

Assessment of Fusion Power Plant Site Criteria Against Opportunities at NPIAS Airports

Richard Walsh, M.Sc., A.A.E., a3i global aeronautics advisors, LLC.

The recent Trump Media & Technology Group and TAE Technologies (TMTG/TAE) press release, Figure 1 outlines site selection criteria for TMTG and TAE's pioneering fusion power plant, emphasizing scalability from a 50 MWe reactor on at least 20 acres to larger 350-500 MWe units, grid connectivity, proximity to urban centers and talent, supportive governance, and security. These align well with opportunities at many General Aviation (nonprimary) and non-hub primary airports in the National Plan of Integrated Airport Systems (NPIAS), particularly those that are land-rich (with excess acreage for non-aviation development) and operationally deficient (e.g., needing upgrades to runways, pavement, or facilities, as indicated by eligibility for federal Airport Improvement Program funding). As of the latest NPIAS (2025-2029), there are 3,287 airports in the system, including 390 primary airports (252 of which are non-hub, accounting for 3% of U.S. enplanements) and 2,897 nonprimary airports (primarily GA, subdivided into national, regional, local, and basic categories).

Trump Media & Technology Group and TAE Technologies Commence Site Selection Planning Process for Pioneering Fusion Power Plant

Companies Announce Site Selection Criteria

Siting and Construction Start Planned for 2026

SARASOTA, Fla., Jan. 06, 2026 (GLOBE NEWS WIRE) -- Trump Media & Technology Group Corp. (Nasdaq, NYSE Texas: DJT) ("TMTG") and TAE Technologies, Inc. ("TAE") announced today that the site selection planning process for the first fusion power plant based on TAE's technology is underway and that, following the receipt of required approvals and the closing of their previously announced merger, the combined company is anticipated to begin construction of its first fusion power plant in 2026, which is expected to be 50 MWe. Future plants are expected to be 350 - 500 MWe.

Criteria for the initial site are expected to include:

- Minimum of 20 acres, facilitating construction of a planned 50 MWe fusion reactor, a future 350 - 500 MWe fusion reactor, and a next-generation reactor for advanced research
- Access to a primary distribution grid that can transport adequate electricity to and from the plant
- Proximity to a metropolitan hub, airport, and pool of local talent
- Presence of local and state governments that support energy production and fusion power
- Ability to maintain sufficient security for infrastructure and personnel

TMTG Chairman and CEO Devin Nunes said, "The TMTG team is actively holding discussions with multiple states and entities about potential sites as we look forward to completing this merger. These are the initial steps to spark a renaissance in American energy to secure safe, clean, abundant, and affordable fusion power that will lower Americans' energy bills and guarantee America's predominant position in the A.I. revolution."

TAE CEO and Director Dr. Michl Binderbauer said, "Five successive fusion machines have established the core physics, including the ability to stabilize plasma performance with real time active feedback control. This is fusion's moment. Surging power demand and fusion's strong safety profile provide significant tailwinds facilitating further deployment of our technology."

Figure 1. TMTG/TAE Press Release

These airports collectively require \$67.5 billion in development over five years to address deficiencies like deteriorating pavement, safety enhancements, and capacity constraints, with nonprimary airports representing 28% (\$19 billion) of these costs. Many underutilized sites have surplus land suitable for revenue-generating projects like energy infrastructure, which could fund operational improvements while meeting fusion site needs. Airports often generate non-aeronautical revenue through land leases, and federal policy allows compatible non-aviation uses with FAA approval.

Alignment of Criteria with Airport Opportunities

The following is a breakdown of how the fusion plant requirements map to typical features of land-rich, operationally deficient GA and non-hub NPIAS airports:

Criterion	Airport Opportunities	Rationale/Examples
Minimum 20 acres (scalable to larger reactors)	High alignment; many have 1,000+ excess acres available for development.	NPIAS airports, especially former military bases or relievers, often have underutilized land for non-aviation projects like industrial parks or data centers. Deficient airports can lease land to generate revenue for fixes.
Access to primary distribution grid	Moderate to high alignment; varies by location but often feasible.	Airports near urban or industrial areas typically connect to robust grids. Former bases (e.g., in hydro-rich WA or energy hubs like TX) have existing infrastructure. Grid upgrades could address deficiencies.
Proximity to metropolitan hub, airport, and talent pool	High alignment; inherent for reliever/GA sites near cities.	Many are suburbs of metros (e.g., near LA, Houston), providing talent from tech/university hubs. As airports, they satisfy the "proximity to airport" need directly. Non-hub primaries often serve smaller metros with growth potential.
Supportive local/state governments for energy production and fusion	High alignment; depends on state policies but strong in innovation-friendly areas.	States like CA (TAE's home), TX, FL, and WA prioritize clean energy and economic development. Fusion's low-emission profile fits renewable goals, and airports can benefit from state grants.
Ability to maintain sufficient security for infrastructure and personnel	High alignment; built-in airport features.	Fenced perimeters, controlled access, and existing security protocols (e.g., for GA ops) suit critical infrastructure. Enhancements could tie into AIP-funded safety projects.

Overall, these airports represent strong opportunities because their deficiencies (e.g., low operations, aging facilities) make them eager for revenue streams, while excess land avoids conflicts with aviation. Challenges include FAA approval for non-aviation use, environmental reviews (e.g., noise/land compatibility), and site-specific grid/talent assessments.

Fusion plants could enhance resilience by providing clean, baseload power, aligning with the press release's goals.

Specific Examples of Potential Sites

Based on searches for land-rich, underutilized GA (nonprimary) and non-hub primary airports, here are five examples that match the criteria. These are drawn from lists of large-acreage relievers/GA sites and known underutilized non-hubs, with notes on fit:

1. Palmdale Regional Airport (PMD), Palmdale, CA

- NPIAS Classification: Nonprimary (reliever), formerly primary with commercial service.
- Land Area & Operations: 5,832 acres; low operations since commercial flights ended in 2008 (10,392 enplanements in 2008, now mostly GA and aerospace testing).
- Deficiencies/Opportunities: Underutilized; needs subsidies for service restoration. Excess land suitable for development; adjacent to aerospace facilities (e.g., Plant 42).
- Fit: Near LA metro/talent (universities, tech); CA supportive of fusion/clean energy; grid access via regional infrastructure; security via existing ops.

2. Grant County International Airport (MWH), Moses Lake, WA

- NPIAS Classification: Non-hub primary (limited commercial/cargo).
- Land Area & Operations: 4,650 acres; low passenger ops (~5,000 enplanements/year), used for aircraft testing/storage.
- Deficiencies/Opportunities: Former Air Force base, underutilized with surplus land for industrial parks; eligible for AIP funds for pavement/safety upgrades.
- Fit: Proximity to hydro grid (abundant clean power); near Seattle talent pool; WA gov supports energy innovation; high security from testing activities.

3. Reno Stead Airport (RTS), Reno, NV

- NPIAS Classification: Nonprimary (reliever/GA).
- Land Area & Operations: 5,000 acres; moderate ops, hosts air races but otherwise underused.
- Deficiencies/Opportunities: Large excess land; potential for development amid regional growth.
- Fit: Near Reno metro/tech talent (e.g., Tesla Gigafactory nearby); NV promotes renewables; grid ties to Western interconnect; airport security established.

4. Meadows Field (BFL), Bakersfield, CA

- NPIAS Classification: Non-hub primary.
- Land Area & Operations: ~1,100 acres; underserved with capacity (third-longest runway in CA) but low enplanements.

- Deficiencies/Opportunities: Operationally deficient in utilization; land available for expansion/development.
- Fit: Near Central Valley metro; CA talent/grid support; proximity to energy sectors (oil/renewables transition).

5. Rickenbacker International Airport (LCK), Columbus, OH

- NPIAS Classification: Non-hub primary (cargo-focused).
- Land Area & Operations: ~1,750 acres; underutilized passenger ops, strong cargo but excess land. (Note: Similar to nearby Wilmington AirPark at 2,000 acres.)
- Deficiencies/Opportunities: Needs passenger growth; land for logistics/energy projects.
- Fit: Near Columbus metro/talent (universities); OH supports advanced manufacturing; grid access via Midwest network; secure cargo ops.

These examples are not exhaustive, other candidates include Roswell International Air Center (ROW, NM; ~5,000 acres, underutilized boneyard) or Eastern Iowa (CID, IA; exploring data centers on surplus land).

TMTG/TAE should prioritize sites in states with ongoing discussions, conducting site-specific due diligence on grid, zoning, and FAA compatibility. This approach could accelerate fusion deployment while revitalizing deficient airports.