

Memorandum of Understanding

This Memorandum of Understanding (the "MOU"), dated as of November 9, 2020 (the "Effective Date"), by and between MethaneSAT, LLC, a New York limited liability company and a wholly owned subsidiary of the Environmental Defense Fund, Incorporated ("MethaneSAT"), responsible for the development of a satellite to quantify and map anthropogenic methane emissions worldwide (the "MethaneSAT Mission"), and the Ministry of Business, Innovation and Employment of New Zealand ("MBIE") which houses the New Zealand Space Agency, administers the Outer Space and High-altitude Activities Act 2017, advises the New Zealand Government on space policy, and manages public investments in science and innovation, including climate science (MethaneSAT and MBIE collectively referred to as the "Participants"), whereby MethaneSAT is requesting Services (as defined in Section 1(i)) of various types deemed beneficial to MethaneSAT from MBIE for the use and benefit of MethaneSAT and in accordance with MethaneSAT policies, as more particularly provided for hereinbelow.

Appendix 3: Multilateral
Nondisclosure Agreement - Ball
MLLC R&E Call ~~MA~~ **EL S**

- A. MBIE wishes to make various Services available to MethaneSAT for the use and benefit of MethaneSAT as set forth in this MOU and both Participants acknowledge that these various Services are critical to the success of the MethaneSAT Mission.
- B. MBIE and MethaneSAT acknowledge that the Services, which, as specified in Section 1(i), are being provided at no monetary cost, are gifts that are voluntarily being provided for the benefit of MethaneSAT by MBIE without compensation, for use in the MethaneSAT Mission.
- C. The Participants have entered into a joint declaration of intent (the "Joint Declaration of Intent"), dated as of October 17, 2019, by and among the Environmental Defense Fund, Incorporated ("EDF"), MethaneSAT and MBIE, setting forth the intention that MBIE would provide MethaneSAT with certain Services, as more fully set forth in the Joint Declaration of Intent which is attached hereto as Exhibit 2, and because of the criticality of these Services to the MethaneSAT Mission, the Participants desire to enter into this MOU in order to document the Services and certain other terms as more fully provided herein.
- D. The Participants agree that the MBIE provided Services are key to the overall success of the MethaneSAT Mission of reducing global emissions of methane, with i) MBIE Services providing the capability and skill-sets required to be responsible for the health, safety and efficient on-orbit operation of the MethaneSAT Mission; ii) MBIE participating in determining the on-orbit pointing allocation of MethaneSAT, and iii) MBIE having primary responsibility for the portion of the MethaneSAT Mission science that is related to agricultural methane emissions.

- E. Officials of MethaneSAT have deemed the Services and other terms and conditions provided for herein are essential and desirable; therefore, MethaneSAT and MBIE have entered into this agreement for MBIE to provide such Services, subject to the terms and conditions set forth in this MOU.
- F. This MOU reflects the joint intent of the Participants but is not intended to be legally binding.

AGREEMENT

To achieve the delivery of the objectives and activities described in the Joint Declaration of Intent, the Participants agree as set forth below.

1. Services and Obligations of the Participants.

MBIE agrees that:

- i. it will fund and manage the following undertakings and contributions to the MethaneSAT Mission as follows: MBIE shall design, construct, and equip a facility that will serve as the MethaneSAT Mission operations control center (the “Mission Operations Control Center and Services”), as more particularly described on Annex I attached hereto (the “Capability Development Services”), provide operational communications and orbital tracking commercial services and staff and operate the Mission Operations Control Center, all as more particularly described on Annex II attached hereto (the “Operational Services”), and develop and validate the plans, procedures and operator skills to safely and efficiently conduct the Operational Services in a manner consistent with the MethaneSAT Mission’s requirements (the “Plans and Procedures Services”, and, together with the Capability Development Services and the Operational Services, referred to herein collectively as the “Services”) for the Term of this MOU set forth below, and to cover all costs associated therewith, not to exceed NZD18 million (the “Maximum Contemplated Contribution”);
- ii. it shall ensure that program management resources are provided for technical oversight of the delivery of the Services to the MethaneSAT Mission, coordinate the involvement of any relevant party and institution and streamline all New Zealand government institutional engagement with the MethaneSAT Mission such that the Services can be rendered in accordance with the terms of this MOU.
- iii. the Services shall conform to MethaneSAT Mission’s existing technical requirements and milestone timeframes set forth in Annex I and II, and the design-to-cost budget as more fully described in Annex III attached hereto (the “Budget”). It is the responsibility of MBIE to ensure that the costs of the Services shall not exceed the Maximum Contemplated Contribution during the Initial Term (as defined below). MethaneSAT shall not be responsible for any Services costs in excess of the Maximum Contemplated Contribution during the Initial Term unless it has specifically approved of such excess costs in writing (which may include excess costs attributable to changes or amendments to the Services required by MethaneSAT). MBIE shall notify MethaneSAT immediately if it reasonably expects that the costs of the

Services will exceed the Maximum Contemplated Contribution (a “Cost Overrun Event”), and will in any case promptly notify MethaneSAT when it reasonably expects that the costs of the Services will exceed seventy-five percent (75%) of the Maximum Contemplated Contribution, and MBIE shall submit the costs and expenses incurred on the MethaneSAT Mission with MethaneSAT on a quarterly basis such that the parties may confer and make reasonable best efforts to align with the Budget. Upon the occurrence of a Cost Overrun Event, the Participants agree to make reasonable best efforts to determine how such shortfall may be met. However, failing to reach agreement of covering a Cost Overrun Event, MethaneSAT shall have the right at its option to either terminate this MOU or take over the Services itself and/or to engage other parties to do so and, in such case, MBIE will use its best efforts to ensure that MethaneSAT and/or its designees can lawfully and fully access and assume occupation (physically, digitally, or otherwise), and control of the Mission Operations Control Center and Services (without charge to MethaneSAT, other than MethaneSAT paying for operating costs of the Mission Operations Control Center and Services) and lawfully and completely assume the conduct of the Services throughout the entire Term of this MOU.

- iv. in the event that the Services are rendered for an amount that is less than the Maximum Contemplated Contribution, MBIE shall use any such excess funds as a contribution towards costs of the MethaneSAT Mission as mutually agreed by the Participants.
- v. to the best of MBIE’s knowledge, the Work Product (as defined below) does not contain any matter that is in violation of any intellectual property right or personal right of any third party, or otherwise violates any law.

MethaneSAT agrees that it will:

- vi. be responsible for the Services costs that exceed the Maximum Contemplated Contribution but only where MethaneSAT requested a change or amendment to the Services and such change or amendment materially changes the agreed upon Budget for the Services, as described in the attached Annexes, or where the Participants mutually agree that MethaneSAT will be responsible for costs that exceed the Maximum Contemplated Contribution.
- vii. use reasonable best efforts to assist MBIE in MBIE’s performance of the Services, including through information, guidance and mentoring; provided, however, that MethaneSAT provides no warranty, whether written, oral, express or implied on such assistance (and MethaneSAT specifically disclaims the implied warranties of merchantability or fitness for a particular purpose); provided, further, that MBIE will be responsible for covering the cost of any necessary technology export licenses and travel costs for MethaneSAT or any MethaneSAT affiliate staff that provides on-site mentoring and MBIE will be responsible for the costs of any additional consultants or personnel (beyond the baseline staff Budget) needed for such mentoring and guidance.
- viii. facilitate MBIE’s participation as a collaborator in the MethaneSAT Mission, which shall include, to the extent reasonably practical (as determined by MethaneSAT in its sole discretion) MBIE obtaining (i) one non-voting seat on the MethaneSAT Steering Committee and (ii) MBIE’s participation on MethaneSAT’s

Technical Advisory Group and Science Advisory Group, as appropriate.

- ix. facilitate MBIE's participation as a member of the MethaneSAT Mission Systems Working Group, which has the responsibility and authority for assessing the progress of the development of the MethaneSAT Mission systems, managing its overall integration, ensuring launch readiness and appropriate resolution of any issues as they arise.
- x. use reasonable best efforts to support MBIE's objectives of ensuring that the Mission Operations Control Center will build knowledge and skills within New Zealand's space sector and provide a capability to support other science missions.

2. Term. Unless earlier terminated as provided for elsewhere herein, the term of this MOU shall commence on the Effective Date and continue in force and effect until the date that is the day prior to the first annual anniversary of the Launch of the MethaneSAT Mission satellite (the "Initial Term"), provided, that MethaneSAT and MBIE shall commence negotiations in good faith at least six (6) months prior to the end of the Initial Term to extend the term of this MOU for up to ten (10) additional one-year periods, and provided further, that if the Participants are unable to agree on such extension and execute an amendment to this MOU to extend the term of this MOU, this MOU shall terminate as of the end of the Initial Term subject to the termination provisions in Section 6 herein. As used herein, the capitalized term "Launch" means the lift-off and successful placement into its intended orbital situation of the MethaneSAT Mission satellite and confirmation that the MethaneSAT Missions satellite is functioning properly in its intended orbital situation.

3. Work Product.

- i. Participants may produce documents, designs, reports, maps, plans, methods, processes, procedures, specifications, hardware, software, inventions, and other work product unique to the Operational Capability Development and Operations Services ("Work Product") and, unless otherwise agreed to by the Participants in writing, the intellectual property rights to such Work Product will be owned by and be the sole property of the Participant that produces the Work Product. If Work Product is jointly produced, the intellectual property rights to such Work Product will be jointly owned unless the Participants agree otherwise in writing.
- ii. If Work Product is produced by a third party under contract to one of the Participants, the intellectual property rights to such Work Product will be owned in accordance with the terms and conditions of that contract. Any such third party contract entered into by MBIE will include a provision that, to the extent that the contractor has intellectual property rights in deliverable items under the contract, the contractor will grant to MBIE an irrevocable, royalty-free, non-exclusive, sublicensable license to use such intellectual property and that license may be sub-licensed or transferred to MethaneSAT. Neither Participant may distribute the Work Product of another Participant without prior written consent.
- iii. So long as MBIE is performing the Services, MethaneSAT shall grant to MBIE a nonexclusive, non-sublicensable, non-assignable royalty-free license to use Work Product of MethaneSAT and any know-how,

trade secrets, copyrights, patents and other intellectual property owned by MethaneSAT which is necessary, as determined by MethaneSAT in its sole discretion, for MBIE to perform the Services (including access to the website portal of MethaneSAT used for the MethaneSAT Mission). Nothing herein shall be construed as granting MBIE any rights to the intellectual property of MethaneSAT, other than the foregoing license to MBIE for the sole specific purpose of performing the Services under this MOU.

- iv. In the event MBIE ceases performing any of the Services at any time for any reason, including for a termination event as described in Section 6 herein, MBIE hereby grants to MethaneSAT a nonexclusive, perpetual, irrevocable, worldwide, royalty-free license to use and sublicense any and all jointly owned Work Product any jointly owned intellectual property which is necessary, as determined by MethaneSAT in its sole discretion, for performing the Services. In such event, at the request of MethaneSAT, MBIE shall promptly provide MethaneSAT and/or its designees with all materials, information and training which is necessary, and will endeavor to obtain the necessary consent to novate to MethaneSAT any required MBIE service and/or vendor contracts as determined by MethaneSAT in its sole discretion, to be able to timely and fully perform the Services on its own.
- v. Each Participant shall ensure that it has the full right, power and authority to grant the license set forth above in this Section 3 and will fully advise the other Participant of any limitations on the foregoing license grant that may be imposed by any licensor or supplier to such Participant.

4. Confidentiality; Compliance with Laws.

- i. Disclosure of confidential information by and between MethaneSAT and MBIE will be governed by the Confidentiality Agreement executed by and between MethaneSAT, LLC and MBIE, dated August 15, 2019 (the “MethaneSAT NDA”), attached hereto as Exhibit 1, the term of which is hereby extended to be coterminous with the Term of this MOU.
- ii. All Confidential Information (as defined in the MethaneSAT NDA) disclosed by the Participants will be used only for the purpose of this MOU and such disclosure and use are governed by the terms of the MethaneSAT NDA.
- iii. MBIE will comply with all applicable laws and regulations, including, but not limited to, any applicable U.S. export control laws and regulations and international permits, licenses and other authorizations, decrees or orders (including, without limitation, the U.S. Foreign Corrupt Practices Act (“FCPA”), the U.S. Arms Export Control Act, the U.S. International Trafficking in Arms Regulations (“ITAR”), the U.S. Export Administration Regulations (“EAR”), and the U.S. Commercial Remote Sensing Act of 1992, if and to the extent applicable), and to conducting its business and affairs and activities according to the highest standards of ethics and integrity. In discharging its undertakings under this MOU, MBIE will conduct itself, and will cause each of its Representatives (as defined below), to conduct themselves, in strict adherence to all applicable laws and regulations and will do nothing to cause the other Participant to be in violation thereof.

5. Each Participant will use reasonable best efforts to avoid any breach of any of its representations, warranties and/or covenants in this Agreement of such Participant or any of its affiliated organizations, and its respective directors, officers, employees and agents (Representatives). Each Participant also agrees to use reasonable best efforts to ensure that any such breach does not expose the other Participant and its Representatives to claims, liability, damages, loss, obligations, and suits. In the event of any claim, the parties will consult on how the claim will be dealt with and any liability managed, provided, however, that in the event that such breach is caused by one party's gross negligence or wilful misconduct, such party agrees, upon the aforementioned consultation, to defend and hold harmless the other party.
6. Termination. Either Participant may terminate this MOU if the other Participant breaches any material obligation provided for hereunder and the breaching Participant fails to cure such breach within thirty (30) days from receipt of notice of the breach, or such other period of time as agreed to in writing by the non-breaching Participant, in its sole discretion. If such breach is not cured within such time period, then the non-breaching Participant may terminate this MOU by providing written notice to the other Participant within the Terms of this MOU, and each Participant agrees regardless of the Participant initiating this termination, they will negotiate in good faith a transition period to enable each Participant to take the necessary actions to ensure the safe and efficient continuation of MethaneSAT Operations. MethaneSAT shall also have the right to terminate this MOU due to its inability to proceed with the MethaneSAT Mission by providing at least three (3) months prior notice of such termination to MBIE, in which case neither Participant shall have any further liability to the other Participant or obligation to perform under this MOU upon such termination. In addition, MethaneSAT shall have the further right to terminate this MOU by providing at least three (3) months' notice if it reasonably believes that MBIE will not be able to satisfactorily perform the Services as specified in Annex I and Annex II. With respect to any termination event, at the request of MethaneSAT, MBIE shall promptly provide MethaneSAT and/or its designees with all materials, information and training which is necessary, as determined by MethaneSAT in its sole discretion, to be able to perform the Services on its own.
7. Survival. Upon the expiration or termination of this MOU, Sections 3, 4, 5, 8, 9 and 11 shall survive and any other Section or Annex or Exhibit of this MOU which is expressed or which by its meaning is implied to survive expiration or termination of this MOU shall survive.
8. Brand and Logo; Publicity. The Participants agree that their names and logos may only be used by either Participant with prior written consent. Neither Participant, without the prior written consent of the other Participant, shall disclose the existence or any of the terms of this MOU to any third party unless such disclosure is required by law, including New Zealand's Official Information Act 1982, and by MBIE's obligations to report to Ministers of the Crown, the New Zealand Parliament and other New Zealand government agencies. The existence and terms of this MOU may be provided by MethaneSAT to potential funding sources, lenders and advisors of MethaneSAT and

their respective Representatives in connection with proposed funding, loan, or other business transactions with MethaneSAT. Insofar as is necessary or expedient for the delivery of MBIE's commitments under this MOU, the existence and terms of this MOU, including the annexes, may be provided to third parties under contract to MBIE with the prior written consent of MethaneSAT, not to be unreasonably withheld.

9. Notices. Any notice ("Notice") contemplated or required to be given hereunder shall be deemed duly given if made in writing and delivered to the Participant at the address of the receiving Participant indicated below. A Participant may change its address for this purpose by sending a Notice to the other Party. Notices may be sent by facsimile or electronic mail or in hard copy delivered via recognized international courier (such as FedEx, UPS, or DHL). Notices will be effective when actually received, as documented by the courier's delivery system or the printed report of the transmitting facsimile or electronic mail equipment. All correspondence and Notices for MBIE shall be addressed as follows: Ministry of Business, Innovation and Employment, 15 Stout Street, Wellington, New Zealand; Attn: Simon Rae, Manager, International Science Partnerships, email: simon.rae@mbie.govt.nz; fax: +64 4 473 4638 or +64 4 917 0190. All correspondence and Notices for MethaneSAT shall be addressed as follows: MethaneSAT LLC, 301 Congress Ave #1300, Austin, TX 78701, Attn: Cassandra Ely, email: cely@methanesat.org, Tel: (415)293-6084.
10. Disputes. If a dispute arises out of, or is in connection with this MOU, the Participants will make the following efforts in good faith: (a) provide prompt notice to the other Participant, within ten (10) days of the dispute, containing a request to negotiate specifying the nature of the dispute and the contractual basis for the claim, and (b) within five (5) days of receipt of said notice the Participants' respective Representative(s) who play a supervisory role in the performance or management of the MOU shall attempt to agree upon a detailed, written, description of the nature of the dispute, stating the facts in dispute and negotiate to resolve and settle all or some of the dispute. If said Representatives fail to resolve the dispute within fifteen (15) days after receipt of said notice, the dispute, with any agreed upon description of the dispute, shall be referred to a second level of negotiations, between a designated executive from each Party and a senior level manager from the project.
11. Miscellaneous.
 - i. MBIE shall not assign or subcontract this MOU or any of its rights or obligations hereunder without the prior written consent of MethaneSAT, and to the extent MethaneSAT agrees to such assignment, the assignee must agree in writing to be bound by the terms and conditions of this MOU and deliver such writing to both MBIE and MethaneSAT.
 - ii. MBIE shall be solely responsible for all acts or omissions of any permitted subcontractors and for ensuring MethaneSAT retains all rights under this MOU, including obtaining all rights to the Work Product as contemplated herein.
 - iii. No waiver, amendment or modification of any of the terms of this MOU shall be valid unless in writing and

signed by both Participants. No waiver by either party of a breach hereof or a default hereunder shall be deemed a waiver by such Participant of a subsequent breach or default of like or unlike or similar or dissimilar nature.

- iv. No partnership, joint venture, principal-agent or other business entity or structure is intended to or shall be created hereby. No Participant has the authority to bind the other Participant to any obligation, agreement or commitment without the express prior written consent of the other Participant.
- v. This MOU shall be governed by and construed in accordance with the laws of New Zealand.
- vi. Where any of the terms of this MOU, along with the Annexes, Exhibits and attachment hereto, consisting of Annexes I through III and Exhibit 1 (the MethaneSAT NDA), are inconsistent with any prior writings, understandings, commitments and communications whether written or oral, then the terms of this MOU will prevail in respect of any such inconsistency. The Joint Declaration of Intent attached hereto as Exhibit 2, and all prior writings, understandings, commitments and communications whether written or oral, will continue to define and guide the relationship and interaction between the Participants in respect of any matters not specifically covered by this MOU.
- vii. This MOU may be executed in one or more counterparts, but all of which together shall constitute one and the same instrument. This MOU may be executed by manual or facsimile signature, each of which shall be deemed an original.

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IN WITNESS WHEREOF, the Participants hereto have executed this MOU as of the Effective Date.

MethaneSAT, LLC

BY:

SatMgmt, LLC

Manager

By: _____

Name: Dr. Steven Hamburg

Title: Executive Manager

Ministry of Business, Innovation and Employment

By: _____

Name: Peter Crabtree

Title: General Manager, Science, Innovation and International

ANNEX I

CAPABILITY DEVELOPMENT SERVICES

MBIE is committed to contribute to the MethaneSAT mission by the development of the Mission Operations Control Centre (MOCC) development, commissioning and its operation and interface with support infrastructure and services (e.g. ground stations, terrestrial links and tracking and collision avoidance services (TCAS)). At a high level, the MOCC will:

- transform the targets identified by the Harvard/SAO Target Selection Tool and compile them into a sequence of payload acquisitions, instrument calibration and coupled spacecraft maneuvers;
- Verify the sequence does not violate payload and/or satellite limitations;
- Verify compliance with data downlink capacity;
- Generate and upload the payload and satellite command sequence;
- Monitor MethaneSAT health and safety via telemetry and TCAS services; and
- Ensure ground transmission for archiving of science and calibration information.

The capabilities listed above shall be consistent with the requirements defined in the MethaneSAT Mission Operations Ground System Architecture, Requirements and Responsibilities (dated 1-20-2020) and the MethaneSAT Mission Systems Integration and Launch Readiness Plan (Rev 1 dated 4-1-2020). The location, construction, security and timeline of the MBIE MOCC development including infrastructure and contracted capabilities, dependencies and driving technical and operational requirements are detailed in the MethaneSAT Mission Operations Control Centre and Support Implementation Plan (Version dated 9 November 2020). Any change or modification to these driving requirements and/or dependency delivery changes by the MethaneSAT project or contracted entities will be subject to review for impact in either cost, scope or schedule by MBIE. Similarly, any non-compliance in MBIE's ability to meet a requirement or scheduled deliverable will be subject to review and reporting consistent with a formal problem/failure reporting process and if necessary will be raised to the MethaneSAT Steering Committee for assessment of mission impacts and adjudication. Review of the contents and disposition of problem/failure reports, risk database entries, and other plans or procedures by the US portions of the project, namely MethaneSAT LLC or its contractors/partners, may be limited to items directly impacting the interfaces between entities.

Key tasks and milestones can be referenced in the MethaneSAT Mission Operations Control Centre and Support Implementation Plan (Version dated 9 November 2020). This baseline schedule is designed for compliance of the development with the mission schedule. Schedule milestones are subject to tracking and reporting to MethaneSAT LLC.

ANNEX II

OPERATIONAL SERVICES

The MBIE MOCC shall provide a set of functional capabilities for command, control, and support of the space vehicle and its payload. The MOCC is an integrated spacecraft command and control facility. The MOCC provides payload and spacecraft trajectory commands to support mission operations and received health and safety telemetry. In addition, ground support services to include satellite communications ground station network, facility-to-facility terrestrial communications and tracking collision and avoidance services (TCAS) will be provided for prelaunch mission systems development, testing and on-orbit operations. The infrastructure, services and operations provided will be consistent with the MethaneSAT Mission Operations Control Centre and Support Implementation Plan (Version dated 9 November 2020).

Post-commissioning, routine operations will be hosted at a qualifying tertiary institution. Plans and procedures will be in place to ensure safe and efficient MethaneSAT operations including, operations software systems, management plans, procedures, procedure validation, security, staffing (with minimum number of staff, roles and qualifications specified), operator training and certification. Mission time-line sequences, including vehicle and payload commanding and calibration activities, will be archived and maintained for the entirety of mission operations in addition to anomaly reports and flight system performance reports. MethaneSAT LLC will provide cloud based compute and archiving services for MBIE for the life of the mission and for the post-operational mission data archive. Formats and meta-data will be agreed at the MethaneSAT mission systems working group. A project document repository will ensure revision control of critical documents to include at a minimum:

- processes and procedures.
- agreements and protocols.
- interface Control Documents (ICDs).
- security plans.
- training documents
- Technical Interchange Meetings and review packages.
- ground segment schedules.
- security protection documentation.

These documents/procedures will be subject to review by MethaneSAT LLC and contracted parties.

A mission operations room within the MOCC will provide the physical location from which flight controllers support and operate the MethaneSAT mission and vehicle. The MOCC shall span two security zones: high and moderate. The high security zone shall be a physically separated set of information technology (IT) infrastructure and computing devices that

ensure the safety, reliability, and availability of the MOCC controlled spacecraft and payload. The high security zone portion of the MOCC shall perform commands uploads to control MethaneSAT. The moderate security zone shall allow for science calibration, non-critical observatory maintenance, and science data download sequencing. The moderate security zone also shall assess payload and spacecraft engineering telemetry for nominal performance and health. Both zones shall allow for compliance review prior to upload of any commands. MethaneSAT LLC shall have the right to inspect, approve and accept these activities and staffing to its reasonable satisfaction.

Uninterrupted mission operation services will be provided for a minimum of one year of operation with the intention of continuation for subsequent years subject to the appropriation of funding. During commissioning, the -MOCC will conduct 24/7 shadow operations. After commissioning, during routine operations, the MOCC will be staffed seven days a week with staffing hours that enable interchange between MOCC personnel and the science team generating the daily plan. On-call support and support by special request is to be provided as required to meet special peak or critical periods of activity.

For contingency operations, backup control center (BCC) capabilities and services shall be provided for each major MOCC subsystem element or function. As such, an environment in both a high security zone and a moderate security zone is provided to enable BCC operability and ensure un-interrupted mission operation services for the life of the mission. Responsibility and hosting of the BCC will be determined by MBIE subject to the agreement of MethaneSAT LLC.

TCAS will be provided and engaged for the duration of MBIE's mission participation including commissioning. The scope of these services is to be mutually agreed between parties based on an assessment of collision risk and spacecraft maneuverability.

Ground station services will be contracted and managed. The baseline requirement is S-band up/down and X-band downlink services (compatible with KSAT X-band lite capabilities) for a minimum of 20 contacts per day. Communications links to support both commissioning and mission operations will be provided for integrated testing, commissioning and a minimum of one year of operation.

ANNEX III

BUDGET

MBIE will contribute NZ\$11,768,049 to contract an Implementing Entity to design and build the MOCC. Table 1 specifies a cost breakdown of this contract with the Implementing Entity. Table 2 specifies MBIE's payment schedule to the Implementing Entity.

Table 1 MOCC Implementing Entity Cost Breakdown

Description	Cost (NZD)
Development	\$5,716,984
Operations	\$2,886,629
Ground Services Subcontract	\$1,012,941
Tracking and Collision Risk Assessment Subcontract	\$671,952
Anomaly Support and Post-Commissioning Support Subcontracts	\$1,173,250
CAPEX	\$0
Travel	\$306,291
Total	\$11,768,049

Table 2 MBIE payment schedule to the MOCC Implementing Entity

	FY20	FY21	FY22	FY23	Total
Budget (NZD)	\$ 3,677,310	\$ 3,128,593	\$ 3,342,088	\$ 1,620,058	\$ 11,768,049

MBIE will also contribute NZD\$6,000,000 to MethaneSAT LLC to cover components of MLLC's respective contracts with Ball and Blue Canyon Technologies (BCT) that are critical to mission operations services, as outlined in Table 3.

Table 3 MBIE's payment schedule to MethaneSAT LLC for Ball and BCT's contribution to mission operations

Instalment (plus GST (if any)) (NZD)	Date	Milestone
\$1,500,000	This Agreement duly signed by both Parties	Ball Aerospace and BCT commencement
\$1,125,000	ATP+22 months (July 19, 2021)	BCT EO-15, Bus Users Guide
	ATP+22 months (July 19, 2021)	BCT EO-17 Bus Command and Telemetry Handbook

	ATP+22 months (July 19, 2021)	BCT EO-20 Bus Anomaly Recovery Procedures
\$562,500	PSR – 6 months - January 1 2022	Ball Aerospace - MO-2 (first draft) Commissioning and Operational Procedures
\$562,500	PSR - 4months – March 1, 2022	Ball Aerospace - MO-3 (first draft) Mission Operations Training Package
\$1,125,000	July 1, 2022 -30 days	Pre-ship review (PSR)
\$1,125,000	September 15, 2022 -30 days	Ball Aerospace - Commission Successfully completed
Total: \$6,000,000		



Confidentiality Agreement

This Confidentiality Agreement (the “**Agreement**”), dated as of August 15, 2019 (“**Effective Date**”), is between MethaneSat, LLC, a New York limited liability company located at 123 Mission St. 28 Fl. San Francisco, CA 94105 (together with its affiliates, the “**Disclosing Party**”), and Ministry of Business Innovation and Employment, government entity located at 15 Stout St. Wellington, New Zealand (“**Recipient**”).

1. In connection with the Recipient’s participation on the MethaneSAT project (the “**Purpose**”), Disclosing Party may disclose to Recipient, or Recipient may otherwise receive access to, Confidential Information (as defined below). Recipient shall use the Confidential Information solely for the Purpose and, subject to **Section 3**, shall not disclose or permit access to Confidential Information other than to its employees, officers, and attorneys (collectively, “**Representatives**”) who: (a) need to know such Confidential Information for the Purpose; (b) know of the existence and terms of this Agreement; and (c) are bound by confidentiality obligations no less protective of the Confidential Information than the terms contained herein. Recipient shall safeguard the Confidential Information from unauthorized use, access or disclosure using at least the degree of care it uses to protect its most sensitive information and no less than a reasonable degree of care. Recipient shall promptly notify Disclosing Party of any unauthorized use or disclosure of Confidential Information and take all reasonable steps to prevent further use or disclosure. Recipient will be responsible for any breach of this Agreement caused by its Representatives.

2. “**Confidential Information**” means all non-public, proprietary or confidential information of Disclosing Party, in oral, visual, written, electronic or other tangible or intangible form, whether or not marked or designated as “confidential,” and all notes, analyses, summaries and other materials prepared by Recipient or any of its Representatives that contain, are based on or otherwise reflect, to any degree, any of the foregoing (“**Notes**”); provided, however, that Confidential Information does not include any information that: (a) is or becomes generally available to the public other than as a result of Recipient’s or its Representatives’ act or omission; (b) is obtained by Recipient or its Representatives on a non-confidential basis from a third party that was not legally or contractually restricted from disclosing such information; (c) was in Recipient’s or its Representatives’ possession prior to Disclosing Party’s disclosure hereunder; or (d) was or is independently developed by Recipient or its Representatives without using any Confidential Information.

3. If Recipient or any of its Representatives is required by a valid legal order to disclose any Confidential Information, Recipient shall, prior to such disclosure, notify Disclosing Party of such requirements and reasonably cooperate with Disclosing Party in the event Disclosing Party elects to legally contest such disclosure. If Recipient remains legally compelled, in the reasonable opinion of Recipient’s legal counsel, to make such disclosure, Recipient shall: (a)

only disclose that portion of the Confidential Information that, in the written opinion of its legal counsel, Recipient is required to disclose; and (b) use reasonable efforts to ensure that such Confidential Information is afforded confidential treatment.

4. At Disclosing Party's request, Recipient shall promptly, at Disclosing Party's option, either return to Disclosing Party or destroy all Confidential Information in its and its Representatives' possession other than Notes, and destroy all Notes, and certify in writing to Disclosing Party the destruction of such Confidential Information; provided, however, that Recipient may retain copies of Confidential Information: (a) that are stored on Recipient's IT backup and disaster recovery systems until the ordinary course deletion thereof, or (b) as required by applicable law or Recipient's document retention policies.

5. Disclosing Party provides all Confidential Information without any representation or warranty, expressed or implied, as to the accuracy or completeness thereof, and Disclosing Party will have no liability to Recipient or any other person relating to Recipient's use of any of the Confidential Information or any errors therein or omissions therefrom.

6. Disclosing Party retains its entire right, title and interest in and to all Confidential Information, and no disclosure of Confidential Information hereunder will be construed as a license, assignment or other transfer of any such right, title and interest to Recipient or any other person.

7. The rights and obligations of the parties under this Agreement expire 7 years after the Effective Date and either party may terminate this Agreement with thirty days' prior written notice; provided that the rights and obligations with respect to Confidential Information disclosed prior to such expiration or termination will survive.

8. Recipient acknowledges and agrees that any breach of this Agreement may cause injury to Disclosing Party and that Disclosing Party is entitled to seek an injunction to prevent any breach or threatened breach of this Agreement, to seek an order compelling specific performance of this Agreement and to pursue other equitable relief to mitigate the harm of an unauthorized use or disclosure of Confidential Information.

9. This Agreement and all matters relating hereto are governed by, and construed in accordance with, the laws of New Zealand. Any legal suit, action or proceeding relating to this Agreement must be instituted in the courts located in New Zealand. Each party irrevocably submits to the exclusive jurisdiction of such courts in any such suit, action or proceeding.

10. All notices must be in writing and addressed to the relevant party at its address set forth in the preamble (or to such other address such party specifies in accordance with this **Section 10**). All notices must be personally delivered or sent prepaid by nationally recognized courier or certified or registered mail, return receipt requested, and are effective upon actual receipt.

11. This Agreement constitutes the entire agreement of the parties with respect to its subject matter, and supersedes all prior and contemporaneous understandings, agreements, representations and warranties, whether written or oral, with respect to such subject matter. This Agreement may only be amended, modified, waived or supplemented by an agreement in writing signed by both parties.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the Effective Date.

Ministry of Business Innovation and
Employment

s 9(2)(a)

METHANESAT, LLC

s 9(2)(a)

JOINT DECLARATION OF INTENT
BETWEEN
METHANESAT, LLC,
THE ENVIRONMENTAL DEFENSE FUND, INC.,
AND
THE MINISTRY OF BUSINESS, INNOVATION AND EMPLOYMENT OF NEW ZEALAND
ON THE METHANESAT MISSION

This joint declaration of intent (the "Joint Declaration of Intent"), dated as of October 17, 2019 (the "Effective Date"), by and among the Environmental Defense Fund, Incorporated ("EDF") a US non-governmental, not-for-profit organization, whose mission is to preserve the natural systems on which all life depends guided by science and economics;

MethaneSAT, LLC, a New York limited liability company and a wholly owned subsidiary of EDF ("MethaneSAT"), responsible for the development of a satellite to quantify and map anthropogenic methane emissions worldwide (the "MethaneSAT Mission"); and

the Ministry of Business, Innovation and Employment of New Zealand ("MBIE") which houses the New Zealand Space Agency, administers the Outer Space and High Altitude Activities Act 2017, advises the New Zealand Government on space policy, and manages public investments in science and innovation, including climate science (EDF, MethaneSAT and MBIE collectively referred to as the "Participants") have reached the following understandings:

Mission Objective

The objective of MethaneSAT's satellite will be to pursue the MethaneSAT Mission. Initially, the focus will be on oil and gas supply chain emissions but will have the potential to assess emissions from a range of anthropogenic methane sources, including agriculture. Processed data generated by MethaneSAT, as well as derivative data products, will be made publicly available. EDF will use the data from MethaneSAT's satellite with the goal of catalysing a reduction in methane emissions from oil and gas infrastructure of at least 45 percent by 2025.

Strategic Collaboration Objectives

To strengthen the MethaneSAT Mission, expand the range of use cases for MethaneSAT's satellite data and to explore synergies between New Zealand scientific and technical expertise and that of MethaneSAT's team.

Key contacts

MethaneSAT

s 9(2)(a)

EDF

s 9(2)(a)

MBIE

s 9(2)(a)

1. Principles

1.1. The strategic collaboration between the Participants will be guided by the following principles:

- a) a shared vision of harnessing remote sensing technologies to benefit of life on Earth through quantifying, mapping and building high quality scientific understanding of greenhouse gas emissions;
- b) shared responsibilities, and mutual and equitable contributions and benefits as applied to the areas of collaboration within the mission;
- c) open and honest communication;
- d) a commitment to open data and science;
- e) a commitment to protecting intellectual property;
- f) a commitment to publicise the MethaneSAT Mission's objectives and successes and to mutually and appropriately promote each other's respective contributions; and
- g) abide by the national & international laws governing cooperative collaborations and Earth remote sensing satellite operations.

2. Participants' Contributions

2.1. On behalf of the New Zealand Government, MBIE will be responsible for funding and managing the following contributions to the MethaneSAT Mission in a manner consistent with the MethaneSAT Mission's requirements:

- a) (i) Design, construction, equipping, staffing and operation of the MethaneSAT Mission operations control center, and (ii) the development and validation of the plans, procedures and operator skills to safely and efficiently conduct the MethaneSAT Mission operations for a minimum of launch +1 year (cover all costs, but not to exceed NZD18 million)

- b) Science products, with potential to focus on underlying mission science and validation of methane flux retrieval and inversion algorithms as they apply to agricultural emissions (cover all costs associated with the scope of this effort, NZD6 million)
- 2.2. MBIE will also procure programme management resources to provide technical oversight of the delivery of New Zealand's contributions to the MethaneSAT Mission, coordinate the involvement of New Zealand institutions and to streamline all New Zealand institution engagement with the MethaneSAT Mission.
- 2.3. MethaneSAT and MBIE will mutually decide, and confirm in writing, the detailed allocation of responsibility for specific components, services, deliverables, milestones, and budget of the MethaneSAT project plan in regard to launch and the MethaneSAT Mission operations control center.
- 2.4. MBIE's contributions will conform to the MethaneSAT Mission's existing technical requirements, milestone timeframes, and design-to-cost budgets consistent with best commercial practice.
- 2.5. If it appears that the costs of meeting the MethaneSAT Mission operations control center technical requirements or milestone timeframes will exceed NZD18 million, the Participants will discuss how the shortfall will be met.
- 2.6. In the event that MBIE's contributions cannot meet the MethaneSAT Mission operations control center technical requirements or milestone timeframes, MethaneSAT retains the right to engage other stakeholders to meet the MethaneSAT Mission objectives. See Appendix A for current timeline.
- 2.7. MethaneSAT will be responsible for the MethaneSAT Mission operations control center costs that exceed the maximum MBIE contributions set out in 2.1 where MethaneSAT is responsible for changing or expanding requirements beyond agreed cost, schedule, and technical performance targets agreed in 2.3 and 2.4.
- 2.8. Should delivery of the MethaneSAT Mission operations control center requirements specified in 2.1(a) be achievable for less than NZD18 million, MBIE will use the savings as a contribution towards launch costs.
- 2.9. MethaneSAT will support MBIE in delivering MBIE's contributions to the MethaneSAT Mission, including through information, guidance, mentoring, and in so doing will support MBIE's objectives of growing New Zealand space industry and research capacity. MethaneSAT, and, where applicable, EDF, provide no warranty, whether written, oral, express or implied on such support. MethaneSAT, and, where applicable, EDF, specifically disclaims the implied warranties of merchantability or fitness for a particular purpose. MBIE will be responsible for covering the cost of any necessary technology export licenses and travel costs for personnel providing mentoring. MBIE will be responsible for the costs of any additional consultants or personnel (beyond the baseline staff budget) needed for mentoring and guidance.
- 2.10. In the event MBIE ceases construction or operation of the MethaneSAT Mission operations control center at any time for any reason, MBIE will grant to MethaneSAT a nonexclusive, perpetual, irrevocable, worldwide, royalty free license to use and sublicense any know how, trade secrets, copyrights, patents and other intellectual property owned by MBIE necessary for launching and operating the MethaneSAT Mission operations control center.

3. New Zealand Participation

- 3.1. MethaneSAT will facilitate New Zealand's participation as a collaborator in the MethaneSAT Mission. This will include, but not be limited to:
- a) MBIE non-voting membership on the MethaneSAT Steering Committee
 - b) New Zealand experts' participation in the Technical Advisory Group and Science Advisory Group as appropriate based on qualifications.

4. Communications, Advocacy and Policy

- 4.1. The Participants have a shared interest in growing the public profile of the MethaneSAT Mission, including the mission's science outputs, and will agree on strategies and protocols for working together to achieve this.
- 4.2. MBIE recognises EDF's status as a non-governmental organization that will use the data and findings from the MethaneSAT Mission on an arm's length basis in advocacy campaigns to reduce global methane emissions. EDF recognizes MBIE's status as a New Zealand government ministry that will draw on the data and findings of the MethaneSAT Mission to inform broader New Zealand government science and climate change policy, including in the context of international and inter-governmental climate change efforts. The Participants will agree on strategies and protocols for engaging with each other in the MethaneSAT Mission in a manner that respects and gives effect to their different statuses and mandates.

5. Implementation Process

- 5.1. MethaneSAT will invite MBIE to participate in meetings of the Steering Committee and in relevant mission planning meetings following the signing of this Joint Declaration of Intent.
- 5.2. MBIE will engage with New Zealand research institutions in collaboration with the MethaneSAT team with the intention of finalising preliminary planning for the delivery of a mission operations center and science engagement by the end of Q1 of 2020.
- 5.3. MBIE will identify potential New Zealand members for the Technical Advisory Group and Science Advisory Group as soon as practicable.

6. Resolution of Differences

- 6.1. Any difference between the Participants arising out of the interpretation or implementation of this Joint Declaration of Intent will be settled amicably through consultation or negotiation between the Participants.

7. Term

- 7.1. Joint Declaration of Intent will begin as of the Effective Date and remain in effect until 30 June 2023 unless extended or terminated by mutual written consent.

8. Confidentiality

- 8.1. Confidential information by and between MethaneSAT and MBIE will be governed by the Confidentiality Agreement executed by and between MethaneSAT, LLC and MBIE, dated August 15, 2019 (the "MethaneSAT NDA").

- 8.2. Confidential information by and between EDF and MBIE will be governed by the Confidentiality Agreement executed by and between EDF and MBIE, dated September 19, 2019 (the "EDF NDA").
- 8.3. All confidential information disclosed by the Participants will be used only for the purpose of this Joint Declaration of Intent and are governed by the terms of the MethaneSAT NDA, as between MethaneSAT and MBIE, and the EDF NDA, as between EDF and MBIE.
- 8.4. MBIE will comply with all ITAR and other regulatory requirements required for operation of the satellite as requested by MethaneSAT.

9. Title and Intellectual Property

- 9.1. Participants may produce documents, reports, maps, etc. ("Works") and unless otherwise agreed to by the Participants in writing, the intellectual property rights will belong to the Participant that produces the Work. If Work is jointly produced, both Participants will retain the intellectual property rights.
- 9.2. No Participant may distribute the Work of another Participant without prior written consent.
- 9.3. The Participants acknowledge that their names and logos may be used for information and publicity purposes and the Participants will be required to reach agreements on the use of their names and logos for these purposes

[REMAINDER OF THIS PAGE LEFT INTENTIONALLY BLANK, SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have executed this Joint Declaration of Intent as of the date first written above, effective as of the Effective Date.

For the Ministry of Business, Innovation and Employment

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For the Environmental Defense Fund, Incorporated

s 9(2)(a)

For MethaneSAT, LLC

s 9(2)(a)

EXHIBIT 2 Joint Declaration of Intent

APPENDIX A

	2017				2018				2019				2020				2021				2022				2023		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Phase O: Landscape analysis and feasibility study																											
Phase A: Scientific and technology assessment for design and capability																											
Develop coalition to support development and deployment of MethaneSAT science																											
Phase B: Detailed design of fabricated components, specification of custom purchase components, and improved error budget. Begin procurement.																											
MethaneAIR																											
Phase C/D: Fabrication and purchase of flight hardware, development of ground systems and ops algorithm																											
Launch MethaneSAT																											
Data Platform and Collection: Platform selected and built, algorithm refined to produce spatially explicit data on methane emissions from O&G infrastructure globally																											
Valid Data Streaming: Ongoing data analysis and identification of sources																											
Ongoing: MethaneSAT data is used to compel action in companies and countries and to track performance against goals*																											

*Note: This is outside of the project budget.

Key:

Complete

Underway

Future Work

Milestone

Key Milestone

Outside Project Budget