

# "Voltage Valley" - The New Silicon Valley of the 21<sup>st</sup> century.

#SiliconHeartland

Dr. Bill Paolillo

## Introduction

Starting in 2020 Amazon, Google, Facebook, and Intel decided to locate multi billion-dollar Datacenters and Integrated Chip manufacturing in Columbus Ohio. GM Ultium, Ford Electric Vehicles will be building billion-dollar facilities focused on electrification in Lordstown and Avon Lake, Ohio.

### The economic Impact

Ohio Construction Spend      2019 – \$25.6b  
Voltage Valley Construction    2020-25 – \$35b +

## What attracts Voltage Valley?

Voltage Valleys need reliable, resilient and sustainable power, to drive advancements in artificial intelligence, blockchain, machine learning, faster computer chips, manufacturing robots, recycling, and for product manufacturing that supports electrification. Other requirements of the Voltage Valley are the right workforce, public incentives, education and water.

## Implications

Ohio will need to innovate from the traditional power delivery systems to advanced microgrids. Advanced microgrids will be composed of renewable power such as wind, Hydrogen, solar, and other renewable power sources.

ESG (Environment, Social & Governance) of these local assets sustains and grows a Voltage Valley. To start companies of the Voltage Valley, need to Integrate renewable distributed energy assists energy with microgrids.

Companies that function in a collaborative business environments using Virtual Design & Construction , Digital Twins, Prefabrication and Integrated Project Delivery will be the winners.

## What is a Voltage Valley?



**A Voltage Valley is a geographic business cluster where electric vehicle & battery plants, data centers, microchip plants, crypto mining facilities, recycling plants or other large power users affiliated with digital transformation or electrification are located.. Silicon Valley and electrification are the driving forces behind Voltage Valleys.**



## Why Ohio is Winning?



Power & Water



Politics



Education & People



## Contacts

Dr. Bill Paolillo, VP Strategic Alliances & Advanced Technologies JW Didado, Quanta Service co. [wpaolillo@jwdidado.com](mailto:wpaolillo@jwdidado.com):

