"When planning my future, I aspire to construct a data center that will significantly enhance our world"

This statement intrigues me, because I rarely hear emerging talent in the industry express such aspirations, yet data centers are pivotal to our present and future existence, serving as the backbone of global connectivity.

Its significance and the vast range of opportunities it presents may not be fully appreciated by everyone, but especially with the boom in artificial intelligence, data centers now more than ever represent the muscle power of innovation.

As a child, my dreams of becoming an astronaut or a veterinarian eventually led me to a career as a quantity surveyor! While I didn't venture into space, my professional journey has taken me around the globe, including managing procurement for a pioneering data center project in Chantilly, VA, two decades ago. The challenge of completing the project within 100 days, from design to turnover, was met and successfully delivered by our team. With the rise of modular hyper scale data centers, this timetable can now be accelerated to a matter of months, a testament to the possibilities for innovation.

Today, amid competing demand for data centers from both AI enterprises and cloud service providers, and a national vacant capacity below 3%, the opportunities to innovate, drive sustainability goals and make an impact are immense. I have found that active involvement in the data center industry has led to not only career advancement, but exciting challenges, meaningful contributions and fair compensation.

Despite these opportunities, the allure of working in this market remains relatively low. The industry grapples with a shortage of skilled workers, perhaps due to misconceptions. Concerns about location, environmental impact, and career growth often deter potential talent. However, the reality is different: with data centers growing across the US, Middle East, Europe and developing markets, professionals can choose where to reside with far more possibilities.

If you are innovator, where better to solve supply chain issues, develop more resilient/flexible design and scalable construction solutions. Combining this with efforts to improve sustainability through renewable energy, cooling technology, water conservation, and energy-efficient facilities presents boundless possibilities.

Consider some examples:

- Recent reports show that data center construction completion timelines have been extended by 24 to 72 months due to power supply delays. The traditional approach of tapping into local grid supply is not the answer. This is akin to challenges faced in achieving US electric vehicle charging station goals.
- 2. A year plus lead times for crucial data center components such as switchgear, power distribution equipment, generators, and chillers is a critical path constraint that undermines ROI. Streamlining contracts and aligning incentives throughout the supply chain can mitigate such bottlenecks. At the very least find more practical solutions? It's worth noting these same challenges exists in the wider industrial sector.
- **3.** Overreliance on diesel in large facilities underscores the urgency of scaling up greener alternatives. We need to be more transparent and establish data-driven performance targets for diesel reduction, both when operational and throughout construction.

- 4. Initiatives like "Green Mega Campuses" attract funding to support accelerated development. This can also benefit local communities and business through improved digital infrastructure and fiber networks.
- 5. The complexity of stakeholder engagement in data center projects necessitates leveraging data and technology to streamline processes and enhance collaboration. We lose too much time during planning and preconstruction that can lead to frustration and unmanaged expectations.

By 2030, the US is set to double capacity to 35gigawatts and leasing rates each year experiencing double digit increases. With the challenges and opportunities present in the data center industry, there is a crucial demand to invest in smarter ways and attract more of the best talent.

I look forward to tackling these challenges, raising awareness and inspiring more individuals to consider data center development as a rewarding career path.

Please visit Greg Parker at <u>www.parkerconstructionconsultants.com</u> or <u>www.linkedin.com/in/greg-parker-PCC</u>