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TSMC: Long-Term Energy Agreement Could Rejig Data Center Analysis



Check Arizona Public Service's Large Load Power Agreement Template

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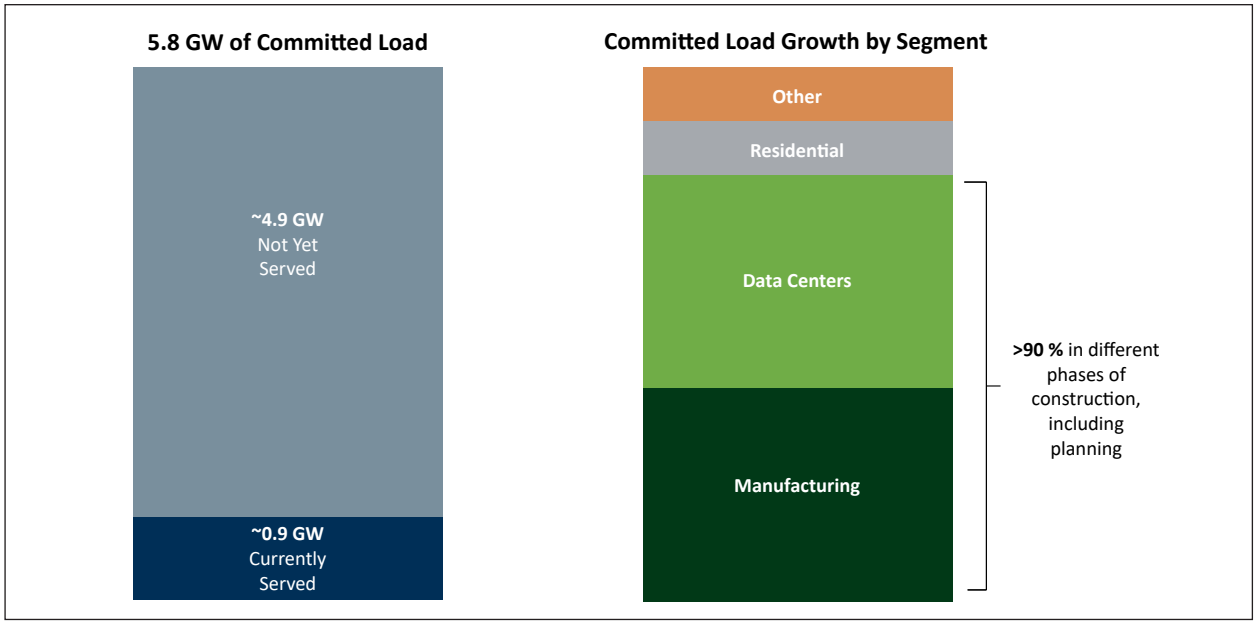
The 25-year, 1.88 GW power agreement that the chipmaker TSMC is poised to execute with Arizona's largest utility company should recalibrate the underwriting of energy costs of large digital infrastructure exposures, including data centers. Simple comparisons of electricity costs across different regions will be far less relevant going forward. Low wholesale power cost markets, such as Phoenix, AZ, will not necessarily be credit positive or "strengths" of data center transactions. Rather, nuanced power agreement terms, such as (1) "take or pay" provisions, (2) deferred revenue prepayments, or (3) annual "true-ups", will critically determine the cost structure and cashflow schemes of so-called "large load" properties.

Arizona Public Service (APS), the primary subsidiary of investor-owned electric utility holding company Pinnacle West, emphasized that the agreement it negotiated with TSMC is designed to be replicated for other large load customers. Data centers comprise a significant chunk of Pinnacle West 5.8 GW committed load growth (Figure 1). The acute focus of utilities and policymakers on shielding residential ratepayers from real or perceived data center costs will make TSMC-like agreements prevalent. The political backlash against data centers, and the midterms "blue wave", are further incentivizing the rapid implementation of such agreements.

Figure 1. Pinnacle West Committed Load Growth by Segment



Source: Company presentation and Academy Securities

PUC Docket Shows Key Aspects to Track

The TSMC agreement APS is proposing reinforces the critical role public utility commissions (PUCs) now play in influencing digital infrastructure dynamics. APS must secure the approval of the Arizona Corporation Commission (ACC), the state's public utility commission, before the parties can move forward. APS submitted its so-called "direct pricing contract" to the ACC for approval earlier this month.

APS submission of its TSMC contract also reminds market participants that PUC dockets provide troves of publicly available documents on utility interactions with their large load customers. Materials such as the APS-TSMC "direct pricing contract" (DPC) can augment and inform deal documents and presale reports that investors typically review. To be sure, the DPC that APS submitted is heavily redacted. Much, if not all, of the specific pricing details remain behind confidentiality walls. But the APS approval application provides plenty of informative color and context on the key terms of the contract. Several aspects caught our attention:

- **"Take-or-pay" provisions.** The TSMC agreement formalizes the growing inclination of utilities to set fixed-level capacity charges (take or pay) for their large load customers, regardless of actual consumption. Utilities in several other states, including Ohio and Texas, are taking similar steps. The TSMC agreement also escalates the fixed-level capacity charges as APS will be putting new sources and infrastructure into service. For investors, the rigid format of take-or-pay provisions can inject more cashflow predictability into cost structures, even if data centers are required to pay for capacity they may not need throughout their life cycle.[1]
- **Grid buildouts.** Amid political and community pushback, utilities and digital infrastructure developers increasingly turn to emphasize that large load customers can help rebuild and upgrade aging grids. The TSMC agreement provides some concrete examples of how TSMC will fund new projects that expand APS grid-wide generation and transmission infrastructure. Notably, APS broader customer base will be able to utilize excess capacity even from TSMC-dedicated power generation sources, such as the planned 1,200 MW Desert Sun Power Plant (DSPP).
- **Cash return on construction work-in-progress.** APS will be charging TSMC payments while the utility is financing the development of generation resources, such as DSPP. The payments are aimed at maintaining APS financial and rating stability. This is an interesting arrangement, where a utility is shifting its financial soundness support to its large load customers during resource development periods.
- **Avoid stranded cost risks.** The growing focus on joint construction of power plants and large load projects (data centers, manufacturing facilities) spotlights the risk of stranded assets via capacity under-usage or contract non-renewals.[2] The APS-TSMC situation provides a case study by directly addressing stranded asset risk. If TSMC does not renew its contract, it will make a so-called "resource value reconciliation" payment to APS. The payment will reflect any difference in market value between APS-owned generation resources serving TSMC and the net-book value of such resources. For investors, this is another aspect to consider in underwriting end-of-lease scenarios.

1 "Power Costs: Data Centers and Recovery Bonds Poised for More Predictability," Securitized Products Special Topics, Academy Securities, March 10, 2025

2 "Stranded Assets: Intertwining Power Plants and Data Centers Performance," Securitized Products Special Topics, Academy Securities, February 5, 2025

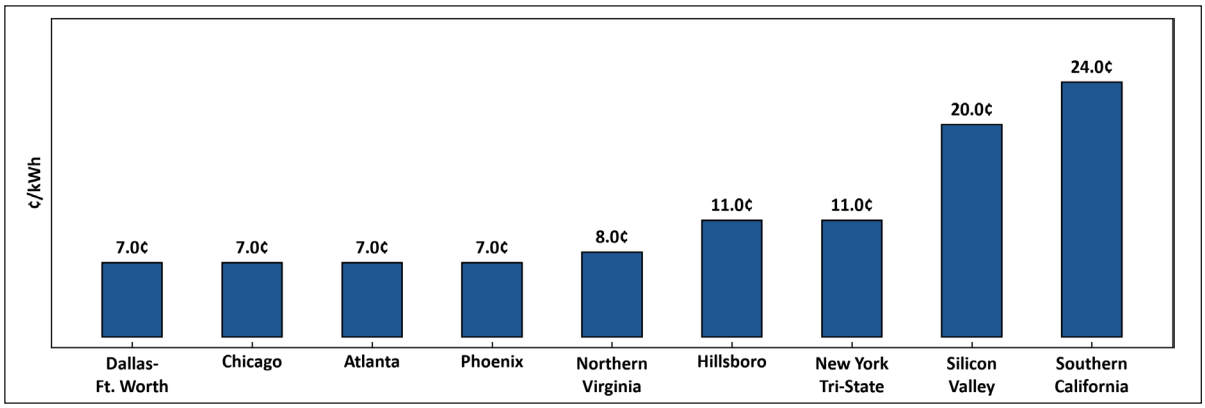
- **Early termination/exit provisions.** The TSMC agreement stipulates payments for early exit/default situations, aside from the nonrenewal-driven stranded asset payments. TSMC will be responsible for the net present value of the contract payments, subject to APS's ability to mitigate through re-allocating contracted capacity. Assessing early termination/exit scenarios in large load agreements has become especially important, because data centers and other projects increasingly seek load flexibility amid evolving technology needs. For investors, this should be a critical part of cash flow modeling.[3]

Focus on Power Contract Nuances, Not Generic Power Costs

Replicating the TSMC contract across other large load users in Arizona, and potentially across other states, will rejig some common underwriting and rating aspects in data center transactions. A couple items come to mind:

- **Generic regional power costs less relevant.** Data center transaction deal documents and presales routinely have been flagging low power costs in particular markets as key collateral strength. For example, in the $735 million VDCM 2025-AZ, backed by three data centers in Goodyear, AZ, deal documents noted that the buildings are in the Phoenix market, which has "favorable power costs relative to other major U.S. markets" (Figure 2). Conceptually, that made sense. However, direct pricing agreements, such as the TSMC one, could dramatically change that concept. Large load customers, especially data centers, are poised to pay unique, premium payments on their power consumption.

Figure 2. Top U.S. Data Center Regions Power Costs



Source: Deal documents and Academy Securities

- **Detailed disclosure of power agreements.** Deal documents have been providing fairly limited disclosure of data center power agreements thus far. We have seen very generic statements, such as a data center has "long-term renewable virtual power purchase agreement to match all electricity usage." The complex, highly nuanced TSMC contract clearly illustrates that terse descriptions of power agreements no longer would suffice for full underwriting. We expect deal documents to provide ample details on such agreement going forward. This will echo the growing focus on data center tenant agreement disclosures. Descriptions of tenant contracts, such as service level agreement (SLAs), used to be fairly brief. Now we see much more detailed disclosures, especially of the multiple early termination options tenants may have negotiated with the data center operators.

3 "Early Terminations: Tenant-friendly Provisions to Move up Data Center Rollovers," Securitized Products Special Topics, Academy Securities, April 30, 2025

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