

#### The Loudoun, VA Story

#LoudounPossible

LoudounPossible.com

#### THE PAST, PRESENT AND FUTURE OF THE WORLD'S LARGEST DATA CENTER MARKET



#### #LoudounPossible



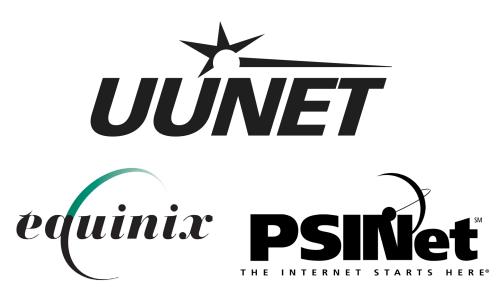
#### LoudounPossible.com

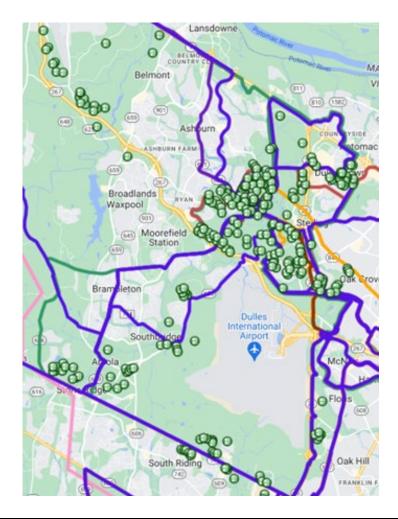
#### WHY NORTHERN VIRGINIA?





**DuPont Fabros Technology** 





#### #LoudounPossible





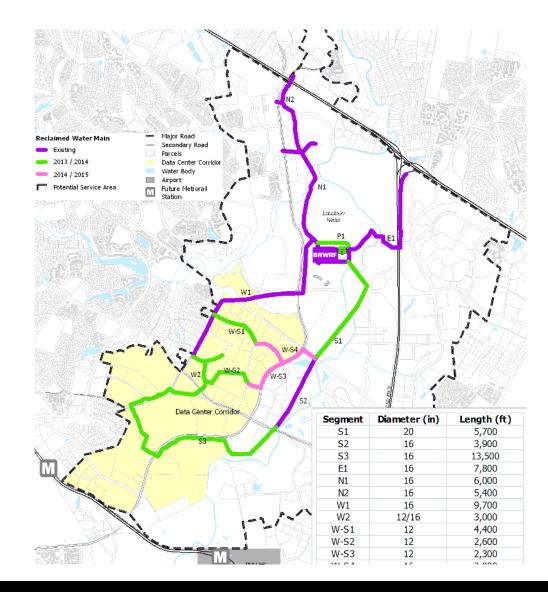


- Actual Peak Load: Over 3.2GW of Load
- Annual Load Increase: 100-200 MWs
- 500kV Transmission Ring (the first of its kind) feeding multiple 230kV transmission networks in Ashburn
- New "Southern" high-voltage line will be completed in late 2025
- New "Northern" high-voltage line to be completed in 2027
- New "Central" high-voltage line to be completed in 2028
- Substations served multiple 230kV sources
- Dominion Energy currently has more than 15 substations in service or under development in approximately a 1.5-mile radius

#### Water

- 20 miles of pipeline
- 40 facilities connected
- 675 million gallons of reclaimed water used





## **TAX POLICY AND FINANCIAL ADVANTAGES**



- Stable tax environment
- Stable energy prices
- World-class sales and use tax incentive
  - More than 70 data centers are eligible for the sales tax break
  - \$124.5 million saved by data centers in 2021
  - Spurred more than \$1.2 billion in taxes in Virginia in 2021

#### #LoudounPossible



## **BUSINESS ENVIRONMENT**

- Predictable Process
- World-Class Time to Market
- Fast Track Program



"One of the greatest treasures of Loudoun County is the Department of Economic Development. They know what is important to us, they know what's important to business owners."

- Loudoun Business Owner



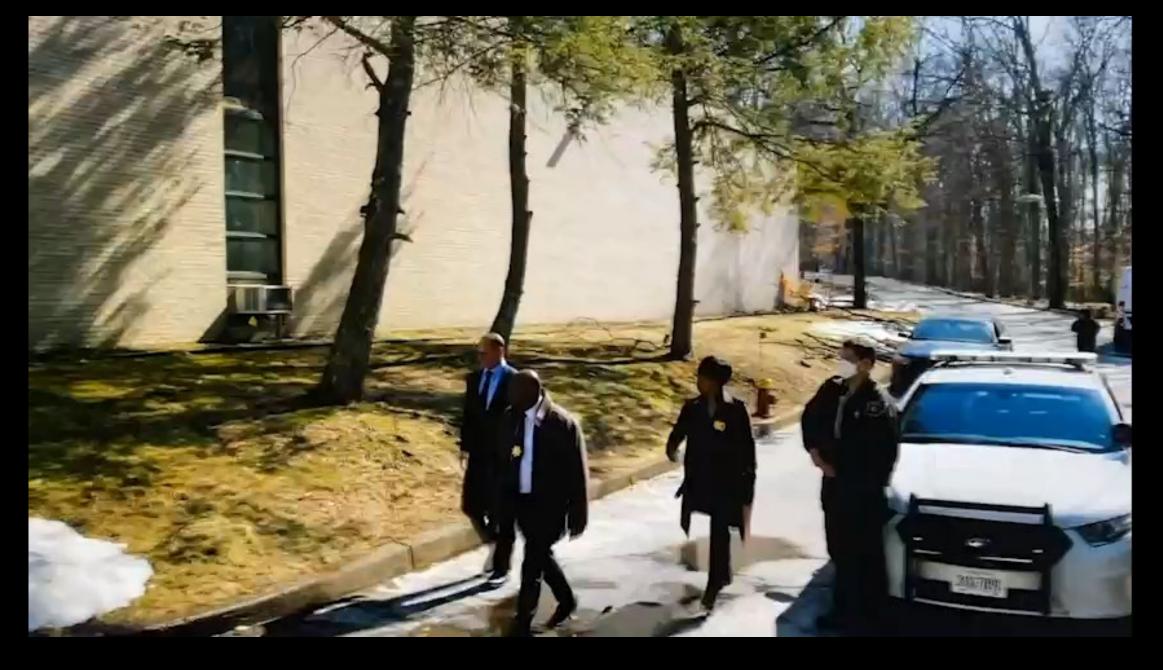
#### WORKFORCE



#LoudounPossible



## LAW & ORDER ORGANIZED CRIME

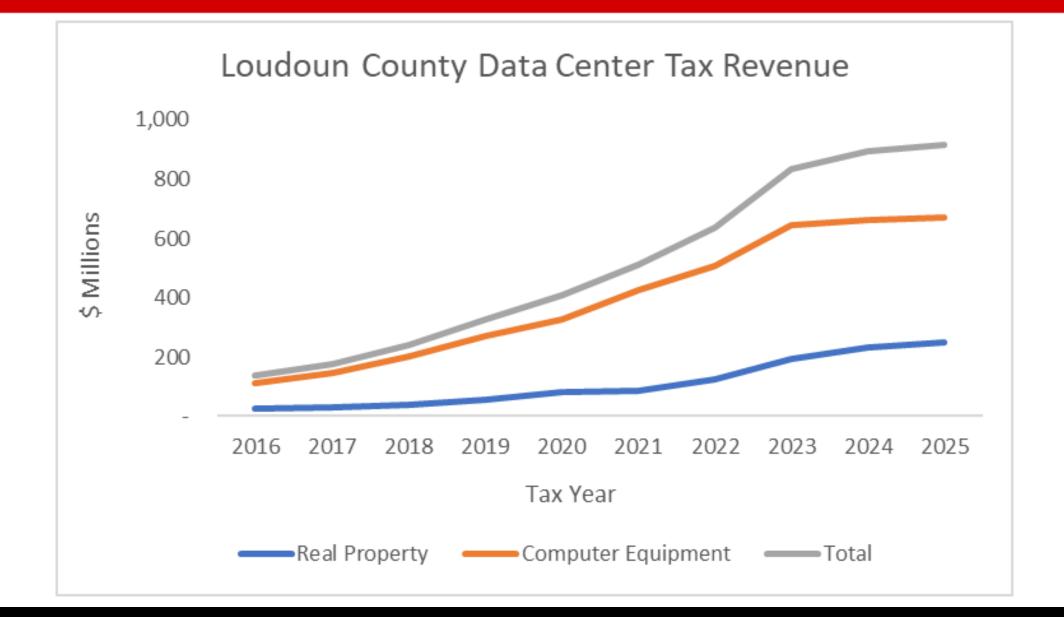


#LoudounPossible

## LOUDOUN'S DATA CENTERS BY THE NUMBERS

3,250,000,000 1,000,000,000 33,500,000 15,000 26 / 1 <1





#LoudounPossible



- In FY2012, Loudoun's tax rate was \$1.285 per \$100
- By FY2024, Loudoun's tax rate was reduced to \$0.865 per \$100



That is a \$0.42 per \$100 tax reduction over 12 years!

At Loudoun's averaged assessed value of \$735,800, a homeowner saves about \$3,010 a year in taxes.

#LoudounPossible

SUSTAINABILITY

VERIFY

#### Get Off My Lawn ... You Crazy Data Centers!

#### Data Centers Are Facing a Climate Crisis

Companies are racing to cool down their servers as energy prices and temperatures soar. And the

## What's all the data center noise about?

**300.000 GALLONS** 

**TO COOL ITSELI** 

CLIMATE

Neighbors say Northern Virginia data centers emit a noise they just can't tune out. We took to the streets and dove in to the science to figure out why.

#### The staggering ecological impacts of computation and the cloud

Amazon is creating a staggering side effect with its massive data centers: 'Tucked unassumingly amid suburban neighborhoods'

Amazon is in the process of developing \$87 billion worth of data centers.

#### Drought-stricken communities push back against data centers

As cash-strapped cities welcome Big Tech to build hundreds of million-dollar data centers in their backvards, critics question the environmental cost.



Data centers, backbone of the digital economy, face water scarcity and climate risk



#### #LoudounPossible

#### LoudounPossible.com

## BIG, UGLY, POWER-HUNGRY MONSTROSITIES...OR...

Data centers are the bricks that hold our modern society together, support all the other property types. When we are in our living space or offices, at a retailer or at a doctor's office, we are also connecting remotely to stored data in "the cloud" but physically housed in a data center somewhere in the world.

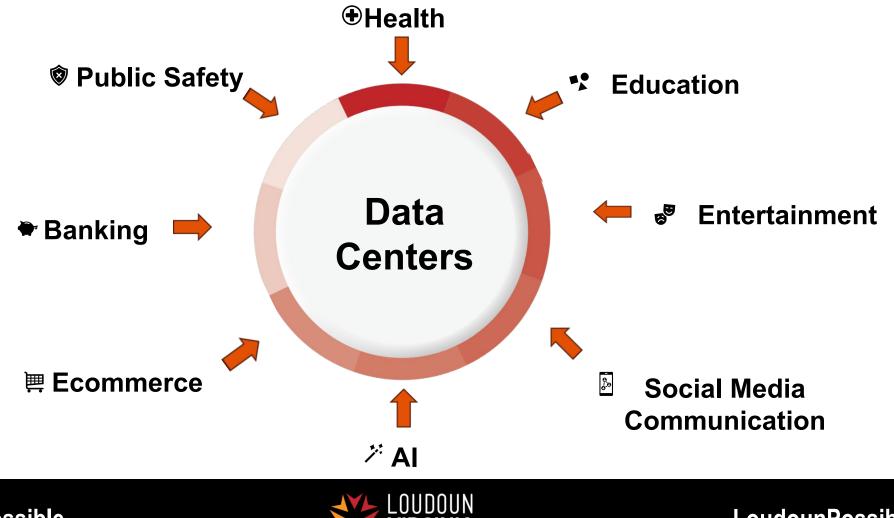


JLL North American Data Center Report 2023

#### #LoudounPossible



## **ECONOMY OF DATA CENTERS**



#LoudounPossible

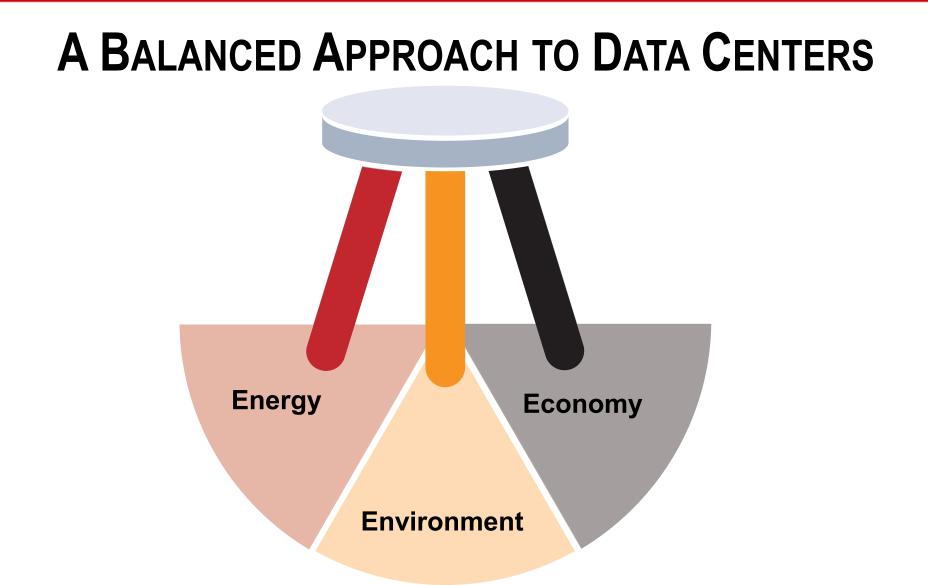


LoudounPossible.com

#### By 2027...

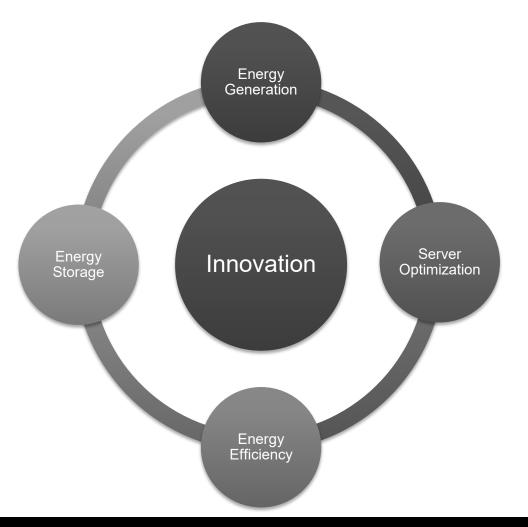
- The global online banking market = almost \$30 billion
- The global video streaming market = almost \$150 billion
- The global online education market = exceed \$315 billion
- $\triangle$  The global cyber security market = \$403 billion
- The global AI market is = \$407 billion
- The global tele-health market = \$560 billion
- $\vec{b}$  The global social media market = more than \$900 billion
- 🗒 The global e-commerce market = more than \$6 trillion

## \$8,765,000,000





## THE PATH TO SUSTAINABILITY



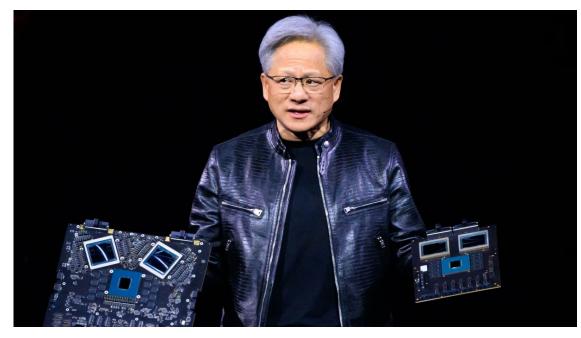
#### #LoudounPossible



#### LoudounPossible.com

## **INNOVATIONS IN SERVER EFFICIENCY**









## **INNOVATIONS IN ENERGY EFFICIENCY**









Schneider Electric







#LoudounPossible



LoudounPossible.com

## **INNOVATIONS IN ENERGY EFFICIENCY**









#LoudounPossible



#### **INNOVATIONS IN ENERGY STORAGE**



DIGITAL REALTY





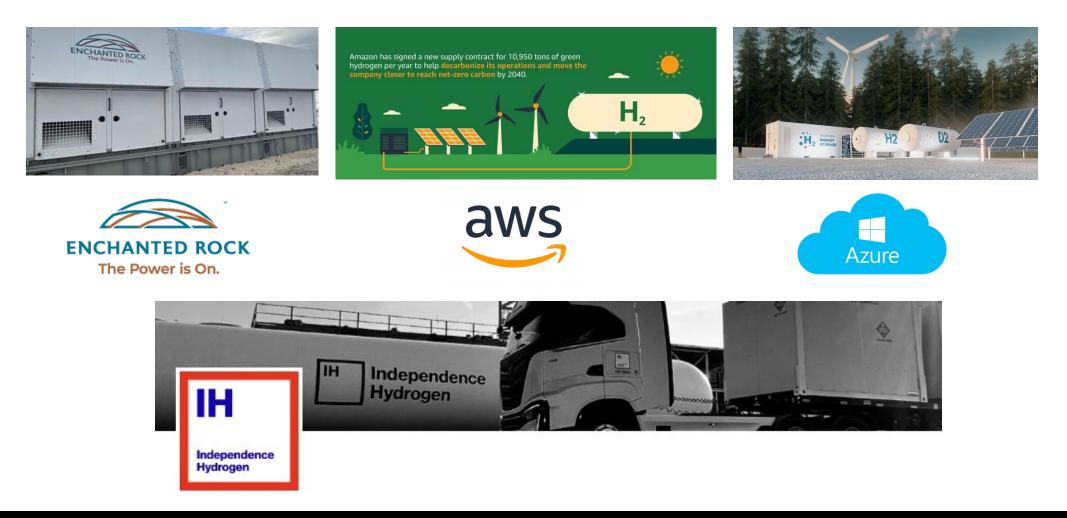








## **INNOVATIONS IN ENERGY GENERATION**















## **INNOVATIONS IN ENERGY GENERATION**









#LoudounPossible



# INNOVATIONS IN ENERGY GENERATION





#LoudounPossible

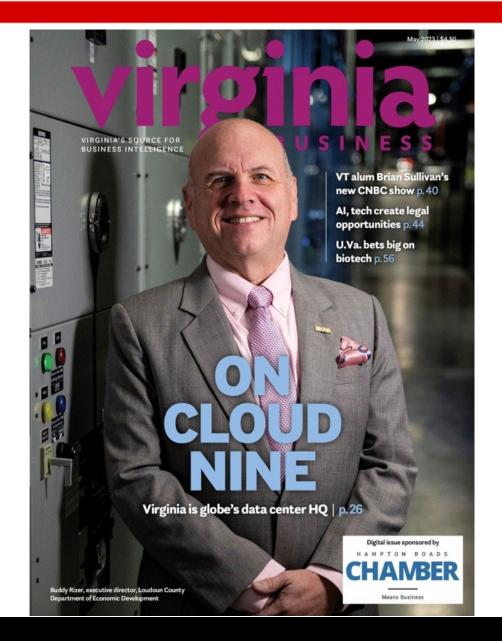




## **LESSONS LEARNED**

- Define the Opportunity
  - Where do the go...where they should not
  - Understand the Value Proposition, Define Targets
- Build Partnerships
  - The industry
  - Utility providers
- Tell The Story, Communicate the Benefits
  - Digital Hubs Grow Communities
    - » Tax growth and job Creation
    - » Cluster development and associated growth
- Address the Concerns, Educate Stakeholders
- Go Beyond the Building





If we can help you in any way, please call Buddy Rizer at 703-777-0592 or email Buddy.Rizer@Loudoun.gov



#### #LoudounPossible