

DATE: July 28, 2023

FROM: Samuel Reid
President & Chief Executive Officer
Geometric Energy Corporation (GEC)/Geometric Space Corporation (GSC)

TO: Douglas Young
FCC Application File Manager DOGE-1 0083-EX-CN-2022
Geometric Energy Corporation (GEC)/Geometric Space Corporation (GSC)

SUBJECT: Response to DOGE-1 FCC Application Correspondence Reference Number 79243
Dated July 27, 2023; 0083-EX-CN-2022 License Grant Conditions

Dear Mr. Young:

This letter is to confirm that the Geometric Energy Corporation, the listed owner of the DOGE-1 mission, does hereby agree to the following comments and 0083-EX-CN-2022 License Grant Conditions from NASA (see below enumeration added for clarity) and has directed the DOGE-1 Mission Manager (XISP-Inc) to implement the same as part of the DOGE-1 mission baseline.

NASA comments for 0083-EX-CN-2022:

- (1) NG 265057 FRQ01 M8212.5 EXD01 251030 NTS01 P032 REMxx *AGN, ALL OPS ARE NIB TO FEDERAL USERS
The frequency for this proposal should be fixed at M8212.5 as opposed to a band assignment.

0083-EX-CN-2022 License Grant Conditions:

- (1) All operations are on a strict non-interference basis to authorized federal users.
- (2) Geometric Energy Corporation shall be aware that requests for operation in the 2025-2110 MHz, 2200-2290 MHz, and 8025-8400 MHz bands are considered on a case-by-case basis, and Geometric Energy Corporation shall have no expectations that future requests, including requests for renewal, will be approved.
- (3) Any future request for operations in the 2200-2290 MHz band must include a federal contract number and point of contact of the agency sponsoring the operations, and all planned operations must be coordinated through the established federal coordination processes prior to submission of regulatory applications for operation.
- (4) This authorization will expire two years after launch of the DOGE-1 mission or October 30, 2025, whichever occurs first.
- (5) Geometric Energy Corporation operations using the 2200-2290 MHz frequency bands shall be strictly limited to durations when the DOGE-1 is visible to the earth station located at Goonhilly Downs in Cornwall, United Kingdom.
- (6) Uplink transmissions from the earth station located at Goonhilly Downs in Cornwall, United Kingdom to the DOGE-1 shall be limited to a frequency of 2071.4 MHz and shall employ an emission bandwidth no greater 450 kHz.
- (7) Uplink transmissions from the earth station located at Goonhilly Downs in Cornwall, United Kingdom to the DOGE-1 shall cease when the NASA WISE (NORAD designation 36119, International Spacecraft ID 2009-071A) is within horizon to horizon view of the earth station.
- (8) Geometric Energy Corporation shall coordinate the addition of any earth station location operating in the 2025-2110 MHz, 2200-2290 MHz, or 8025-8400 MHz bands (including earth station locations outside the US&P) with the NTIA and federal agencies prior to submitting applications for regulatory approval.



- (9) Satellite transmissions from the DOGE-1 shall cease operation when not in view of the supporting earth stations.
- (10) All transmissions in the band 2200-2290 MHz and 8025-8400 MHz band shall comply with national and international power flux density limits, unless otherwise coordinated with the NTIA and federal agencies.
- (11) PFD analysis shall be submitted with the FCC application and provided to the NTIA for US Government review.
- (12) Geometric Energy Corporation shall be aware that the 8025-8400 MHz band is allocated to the Earth Exploration-Satellite Service and satellite transmissions within this band are limited to information relating to the characteristics of the Earth and its natural phenomena.
- (13) Geometric Energy Corporation shall have no expectations that future requests for operations in this band that do not satisfy this requirement, including requests for renewal, will be approved.
- (14) Geometric Energy Corporation shall submit the appropriate advance publication and information to the International Telecommunications Union (ITU) prior to operations of the DOGE-1, and transmissions from foreign earth stations to the DOGE-1 shall obtain the appropriate regulatory approvals from the respective foreign administrations prior to operations.

Samuel Reid

Samuel Reid, President & CEO
Geometric Energy Corporation
DOGE-1 Satellite Owner

July 28, 2023

Date

Gary P. Barnhard

Gary P. Barnhard, President & CEO
Xtraordinary Innovative Space Partnerships, Inc. (XISP-Inc)
DOGE-1 Mission Manager

July 28, 2023

Date

Cc: Gary P. Barnhard, gary@geometricenergy.com & gary.barnhard@xisp-inc.com