, as set forth in the screenless ash removal system 14 and vibratory ash guide 60. The screenless ash removal system 14 and vibratory ash guide 60 with the one or more brushes 52 may also function as an ash filter in the gasifier system 10.

**[0014]** The gasifier system 10 may include an ash filter cleaner 62. In the event that extra cleaning of the brush filter is required, the an ash filter cleaner 62 may include a brush mount rail configured to

receive a pressurized flow of nitrogen to clean the brush 52. The pressurized flow of nitrogen may travel axially with the brush filter bristles and force any clog out of the brush 52 and exit the end of the brush 52.

**[0015]** The gasifier system 10 may include a tar reduction system 16 configured to reduce tar from the syngas within the gasifier chamber 30. The tar reduction system 16 may include one or more torches formed from a standard plasma cutter device, which is designed to use a transferred arc in its operation. In order to use it within the gasifier where there is no practical metallic anode, the torch is first converted to a non-transferred arc design. Non-transferred Arc designs have an anode contained within the torch, which generates enormous amounts of heat at the anode that severely limits life and thus needs a large amount of cooling fluid. The tar reduction system 16 may incorporate a porous silicon carbide, a porous metal anode, or the like, that is transpiration cooled. Such configuration of the torch in the tar reduction system 16 decreases anode heat by about 95% and allows the torch to stay cool with only a small flow of nitrogen, such as less than 10 cubic feet per hour, as opposed to upwards of 30 cubic feet per minute flow required for the conventional system.

**[0016]** The gasifier system 10 may also include a negative slope gasifier system 18. As such, the gasifier chamber 30 may include a negative slope from throat to the top of the pile of downdraft gasifier. Gasifiers designed with straight walls suffer detrimental bridging effects, which in turn cause worm holes, uneven fuel feed, very low calorific syngas and failure of the gasifier. The negative slope gasifier system 18 has a negative slope in the fuel pile gasifier structure that prevents bridging and allows the entire pile to travel downward at a similar rate. Such unrestricted flow and bridge prevention is due to the circumference of the wall defining the fuel pile becoming larger as the fuel travels downstream, thereby eliminating the path for a packing force to cause bridging. In at least one embodiment, the wall defining the fuel pile containment may be formed from a material, such as, but not limited to ceramic.

**[0017]** The foregoing is provided for purposes of illustrating, explaining, and describing embodiments of the disclosed devices.

## CLAIMS

I claim:

1. A gasifier system, comprising: a gasifier chamber configured to receive feedstock and convert the feedstock at least in part to syngas via pyrolysis; a syngas recirculation system configured to receive at least a portion of the syngas formed within the gasifier system thru an inlet in a tube near a bottom of the gasifier chamber and pass the syngas upstream of a fuel pile positioned within the gasifier.

ABSTRACT

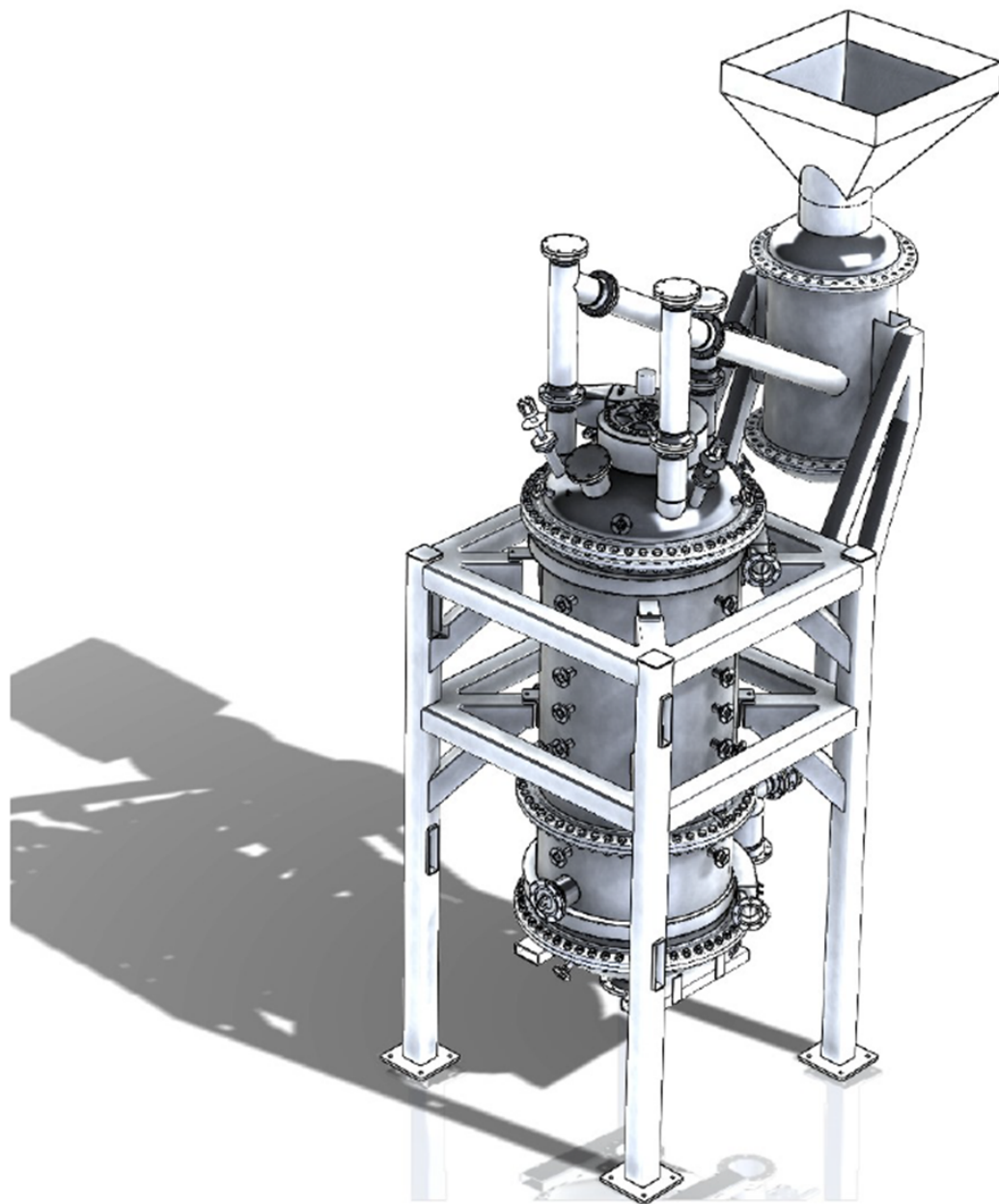


FIGURE 10-1

