

ANNEX NO. 3  
BETWEEN  
THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
GLENN RESEARCH CENTER  
AND  
BLUE ORIGIN, LLC  
UNDER SPACE ACT UMBRELLA AGREEMENT  
NO. SAA3-1609, PAM NO. 28171

ARTICLE 1. PURPOSE

Annex No. 3 ("Annex") shall be for the purpose of NASA GRC conducting a fuel cell stack performance evaluation of a Blue Origin provided fuel cell stack hardware. This activity is consistent with NASA's mission to maintain its expertise and leadership in power, energy storage, and conversion and to accelerate the testing of critical fuel cell power technology for emerging space system capabilities and advance commercial space-related efforts.

The legal authority for this Annex, consistent with the Umbrella Agreement, is in accordance with the Space Act, Other Transactions Authority (OTA), 51 U.S.C. § 20113(e).

ARTICLE 2. RESPONSIBILITIES

A. NASA GRC will use reasonable efforts to:

1. Develop a test plan to evaluate the fuel cell stack performance (the "Test Plan").
2. Prepare test facility to conduct the test.
3. Conduct a Test Readiness Review.
4. Execute the Test Plan, nominally 24 test days over 2 calendar months (~3 test days/week).
5. Analyze test results.
6. Provide a technical assessment of the test results in the form of a presentation and written report.
7. Coordinate shipment of test article to Blue Origin.

B. Blue Origin will use reasonable efforts to:

1. Provide NASA GRC fuel cell stack hardware with supporting documentation.
2. Support the development of the Test Plan and Test Readiness Review.
3. Provide on-site or off-site troubleshooting support, as needed.

ARTICLE 3. SCHEDULE AND MILESTONES

The planned major milestones for the activities for this Annex, defined in the "Responsibilities" Article, are as follows:

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|---|---|
| 1. Blue Origin to provide NASA GRC with fuel cell stack hardware with supporting testing documentation. | Approximately one (1) week after Effective Date.                |
| 2. NASA GRC to conduct Test Readiness Review prior to initiating fuel cell stack testing.               | Approximately two (2) weeks after completion of Milestone 1.    |
| 3. NASA GRC to provide the fuel cell stack technical assessment.  | Approximately three (3) months after completion of Milestone 2. |
| 4. NASA GRC to coordinate shipment of the test article to Blue Origin.                                  | Approximately two (2) weeks after completion of Milestone 3.    |

ARTICLE 4. FINANCIAL OBLIGATIONS

A. Partner agrees to reimburse NASA an estimated cost of \$413,467.00 for NASA to carry out its responsibilities under this Annex. Payment shall be marked with NASA Glenn Research Center, SAA3-1609, Annex No. 3.

B. NASA will not provide services or incur costs beyond the current funding. Although NASA has made a good faith effort to accurately estimate its costs, it is understood that NASA provides no assurance that the proposed effort under this Annex will be accomplished for the estimated amount. Should the effort cost more than the estimate, Partner will be advised by NASA as soon as possible. Partner shall pay all costs incurred and have the option of canceling the remaining effort, or providing additional funding in order to continue the proposed effort under the revised estimate. Should this Annex be terminated, or the effort completed at a cost less than the agreed-to estimated cost, NASA shall account for any unspent funds within one (1) year after completion of all effort under this Annex, and promptly thereafter, at Partner's option return any unspent funds to Partner or apply any such unspent funds to other activities under the Umbrella Agreement. Return of unspent funds will be processed via Electronic Funds Transfer (EFT) in accordance with 31 C.F.R. Part 208 and, upon request by NASA, Partner agrees to complete the Automated Clearing House (ACH) Vendor/Miscellaneous Payment Enrollment Form (SF 3881).

ARTICLE 5. INTELLECTUAL PROPERTY RIGHTS - DATA RIGHTS

A. Data produced under this Annex which is subject to paragraph C. of the Intellectual Property Rights - Data Rights Article of the Umbrella Agreement will be protected for the period of two (2) years.

B. Under paragraph H. of the Intellectual Property Rights - Data Rights Article of the Umbrella Agreement, Disclosing Party provides the following Data to Receiving Party. The lists below may not be comprehensive, are subject to change, and do not supersede any restrictive notice on the Data provided.

1. Background Data:

The Disclosing Party's Background Data, if any, will be identified in a separate technical document.

2. Third Party Proprietary Data:

The Disclosing Party's Third Party Proprietary Data, if any, will be identified in a separate technical document.

3. Controlled Government Data:

The Disclosing Party's Controlled Government Data, if any, will be identified in a separate technical document.

4. The following software and related Data will be provided to Partner under a separate Software Usage Agreement: None.

ARTICLE 6. TERM OF ANNEX

This Annex becomes effective upon the date of the last signature below ("Effective Date") and shall remain in effect until the completion of all obligations of both Parties hereto, or one (1) year from the Effective Date, whichever comes first, unless such term exceeds the duration of the Umbrella Agreement. The term of this Annex shall not exceed the term of the Umbrella Agreement. The Annex automatically expires upon the expiration of the Umbrella Agreement.

ARTICLE 7. RIGHT TO TERMINATE

Either Party may unilaterally terminate this Annex by providing thirty (30) calendar days written notice to the other Party.

ARTICLE 8. POINTS OF CONTACT

The following personnel are designated as the Points of Contact between the Parties in the performance of this Annex.

Management Points of Contact

NASA

Kyle Phillips  
Facility Manager  
Mail Stop: 6-8  
21000 Brookpark Road  
Cleveland, OH 44135  
Phone: 216-433-8871  
kyle.g.phillips@nasa.gov

BLUE ORIGIN, LLC

Jessica Curry  
Sr. Manager, Subcontracts  
21218 76th Avenue S  
Kent, WA 98032-2442  
Phone: 409-218-7009  
jcurry2@blueorigin.com

Technical Points of Contact

NASA

Ian Jakupca  
Fuel Cell Technology Lead  
Mail Stop: 309-1  
21000 Brookpark Road  
Cleveland, OH 44135  
Phone: 216-433-3853  
ian.j.jakupca@nasa.gov

BLUE ORIGIN, LLC

Craig Smugeresky  
Principal Technologist, Aerospace Power &  
Energy  
21218 76th Avenue S  
Kent, WA 98032-2442  
Phone: 253.437.9300 ext. 10621  
csmugeresky@blueorigin.com

ARTICLE 9. MODIFICATIONS

Any modification to this Annex shall be executed, in writing, and signed by an authorized representative of NASA and the Partner. Modification of an Annex does not modify the terms of the Umbrella Agreement.


ARTICLE 10. SIGNATORY AUTHORITY

The signatories to this Annex covenant and warrant that they have authority to execute this Annex. By signing below, the undersigned agrees to the above terms and conditions.

NATIONAL AERONAUTICS AND  
SPACE ADMINISTRATION  
GLENN RESEARCH CENTER

BLUE ORIGIN, LLC

BY: \_\_\_\_\_  
Michael J. Barrett  
Director, Space Flight Systems

BY:  \_\_\_\_\_  
Jessica Curry  
Sr. Manager, Subcontracts

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_ 4/21/23 \_\_\_\_\_