FAQs - Transformative Expandable Modular Data Center

Last updated October 16, 2026

GENERAL RESPONSE: During this phase, the Government seeks to gain a comprehensive understanding of industry capabilities to allow the Government to obtain “innovative” solutions that fulfill requirements, close capability gaps, or provide potential technology advancements. Solutions may include existing technologies or procedures that are not currently in use that would enhance or streamline their mission capabilities.

This announcement is being issued to solicit solution briefs ONLY. The purpose of the solution brief submissions is to identify potential partners that may have promising solutions relative to the IPR. An offeror that describes a promising solution may be asked questions regarding their solution via email or requested to virtually attend a solution pitch with the Government project team. The Government reserves the right to move straight to Request for Proposal (RFP) based on solution brief only.

If a solution is selected and funding is available, the Government will issue an RFP containing the level of detail required to develop a full proposal.

Could you please confirm whether the Transformative Expandable Modular Data Center opportunity is intended to be submitted under the existing Information Technology Laboratory CSO, or whether there should be a separate solicitation or submission package specific to the Modular Data Center requirement?

Please submit your response through the designated portal identified on the program webpage under the **"How to Participate"** section. Submissions should not be provided through other related opportunity channels. When preparing your response, please follow the formatting requirements outlined in **Section B** of the ITL CSO submission guidance.

Is it possible to Extend the Date of Submission by 5 to 7 days to allow for a full and complete design to be generated and a complete proposal to be designed and submitted?

Yes.

What's the definition of Small Business?

Under the Federal Acquisition Regulation (FAR), a “small business” is a small business concern that meets the size standards established by the U.S. Small Business Administration (SBA) for its specific NAICS code.

Do you have any drawings or full specification sheets on what is required?

See General Response.

Are there constraints or specific requirements for the physical footprint (square footage, minimum/maximum) and weight of the MDC?

See General Response.

What is the Actual 480 V capacity (kVA), required feeder redundancy, and point of interconnection?

Feeders should have the capacity to carry the connected load in accordance with the National Electrical Code, no additional redundancy is required. Point of interconnection will be site dependent and will be mutually agreed upon.

What are the requested Rack count and mix (how many 300 kW vs service racks)?

Solutions should be able to support a variety of rack configurations.

Cooling boundary: Who own the CDUs; water temps, flow, chemistry; DLC and RDHx in the same hall or not?

Typically, the compute vendor will provide the CDU to supply coolant for the DLC and RDHx. However, proposed solutions are not required to have the compute vendor provide the CDU.

Would it be preferred that the CDU's be in Row, in Rack or both for greatest level of redundancy?

The Government is open to any solution that supports the needed compute requirements. Typical systems currently have in-row CDUs provided by the compute vendors.

What would be the preferred Generator full load runtime hours and UPS autonomy minutes?

Generators 72 hours of runtime at full load. UPS 2 minutes of runtime at full load.

How many future 1 MW blocks the site is planned to take up in space, and shared vs dedicated plant?

Multiple blocks are being considered in diverse sites. Shared plants on the order of 5MW would be feasible.

How do we prove 1 MW before IT arrives if DLC/RDHx/CDUs come with the IT hardware?

See General Response.

What are the specifications required regarding load-bank testing of 1 MW and 100% liquid cooling, but the CDUs and rack-level liquid systems are "provided with the IT hardware" and therefore not on site for facility Cx?

Enough cooling should be provided to remove all heat generated by the input power; this is typically not directly measured but calculated.

What is the primary source of power (gas power plant, green (hydro etc.), nuclear, etc.)?

Entergy MS provides 115 kV power to the ERDC Substation. Primarily natural gas and nuclear.

Is the land prepared for the DC modules, grading, slab, utilities including power?

Varies depending on the site. No slabs are in place since dimensional and weight requirements are unknown. Distribution circuits are adjacent to all potential sites.

How would power be delivered to the site (from which substation(s).

Existing distribution circuits from the ERDC Substation that are adjacent to potential sites.

What is the existing onsite substation capacity and current demand on the substation.

Existing ERDC Substation is 40 MVA. Maximum demand observed is 18 MW. Additional fans are being added to the existing transformers to bring capacity to 50 MW. Peak load capacity is 40-45 MW.

Are there multiple power paths to site (from which sources, substations)?

No.

What is voltage level(s) can be delivered to site (e.g., "medium" 13.8 kV)?

Distribution system is 8,000/13,8000 Volt, single point grounded wye.

What is process to request, receive commitment, and delivery power capacity to site?

The electrical distribution system is owned and operated by ERDC. This is an internal ERDC process.

What is total capacity possible at site?

Varies by potential site 3-5 MW.

What is the total site electrical load we should design for today and for the future?

Determined by site and available capacity at that location.

We need to verify that 300 kW a cabinet and 1 MW ask, this represents three cabinets

Module should be able to support high power density cabinets; the Government recognizes that power may become a constraint over floorspace if higher density cabinets are utilized.

Do we need to manage the utilities installation to the site, those costs would need to be included.

See General Response.

Is there additional power available for supporting infrastructure beyond the 1 MW?

Yes. See above about station capacity.

What information do you need from us to provide a reliable power delivery roadmap and capacity commitment?

The Government will work directly with the utility to provide station power to the modules.

What factors would prevent or delay delivery of the capacity levels we are contemplating?

Solutions should identify any potential preventions or delays associated with the proposed capability and associated delivery lead times.

Are there minimum consumption commitments or take-or-pay obligations?

No.

Are there interruptible service provisions?

Yes.

Are long-term rates available?

Not applicable. All sites are behind existing ERDC metering located at the ERDC Substation.

What economic development incentives, grants, or special programs may be available?

None.

What financial commitments are required to secure capacity?

None.

How long can capacity be held once committed?

Not applicable.

What load growth assumptions have been forecasted for this area over the next 5, 10, and 20 years?

The Government anticipates the ERDC Substation will grow to a maximum demand of 40-45 MW within the next 3 years. Any future growth will require additional facilities. Maximum potential future growth is 50-100 MW.

Will they require perimeter fencing or is this in a secure area today?

Security fencing is required.

Cameras, are we to design the camera system for the site?

See General Response.

Card access – what brand of card access system will they required?

See General Response.

What diesel delivery services do you recommend?

The Government will provide fuel via existing contracts.

The UPS is 1mw, will these be N+1 for units or just modules?

N+1 at the module level is sufficient.

Will the sites or the containers have more than 1mw systems?

Systems could potentially exceed 1MW.

Each UPS system will have a maintenance bypass cabinet?

Yes.

The batteries will be Lithium or VRLA?

See General Response.

The UPS systems and batteries will be contained in the same containerized solution or separate?

See General Response.

Will the containers need to be placed on wheeled chasies or will they be placed on a pad?

On a pad.

What else in the container would the site look for? (lights, electrical panel, receptacles, remote battery monitoring, etc.)

All of the above, plus access controls, and intrusion detection systems.

Would the customer need any PDU's?

See General Response.

Would the customer need any RPP's?

See General Response.

What type and size of switch gear does the customer need?

See General Response.

Would the HVAC need to be N+1 as well?

Yes.

What is the required battery backup time?

UPS will require 2 minutes of runtime at full load.

Would the N+1 apply to the battery as well?

Yes, at module level.

How often would you expect to cycle the battery? (reliable grid locations vs Unreliable or frequent brown outs?)

Power is generally reliable but will vary by site due to vegetation.

Is there any expectation that these will be used for AI loads?

Yes.

Will this all be 480V or will there be any 800V architecture?

277/480Y V AC is anticipated.

What's the minimum technology readiness level would be considered?

Modules and critical power components should be TRL9, some non-critical components could be a lower level.

Is the modular data center transportable?

Not required.

What are the requirements on total weight, footprint, and volume?

See General Response.