

DPA26TZ06-DV005
Fuel-Flexible Spacecraft Electric Propulsion System
Frequently Asked Questions (FAQs)

1. Are EP technologies other than a Hall thruster being considered?
A: Yes, the solicitation is open to other electric propulsion technologies.
2. Is the 100-hour Durability requirement an automatic disqualifier, or would a smaller number of tested hours still be considered for award?
A: A 100-hour durability test is a requirement for this DP2 solicitation. For pulsed devices, the device must be operated for >10,000 cycles for minimum consideration and >100,000 cycles for strong consideration.
3. I do not have thrust stand data for my device. May I submit plume or beam diagnostic data to infer efficiency instead?
A: No, inferred efficiency from beam diagnostics is not sufficient for eligibility. Actual calibrated thrust stand data is required.
4. Do I need to monitor thrust continuously during the 100-hr test?
A: No, but the durability test must provide continuous telemetry including relevant voltages and currents. In addition, if thrust is not monitored during the test, the same hardware must subsequently be test fired on a thrust stand to verify efficiency, with otherwise consistent telemetry to confirm similar operation as the 100-hr test.
5. Are EP technologies other than a Hall thruster being considered?
A: Yes, the solicitation is open to other electric propulsion technologies
6. I do not have thrust stand data for my device. May I submit plume or beam diagnostic data to infer efficiency instead?
A: No, inferred efficiency from beam diagnostics is not sufficient for eligibility. Actual calibrated thrust stand data is required.
7. For demonstrating feasibility for Phase II, is the expectation that a cathode would also need to accumulate the 100-hour test operating on one of the listed flexible fuel species? Or would operation of the cathode on a noble gas be sufficient, provided the anode is operated on one of the listed species for the 100-hour test?
A: If a cathode is required for the proposed thruster technology, it may use a noble gas for the 100-hour eligibility test. The anode must operate on the flexible fuel species.
8. How frequently is performance expected to be verified over the cumulative 100-hour burn? Would performance checks at the beginning and end of a long-duration test be sufficient, provided the thruster is maintained at the same operating point throughout?

A: Monitoring need not be continuous. If continuous thrust stand operation during the test is not convenient, it is perfectly acceptable to provide thrust stand measurements before and after the test. The same operating point must be maintained throughout, the same thruster hardware must be used, and the provided data must make obvious that the thrust stand verified performance operating point matches the 100-hour operating point.