



Guest Snapshot: Digital Infrastructure and Energy Innovation with Phoenix Tower International

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Blue Dot's Guest Snapshot Series

In our Guest Snapshot series, the Blue Dot Capital team, in collaboration with guest experts, unpacks topics such as regulations, geopolitics, and energy policy, among others.

Snapshot: Digital Infrastructure and Energy Innovation with Phoenix Tower International

For this Snapshot, we are joined by Dagan T. Kasavana, Founder & Chief Executive Officer, and Shylesh Moras, Senior Vice President of Operations and Development, at Phoenix Tower International (PTI) for a discussion around PTI's energy solutions.

Background

With headquarters in Boca Raton, Florida, USA, PTI is a leading wireless infrastructure provider with presence across the United States, Latin America, the Caribbean, and Europe. PTI, through its affiliates and subsidiaries, owns and operates over 25,000 telecom towers across 23 countries and serves a diversified customer base of global mobile network operators.

PTI was founded in 2013 with a mission to be a premier site provider to wireless operators across the world in high-growth markets. PTI's investors include funds managed by Blackstone, Grain Management, BlackRock, Wren House, and USS.

Q&A

Q: To set the stage, walk us through your suite of end-to-end offerings for mobile network operators.

A: As a neutral host telecom provider, our core offering is leasing space on our towers and cell sites, enabling mobile network operators to install the antennae and radio equipment necessary for their wireless networks to function seamlessly. In addition to leasing space on our existing towers—many of which we've acquired through strategic acquisitions—we also design and build new towers, customized in both location and height to meet the specific needs of our customers.

While towers remain our primary asset, our portfolio extends beyond that. We offer fiber, small cells, distributed antenna systems (DAS), and other next-generation solutions to support the evolving demands of the telecom industry. Additionally, we provide power as a service, integrating sustainable energy sources to reduce reliance on grid electricity and diesel power.

In the U.S., our services also encompass comprehensive support for wireless deployment projects. This includes site acquisition, site development, engineering, construction, project management, and ongoing maintenance. Our end-to-end solutions ensure that our clients can depend on us for every aspect of their infrastructure needs.

Q: You have been focused on continuing to grow your presence in Latin America and Europe; what are the specific digital infrastructure growth trends in these markets?

A: Our European markets benefit from a developed and mature digital infrastructure, featuring advanced 4G and 5G networks supported by extensive fiber deployments. The adoption rate for 5G technology is notably higher in Europe as compared to LATAM. Our primary focus in these markets is on upgrading existing infrastructure, with a growing emphasis on sustainability and green technology.

Despite the overall maturity in Europe, there remain coverage gaps in rural areas. Governments across Europe, particularly in France and Germany, are actively incentivizing the expansion of digital infrastructure in these underserved “white spot” regions, and we are deeply involved in these efforts.

In contrast, our operations in LATAM are centered in emerging markets where digital infrastructure is less mature, and there is a marked disparity between urban and rural areas. Many regions still lack basic broadband access, and while we are seeing significant efforts to build new sites to enhance mobile connectivity, 5G deployments are currently on a smaller scale, concentrated mainly in dense urban centers of larger cities.

Technology adoption in LATAM also varies significantly by country. Urban areas in Brazil, Mexico, and Colombia are quickly embracing new technologies, yet rural regions continue to lag behind. Our involvement in rural development is substantial, with notable projects in Costa Rica, Bolivia, Peru, and Chile, aimed at bridging this digital divide.

Q: Let’s zoom in on PTI Power Solutions. Can you please break down how PTI’s Power Solutions is able to enable energy efficiency and emissions reduction outcomes for your network operator customers? What are some of the capacity constraints of your Power Solutions offerings and what would be on your policy wish list to enable further scaling of your offerings?

A: Telecommunication sites, with their antennas and radios, are deployed in a variety of locations: some are connected to reliable commercial grid power available 24/7, others are in weak grid areas where power is intermittent, and some are entirely off-grid, relying exclusively on diesel generators. Weak grid and off-grid sites heavily depend on diesel generators, which are costly to operate and highly detrimental to the environment.

While grid power is generally more cost-effective and less carbon-intensive, its environmental impact varies significantly based on the energy mix of the local grid.

For instance, in our portfolio, Costa Rica and France benefit from low-carbon grid energy derived primarily from hydropower and nuclear power, respectively. In contrast, markets like the Dominican Republic and Jamaica rely on carbon-intensive grid power generated from fossil fuels.

PTI Power Solutions offers innovative approaches to reduce reliance on traditional energy sources at these sites, deploying solar panels, lithium-ion batteries, or a combination of both. These solutions aim to offset grid or diesel consumption, thereby lowering operating costs for our customers and significantly reducing the carbon footprint of site operations. However, the effectiveness of these solutions varies based on environmental conditions and the energy demands of each site.

The challenges to expanding these sustainable solutions are both economic and environmental. Solar energy generation potential varies greatly by region, and in some markets, we cannot generate enough solar power to make a significant impact. Additionally, the cost of deploying these solutions can sometimes outweigh the savings in operational expenses, making them less viable.

To enhance the adoption of sustainable power sources in the telecom industry, greater government support is essential. This includes financial incentives, tax credits, grants, and robust regulatory frameworks, which are already in place in some European markets but need broader implementation globally. Green financing options, such as bonds and low-interest loans, can also make investments in renewable energy more attractive. Furthermore, technological advancements that increase the efficiency of solar panels, wind turbines, and other renewable energy sources will improve the economics of these solutions, enabling broader deployment and a stronger shift towards sustainable energy at the telecommunications site.

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