

Powering AI: Data Boom Driving Earnings Growth Across Infrastructure Sectors

Ariel Lubecki: Hi everyone. I'd like to welcome you to an insightful discussion on some of the unique demand drivers within the power and energy infrastructure sectors. My name is Ariel Lubecki, Client Relationship Manager at Brookfield's Public Securities Group, and I'm joined by Tom Miller, Managing Director and Portfolio Manager on the Infrastructure Securities team. In this role, Tom oversees the portfolio construction process, including execution of buy and sell decisions within our flagship listed infrastructure investment strategies. So with that in mind, Tom, let's jump right into the discussion. In the last several months, we have seen increasing demand for data centers along with a lack of reliable and affordable energy to power these assets. Can you talk at a high level about what is driving these demand trends?



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Tom Miller: Thanks Ariel. At Brookfield we talk a lot about the three Ds and how real assets are at the epicenter of these decades long megatrends. Those three Ds are decarbonization, deglobalization and digitalization. Now, the key to our discussion today is around the concept of digitalization. Essentially it's the process of taking large amounts of data and processing capabilities and creating new processes. You can think about this in terms of automation and artificial intelligence, which enable organizations to be faster, more efficient, and more profitable. We've seen some very rapid developments on the digitalization front, and they have created some hockey stick growth expectations for data infrastructure demand as more and more data requires critical real asset investments, so it can be transported, processed, stored and powered.

Ariel Lubecki: Thank you for setting the stage, Tom, and providing that background. Yes, as you mentioned, there seems to have been a very rapid—some would call it a step function—change in the demand for data infrastructure and the power to operate these assets. Let's dig a little bit deeper and walk through some of those drivers in more detail?

Tom Miller: Absolutely. The growth in hyperscale data centers is the key driver, and really that's been driven by advancements in generative AI capabilities. These are the data centers where highly advanced computationally intensive applications are developed in-house. The semiconductor chips required to run these applications consume a lot more power than the legacy processor chips. The advancements in these chips have resulted in the largest cloud computing and data management companies, sometimes referred to as hyperscalers, increasing their data infrastructure spending quickly and quite significantly. And speed to market is absolutely key for these companies in order for them to be able to benefit from the investment in these capabilities.

However, what we've seen is availability of ample and reliable power has become one of the key constraints in building the necessary data infrastructure that will be the backbone of next generation computing. According to some estimates we've seen, data centers today account for somewhere between 1-1.5% of overall global electricity demand, but over the next several years, that percentage is expected to more than double to 3-4.5% of global electricity demand. And coordination with utilities and power providers is critical to ensuring the success of these investments in new hyperscale data centers. Oftentimes this can be a multi-year process whereby the local utility needs to put forth its expectations of power needs to the regulator as well as the forecast spending for additional infrastructure that may be required, such as new electricity transmission lines. The regulator then needs to ensure the proper rate design construct such that consumers are no worse off and are not left paying a disproportionate share of the fixed investment costs.

Ariel Lubecki: To dovetail on that increased demand for power that we've alluded to, I'd like to spend some time talking about the investment opportunity across the listed infrastructure space. To clarify for our audience, the listed infrastructure universe is comprised of utilities, midstream energy, communication infrastructure and transport assets such as rail, toll roads and airports. Can you highlight some of the implications across these various subsectors?

Tom Miller: We see the main beneficiaries of this megatrend within our space largely being the regulated utility power and energy infrastructure sectors. Companies within these real asset sectors provide what we refer to as the power behind the power of AI. And before I get into the specifics, I just wanted to highlight an observation of ours. Now we've long operated in this quiet corner of the investment universe following these utilities. But it's been really interesting to see lately as we go out to conferences and management meetings, we're seeing a tremendous amount of new faces and generalist investors in these meetings. From our perspective, it's fun to see the explosion of interest among the companies that we have followed closely for a long time. And, we really think this highlights the level of excitement and positive sentiment around the investment opportunity that we see unfolding over the next several years.

Firstly, regarding utilities, as we highlighted earlier, these companies will be the critical enablers for ensuring the promise of AI becomes a reality. First, and foremost, will be the investments required for new power generation. Over the last 15 to 20 years, demand for power in developed economies has been relatively flat due to efficiency gains in power consumption, so most new power generation investments were simply made to replace aging assets such as coal plants that are being retired. But now we're on the precipice of a step function change and expected future power demand where demand is expected to grow at a pace not seen in several decades. And certainly renewable power will benefit tremendously from this. Now, as we talked about at the beginning of the discussion around the three Ds, decarbonization is one of the major themes and that's where the renewable power generators stand to benefit. A lot of these hyperscale operators have very significant decarbonization targets and net zero pledges and have a preference for renewable power to power these operations.

But outside of renewables, we also see a significant opportunity in the transmission and distribution areas for utilities. These investments are made to connect these new sources of power generation, whether that's new wind or solar farms, directly to the end users. And across the world, we've seen a substantial step up in the amount of transmission and distribution spend from some of the large regulated utilities in our investment universe. So they're investing heavily to ensure that these transmission networks are able to help global markets achieve energy transition and net zero goals.

Another sector where we're seeing a significant opportunity is the midstream energy infrastructure space. While I just mentioned the preference among data center owners is for renewable sources of power generation, there's a quite immediate need for reliable and cost-effective power generation. This is a key demand driver for power plants that are going to be powered by natural gas and the natural gas infrastructure companies, the pipeline owners and operators who provide the infrastructure necessary to move natural gas supply to demand centers will be a prime beneficiary of increasing power demand related to AI. Now, we've seen some estimates that construction of new data centers could drive a 20% incremental increase in national gas demand from the power sector through the end of the decade. And we don't think these estimates are unreasonable and in fact lie on the conservative side, and we really see the midstream operators being able to benefit as a result.

Ariel Lubecki: Tom, beyond the data center story, what are the other main growth drivers you're seeing in the utility space that come to mind?

Tom Miller: The data center story is certainly top of mind and front and center for today, but there are several additional drivers of growth that we see across both the power and midstream energy sectors. Starting with the utilities, I mentioned we've seen accelerating load growth. Much of that is due to what we're seeing from AI and data centers, but there are other tailwinds to that load growth. Specifically, we see industrial demand really starting to pick up here particularly in the United States on the back of the Inflation Reduction Act. A lot of that is driven also by nearshoring or onshoring.

Again, tying back to the three Ds, this is part of the deglobalization trend that we're seeing. Outside of that, we're seeing a general electrification of the economy. You can think about home heating and transportation, EV penetration, all these things require greater investment in electricity networks and power generation. And then the last piece is grid modernization efforts. As the climate has changed, for example, rain patterns, the intensity of storms, we see the need for utilities to continue investing in the strengthening of our electric grid. So this is in order to make it more resilient and be able to handle the challenges of future climate events in the decades to come.

Ariel Lubecki: You mentioned several tailwinds throughout this conversation. Maybe you can share with us how Brookfield is positioned to take advantage of these tailwinds in the listed infrastructure markets?

Tom Miller: First of all, we think valuations today are extremely compelling relative to the potential growth opportunities of the next five to 10 years. And I know a lot of managers often make the statement that that now is a good entry point, which sometimes can be an overused or cliché phrase, but I don't think that's the case today. After several years of interest rate pressure on many parts of our asset class, we've really seen valuations reset to a level where we think there's a long runway to close the gap, particularly compared to where the earnings growth is likely headed.

In terms of how we're positioned, I want to highlight as well that we construct all our portfolios with primarily a focus on bottom up or idiosyncratic drivers of risk and return. We're focused on companies that have the best assets that operate in the best jurisdictions. By that we mean we look for pro-growth environments, favorable regulatory backdrops and management teams that have a strong history of deploying capital to its highest and best use. With regards to data infrastructure and the associated power investments, we're seeing an arms race among states to attract these investments. We're trying to identify the best operators that stand to benefit, those that are in strategic locations that have access to land, water, and also reliable clean power. We also want to keep a keen eye on affordability trends in their service territories, as ensuring consumer bills don't end up disadvantaged from a rate payer standpoint is important to ensure positive outcomes for all stakeholders. And lastly, supportive regulatory frameworks are an absolutely critical component. So, really it's about stakeholder engagement all across the board.

We're speaking to management teams, we're speaking to the regulators, we're talking to other investors, customers and suppliers amongst others. We are also fortunate at Brookfield to be able to tap into our vast owner and operator network, which enables us to glean insight into industry trends from privately held companies across the infrastructure landscape. We work to apply all these insights to what we see in the public markets and construct best ideas portfolios. And this opportunity that we see as a multi-year driver of potential returns is uniquely suited to gain access through—via—listed markets, which can complement nicely existing private market

infrastructure allocations, helping fill in gaps and exposure. Many of the companies best positioned to take advantage of this thematic, whether through the regulated utilities with footprints and key data center hub locations, or the midstream operators with the gas pipeline networks that may supply them, are publicly traded operators.

Listed infrastructure investing has the added benefits of daily liquidity, the ability to take advantage quickly of market dislocations, as well as the ability to customize and tailor portfolio exposures to specific assets or geographies. Thus, we believe investors are better off when allocating to infrastructure assets across the liquidity spectrum.

Ariel Lubecki: There's definitely a lot of information for our listeners to digest, but before we sign off, Tom, do you have any final thoughts you'd like to leave our listeners with?

Tom Miller: It's a really exciting time for the infrastructure space with valuations looking very attractive. And certainly the structural growth that's ahead of us, driven by those three Ds of decarbonization, deglobalization and digitalization, leaves no shortage of opportunities to deploy capital at great risk adjustment returns in the future.

Ariel Lubecki: I hope you enjoyed our discussion on listed infrastructure with Tom Miller. For more information on our capabilities or to explore additional insights, please visit our website at publicsecurities.brookfield.com. Thank you.

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