

New Haven Public Schools

Joseph Barbarotta
Executive Director
Facilities Services



375 Quinnipiac Avenue
New Haven, CT 06513
Tel. (475)-220-1631
Fax. (203)946-2495

INTEROFFICE MEMORANDUM

To: Michael Pinto, Chief Operating Officer
Michael Fumiatti, Purchasing Agent
Phillip Penn, Chief Financial Officer

FROM: Joseph Barbarotta, Executive Director of Facilities (Go To Services)

Cc: John Barbarotta, J. Mazyck, L.Perez

DATE: 4/9/2020

RE: Approval of 6th Year Contract Extension for Comprehensive Maintenance Fuel Cell

Michael,

Attached is a copy of the existing Comprehensive Service Agreement between the Board of Education and Doosan Fuel America Inc. Doosan has agreed to extend the contract under the same conditions for the 6th and final year commencing on 5/13/2020 and ending on 5/13/2021 for the price of \$162,532.00. This contract has proved to be extremely fiscally responsible as the contract contains a Guarantee Minimum Output agreement that pays 1% of the Monthly Services Agreement for every 1% shortfall of the GMO. Additionally the Fuel Cell has provided electricity to both Roberto Clemente and Hill Regional Schools while producing an annual savings of approximately \$170,000.00. Because of this maintenance contract many new parts have been installed over the last (9) years (at no additional costs to the Board of Education) but the Fuel Cell is at the end of its useful life cycle and will need to be replaced next May 2021. Doosan Fuel Cell America has been a good partner and they have exhibited a real commitment to maintain the fuel cell and keep it operational. They respond quickly as it behooves them to keep the fuel cell producing electricity as the GMO agreement is incentive to react swiftly. Extension of this contract for this final year will allow the Facilities Department to utilize professional services to perform an evaluation and create an RFP for the replacement Fuel Cell. It is the Facilities Department recommendation to enter into this final year contract with Doosan Fuel Cell America Inc. for the Comprehensive Maintenance of the Fuel Cell at Roberto Clemente and Hill regional Schools.

Respectfully,
Joseph Barbarotta
Executive Director of Facilities (GO TO Services)

SERIVCES CONTRACT

Amendment No. 1

This Amendment No. 1 (the "Amendment") amends that certain Services Contract executed on or about May 13, 2015 with an Effective Date of April 2015 (the "Contract") by and between The City of New Haven Board of Education ("Customer") having an address of 54 Meadow Street, Room 301, New Haven, CT 06510, and Doosan Fuel Cell America Inc., a Delaware corporation ("Doosan") with an address of 101 East River Drive, 7th Floor, East Hartford, CT 06108 (individually a "Party" and collectively the "Parties"), and is effective April 30, 2020 (the "Amendment Effective Date").

RECITALS

WHEREAS, the Parties made and entered into the Contract, and the Parties wish to extend the Term of the Contract for one more year;

WHEREAS, the Parties wish to amend certain sections of the Contract in order to clarify their agreement.

NOW, THEREFORE, in consideration of the mutual promises set forth herein and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereby agree as follows:

1. One more year is added to the Renewal Term so that the Term of the Contract ends on April 30, 2021. The Annual Services Payment, including the Renewal Price, for this additional year is \$162,532. Payment of such Annual Services Payment by Customer is due to Doosan within thirty (30) days of the invoice date. Doosan is not responsible for providing any Maintenance Services to Customer until Doosan receives the Annual Services Payment in full.
2. This Amendment serves as notice from Customer to Doosan that Customer wishes to exercise its option to renew the Contract for this additional year.
3. All yearly obligations, including the Maintenance Schedule in Appendix A and Output Guarantee table in Appendix C, shall be extended for a sixth year.
4. Except as modified above, the Contract remains unchanged and are in full force and effect.
5. Notwithstanding any other provision herein and without prejudice, executing this Amendment or contents herein shall not be construed as Doosan's waiver of any of its rights to pursue claims (including damages) under the Contract and/or any amendment thereto.

IN WITNESS WHEREOF, evidenced only by signatures below, the Parties have caused this Amendment No. 1 to be executed by their duly authorized representatives as of the Amendment Effective Date.

DOOSAN FUEL CELL AMERICA, INC.

**THE CITY OF NEW HAVEN
BOARD OF EDUCATION**

By: Mark W Layaw

By: _____

Name: Mark Layaw

Name: _____

Title: Director - Service & Installation

Title: _____

New Haven Public Schools

Joseph Barbarotta
Executive Director
Facilities Services



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Respectfully,
Joseph Barbarotta
Executive Director of Facilities (GO TO Services)

Energy Conservation Program

Fuel Cell at Clemente/Hill Central Campus



Collaborative Energy Committee

New Haven also coordinates savings and opportunities through the efforts of the Energy Committee. This committee is comprised of representatives from the City of New Haven, NHBOE, Source One and others. The committee meets on a regular basis to discuss energy options regarding gas and electric commodity procurement, Z-Rec and L-Rec pricing and timing as well as other energy related concerns. The results have been years of town wide savings via lower negotiated commodity prices rather than direct from the utility companies and additional revenue through the sale of available Rec's. Collaborative energy purchasing strategy has resulted in \$5M in cost avoidance since 2009.

Fuel Cell

The School Construction & Facilities collaborative project at Clemente/Hill Central included a Fuel Cell Inter-Connection Agreement, providing on-site generation of electricity. United Illuminating has confirmed \$61,926 in annual electrical cost avoidance (using most current 12 months of data). Selling back excess energy RECS will return \$70,000 this fiscal year and the projected savings for next fiscal year is \$150,000. Guaranteed minimum operation (GMO) contract guarantees at least 90% operation. GMO clause paid the district back over \$30K this fiscal year.

New Haven's central utility plant (CUP) generated electricity for three buildings. The City and Board of Education now sell renewable energy credits (REC's) for generating their own energy.

Procurement of Energy

This fiscal year, the energy committee will be negotiating the new commodity rates for the next 2-4 years.



Clemente and Hill Central Schools UI Acct 010-0001136-9187						Cost Avoidance												
date	days	onpeak	onpeakd	offpeak	offpeakd	should	shouldd	kwbilled	accumkwh	hrs	amt	unit cost/kwh	kwbilled	amt	date			
2/6/2020	30	36300	0	117300	0	0	0	0	153600	720	83.53	0.000543815	277.2	4033.16	1/7/2020			
1/7/2020	30	33000	277.2	87300	154.8	3300	277.2	277.2	123600	446	4033.16	0.032630744	277.2	4033.16	1/7/2020*			
12/8/2019	32	15900	273.6	31200	176.4	9300	280.8	273.6	56400	188	3942.29	0.069898759	273.6	3942.29	12/8/2019			
11/6/2019	29	13200	295.2	27600	151.2	4200	277.2	295.2	45000	158	4210.43	0.093565111	295.2	4210.43	11/6/2019			
10/8/2019	29	24600	334.8	14100	212.4	9900	327.6	334.8	48600	150	5151.74	0.106002881	334.8	5151.74	10/8/2019			
9/9/2019	32	12000	277.2	32700	154.8	18900	194.4	277.2	63600	215	4601.89	0.072356761	277.2	4601.89	9/9/2019			
8/8/2019	30	24000	385.2	53700	342	14700	457.2	385.2	92400	202	6700.69	0.07251829	385.2	6700.69	8/8/2019			
7/9/2019	30	34800	342	71100	316.8	18900	428.4	342	124800	291	6758.47	0.054154407	342	6758.47	7/9/2019			
6/9/2019	32	32400	417.6	98400	237.6	7200	316.8	417.6	138000	310	7707.52	0.055851594	417.6	7707.52	6/9/2019			
5/8/2019	30	37500	360	109500	234	3900	327.6	360	150900	419	5951.53	0.039440225	360	5951.53	5/8/2019			
4/8/2019	29	30900	0	114000	0	0	0	0	144900	720	83.53	0.000576467	471.6	6761.86	5/8/2018*			
3/10/2019	32	36000	0	123000	0	0	0	0	159000	720	-47410.85	0	270	3887.83	4/8/2018*			
											Total With Fuel Cell	\$1,813.93			Total Without Fuel Cell	\$63,740.57		
												Total	0.597539054					
												Avg kwh/mo	0.049794921					
													Cost Avoidance	\$61,926.64				
<p>*Dates and usage data used to simulate costs without fuel cell. Note: These calculations do not include generation charges from third party supplier.</p>																		



REV: MAR 2015

PURECELL® SYSTEM MODEL 400
COMPREHENSIVE SERVICES CONTRACT
FOR
CITY OF NEW HAVEN BOARD OF EDUCATION



Prepared by:

*Doosan Fuel Cell America, Inc.
195 Governor's Highway
South Windsor, CT 06074*

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DOOSAN CONFIDENTIAL

SERVICES CONTRACT

This **SERVICES CONTRACT** (the "Contract") is made and entered into as of March _____, 2015 (the, "Effective Date") by and between **Doosan Fuel Cell America, Inc.**, having an office and place of business at 195 Governor's Highway, South Windsor, Connecticut (hereinafter referred to as "Doosan") and **The City of New Haven Board of Education** having an office and place of business at 54 Meadow Street, Room 301, New Haven, CT 06510 (hereinafter referred to as "Customer"). Customer and Doosan are hereinafter referred to collectively as "Parties".

LOCATION OF SERVICES; THE "SITE" Roberto Clemente School/Hill Central Schools Central Utility Plant, Dewitt Street, New Haven, CT 06510

DESCRIPTION OF THE "EQUIPMENT" One (1) PureCell® Model 400 fuel cell, as more fully described in Appendix B.

THE MAINTENANCE SERVICES AND REPLACEMENT PARTS

Doosan shall perform the maintenance services described in the Scope of Services attached as Appendix A hereto (the "Maintenance Services or "Services"), in accordance with the terms of this Contract and any and all other documents incorporated herein by reference expressly applicable to Maintenance Services.

THE "CONTRACT PRICE" The annual payment for the Maintenance Services in the first year of the Term shall be **\$132,000** (the "Annual Services Payment"); thereafter, an annual escalation of three percent (3%) shall be applied to the Annual Services Payment on the anniversary date of the initial invoice and the total contract price covering the Maintenance Services during the Term shall be **\$853,830** (the "Contract Price"), subject to additions and deductions authorized pursuant to this Contract. The Contract Price payment schedule is as follows:

<u>Year</u>	<u>Annual Services Payment</u>
<u>1</u>	<u>\$132,000</u>
<u>2</u>	<u>\$135,960</u>
<u>3</u>	<u>\$140,039</u>
<u>4</u>	<u>\$144,240</u>
<u>5</u>	<u>\$148,567</u>
<u>6</u>	<u>\$153,024</u> <u>\$162,532</u>

TERM This Agreement shall become effective upon the Effective Date and shall continue for a six (6) year term (the "Term").

NOTICES

Address all notices, which shall be made in the English language, by overnight or certified mail, return receipt requested, to:

DOOSAN:

Doosan Fuel Cell America, Inc.
195 Governor's Highway
South Windsor, CT 06074 U.S.A.
Attention: General Counsel

CUSTOMER:

City of New Haven
Board of Education
54 Meadow Street
New Haven, CT 06510

VALIDITY The Contract Price offered herein is only valid if this Agreement is executed by Customer and delivered to Doosan by **March 20, 2015** ("Offer Expiration Date"). If Doosan is not in receipt of this Agreement executed by Customer by the Offer Expiration Date, this Agreement, including the offer of the Contract Price, shall have no force and effect.

ACKNOWLEDGEMENT

This Contract, including the Scope of Services attached hereto and each attachment and other document appended hereto and expressly incorporated herein, if any, shall be the binding agreement between the Parties upon the execution hereof by an authorized representative of each of the Parties.

Acknowledged by:

DOOSAN FUEL CELL AMERICA, INC.:

CITY OF NEW HAVEN BOARD OF EDUCATION:

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

STANDARD TERMS & CONDITIONS

INVOICING SCHEDULE FOR MAINTENANCE SERVICES

Doosan shall invoice Customer for the year one Annual Services Payment for Maintenance Services promptly after the Effective Date, and for each subsequent annual payment during the Term on the anniversary of the Effective Date. Customer shall pay Doosan, in addition to the Annual Services Payment, any and all taxes (except for income taxes), fees or added expenses resulting from new legislation, customs, duties or other charges which may be imposed by any government authority arising from the performance of the Maintenance Services, or otherwise under this Contract, and for which Doosan may be held responsible for collection or payment, either on its own behalf or that of Customer.

Is Customer a tax-exempt entity? Yes or No

If Yes, Customer must provide Certificate of Tax-Exemption.

INVOICING:

Invoices to the Customer shall be addressed as follows and invoices shall be deemed received on the date transmitted electronically by Doosan or, if sent by US Postal Service, three (3) business days after mailing:

City of New Haven
Board of Education
54 Meadow Street
New Haven, CT 06510
Attention: Purchasing and Contracts Officer

PAYMENT TERMS:

All payments made to Doosan shall be made in U.S. dollar funds by wire transfer of immediately available funds or by check in the required remittance amount without discount to a U.S. bank designated by Doosan for credit to Doosan's account. If payment is made by check Customer shall send the check to:

Regular/Overnight Mail

Doosan Fuel Cell America, Inc.
195 Governors Highway
South Windsor, CT 06074

If the payment is made by wire transfer, Customer shall transfer funds to Doosan's account at:

Bank of America Merrill Lynch
100 West 33rd Street,
New York, NY 10001
Account Name: Doosan Fuel Cell America, Inc.
Account Number: 1291844069
Routing/Transit for Wires: 026009593
SWIFT: BOFAUS3N

Payment terms are net thirty (30) days of invoice date and each payment will accrue interest from the date it is due until the date it is received by Doosan, at a rate of 1.5% per month. In no event shall this interest be deemed to be a penalty but shall be solely construed as an administrative charge to Doosan arising out of Customer's late payment. Customer shall reimburse Doosan for any expenses, including reasonable attorneys' fees, incurred in collecting any overdue payments, and in no event shall the payment hereunder exceed any applicable federal or state usury laws. Doosan shall submit invoices for payment to Customer at the address indicated under the section herein entitled NOTICES, if any, or as otherwise directed in writing by Customer.

Doosan reserves the right to discontinue the Services at any time when payments are overdue, until all payments due to Doosan shall have been made, pursuant to the terms herein. Nothing shall serve to void or reduce Doosan's entitlement to payment for Services properly performed. Further, if at any time upon reasonable evidence Doosan is insecure with respect to Customer's ability to perform Customer's obligations hereunder, Doosan may give notice to Customer to provide timely and reasonable further assurance of Customer's ability to perform. If assurances satisfactory to Doosan are not forthcoming promptly, Doosan reserves the right at Doosan's option to discontinue the Services or to terminate this Contract. Doosan shall be entitled to payment from Customer of Doosan's

reasonable legal expenses, including actual attorneys' fees, incurred in collecting any payment hereunder.

SERVICES AND MATERIALS:

Maintenance Services and Replacement Parts

Doosan shall perform and execute the provisions of this Contract as an independent contractor and shall not be an agent or employee of Customer. Doosan may provide any or all of the Maintenance Services required under this Contract through a Doosan-authorized service provider, in which case Doosan shall be responsible and liable for all aspects of the performance of such Maintenance Services by such third-party service provider. Following maintenance specified in this Contract, Doosan will return the Equipment to approximately the level of performance of the Equipment had immediately prior to the shutdown. Unless otherwise agreed as provided herein, the Maintenance Services will be performed during the regular working hours of the regular working days of Doosan or, if applicable, its subcontractors. Any Maintenance Services shall not be performed at times or during days when workers are entitled to overtime or premium rates unless Customer shall first have been advised of such situation, the applicable rates and approved such work and then such Maintenance Services will be performed at the particular workers' then applicable amount or rate of payment for work at such time or days. Customer agrees to reimburse Doosan for any and all costs associated with such work done at overtime or premium rates approved by the Customer.

Any parts provided under this Contract will be new parts manufactured or selected by Doosan or parts reconditioned to Doosan standards. All replacement parts will be provided by Doosan in exchange for the parts replaced. If any part delivered hereunder incorporates computer software, the parties agree that Doosan is not selling the software to the Customer but merely providing a license to use such software for operating the Equipment for which such part was provided. By accepting delivery of such part the Customer agrees not to copy or let others copy such software, to keep such software in confidence, to use such software solely for its internal purposes in connection with the operation of the Equipment covered under this Contract, and not to transfer possession of such part to others except as part of a transfer of ownership of the Equipment, in which case the license to use such software shall be automatically assigned to the transferee of the Equipment.

EXCLUSIONS FOR MAINTENANCE SERVICES

Doosan shall be responsible for only those items and effort expressly set forth in this Contract (including the Scope of Services). Doosan shall not be responsible for items not typically subject to mechanical maintenance including but not limited to; duct work, casings, cabinets, fixtures, structural supports, grillage, water piping, steam piping, drain piping, cooling tower fill, boiler tubes, boiler refractory, disconnect switches and circuit breakers. Doosan shall not be responsible for repairs, replacements, alterations, additions, adjustments, unscheduled calls or emergency calls, any of which is caused by (a) negligent operation, (b) failure to operate in accordance with the recommendations set forth in any manuals provided by Doosan, (c) operation in excess of the specifications set forth in any manuals provided by Doosan, but excluding the negligence, acts or omissions of Doosan or its agents, (d) repairs performed by non-Doosan authorized personnel, (e) vandalism, building system design, or (f) any damage caused by the environment in which the Equipment is situated, including damage due to freezing, weather, the environment, chemical/electrochemical attack, heat source or consistent lack of heat from heat source, contaminated heat source, effects of corrosive and/or erosive environments or fuels, other corrosion or erosion, condenser, evaporator or compressor fouling, power quality disturbances, or the presence of mold, fungi, mildew or bacteria, or any other cause beyond Doosan's control. Doosan shall not be responsible for the identification, detection, abatement, encapsulating or removal of asbestos, products or materials containing asbestos, other hazardous substances, mold, fungi, mildew, or bacteria. In the event that Doosan encounters any asbestos product or any hazardous material in the course of performing its work, Doosan may suspend its work and remove its employees from the project, until such product or material, and any hazards connected with it are abated. Doosan shall receive an extension of time to complete its work and compensation for delays encountered as a result of such situation and its correction. Doosan shall not be required to perform maintenance services or make modifications that may be recommended or directed by insurance companies, government, state, municipal or other authority. However, in the event any such recommendations occur, Doosan, at its option, may submit a proposal for Customer's consideration in addition to this Contract.

CHANGES OR EXTRAS TO MAINTENANCE SERVICES

Doosan will perform changes, modifications, additions, deletions or extras to the Maintenance Services if agreed to in a Change Order that contains the new scope of services and an adjustment to the Annual Services Price. Services or parts requested by the Customer in addition to those Maintenance Services specified in this Contract will be provided upon receipt of the Customer's written authorization and invoiced at Doosan's prevailing labor rates and parts charges. Such additional services or parts shall be supplied under the terms of this Contract.

WARRANTIES

Maintenance Services and Replacement Parts

Doosan warrants that all Maintenance Services provided under this Contract shall be performed to industry standards, in a workmanlike manner and in accordance with all applicable Federal and State laws. Doosan also warrants all Doosan parts or components supplied hereunder to be free from defects in material and workmanship. Doosan parts and components used in connection with the Maintenance Warranty shall be warranted for the longer of the remaining original equipment warranty provided by Doosan and ninety (90) days from installation. Except as expressly provided elsewhere in this Contract, the Maintenance Services provided under this Contract shall be warranted for ninety (90) days from completion of such Maintenance Services. Doosan shall at its option repair or replace any such defective parts, components or service, except to the extent they were damaged, abused, altered by a third-party or affected by chemical properties (except to the extent that exposure to such chemical properties is expected to be reasonably present under normal operating conditions) subject to the exclusions set forth in the section entitled EXCLUSIONS FOR MAINTENANCE SERVICES. Following maintenance specified in this Contract, Doosan will return the Equipment to approximately the level of performance the Equipment had immediately prior to the shutdown. Any warranty claim must be provided to Doosan in writing prior to the end of the applicable warranty period. Doosan's obligation to re-perform services or to repair/replace any defective parts in connection with the Maintenance Services shall be Customer's exclusive remedy under this warranty.

THE WARRANTIES LIST ABOVE ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY; INCLUDING, BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, OR WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE, ALL OF WHICH ARE HEREBY WAIVED BY CUSTOMER AND DISCLAIMED BY DOOSAN.

CUSTOMER'S RESPONSIBILITIES

Maintenance Services and Replacement Parts

Unless specifically provided otherwise in the Scope of Services attached hereto, Customer shall:

- Pay the Contract Price and other sums required to be paid by it to Doosan in accordance with this Contract;
- Provide Doosan's and its subcontractors' workers safe access to the Site and a safe place for performing the Maintenance Services, in conformance with all applicable laws, free of Hazardous Materials (as defined in and in accordance with the section entitled HAZARDOUS MATERIALS below), and all unsafe working conditions;
- Provide Doosan with reasonable access to the Site during Doosan's normal working hours in each case to the extent necessary to perform Doosan's obligations hereunder. Doosan may request start and stop of Customer's systems incidental to the Maintenance Services to the extent necessary for the performance of Maintenance Services, and Customer understands that failure to provide such start and stop may delay such Maintenance Services. Customer shall permit the reasonable use of building services including, but not limited to: water, elevators, receiving dock facilities, electrical service and local telephone service;
- Provide adequate water treatment (applicable to absorption chiller equipment only, if any);
- Provide onsite storage of all required nitrogen and water treatment media in a safe and accessible environment for Doosan and its subcontractors;
- Provide and maintain a dedicated Broadband/DSL connection with static IP (or other continuous connection approved by Doosan) for Doosan's remote monitoring service;
- Keep areas adjacent to the Equipment free of extraneous material, move any stock, fixtures, walls or partitions that may be necessary to perform the Maintenance Services and provide reasonable protection of the Equipment and other materials from debris and other hazards and materials at the Site;
- Be responsible for identification, detection, abatement, encapsulating or removal of asbestos, products or materials containing asbestos, other hazardous materials, mold, fungi, mildew, or bacteria and provide Doosan with all information requested in order to comply with OSHA and other applicable Employee, Health and Safety rules and regulations, including but not limited to information relating to the energy-control procedures applicable at the Project Location under 29 CFR 1910.147, (The control of hazardous energy (lockout/tagout));

- Customer shall monitor the System on a daily basis. It is estimated that the monitoring services will typically require no more than a daily visual “walk by” inspection from Customer’s personnel. Customer’s personnel responsible for the monitoring services shall be capable of performing the duties to which they are assigned and shall perform their duties with reasonable care and operate the Equipment in accordance with Owner’s Manual instructions;
- Customer shall promptly notify Doosan’s Control Center of any unusual operating conditions at the Site at phone number (860)727-2847;
- Customer shall comply with all customer obligations as defined in Doosan’s Product Data and Applications Guide, Owner’s Manual and Installation Manual;
- Indemnify, defend and save Doosan harmless against all liability arising out of Customer’s failure to carry out any of Customer’s Responsibilities regarding Maintenance Services and Replacement Parts.

EQUIPMENT CONDITION AND RECOMMENDED MAINTENANCE SERVICES

Should Doosan determine the need for repairs or replacement outside the scope of Doosan’s obligations under this Contract, Doosan will provide Customer in writing a “Field Service Report” including recommendations for corrections and the price for repairs in addition to this Contract. In such event where Doosan recommends certain services and Customer does not elect to have such services properly performed in a timely fashion, Doosan shall not be responsible for any Equipment or control failures, operability or any long-term damage that may result from such failure to have such services performed.

HAZARDOUS MATERIAL

Hazardous Material is any substance or material identified now or in the future as hazardous under any federal, state or local law or regulation, or any substance or material which may be considered hazardous or otherwise subject to statutory or regulatory requirements governing handling, disposal and/or clean up. If Doosan becomes aware of the presence of Hazardous Materials on the Site (a “Hazardous Materials Condition”), then Doosan shall notify Customer. Doosan shall not be obligated to commence or continue Maintenance Services until all known or suspected Hazardous Material related to such Hazardous Materials Condition discovered at the Site has been removed, or rendered or determined to be harmless by Customer as certified by an independent testing laboratory and approved by the appropriate government agency. If Doosan incurs additional costs and/or is delayed due to the presence or remediation of a Hazardous Materials Condition not caused by Doosan or its subcontractors, Doosan shall be entitled to an equitable adjustment in the prices set forth herein and/or date of substantial completion for the Maintenance Services. Customer shall indemnify, defend and hold harmless Doosan and its agents, directors, officers, servants, employees and subsidiaries (collectively “Doosan Indemnities”) from and against all claims, damages, losses and expenses, and reasonable attorneys’ fees and expenses, arising out of, resulting from, relating to or in any way attributable to any Hazardous Material that is now, has ever been, or will ever be at the Site (other than any Hazardous Material that has been brought to the Site by Doosan or its subcontractors or suppliers in connection with the Maintenance Services).

Material Safety Data Sheets (MSDS) as required by law and pertaining to materials or substances used or consumed in the performance of the Work shall be maintained at the Site by Doosan and made available to Customer.

INSURANCE

Doosan agrees to maintain the following insurance during the term of the Agreement with the following limits: (a) Comprehensive General Liability Insurance covering bodily injury and property damage with a limit of \$2,500,000 per occurrence and \$5,000,000 general aggregate, (b) Statutory Workers' Compensation and Employer's Liability Insurance for a limit of \$1,000,000 each accident, \$1,000,000 each employee –disease, \$1,000,000 policy aggregate-disease. (c) Automobile Liability covering bodily injury and property damage with a combined single limit of \$1,000,000 per occurrence. Doosan shall provide a certificate of insurance upon execution of this Agreement.

FORCE MAJEURE

Under no circumstances shall either Party be liable for any loss, damage or delay due to any cause beyond such Party’s reasonable control, including but not limited to acts or omissions of government, delays in receipt or export or import licenses or permits, strikes, lockouts, labor disputes, transportation shortages, fire, explosion, theft, weather damage, flood, earthquake, riot, severe weather, civil commotion, war, terrorism, malicious mischief, or acts of God (“Force Majeure Events”), but only so long as (a) such Force Majeure Events could not have been reasonably anticipated by such Party and cannot be reasonably avoided or circumvented by such Party, (b) such Party promptly notifies the other Party of such Force Majeure Events, and (c) uses diligent efforts to mitigate the effect of such Force Majeure Events. The time for performance of this Contract shall be extended for a period equal to any time lost by reason of such

delay. Doosan shall not be obligated to incur any expenses in connection with such delay to recover any lost time, unless so directed in writing by Customer and Customer hereby agrees to pay Doosan for all such expenses.

CUSTOMER'S CLAIMS

No claim of Customer related to an alleged failure by Doosan to meet any requirement of this Contract shall be valid unless, prior to Customer incurring any cost related to such claim, Customer notifies Doosan in writing, in detail of such alleged failure and Customer then allows Doosan a reasonable time to correct any such failure verified by Doosan. Any suits arising from the performance or nonperformance of Doosan, whether based upon contract, negligence, strict liability or otherwise, shall be brought within one (1) year from the date the claim arose.

LIMITATION OF LIABILITY

The price allocable in this Contract to any Maintenance Services alleged to be the cause of any loss or damage shall be the ceiling limit on the aggregate liability of Doosan, whether founded in contract or tort (including negligence), arising out of, or resulting from this Contract or the performance or breach thereof. Under no circumstances shall Doosan be liable for any special, incidental, indirect or consequential damages of any nature whatsoever, including without limitation, business interruption, lost profits, revenues or sales, or increased costs of production, whether such claims are based in contract, warranty or tort, including negligence, or any other legal theory or principle.

WASTE DISPOSAL

Customer is wholly responsible for the removal and proper disposal of waste generated in connection with the installation, operation or decommissioning of the Equipment, or generated during the Term of this Contract.

ASSIGNMENT

Neither Party may assign any of its rights or obligations under this Contract, except as otherwise expressly provided herein or with the written consent of the other Party, and any assignment made without such consent shall be null and void; provided, however, Doosan may, upon written notice to Customer, assign Doosan's rights and obligations without such consent, to an entity which acquires all or substantially all of Doosan's assets or which controls, is controlled by or is under common control with Doosan.

TERMINATION

In the event of a material breach by either Party in the performance of the breaching party's duties, obligations or undertakings to the non-breaching party under this Contract, the non-breaching party will have the right to terminate the Maintenance Services under this Contract by giving written notice to the breaching party of the specific breach involved; provided that the breaching party shall have thirty (30) days to cure such breach prior to such termination taking effect. Upon termination taking effect, Doosan shall be entitled to receive payments for any Maintenance Services performed in accordance with the terms of this Contract, for all costs incurred prior to such termination, and for all costs related to termination and settlement with its subcontractors and suppliers.

NO WAIVER; SEVERABILITY; HEADINGS; CONFIDENTIALITY OF BUSINESS TERMS

The failure of either party to insist on any right, or to invoke or elect any remedy, shall not be construed as a waiver of that right, remedy or election in the absence of a writing signed by the waiving party. The invalidity of one or more of the phrases, sentences, clauses, or sections contained in this Contract shall not affect the validity of the remaining portions. Section headings in this Contract are for reference purposes only and shall not affect in any way the meaning or interpretation of this Contract. The business terms of this Contract for the Maintenance Services, specifically including but not limited to pricing, shall be held in confidence by Customer. Customer shall refrain from disclosing any such Maintenance Services business terms included within this Contract to any third party.

ENTIRE AGREEMENT

This Contract, including all other documents attached hereto and expressly made a part hereof, and all changes or amendments hereto shall constitute the entire agreement between the Parties with respect to the matters set forth herein, with all prior proposals, representations, quotations, agreements and understandings, written or oral, superseded hereby. It is agreed that the Parties do not intend to create a right in any third party with respect to the section of the Contract entitled LIMITATION OF LIABILITY, by entering into this Contract. The terms and conditions of this Contract, including all documents, if any, expressly incorporated herein, and any attachment to this Contract expressly referenced herein, shall exclusively govern the Parties' performance hereunder and any terms or conditions in addition to or different from this Contract, including without limitation any terms or conditions provided in any purchase

order or similar document related to the Maintenance Services which are not expressly incorporated herein, shall have no effect. Unless expressly stated otherwise, the provisions of this Contract shall have precedence over the terms of any other Contract documents, if any exist, and shall govern in the event of any inconsistency with the terms included in any attachments, including appendices and schedules, that are made a part of this Contract. This Contract shall not be changed or amended, except in a writing signed by the Parties hereto.

COMPLIANCE WITH LAWS; EXPORT CONTROL; GOVERNING LAW

Doosan and Customer will each comply with all federal and state laws applicable to the performance of their respective obligations hereunder. The Parties shall also comply with all U.S. and other export control laws and regulations associated with or arising from the sale, delivery, or subsequent use of equipment, data and documentation, including, without limitation, restrictions on the re-export of equipment, data and documentation. The rights of all parties under this Contract and the construction and effect of every provision hereof shall be subject to and construed according to the laws of the State of Connecticut, including the Uniform Commercial Code, and of the United States of America, excluding the United Nations Convention on the International Sale of Goods.

SUBCONTRACTORS

Doosan shall bind every subcontractor to, and shall require every subcontractor to be bound by, the terms of this Contract as far as applicable to the subcontractor's portion of the Maintenance Services. Doosan agrees to pay each subcontractor, upon payment by Customer, the amount allowed to Doosan on account of such subcontractor's portion of the Maintenance Services. Unless Customer approves or requests work or materials without the approval of Doosan, Customer shall not be liable to make any payment for the Maintenance Services directly to any subcontractor.

CONFIDENTIALITY

- A) **Terms of the Contract.** Neither Party shall disclose the terms of this Contract to a third party (other than such Party's and its affiliates' employees, lenders, counsel, accountants or consultants) except in order to comply with any applicable law, order, regulation or rule; provided, however, that each Party shall give prior notice to the other Party of any proceeding of which it is aware that may result in such disclosure and the Party subject to such proceeding shall use reasonable efforts to prevent or limit the disclosure; and further provided that (i) each Party is deemed to have consented to such disclosure of the terms of this Contract as is necessary to comply with applicable regulatory reporting and filing requirements and (ii) the Party that is subject to such requirements shall give prior notice to the other Party of such disclosure.
- B) **Confidential Information.** Each Party shall hold in confidence and shall not directly or indirectly use or disclose to any person or entity, except as permitted herein, either during the term of this Contract or at any time thereafter, any Confidential Information of the other party. "Confidential Information" shall mean information, including a formula, pattern, compilation, program device, method, technique, or process, that: (i) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy. Notwithstanding the foregoing, however, "Confidential Information" does not include information that: (i) is or becomes generally available to the public through no wrongful act of the recipient of such information or its representatives; or (ii) was developed independently by the recipient prior to it being provided to the recipient and without the utilization of any Confidential Information therefrom; or (iii) is or becomes available to the recipient on a non-confidential basis from a source other than the other Party or its representatives; provided that such source is not known by the recipient to be subject to any other confidentiality obligation to the other Party. Each Party shall use the other Party's Confidential Information only for the purpose carrying out its obligations under this Contract, and for no other purpose whatsoever. Each Party shall limit the use and circulation of the Confidential Information to its representatives having an actual and legitimate need to know and only to the extent reasonably necessary to assist such Party in its use of the Confidential Information as permitted herein, and who are informed of the confidential nature of the Confidential Information and are required to keep it confidential in accordance with this Section.
- C) **Remedies.** The Parties shall be entitled to all remedies available at law or in equity to enforce, or seek relief in connection with, this confidentiality obligation, including the right to obtain injunctive relief (without the necessity of posting a bond or proving any damages); provided, however, that all monetary damages shall be limited to actual direct damages (subject to the limitation on monetary damages in the section titled LIMITATION OF LIABILITY) and a breach of Subsection (A) above shall not give rise to the right to suspend or terminate the Contract.

APPENDIX A: SCOPE OF SERVICES

SERVICE PLAN: COMPREHENSIVE

This Service Plan includes Preventive Maintenance as well as Unscheduled Maintenance, as more specifically described below.

PREVENTIVE MAINTENANCE:

• **REMOTE MONITORING/TECHNICAL SUPPORT**

Doosan shall remotely monitor key performance parameters of each PureCell® System Model 400 Power Plant covered by this Agreement. Performance data which includes kilowatt hours, operational hours and availability, will be recorded and made available to Customer upon Customer’s written request. The Customer will be advised of events that Doosan determines require service action after such events are recorded.

Doosan’s Control Center shall provide the Customer with 24/7 off-site operational and technical support associated with Power Plant operation, including troubleshooting of operational issues, providing technical information related to the operation of the Power Plant, and performing remote diagnostics. Doosan’s Customer support personnel shall be available by telephone at all times at (860) 727-2847 and shall address email requests received from the Customer during Doosan's regular business hours.

• **MANUALS**

DOOSAN shall provide the Customer with all updates to the PureCell® System Model 400 Owner's Manual and Customer advisory information as needed.

• **PREVENTIVE MAINTENANCE ACTIVITIES**

Doosan shall be responsible for performing "Preventive Maintenance" of the Power Plant. Preventive Maintenance activities are per the Owner's Manual, as revised at Doosan’s discretion. The current Preventive Maintenance activities are listed in the Preventive Maintenance Schedule attached hereto. All Preventive Maintenance performed under this Agreement will be performed during regular weekday work hours. If the Customer requests overtime or weekend service, the Customer agrees to pay extra for the overtime-premium hours at Doosan’s overtime billing rates. There will be no charge for the straight time portion. Customer will reimburse Doosan for any rigging, hoisting and related services and equipment necessary to perform Preventive Maintenance. The Owner acknowledges that, upon mutual agreement as to a timely schedule, Doosan will be permitted to shut-down the Power Plant(s) in connection with Preventive Maintenance performed under this Agreement.

UNSCHEDULED MAINTENANCE:

- "Unscheduled Maintenance" is the repair or replacement of parts of the Power Plant or the Cooling Module (and the associated labor) required to return the Power Plant to a condition capable of Commercial Operation in the event of an unscheduled shutdown. This Agreement covers Unscheduled Maintenance, subject to the terms and conditions herein.
- "Unscheduled Maintenance" specifically excludes repair or replacement of any equipment (and the associated labor) other than the parts of the Power Plant and the Cooling Module as set forth in the Bill of Material attached to the Agreement as Appendix B.

UNSCHEDULED MAINTENANCE UNDER THIS AGREEMENT **INCLUDES** ANY COMPONENT OF THE POWER PLANT OR THE COOLING MODULE, INCLUDING BUT NOT LIMITED TO, THE CELL STACK ASSEMBLY AND THE FUEL PROCESSING SYSTEM (WHICH INCLUDES THE REFORMER AND THE INTEGRATED LOWTEMPERATURE SHIFT CONVERTER).

PureCell Model 400 Standard 6 Year Maintenance Schedule

Years 1-6

Maintenance Procedure	Maintenance Trigger	Estimated Frequency	Year 1	2	3	4	5	6
Enclosure Air Filter Replacement	Condition Based	Quarterly	R3	R3	R3	R3	R1	R3
Cathode Air Filter Replacement	Condition Based	Quarterly	R3	R3	R3	R3	R1	R3
Burner Air Filter Replacement	Condition Based	6 Months	R6	R6	R6	R6	R6	R6
Water Treatment	Condition	9 Months	R9	R9	R9	R9	R9	R9

System Bottle Replacement	Based							
Combustibility Sensor Calibration (While Fuel Cell is Shut Down)	Condition Based	Annual	Ca	Ca	Ca	Ca	Ca	Ca
Water Conductivity Sensor Calibration (While Fuel Cell is Down)	Condition Based	Annual	Ca	Ca	Ca	Ca	Ca	Ca
Ancillary Coolant System Fluid Evaluation & Pressure Check	Condition Based	Annual	I	I	I	I	I	I
Cell Stack Assembly Substack Voltage Measurement	Condition Based	Annual	I	I	I	I	I	I
Cooling Module Cleaning	Condition Based	Annual	Cl	Cl	Cl	Cl	Cl	Cl
Thermal Management System Orifice Adjustment	Condition Based	Annual	Ca	Ca	Ca	Ca	Ca	Ca
Inverter Cooling Fan Cleaning	Condition Based	Annual	Cl	Cl	Cl	Cl	Cl	Cl
Water Quality Evaluation	Condition Based	Annual	I	I	I	I	I	I
Thermal Management System Filter Cleaning	Condition Based	Annual	Cl	Cl	Cl	Cl	Cl	Cl
Pressure Relief Valve Replacement	Condition Based	5 Years		R				
Fuel Processing System Gas Analysis	Condition Based	5 Years		I				

For all maintenance items, an alarm will be sent from fuel cell to indicate maintenance is needed

Legend:

- Ca=Calibrate
- Cl=Cleaning
- I = inspect
- R=Replace
- R3 = Replace every 3 months
- R6 = Replace every 6 months
- R9 = Replace every 9 months

APPENDIX B: DESCRIPTION OF EQUIPMENT

PureCell® Model 400 Equipment	Part #	QNTY
PureCell® Model 400, Natural Gas, 480V/60Hz	FC71640- 0001	1

APPENDIX C: PERFORMANCE GUARANTEES

Output Guarantee

Provided Owner makes payments as required under the Term of this Services Subcontract (the “Agreement”) for the service of the PureCell® System Model 400 (each, a “Power Plant” and collectively, the “System”), Doosan separately guarantees for the System, the capability to deliver an average power output (“Guaranteed Minimum Output” or “GMO”) in accordance with the following table.

Annual Period	1	2	3	4	5	6
GMO (MWh)	3154	3154	3154	3154	3154	3154

Should the output of the Power Plant in any twelve month period commencing on the Effective Date and each subsequent twelve month period(s) thereafter (the “Annual Period”) during the term of the Agreement be less than the GMO, Doosan agrees to provide the Owner a cash rebate equal to 1% of the Monthly Services Payments paid during the Annual Period for each 1% of shortfall from the GMO. The dollar amount of any cash rebates due to the Owner shall be calculated once at the end of each Annual Period and paid to Owner within thirty (30) days of Doosan’s confirmation of the amount due. Notwithstanding anything herein to the contrary, the maximum allowable credit under this section for any Annual Period shall not exceed the Monthly Services Payments actually received by Doosan for the corresponding Annual Period. In the event that the building load demand falls below 400kW and the Power Plant is capable of providing 400kW to Owner’s site, the output shall be calculated as if the Power Plant was operating at full capacity for the purposes of this guarantee.

Should the actual output of the Power Plant in an Annual Period be greater than GMO, the number of MWh of Output above the GMO shall be credited to Doosan (referred to herein as the “Performance Bank”). Doosan will have the right to apply any then current Performance Bank to offset a shortfall in the GMO in any Annual Period for the System.

Because technical expertise is critical in meeting the GMO above, this Guarantee is conditioned upon maintenance, service and repairs to the System being provided exclusively by Doosan (directly or through a Doosan authorized service provider) in accordance with Doosan’s maintenance services, statement of work and terms and conditions as described in the Agreement. In the event that the Agreement is terminated, the Guarantee shall terminate and be of no further force or effect. Owner or Owner’s Customer must provide and maintain a dedicated Broadband/DSL connection with static IP (or other continuous connection approved by Doosan) for Doosan’s monitoring system in order to enforce this Guarantee. The first Annual Period under this Guarantee shall commence upon the Effective Date.

Doosan will not be responsible for any periods during which the System is not operating due to (a) site issues not related to the System, including but not limited to issues related to electrical load or building system design or malfunction; (b) System or Power Plant issues arising from improper installation (if not installed by Doosan) or operation, abuse, neglect, vandalism, weather, rust, the effects of corrosive and/or erosive environments or fuels, inadequate or incorrect fuel supply, quality or pressure, operation of the System outside the operating specifications defined by Doosan in the applicable operation and maintenance manual, or modifications, materials or services not executed or provided by Doosan or a Doosan authorized service provider; (c) Power Plant Downtime during periods when the monitoring system is not functioning due to the failure to maintain a dedicated Broadband/DSL connection with static IP (or other continuous connection approved by Doosan); (d) Owner or Owner’s Customer-elected shutdowns of the Power Plant or the System; (e) Owner or Owner’s Customer deviation from an approved Grid-Independent Load Profile; or (f) any other cause beyond Doosan’s direct control. Any such periods shall not be included in the calculation of output for the purposes of this Guarantee.

This Output Guarantee, the remedies expressly provided herein (i) are exclusive and in lieu of all other uptime, availability or performance warranties or guarantees of any kind, whether statutory, written, oral, express or implied, and (ii) are Owner’s sole and exclusive remedy and Doosan’s sole and exclusive obligation with respect to uptime, availability or performance of the System. Doosan shall not be responsible under any warranty, guarantee or other obligation for rebates, credits, repairs, replacements or indemnification due to abuse, vandalism, acts of terrorism or war, fire, lightning, earthquake, flood, storm, or other acts of God, neglect, modifications, materials or services not executed or provided by Doosan or its subcontractors, employees or agents, use in a physical environment other than the site proposed in this Agreement, or installation or use of the System not in accordance with the intended use of the System. No rights under this Guarantee shall be assignable or transferable to any third-party, except on the written consent of Doosan.

The warranties and guarantee provided by Doosan Fuel Cell America, Inc. herein, including but not limited to the output guarantee, shall be null and void and of no force and effect if customer fails to perform or is otherwise found by Doosan Fuel Cell America, Inc. to be negligent in its performance of any of the customer responsibilities as described in the Service Plan section of this document and such non-performance or negligence caused or contributed to the defect or output failure.

Under no circumstances shall Doosan be liable for any special, incidental, indirect or consequential damages of any nature whatsoever, including without limitation, business interruption, lost profits, revenues or sales, or increased costs of production, whether such claims are based in contract, warranty or tort, including negligence, or any other legal theory or principle.

SERIVCES CONTRACT

Amendment No. 1

This Amendment No. 1 (the "Amendment") amends that certain Services Contract executed on or about May 13, 2015 with an Effective Date of April 2015 (the "Contract") by and between The City of New Haven Board of Education ("Customer") having an address of 54 Meadow Street, Room 301, New Haven, CT 06510, and Doosan Fuel Cell America Inc., a Delaware corporation ("Doosan") with an address of 101 East River Drive, 7th Floor, East Hartford, CT 06108 (individually a "Party" and collectively the "Parties"), and is effective April 30, 2020 (the "Amendment Effective Date").

RECITALS

WHEREAS, the Parties made and entered into the Contract, and the Parties wish to extend the Term of the Contract for one more year;

WHEREAS, the Parties wish to amend certain sections of the Contract in order to clarify their agreement.

NOW, THEREFORE, in consideration of the mutual promises set forth herein and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereby agree as follows:

1. One more year is added to the Renewal Term so that the Term of the Contract ends on April 30, 2021. The Annual Services Payment, including the Renewal Price, for this additional year is \$162,532. Payment of such Annual Services Payment by Customer is due to Doosan within thirty (30) days of the invoice date. Doosan is not responsible for providing any Maintenance Services to Customer until Doosan receives the Annual Services Payment in full.
2. This Amendment serves as notice from Customer to Doosan that Customer wishes to exercise its option to renew the Contract for this additional year.
3. All yearly obligations, including the Maintenance Schedule in Appendix A and Output Guarantee table in Appendix C, shall be extended for a sixth year.
4. Except as modified above, the Contract remains unchanged and are in full force and effect.
5. Notwithstanding any other provision herein and without prejudice, executing this Amendment or contents herein shall not be construed as Doosan's waiver of any of its rights to pursue claims (including damages) under the Contract and/or any amendment thereto.

IN WITNESS WHEREOF, evidenced only by signatures below, the Parties have caused this Amendment No. 1 to be executed by their duly authorized representatives as of the Amendment Effective Date.

DOOSAN FUEL CELL AMERICA, INC.

**THE CITY OF NEW HAVEN
BOARD OF EDUCATION**

By:  _____

By: _____

Name: MARK VAGAN _____

Name: _____

Title: DIRECTOR - SERVICE & INSTALL _____

Title: _____

Energy Conservation Program

Fuel Cell at Clemente/Hill Central Campus



Collaborative Energy Committee

New Haven also coordinates savings and opportunities through the efforts of the Energy Committee. This committee is comprised of representatives from the City of New Haven, NHBOE, Source One and others. The committee meets on a regular basis to discuss energy options regarding gas and electric commodity procurement, Z-Rec and L-Rec pricing and timing as well as other energy related concerns. The results have been years of town wide savings via lower negotiated commodity prices rather than direct from the utility companies and additional revenue through the sale of available Rec's. Collaborative energy purchasing strategy has resulted in \$5M in cost avoidance since 2009.

Fuel Cell

The School Construction & Facilities collaborative project at Clemente/Hill Central included a Fuel Cell Inter-Connection Agreement, providing on-site generation of electricity. United Illuminating has confirmed \$61,926 in annual electrical cost avoidance (using most current 12 months of data). Selling back excess energy RECS will return \$70,000 this fiscal year and the projected savings for next fiscal year is \$150,000. Guaranteed minimum operation (GMO) contract guarantees at least 90% operation. GMO clause paid the district back over \$30K this fiscal year.

New Haven's central utility plant (CUP) generated electricity for three buildings. The City and Board of Education now sell renewable energy credits (REC's) for generating their own energy.

Procurement of Energy

This fiscal year, the energy committee will be negotiating the new commodity rates for the next 2-4 years.



Clemente and Hill Central Schools UI Acct 010-0001136-9187						Cost Avoidance										
date	days	onpeak	onpeakd	offpeak	offpeakd	should	shouldd	kw billed	accumkwh	hrs	amt	unit cost/kwh	kw billed	amt	date	
2/6/2020	30	36300	0	117300	0	0	0	0	153600	720	83.53	0.000543815	277.2	4033.16	1/7/2020	
1/7/2020	30	33000	277.2	87300	154.8	3300	277.2	277.2	123600	446	4033.16	0.032630744	277.2	4033.16	1/7/2020*	
12/8/2019	32	15900	273.6	31200	176.4	9300	280.8	273.6	56400	188	3942.29	0.069898759	273.6	3942.29	12/8/2019	
11/6/2019	29	13200	295.2	27600	151.2	4200	277.2	295.2	45000	158	4210.43	0.093565111	295.2	4210.43	11/6/2019	
10/8/2019	29	24600	334.8	14100	212.4	9900	327.6	334.8	48600	150	5151.74	0.106002881	334.8	5151.74	10/8/2019	
9/9/2019	32	12000	277.2	32700	154.8	18900	194.4	277.2	63600	215	4601.89	0.072356761	277.2	4601.89	9/9/2019	
8/8/2019	30	24000	385.2	53700	342	14700	457.2	385.2	92400	202	6700.69	0.07251829	385.2	6700.69	8/8/2019	
7/9/2019	30	34800	342	71100	316.8	18900	428.4	342	124800	291	6758.47	0.054154407	342	6758.47	7/9/2019	
6/9/2019	32	32400	417.6	98400	237.6	7200	316.8	417.6	138000	310	7707.52	0.055851594	417.6	7707.52	6/9/2019	
5/8/2019	30	37500	360	109500	234	3900	327.6	360	150900	419	5951.53	0.039440225	360	5951.53	5/8/2019	
4/8/2019	29	30900	0	114000	0	0	0	0	144900	720	83.53	0.000576467	471.6	6761.86	5/8/2018*	
3/10/2019	32	36000	0	123000	0	0	0	0	159000	720	-47410.85	0	270	3887.83	4/8/2018*	
											Total With Fuel Cell	\$1,813.93			Total Without Fuel Cell	\$63,740.57
											Total	0.597539054				
											Avg kwh/mo	0.049794921				
											Cost Avoidance		\$61,926.64			
*Dates and usage data used to simulate costs without fuel cell.																
Note: These calculations do not include generation charges from third party supplier.																



REV: MAR 2015

PURECELL® SYSTEM MODEL 400
COMPREHENSIVE SERVICES CONTRACT
FOR
CITY OF NEW HAVEN BOARD OF EDUCATION



Prepared by:

*Doosan Fuel Cell America, Inc.
195 Governor's Highway
South Windsor, CT 06074*

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DOOSAN CONFIDENTIAL

SERVICES CONTRACT

This **SERVICES CONTRACT** (the "Contract") is made and entered into as of March _____, 2015 (the, "Effective Date") by and between **Doosan Fuel Cell America, Inc.**, having an office and place of business at 195 Governor's Highway, South Windsor, Connecticut (hereinafter referred to as "Doosan") and **The City of New Haven Board of Education** having an office and place of business at 54 Meadow Street, Room 301, New Haven, CT 06510 (hereinafter referred to as "Customer"). Customer and Doosan are hereinafter referred to collectively as "Parties".

LOCATION OF SERVICES; THE "SITE" Roberto Clemente School/Hill Central Schools Central Utility Plant, Dewitt Street, New Haven, CT 06510

DESCRIPTION OF THE "EQUIPMENT" One (1) PureCell® Model 400 fuel cell, as more fully described in Appendix B.

THE MAINTENANCE SERVICES AND REPLACEMENT PARTS

Doosan shall perform the maintenance services described in the Scope of Services attached as Appendix A hereto (the "Maintenance Services or "Services"), in accordance with the terms of this Contract and any and all other documents incorporated herein by reference expressly applicable to Maintenance Services.

THE "CONTRACT PRICE" The annual payment for the Maintenance Services in the first year of the Term shall be **\$132,000** (the "Annual Services Payment"); thereafter, an annual escalation of three percent (3%) shall be applied to the Annual Services Payment on the anniversary date of the initial invoice and the total contract price covering the Maintenance Services during the Term shall be **\$853,830** (the "Contract Price"), subject to additions and deductions authorized pursuant to this Contract. The Contract Price payment schedule is as follows:

<u>Year</u>	<u>Annual Services Payment</u>
<u>1</u>	<u>\$132,000</u>
<u>2</u>	<u>\$135,960</u>
<u>3</u>	<u>\$140,039</u>
<u>4</u>	<u>\$144,240</u>
<u>5</u>	<u>\$148,567</u>
<u>6</u>	<u>\$153,024</u> <u>\$162,532</u>

TERM This Agreement shall become effective upon the Effective Date and shall continue for a six (6) year term (the "Term").

NOTICES

Address all notices, which shall be made in the English language, by overnight or certified mail, return receipt requested, to:

DOOSAN:

Doosan Fuel Cell America, Inc.
195 Governor's Highway
South Windsor, CT 06074 U.S.A.
Attention: General Counsel

CUSTOMER:

City of New Haven
Board of Education
54 Meadow Street
New Haven, CT 06510

VALIDITY The Contract Price offered herein is only valid if this Agreement is executed by Customer and delivered to Doosan by **March 20, 2015** ("Offer Expiration Date"). If Doosan is not in receipt of this Agreement executed by Customer by the Offer Expiration Date, this Agreement, including the offer of the Contract Price, shall have no force and effect.

ACKNOWLEDGEMENT

This Contract, including the Scope of Services attached hereto and each attachment and other document appended hereto and expressly incorporated herein, if any, shall be the binding agreement between the Parties upon the execution hereof by an authorized representative of each of the Parties.

Acknowledged by:

DOOSAN FUEL CELL AMERICA, INC.:

CITY OF NEW HAVEN BOARD OF EDUCATION:

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

STANDARD TERMS & CONDITIONS

INVOICING SCHEDULE FOR MAINTENANCE SERVICES

Doosan shall invoice Customer for the year one Annual Services Payment for Maintenance Services promptly after the Effective Date, and for each subsequent annual payment during the Term on the anniversary of the Effective Date. Customer shall pay Doosan, in addition to the Annual Services Payment, any and all taxes (except for income taxes), fees or added expenses resulting from new legislation, customs, duties or other charges which may be imposed by any government authority arising from the performance of the Maintenance Services, or otherwise under this Contract, and for which Doosan may be held responsible for collection or payment, either on its own behalf or that of Customer.

Is Customer a tax-exempt entity? Yes or No

If Yes, Customer must provide Certificate of Tax-Exemption.

INVOICING:

Invoices to the Customer shall be addressed as follows and invoices shall be deemed received on the date transmitted electronically by Doosan or, if sent by US Postal Service, three (3) business days after mailing:

City of New Haven
Board of Education
54 Meadow Street
New Haven, CT 06510
Attention: Purchasing and Contracts Officer

PAYMENT TERMS:

All payments made to Doosan shall be made in U.S. dollar funds by wire transfer of immediately available funds or by check in the required remittance amount without discount to a U.S. bank designated by Doosan for credit to Doosan's account. If payment is made by check Customer shall send the check to:

Regular/Overnight Mail

Doosan Fuel Cell America, Inc.
195 Governors Highway
South Windsor, CT 06074

If the payment is made by wire transfer, Customer shall transfer funds to Doosan's account at:

Bank of America Merrill Lynch
100 West 33rd Street,
New York, NY 10001
Account Name: Doosan Fuel Cell America, Inc.
Account Number: 1291844069
Routing/Transit for Wires: 026009593
SWIFT: BOFAUS3N

Payment terms are net thirty (30) days of invoice date and each payment will accrue interest from the date it is due until the date it is received by Doosan, at a rate of 1.5% per month. In no event shall this interest be deemed to be a penalty but shall be solely construed as an administrative charge to Doosan arising out of Customer's late payment. Customer shall reimburse Doosan for any expenses, including reasonable attorneys' fees, incurred in collecting any overdue payments, and in no event shall the payment hereunder exceed any applicable federal or state usury laws. Doosan shall submit invoices for payment to Customer at the address indicated under the section herein entitled NOTICES, if any, or as otherwise directed in writing by Customer.

Doosan reserves the right to discontinue the Services at any time when payments are overdue, until all payments due to Doosan shall have been made, pursuant to the terms herein. Nothing shall serve to void or reduce Doosan's entitlement to payment for Services properly performed. Further, if at any time upon reasonable evidence Doosan is insecure with respect to Customer's ability to perform Customer's obligations hereunder, Doosan may give notice to Customer to provide timely and reasonable further assurance of Customer's ability to perform. If assurances satisfactory to Doosan are not forthcoming promptly, Doosan reserves the right at Doosan's option to discontinue the Services or to terminate this Contract. Doosan shall be entitled to payment from Customer of Doosan's

reasonable legal expenses, including actual attorneys' fees, incurred in collecting any payment hereunder.

SERVICES AND MATERIALS:

Maintenance Services and Replacement Parts

Doosan shall perform and execute the provisions of this Contract as an independent contractor and shall not be an agent or employee of Customer. Doosan may provide any or all of the Maintenance Services required under this Contract through a Doosan-authorized service provider, in which case Doosan shall be responsible and liable for all aspects of the performance of such Maintenance Services by such third-party service provider. Following maintenance specified in this Contract, Doosan will return the Equipment to approximately the level of performance of the Equipment had immediately prior to the shutdown. Unless otherwise agreed as provided herein, the Maintenance Services will be performed during the regular working hours of the regular working days of Doosan or, if applicable, its subcontractors. Any Maintenance Services shall not be performed at times or during days when workers are entitled to overtime or premium rates unless Customer shall first have been advised of such situation, the applicable rates and approved such work and then such Maintenance Services will be performed at the particular workers' then applicable amount or rate of payment for work at such time or days. Customer agrees to reimburse Doosan for any and all costs associated with such work done at overtime or premium rates approved by the Customer.

Any parts provided under this Contract will be new parts manufactured or selected by Doosan or parts reconditioned to Doosan standards. All replacement parts will be provided by Doosan in exchange for the parts replaced. If any part delivered hereunder incorporates computer software, the parties agree that Doosan is not selling the software to the Customer but merely providing a license to use such software for operating the Equipment for which such part was provided. By accepting delivery of such part the Customer agrees not to copy or let others copy such software, to keep such software in confidence, to use such software solely for its internal purposes in connection with the operation of the Equipment covered under this Contract, and not to transfer possession of such part to others except as part of a transfer of ownership of the Equipment, in which case the license to use such software shall be automatically assigned to the transferee of the Equipment.

EXCLUSIONS FOR MAINTENANCE SERVICES

Doosan shall be responsible for only those items and effort expressly set forth in this Contract (including the Scope of Services). Doosan shall not be responsible for items not typically subject to mechanical maintenance including but not limited to; duct work, casings, cabinets, fixtures, structural supports, grillage, water piping, steam piping, drain piping, cooling tower fill, boiler tubes, boiler refractory, disconnect switches and circuit breakers. Doosan shall not be responsible for repairs, replacements, alterations, additions, adjustments, unscheduled calls or emergency calls, any of which is caused by (a) negligent operation, (b) failure to operate in accordance with the recommendations set forth in any manuals provided by Doosan, (c) operation in excess of the specifications set forth in any manuals provided by Doosan, but excluding the negligence, acts or omissions of Doosan or its agents, (d) repairs performed by non-Doosan authorized personnel, (e) vandalism, building system design, or (f) any damage caused by the environment in which the Equipment is situated, including damage due to freezing, weather, the environment, chemical/electrochemical attack, heat source or consistent lack of heat from heat source, contaminated heat source, effects of corrosive and/or erosive environments or fuels, other corrosion or erosion, condenser, evaporator or compressor fouling, power quality disturbances, or the presence of mold, fungi, mildew or bacteria, or any other cause beyond Doosan's control. Doosan shall not be responsible for the identification, detection, abatement, encapsulating or removal of asbestos, products or materials containing asbestos, other hazardous substances, mold, fungi, mildew, or bacteria. In the event that Doosan encounters any asbestos product or any hazardous material in the course of performing its work, Doosan may suspend its work and remove its employees from the project, until such product or material, and any hazards connected with it are abated. Doosan shall receive an extension of time to complete its work and compensation for delays encountered as a result of such situation and its correction. Doosan shall not be required to perform maintenance services or make modifications that may be recommended or directed by insurance companies, government, state, municipal or other authority. However, in the event any such recommendations occur, Doosan, at its option, may submit a proposal for Customer's consideration in addition to this Contract.

CHANGES OR EXTRAS TO MAINTENANCE SERVICES

Doosan will perform changes, modifications, additions, deletions or extras to the Maintenance Services if agreed to in a Change Order that contains the new scope of services and an adjustment to the Annual Services Price. Services or parts requested by the Customer in addition to those Maintenance Services specified in this Contract will be provided upon receipt of the Customer's written authorization and invoiced at Doosan's prevailing labor rates and parts charges. Such additional services or parts shall be supplied under the terms of this Contract.

WARRANTIES

Maintenance Services and Replacement Parts

Doosan warrants that all Maintenance Services provided under this Contract shall be performed to industry standards, in a workmanlike manner and in accordance with all applicable Federal and State laws. Doosan also warrants all Doosan parts or components supplied hereunder to be free from defects in material and workmanship. Doosan parts and components used in connection with the Maintenance Warranty shall be warranted for the longer of the remaining original equipment warranty provided by Doosan and ninety (90) days from installation. Except as expressly provided elsewhere in this Contract, the Maintenance Services provided under this Contract shall be warranted for ninety (90) days from completion of such Maintenance Services. Doosan shall at its option repair or replace any such defective parts, components or service, except to the extent they were damaged, abused, altered by a third-party or affected by chemical properties (except to the extent that exposure to such chemical properties is expected to be reasonably present under normal operating conditions) subject to the exclusions set forth in the section entitled EXCLUSIONS FOR MAINTENANCE SERVICES. Following maintenance specified in this Contract, Doosan will return the Equipment to approximately the level of performance the Equipment had immediately prior to the shutdown. Any warranty claim must be provided to Doosan in writing prior to the end of the applicable warranty period. Doosan's obligation to re-perform services or to repair/replace any defective parts in connection with the Maintenance Services shall be Customer's exclusive remedy under this warranty.

THE WARRANTIES LIST ABOVE ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY; INCLUDING, BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, OR WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE, ALL OF WHICH ARE HEREBY WAIVED BY CUSTOMER AND DISCLAIMED BY DOOSAN.

CUSTOMER'S RESPONSIBILITIES

Maintenance Services and Replacement Parts

Unless specifically provided otherwise in the Scope of Services attached hereto, Customer shall:

- Pay the Contract Price and other sums required to be paid by it to Doosan in accordance with this Contract;
- Provide Doosan's and its subcontractors' workers safe access to the Site and a safe place for performing the Maintenance Services, in conformance with all applicable laws, free of Hazardous Materials (as defined in and in accordance with the section entitled HAZARDOUS MATERIALS below), and all unsafe working conditions;
- Provide Doosan with reasonable access to the Site during Doosan's normal working hours in each case to the extent necessary to perform Doosan's obligations hereunder. Doosan may request start and stop of Customer's systems incidental to the Maintenance Services to the extent necessary for the performance of Maintenance Services, and Customer understands that failure to provide such start and stop may delay such Maintenance Services. Customer shall permit the reasonable use of building services including, but not limited to: water, elevators, receiving dock facilities, electrical service and local telephone service;
- Provide adequate water treatment (applicable to absorption chiller equipment only, if any);
- Provide onsite storage of all required nitrogen and water treatment media in a safe and accessible environment for Doosan and its subcontractors;
- Provide and maintain a dedicated Broadband/DSL connection with static IP (or other continuous connection approved by Doosan) for Doosan's remote monitoring service;
- Keep areas adjacent to the Equipment free of extraneous material, move any stock, fixtures, walls or partitions that may be necessary to perform the Maintenance Services and provide reasonable protection of the Equipment and other materials from debris and other hazards and materials at the Site;
- Be responsible for identification, detection, abatement, encapsulating or removal of asbestos, products or materials containing asbestos, other hazardous materials, mold, fungi, mildew, or bacteria and provide Doosan with all information requested in order to comply with OSHA and other applicable Employee, Health and Safety rules and regulations, including but not limited to information relating to the energy-control procedures applicable at the Project Location under 29 CFR 1910.147, (The control of hazardous energy (lockout/tagout));

- Customer shall monitor the System on a daily basis. It is estimated that the monitoring services will typically require no more than a daily visual “walk by” inspection from Customer’s personnel. Customer’s personnel responsible for the monitoring services shall be capable of performing the duties to which they are assigned and shall perform their duties with reasonable care and operate the Equipment in accordance with Owner’s Manual instructions;
- Customer shall promptly notify Doosan’s Control Center of any unusual operating conditions at the Site at phone number (860)727-2847;
- Customer shall comply with all customer obligations as defined in Doosan’s Product Data and Applications Guide, Owner’s Manual and Installation Manual;
- Indemnify, defend and save Doosan harmless against all liability arising out of Customer’s failure to carry out any of Customer’s Responsibilities regarding Maintenance Services and Replacement Parts.

EQUIPMENT CONDITION AND RECOMMENDED MAINTENANCE SERVICES

Should Doosan determine the need for repairs or replacement outside the scope of Doosan’s obligations under this Contract, Doosan will provide Customer in writing a “Field Service Report” including recommendations for corrections and the price for repairs in addition to this Contract. In such event where Doosan recommends certain services and Customer does not elect to have such services properly performed in a timely fashion, Doosan shall not be responsible for any Equipment or control failures, operability or any long-term damage that may result from such failure to have such services performed.

HAZARDOUS MATERIAL

Hazardous Material is any substance or material identified now or in the future as hazardous under any federal, state or local law or regulation, or any substance or material which may be considered hazardous or otherwise subject to statutory or regulatory requirements governing handling, disposal and/or clean up. If Doosan becomes aware of the presence of Hazardous Materials on the Site (a “Hazardous Materials Condition”), then Doosan shall notify Customer. Doosan shall not be obligated to commence or continue Maintenance Services until all known or suspected Hazardous Material related to such Hazardous Materials Condition discovered at the Site has been removed, or rendered or determined to be harmless by Customer as certified by an independent testing laboratory and approved by the appropriate government agency. If Doosan incurs additional costs and/or is delayed due to the presence or remediation of a Hazardous Materials Condition not caused by Doosan or its subcontractors, Doosan shall be entitled to an equitable adjustment in the prices set forth herein and/or date of substantial completion for the Maintenance Services. Customer shall indemnify, defend and hold harmless Doosan and its agents, directors, officers, servants, employees and subsidiaries (collectively “Doosan Indemnities”) from and against all claims, damages, losses and expenses, and reasonable attorneys’ fees and expenses, arising out of, resulting from, relating to or in any way attributable to any Hazardous Material that is now, has ever been, or will ever be at the Site (other than any Hazardous Material that has been brought to the Site by Doosan or its subcontractors or suppliers in connection with the Maintenance Services).

Material Safety Data Sheets (MSDS) as required by law and pertaining to materials or substances used or consumed in the performance of the Work shall be maintained at the Site by Doosan and made available to Customer.

INSURANCE

Doosan agrees to maintain the following insurance during the term of the Agreement with the following limits: (a) Comprehensive General Liability Insurance covering bodily injury and property damage with a limit of \$2,500,000 per occurrence and \$5,000,000 general aggregate, (b) Statutory Workers' Compensation and Employer's Liability Insurance for a limit of \$1,000,000 each accident, \$1,000,000 each employee –disease, \$1,000,000 policy aggregate-disease. (c) Automobile Liability covering bodily injury and property damage with a combined single limit of \$1,000,000 per occurrence. Doosan shall provide a certificate of insurance upon execution of this Agreement.

FORCE MAJEURE

Under no circumstances shall either Party be liable for any loss, damage or delay due to any cause beyond such Party’s reasonable control, including but not limited to acts or omissions of government, delays in receipt or export or import licenses or permits, strikes, lockouts, labor disputes, transportation shortages, fire, explosion, theft, weather damage, flood, earthquake, riot, severe weather, civil commotion, war, terrorism, malicious mischief, or acts of God (“Force Majeure Events”), but only so long as (a) such Force Majeure Events could not have been reasonably anticipated by such Party and cannot be reasonably avoided or circumvented by such Party, (b) such Party promptly notifies the other Party of such Force Majeure Events, and (c) uses diligent efforts to mitigate the effect of such Force Majeure Events. The time for performance of this Contract shall be extended for a period equal to any time lost by reason of such

delay. Doosan shall not be obligated to incur any expenses in connection with such delay to recover any lost time, unless so directed in writing by Customer and Customer hereby agrees to pay Doosan for all such expenses.

CUSTOMER'S CLAIMS

No claim of Customer related to an alleged failure by Doosan to meet any requirement of this Contract shall be valid unless, prior to Customer incurring any cost related to such claim, Customer notifies Doosan in writing, in detail of such alleged failure and Customer then allows Doosan a reasonable time to correct any such failure verified by Doosan. Any suits arising from the performance or nonperformance of Doosan, whether based upon contract, negligence, strict liability or otherwise, shall be brought within one (1) year from the date the claim arose.

LIMITATION OF LIABILITY

The price allocable in this Contract to any Maintenance Services alleged to be the cause of any loss or damage shall be the ceiling limit on the aggregate liability of Doosan, whether founded in contract or tort (including negligence), arising out of, or resulting from this Contract or the performance or breach thereof. Under no circumstances shall Doosan be liable for any special, incidental, indirect or consequential damages of any nature whatsoever, including without limitation, business interruption, lost profits, revenues or sales, or increased costs of production, whether such claims are based in contract, warranty or tort, including negligence, or any other legal theory or principle.

WASTE DISPOSAL

Customer is wholly responsible for the removal and proper disposal of waste generated in connection with the installation, operation or decommissioning of the Equipment, or generated during the Term of this Contract.

ASSIGNMENT

Neither Party may assign any of its rights or obligations under this Contract, except as otherwise expressly provided herein or with the written consent of the other Party, and any assignment made without such consent shall be null and void; provided, however, Doosan may, upon written notice to Customer, assign Doosan's rights and obligations without such consent, to an entity which acquires all or substantially all of Doosan's assets or which controls, is controlled by or is under common control with Doosan.

TERMINATION

In the event of a material breach by either Party in the performance of the breaching party's duties, obligations or undertakings to the non-breaching party under this Contract, the non-breaching party will have the right to terminate the Maintenance Services under this Contract by giving written notice to the breaching party of the specific breach involved; provided that the breaching party shall have thirty (30) days to cure such breach prior to such termination taking effect. Upon termination taking effect, Doosan shall be entitled to receive payments for any Maintenance Services performed in accordance with the terms of this Contract, for all costs incurred prior to such termination, and for all costs related to termination and settlement with its subcontractors and suppliers.

NO WAIVER; SEVERABILITY; HEADINGS; CONFIDENTIALITY OF BUSINESS TERMS

The failure of either party to insist on any right, or to invoke or elect any remedy, shall not be construed as a waiver of that right, remedy or election in the absence of a writing signed by the waiving party. The invalidity of one or more of the phrases, sentences, clauses, or sections contained in this Contract shall not affect the validity of the remaining portions. Section headings in this Contract are for reference purposes only and shall not affect in any way the meaning or interpretation of this Contract. The business terms of this Contract for the Maintenance Services, specifically including but not limited to pricing, shall be held in confidence by Customer. Customer shall refrain from disclosing any such Maintenance Services business terms included within this Contract to any third party.

ENTIRE AGREEMENT

This Contract, including all other documents attached hereto and expressly made a part hereof, and all changes or amendments hereto shall constitute the entire agreement between the Parties with respect to the matters set forth herein, with all prior proposals, representations, quotations, agreements and understandings, written or oral, superseded hereby. It is agreed that the Parties do not intend to create a right in any third party with respect to the section of the Contract entitled LIMITATION OF LIABILITY, by entering into this Contract. The terms and conditions of this Contract, including all documents, if any, expressly incorporated herein, and any attachment to this Contract expressly referenced herein, shall exclusively govern the Parties' performance hereunder and any terms or conditions in addition to or different from this Contract, including without limitation any terms or conditions provided in any purchase

order or similar document related to the Maintenance Services which are not expressly incorporated herein, shall have no effect. Unless expressly stated otherwise, the provisions of this Contract shall have precedence over the terms of any other Contract documents, if any exist, and shall govern in the event of any inconsistency with the terms included in any attachments, including appendices and schedules, that are made a part of this Contract. This Contract shall not be changed or amended, except in a writing signed by the Parties hereto.

COMPLIANCE WITH LAWS; EXPORT CONTROL; GOVERNING LAW

Doosan and Customer will each comply with all federal and state laws applicable to the performance of their respective obligations hereunder. The Parties shall also comply with all U.S. and other export control laws and regulations associated with or arising from the sale, delivery, or subsequent use of equipment, data and documentation, including, without limitation, restrictions on the re-export of equipment, data and documentation. The rights of all parties under this Contract and the construction and effect of every provision hereof shall be subject to and construed according to the laws of the State of Connecticut, including the Uniform Commercial Code, and of the United States of America, excluding the United Nations Convention on the International Sale of Goods.

SUBCONTRACTORS

Doosan shall bind every subcontractor to, and shall require every subcontractor to be bound by, the terms of this Contract as far as applicable to the subcontractor's portion of the Maintenance Services. Doosan agrees to pay each subcontractor, upon payment by Customer, the amount allowed to Doosan on account of such subcontractor's portion of the Maintenance Services. Unless Customer approves or requests work or materials without the approval of Doosan, Customer shall not be liable to make any payment for the Maintenance Services directly to any subcontractor.

CONFIDENTIALITY

- A) **Terms of the Contract.** Neither Party shall disclose the terms of this Contract to a third party (other than such Party's and its affiliates' employees, lenders, counsel, accountants or consultants) except in order to comply with any applicable law, order, regulation or rule; provided, however, that each Party shall give prior notice to the other Party of any proceeding of which it is aware that may result in such disclosure and the Party subject to such proceeding shall use reasonable efforts to prevent or limit the disclosure; and further provided that (i) each Party is deemed to have consented to such disclosure of the terms of this Contract as is necessary to comply with applicable regulatory reporting and filing requirements and (ii) the Party that is subject to such requirements shall give prior notice to the other Party of such disclosure.
- B) **Confidential Information.** Each Party shall hold in confidence and shall not directly or indirectly use or disclose to any person or entity, except as permitted herein, either during the term of this Contract or at any time thereafter, any Confidential Information of the other party. "Confidential Information" shall mean information, including a formula, pattern, compilation, program device, method, technique, or process, that: (i) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy. Notwithstanding the foregoing, however, "Confidential Information" does not include information that: (i) is or becomes generally available to the public through no wrongful act of the recipient of such information or its representatives; or (ii) was developed independently by the recipient prior to it being provided to the recipient and without the utilization of any Confidential Information therefrom; or (iii) is or becomes available to the recipient on a non-confidential basis from a source other than the other Party or its representatives; provided that such source is not known by the recipient to be subject to any other confidentiality obligation to the other Party. Each Party shall use the other Party's Confidential Information only for the purpose carrying out its obligations under this Contract, and for no other purpose whatsoever. Each Party shall limit the use and circulation of the Confidential Information to its representatives having an actual and legitimate need to know and only to the extent reasonably necessary to assist such Party in its use of the Confidential Information as permitted herein, and who are informed of the confidential nature of the Confidential Information and are required to keep it confidential in accordance with this Section.
- C) **Remedies.** The Parties shall be entitled to all remedies available at law or in equity to enforce, or seek relief in connection with, this confidentiality obligation, including the right to obtain injunctive relief (without the necessity of posting a bond or proving any damages); provided, however, that all monetary damages shall be limited to actual direct damages (subject to the limitation on monetary damages in the section titled LIMITATION OF LIABILITY) and a breach of Subsection (A) above shall not give rise to the right to suspend or terminate the Contract.

APPENDIX A: SCOPE OF SERVICES

SERVICE PLAN: COMPREHENSIVE

This Service Plan includes Preventive Maintenance as well as Unscheduled Maintenance, as more specifically described below.

PREVENTIVE MAINTENANCE:

• **REMOTE MONITORING/TECHNICAL SUPPORT**

Doosan shall remotely monitor key performance parameters of each PureCell® System Model 400 Power Plant covered by this Agreement. Performance data which includes kilowatt hours, operational hours and availability, will be recorded and made available to Customer upon Customer’s written request. The Customer will be advised of events that Doosan determines require service action after such events are recorded.

Doosan’s Control Center shall provide the Customer with 24/7 off-site operational and technical support associated with Power Plant operation, including troubleshooting of operational issues, providing technical information related to the operation of the Power Plant, and performing remote diagnostics. Doosan’s Customer support personnel shall be available by telephone at all times at (860) 727-2847 and shall address email requests received from the Customer during Doosan's regular business hours.

• **MANUALS**

DOOSAN shall provide the Customer with all updates to the PureCell® System Model 400 Owner's Manual and Customer advisory information as needed.

• **PREVENTIVE MAINTENANCE ACTIVITIES**

Doosan shall be responsible for performing "Preventive Maintenance" of the Power Plant. Preventive Maintenance activities are per the Owner's Manual, as revised at Doosan’s discretion. The current Preventive Maintenance activities are listed in the Preventive Maintenance Schedule attached hereto. All Preventive Maintenance performed under this Agreement will be performed during regular weekday work hours. If the Customer requests overtime or weekend service, the Customer agrees to pay extra for the overtime-premium hours at Doosan’s overtime billing rates. There will be no charge for the straight time portion. Customer will reimburse Doosan for any rigging, hoisting and related services and equipment necessary to perform Preventive Maintenance. The Owner acknowledges that, upon mutual agreement as to a timely schedule, Doosan will be permitted to shut-down the Power Plant(s) in connection with Preventive Maintenance performed under this Agreement.

UNSCHEDULED MAINTENANCE:

- "Unscheduled Maintenance" is the repair or replacement of parts of the Power Plant or the Cooling Module (and the associated labor) required to return the Power Plant to a condition capable of Commercial Operation in the event of an unscheduled shutdown. This Agreement covers Unscheduled Maintenance, subject to the terms and conditions herein.
- "Unscheduled Maintenance" specifically excludes repair or replacement of any equipment (and the associated labor) other than the parts of the Power Plant and the Cooling Module as set forth in the Bill of Material attached to the Agreement as Appendix B.

UNSCHEDULED MAINTENANCE UNDER THIS AGREEMENT **INCLUDES** ANY COMPONENT OF THE POWER PLANT OR THE COOLING MODULE, INCLUDING BUT NOT LIMITED TO, THE CELL STACK ASSEMBLY AND THE FUEL PROCESSING SYSTEM (WHICH INCLUDES THE REFORMER AND THE INTEGRATED LOWTEMPERATURE SHIFT CONVERTER).

PureCell Model 400 Standard 6 Year Maintenance Schedule

Years 1-6

Maintenance Procedure	Maintenance Trigger	Estimated Frequency	Year 1	2	3	4	5	6
Enclosure Air Filter Replacement	Condition Based	Quarterly	R3	R3	R3	R3	R1	R3
Cathode Air Filter Replacement	Condition Based	Quarterly	R3	R3	R3	R3	R1	R3
Burner Air Filter Replacement	Condition Based	6 Months	R6	R6	R6	R6	R6	R6
Water Treatment	Condition	9 Months	R9	R9	R9	R9	R9	R9

System Bottle Replacement	Based							
Combustibility Sensor Calibration (While Fuel Cell is Shut Down)	Condition Based	Annual	Ca	Ca	Ca	Ca	Ca	Ca
Water Conductivity Sensor Calibration (While Fuel Cell is Down)	Condition Based	Annual	Ca	Ca	Ca	Ca	Ca	Ca
Ancillary Coolant System Fluid Evaluation & Pressure Check	Condition Based	Annual	I	I	I	I	I	I
Cell Stack Assembly Substack Voltage Measurement	Condition Based	Annual	I	I	I	I	I	I
Cooling Module Cleaning	Condition Based	Annual	Cl	Cl	Cl	Cl	Cl	Cl
Thermal Management System Orifice Adjustment	Condition Based	Annual	Ca	Ca	Ca	Ca	Ca	Ca
Inverter Cooling Fan Cleaning	Condition Based	Annual	Cl	Cl	Cl	Cl	Cl	Cl
Water Quality Evaluation	Condition Based	Annual	I	I	I	I	I	I
Thermal Management System Filter Cleaning	Condition Based	Annual	Cl	Cl	Cl	Cl	Cl	Cl
Pressure Relief Valve Replacement	Condition Based	5 Years		R				
Fuel Processing System Gas Analysis	Condition Based	5 Years		I				

For all maintenance items, an alarm will be sent from fuel cell to indicate maintenance is needed

Legend:

- Ca=Calibrate
- Cl=Cleaning
- I = inspect
- R=Replace
- R3 = Replace every 3 months
- R6 = Replace every 6 months
- R9 = Replace every 9 months

APPENDIX B: DESCRIPTION OF EQUIPMENT

PureCell® Model 400 Equipment	Part #	QNTY
PureCell® Model 400, Natural Gas, 480V/60Hz	FC71640- 0001	1

APPENDIX C: PERFORMANCE GUARANTEES

Output Guarantee

Provided Owner makes payments as required under the Term of this Services Subcontract (the “Agreement”) for the service of the PureCell® System Model 400 (each, a “Power Plant” and collectively, the “System”), Doosan separately guarantees for the System, the capability to deliver an average power output (“Guaranteed Minimum Output” or “GMO”) in accordance with the following table.

Annual Period	1	2	3	4	5	6
GMO (MWh)	3154	3154	3154	3154	3154	3154

Should the output of the Power Plant in any twelve month period commencing on the Effective Date and each subsequent twelve month period(s) thereafter (the “Annual Period”) during the term of the Agreement be less than the GMO, Doosan agrees to provide the Owner a cash rebate equal to 1% of the Monthly Services Payments paid during the Annual Period for each 1% of shortfall from the GMO. The dollar amount of any cash rebates due to the Owner shall be calculated once at the end of each Annual Period and paid to Owner within thirty (30) days of Doosan’s confirmation of the amount due. Notwithstanding anything herein to the contrary, the maximum allowable credit under this section for any Annual Period shall not exceed the Monthly Services Payments actually received by Doosan for the corresponding Annual Period. In the event that the building load demand falls below 400kW and the Power Plant is capable of providing 400kW to Owner’s site, the output shall be calculated as if the Power Plant was operating at full capacity for the purposes of this guarantee.

Should the actual output of the Power Plant in an Annual Period be greater than GMO, the number of MWh of Output above the GMO shall be credited to Doosan (referred to herein as the “Performance Bank”). Doosan will have the right to apply any then current Performance Bank to offset a shortfall in the GMO in any Annual Period for the System.

Because technical expertise is critical in meeting the GMO above, this Guarantee is conditioned upon maintenance, service and repairs to the System being provided exclusively by Doosan (directly or through a Doosan authorized service provider) in accordance with Doosan’s maintenance services, statement of work and terms and conditions as described in the Agreement. In the event that the Agreement is terminated, the Guarantee shall terminate and be of no further force or effect. Owner or Owner’s Customer must provide and maintain a dedicated Broadband/DSL connection with static IP (or other continuous connection approved by Doosan) for Doosan’s monitoring system in order to enforce this Guarantee. The first Annual Period under this Guarantee shall commence upon the Effective Date.

Doosan will not be responsible for any periods during which the System is not operating due to (a) site issues not related to the System, including but not limited to issues related to electrical load or building system design or malfunction; (b) System or Power Plant issues arising from improper installation (if not installed by Doosan) or operation, abuse, neglect, vandalism, weather, rust, the effects of corrosive and/or erosive environments or fuels, inadequate or incorrect fuel supply, quality or pressure, operation of the System outside the operating specifications defined by Doosan in the applicable operation and maintenance manual, or modifications, materials or services not executed or provided by Doosan or a Doosan authorized service provider; (c) Power Plant Downtime during periods when the monitoring system is not functioning due to the failure to maintain a dedicated Broadband/DSL connection with static IP (or other continuous connection approved by Doosan); (d) Owner or Owner’s Customer-elected shutdowns of the Power Plant or the System; (e) Owner or Owner’s Customer deviation from an approved Grid-Independent Load Profile; or (f) any other cause beyond Doosan’s direct control. Any such periods shall not be included in the calculation of output for the purposes of this Guarantee.

This Output Guarantee, the remedies expressly provided herein (i) are exclusive and in lieu of all other uptime, availability or performance warranties or guarantees of any kind, whether statutory, written, oral, express or implied, and (ii) are Owner’s sole and exclusive remedy and Doosan’s sole and exclusive obligation with respect to uptime, availability or performance of the System. Doosan shall not be responsible under any warranty, guarantee or other obligation for rebates, credits, repairs, replacements or indemnification due to abuse, vandalism, acts of terrorism or war, fire, lightning, earthquake, flood, storm, or other acts of God, neglect, modifications, materials or services not executed or provided by Doosan or its subcontractors, employees or agents, use in a physical environment other than the site proposed in this Agreement, or installation or use of the System not in accordance with the intended use of the System. No rights under this Guarantee shall be assignable or transferable to any third-party, except on the written consent of Doosan.

The warranties and guarantee provided by Doosan Fuel Cell America, Inc. herein, including but not limited to the output guarantee, shall be null and void and of no force and effect if customer fails to perform or is otherwise found by Doosan Fuel Cell America, Inc. to be negligent in its performance of any of the customer responsibilities as described in the Service Plan section of this document and such non-performance or negligence caused or contributed to the defect or output failure.

Under no circumstances shall Doosan be liable for any special, incidental, indirect or consequential damages of any nature whatsoever, including without limitation, business interruption, lost profits, revenues or sales, or increased costs of production, whether such claims are based in contract, warranty or tort, including negligence, or any other legal theory or principle.

SERIVCES CONTRACT

Amendment No. 1

This Amendment No. 1 (the "Amendment") amends that certain Services Contract executed on or about May 13, 2015 with an Effective Date of April 2015 (the "Contract") by and between The City of New Haven Board of Education ("Customer") having an address of 54 Meadow Street, Room 301, New Haven, CT 06510, and Doosan Fuel Cell America Inc., a Delaware corporation ("Doosan") with an address of 101 East River Drive, 7th Floor, East Hartford, CT 06108 (individually a "Party" and collectively the "Parties"), and is effective April 30, 2020 (the "Amendment Effective Date").

RECITALS

WHEREAS, the Parties made and entered into the Contract, and the Parties wish to extend the Term of the Contract for one more year;

WHEREAS, the Parties wish to amend certain sections of the Contract in order to clarify their agreement.

NOW, THEREFORE, in consideration of the mutual promises set forth herein and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereby agree as follows:

1. One more year is added to the Renewal Term so that the Term of the Contract ends on April 30, 2021. The Annual Services Payment, including the Renewal Price, for this additional year is \$162,532. Payment of such Annual Services Payment by Customer is due to Doosan within thirty (30) days of the invoice date. Doosan is not responsible for providing any Maintenance Services to Customer until Doosan receives the Annual Services Payment in full.
2. This Amendment serves as notice from Customer to Doosan that Customer wishes to exercise its option to renew the Contract for this additional year.
3. All yearly obligations, including the Maintenance Schedule in Appendix A and Output Guarantee table in Appendix C, shall be extended for a sixth year.
4. Except as modified above, the Contract remains unchanged and are in full force and effect.
5. Notwithstanding any other provision herein and without prejudice, executing this Amendment or contents herein shall not be construed as Doosan's waiver of any of its rights to pursue claims (including damages) under the Contract and/or any amendment thereto.

IN WITNESS WHEREOF, evidenced only by signatures below, the Parties have caused this Amendment No. 1 to be executed by their duly authorized representatives as of the Amendment Effective Date.

DOOSAN FUEL CELL AMERICA, INC.

**THE CITY OF NEW HAVEN
BOARD OF EDUCATION**

By:  _____

By: _____

Name: MARK VAGAN _____

Name: _____

Title: DIRECTOR - SERVICE & INSTALL _____

Title: _____

