March 19, 2025

**Docket No. QO24020126**
**IN THE MATTER OF THE 2024 NEW JERSEY ENERGY MASTER PLAN**

How “Power Couples” Can Help the United States Win the Global AI Race

**RMI analysis shows that building data centers alongside wind, solar, and batteries near existing grid connection sites can fast-track electricity needed for AI — without forcing families and businesses to foot the bill.**

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RMI analysis finds that a new co-location strategy — which we call “**Power Couples**” — can help pioneering AI firms rapidly supply clean electricity to data centers without risking grid reliability. Additionally, the approach could *improve* the affordability of electricity for the average customer while reducing overall grid emissions.

## How Power Couples work

Please refer to Exhibits in the above link

A Power Couple is the pairing of a large electricity consumer with new-build solar, wind, and battery resources sized to meet the on-site load, all located near an existing generator with an approved interconnection.

The basic structure of a Power Couple is shown in Exhibit 1. New clean energy resources, such as wind, solar, and battery storage, are built near the site of an existing generator, sending power not required by the co-located load to the grid using its point of interconnection.

The combination is sized to meet the needs of the new large-load customer for all hours while, at a minimum, still satisfying the existing plant's historical responsibilities to the grid. Physical protections paid for by the large-load customer prevent the latter from using the grid for capacity, energy, or delivery infrastructure.

As a result, the co-located load avoids imposing any additional burdens on the grid. With this approach, costs are assigned precisely to the co-locating parties, protecting other ratepayers from paying for grid upgrades that may not be needed if AI power demands do not fully materialize (or, if they do, from higher locational marginal pricing or reliability impairments that would follow from load drawing from an over-stressed grid).