



**April 23, 2024**  
**Board & MIC Meeting**  
**10 a.m. to Noon**





# Welcome

**Theodore L. Chandler, Jr.**  
Co-founder, NRV  
Co-Chair, RVA757 Connects





# RVA757 Connects' Corporate Supporters



# RVA757 Connects' Individual Supporters

**Matt Anderson**, Range Commercial Partners  
**Theodore L. Chandler Jr.**, NRV  
**Kelsey Daugherty**, Canal Capital Management  
**Cliff Fleet**, Colonial Williamsburg Foundation  
**Thomas R. Frantz**, Williams Mullen  
**Robbyn Gayer**, UBS  
**Nancy Grden**, Hampton Roads Executive Roundtable  
**Kasia Grzelkowski**, VersAbility  
**Bob Holsworth**, DecideSmart  
**Martin A. Joseph**, 360IT PARTNERS  
**Sarah Jane Kirkland**, Old Dominion University  
**Peggy Layne**, State Board Chair, Virginia Community College System  
**Harry T. Lester**, Eastern Virginia Medical School  
**John A. Luke Jr.**, Retired, WestRock Company  
**John F. Reinhart**, Emeritus, The Port of Virginia  
**Bernard Robinson Sr.**, Networking Technologies and Support (NTS)  
**Douglas L. Smith**, Hampton Roads Alliance  
**James Spore**, Retired, Reinvent Hampton Roads  
**Jim Ukrop**, NRV

# RVA757 Connects' Value Proposition

- We Help Both Regions Become More Competitive
- We Accelerate Big Infrastructure Projects That Help Both Regions
- We Support Our Directors'/Members' Projects (Like Dominion's Off Shore Wind Project and Jefferson Lab's High Performance Data Facility Hub)
- We Help Each Region With Their Own Special Projects
- We Look Out For What's Next – Always Thinking About Our Competitiveness Tomorrow
- We have the Proven Power to Make Things Happen with our Research/Education/Advocacy Process
- Everyone Wins – Our Directors, MIC Members, and Our Regions Separately and Together.

Our Topic Today:  
Becoming a Global Internet Hub - Our Time Is  
Now with Data Centers as the Flashpoint.

# I-64 Gap Moment

# Today's Agenda *Let's Try a New Meeting Model*

## **RVA757 Connects Consent Agenda**

John W. Martin, President and CEO, RVA757 Connects

## **Featured Topic: Becoming a Global Internet Hub - Our Time Is Now with Data Centers as a Flashpoint**

Panel of Experts

## **Adjourn**

Thomas R. Frantz, Co-Chair, RVA757 Connects – 10 Minutes

# Welcome: New addition to the RVA757 Connects staff

**Adair F. Collins**  
Program Manager







# RVA757 Connects Consent Agenda

John W. Martin  
President and CEO



# Consent Agenda

## 1. Minutes – Board/MIC Meeting February 21, 2024

## 2. Committee Reports

- Governance and Nominations – Co-Chairs, Sarah Jane Kirkland and Moses Foster
- Development – Chair, Mitch Haddon
- Government Relations – Co-Chairs, Chris Lloyd and Ross Grogg
- Convergence 2024

## 3. Initiatives Update

- I-64 Gap
- Passenger Rail
- Multi-use Trails
- Global Internet Hub

## 4. 2023 Form 990 Filing

# 5 Quick Points



### 3. Establish a Financial Committee



#### Proposed Overview:

The Financial Committee is appointed by and reports to RVA757 Connects' Executive Committee. RVA757 Connects' staff provides support.

#### The Financial Committee's charge is to ensure:

- The integrity of RVA757 Connects' financial statements, financial reporting processes and systems of internal accounting, and the financial controls of the organization.
- The compliance by RVA757 Connects with legal (501(c)(3)), regulatory (filing with Dept. of Agriculture to fundraise), and tax filings (IRS Form 990).
- The qualifications, independence, and performance of RVA757 Connects' primary independent accounting firm (currently PBMares).

It is the responsibility of the Financial Committee to maintain open communications between the Committee, accounting firm, staff, and the Executive Committee.

All current Board and MIC members who are interested in serving on this committee, please contact Greg Gilligan.

## 4. Establish a Communications Committee



### Proposed Overview:

The Communications Committee is appointed by and reports to RVA757 Connects' Executive Committee. RVA757 Connects' staff provides support. The committee will serve in an advisory role to guide our communications.

### The Communications Committee's charge is to:

- Actively participate in meetings, contributing to the discussion, brainstorming, and sharing of innovative ideas to feature.
- Express ideas and provide input on the organization's communications plan.
- Establish and support a speakers' bureau.
- Participate in the review of an annual communications plan.
- Review materials and programming, and provide input for improvement.
- Ensure that communications is accountable.

### New Chair of RVA757 Connects Communications Committee



**Giovanna Genard**  
Vice President of External  
Affairs and Marketing Leader  
PRA Group

All current Board and MIC members who are interested in serving on this committee, please contact Greg Gilligan.

# Announcement: Jennifer DeBruhl Retirement from DRPT

- Virginia's Department of Rail and Public Transportation (DRPT) Executive Director Jennifer DeBruhl will retire at the end of June.
- DeBruhl has led DRPT for nearly two years after serving as the agency's Chief of Public Transportation for almost six years and working nearly 19 years in two separate stints at the Virginia Department of Transportation (VDOT). In her 30-year career, she also worked for almost five years in community planning at the Federal Highway Administration (FHWA).
- **RVA757 Connects is holding a reception to honor Jennifer DeBruhl at the end of the RVA757 Connects Rail Committee Meeting on May 9 at 4 p.m. at RVA757 Connects headquarters (2601 Floyd Ave.)**
- **All RVA757 Connects Board directors and MIC members are invited. Just let Greg Gilligan know: [Greg.Gilligan@RVA757Connects.com](mailto:Greg.Gilligan@RVA757Connects.com)**



**Jennifer DeBruhl**  
Executive Director  
Virginia's Department of Rail  
and Public Transportation





# 2023 IRS Form 990 Return – Review and Approval Process

2023 IRS Form 990 created by PBMares and staff - Complete

Co-Chairs of RVA757 Connects review the 2023 Form 990 Return - Complete

EC members review Form 990 Return (March 6<sup>th</sup> pre-meeting packet and March 13<sup>th</sup> meeting) - Complete

EC-approved 2023 Form 990 was placed in Board Portal in early April - Complete

Board Members/MIC members can review 2023 Form 990 Return through May 10, 2024.

2023 Form 990 will be electronically filed by May 15, 2024 – the deadline.

<https://static1.squarespace.com/static/637531ab04605b3e6bc3c17f/t/66217df24c2073757861c1d2/1713470962868/2023+Form+990+Draft+03.06.24.pdf>



Click here to review 2023 Form 990

# Consent Agenda

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- I-64 Gap
- Passenger Rail
- Multi-use Trails
- Global Internet Hub

## 4. 2023 Form 990 Filing



Any  
Questions?  
Discussion?

**Featured Topic:**  
**Becoming a Global  
Internet Hub - Our Time  
Is Now with Data  
Centers as the  
Flashpoint**



## 2 Goals for Today's Discussion



- 1. Inform:** Get everyone up to speed on the role and impact of data centers, in general, and in how they are part of our goal of to become a global internet hub.
- 2. Plan:** Inform our approach in advocating for sensible ways to support an unprecedented level of investment in digital infrastructure in the I-64 Innovation Corridor.

Make sure our General Assembly doesn't over-react and enact legislation that sends digital infrastructure investors to other states.



# Why Today's Conversation Is So Timely



**2023**

NOVA citizen  
pushback on  
Data Center  
Growth

**Feb. 2023**

Virginia  
General  
Assembly  
Charges  
JLARC to  
Restudy Data  
Centers

**Jan. 2024**

15 Bills  
Introduced in  
General  
Assembly to  
Control Data  
Center Growth.  
All Were  
Suspended  
Until the JLARC  
Study Complete

**April 2024**

Resident  
Pushback Has  
Georgia Close  
To Bringing  
Back the State  
Tax On Data  
Centers.  
  
(Unintended  
chilling effect?)

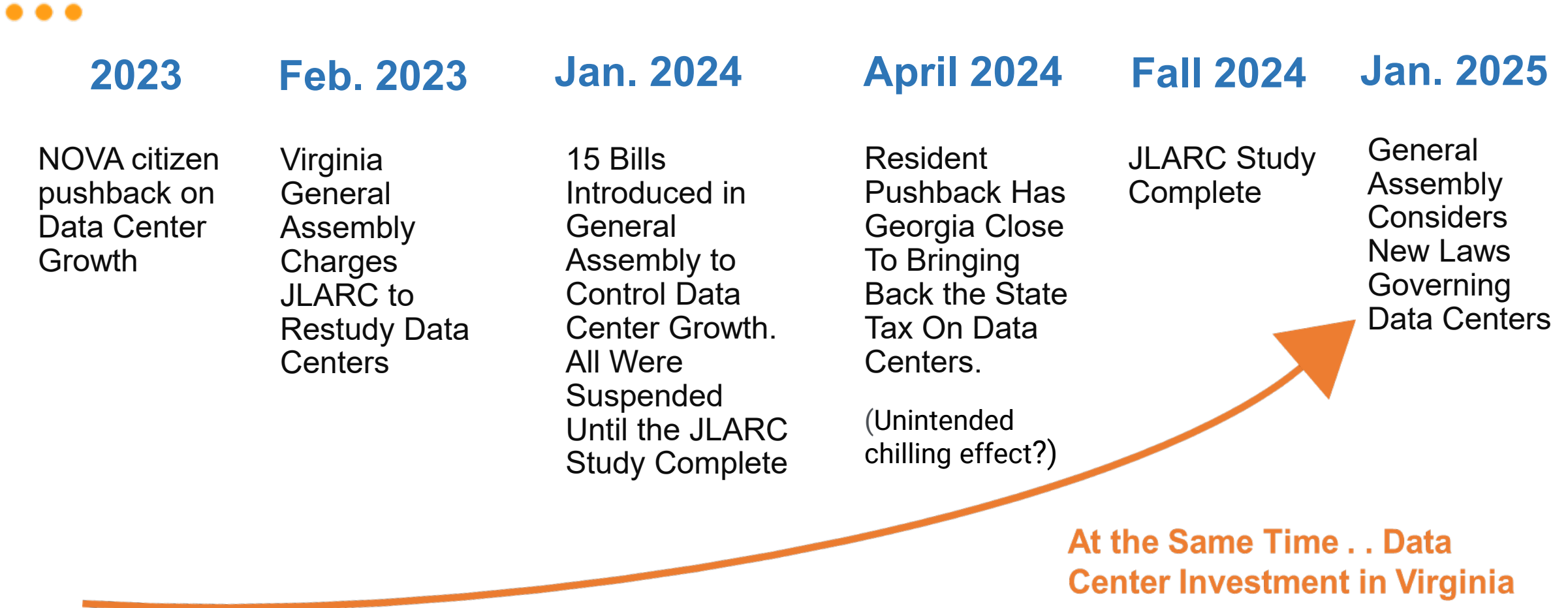
**Fall 2024**

JLARC Study  
Complete

**Jan. 2025**

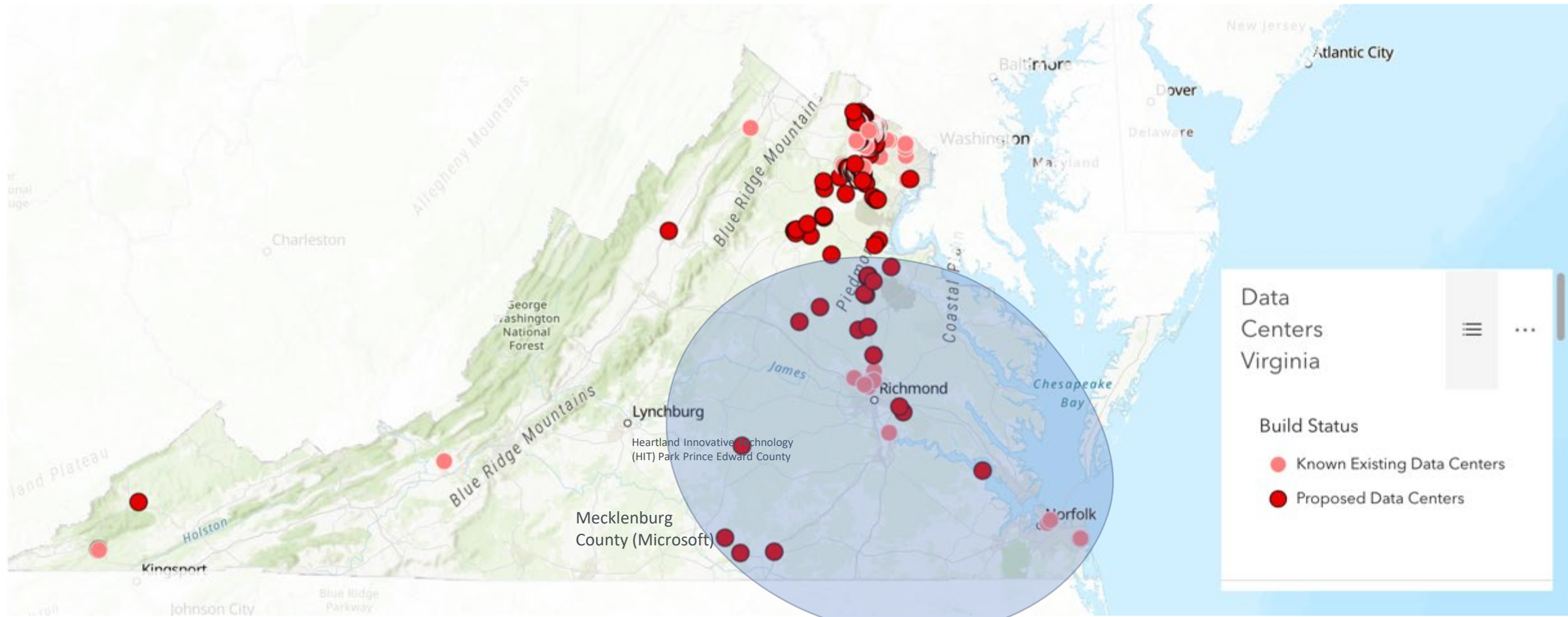
General  
Assembly  
Considers  
New Laws  
Governing  
Data Centers

# Why Today's Conversation Is So Timely



# \$100 Billion in Data Center Investments

Includes Land Purchases, Under Consideration, Under Construction, and Equipment



Source: <https://www.pecva.org/work/energy-work/data-centers/existing-and-proposed-data-centers-a-web-map/>

# Today's Panel



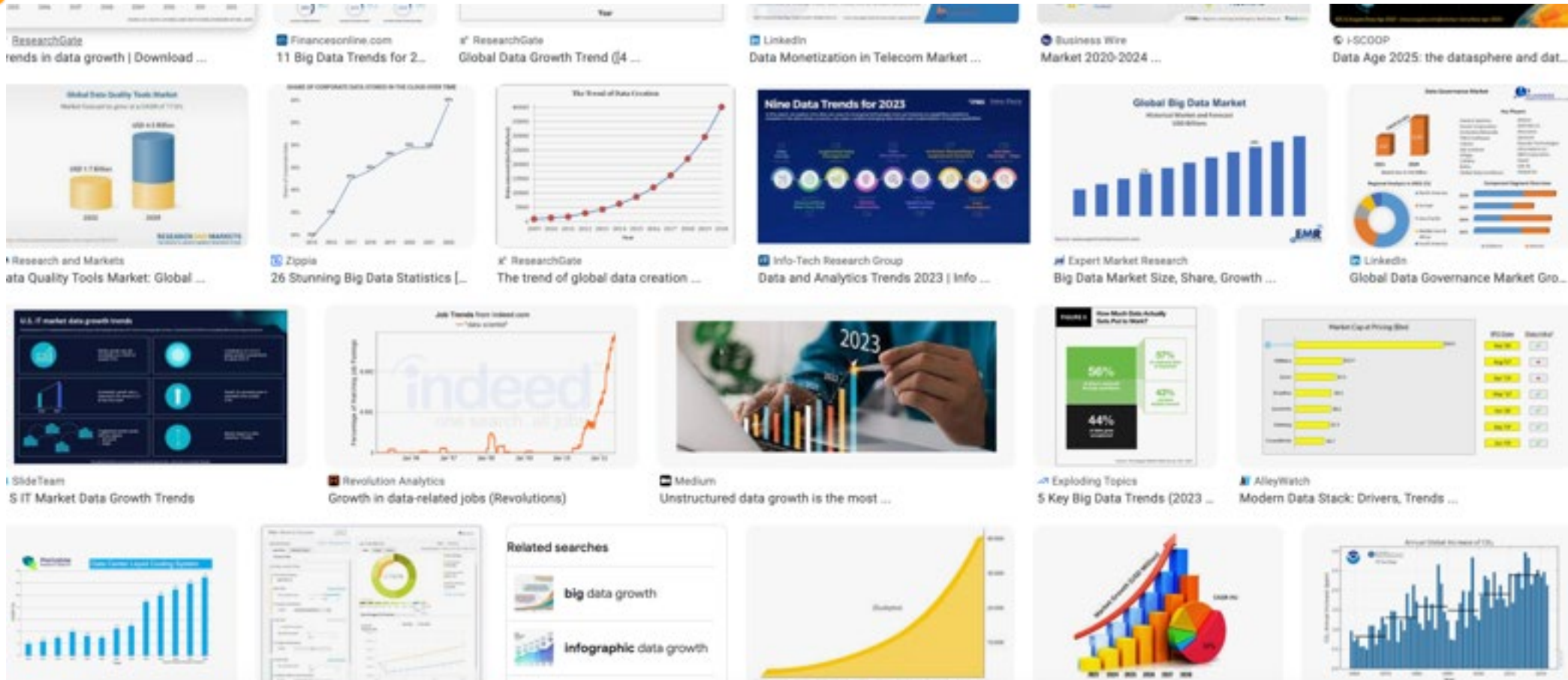
- **Brian Jenkins**, President – Development, Hourigan (Richmond-based development company that is proposing a data center campus in eastern Henrico County).
- **Sharon Lam**, Senior Vice President, Land Strategy, Tract (A data center land acquisition and development company that just received approval for a data center campus in Hanover County).
- **Stan Blackwell**, Director, Data Center Practice, Dominion Energy
- **Christopher Lloyd**, Senior Vice President and Director, Infrastructure and Economic Development, McGuireWoods Consulting

# 15-Minute Context Setting



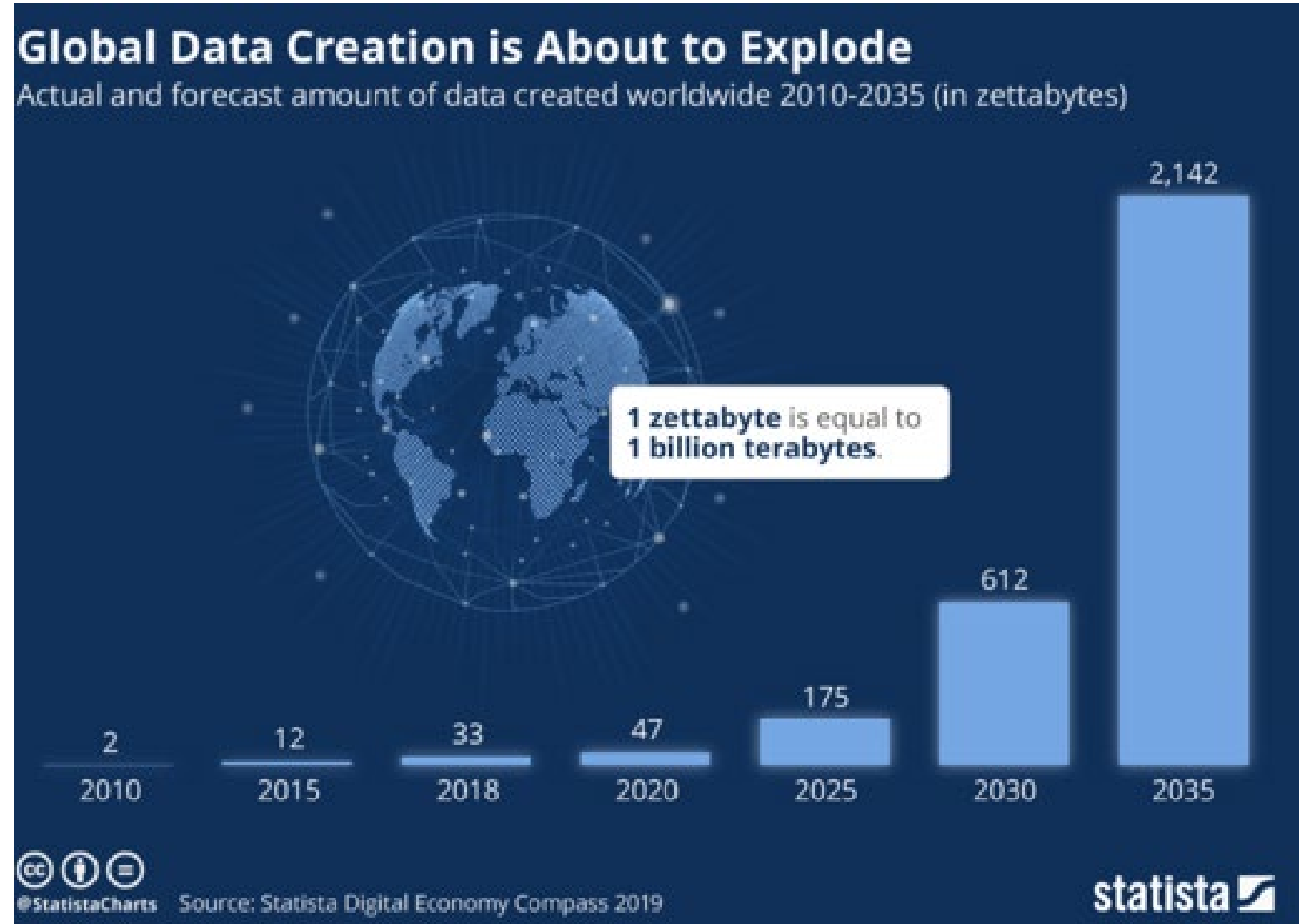
# Every Projection Calls for the Exponential Growth of Data

# Every Projection Calls for the Exponential Growth of Data



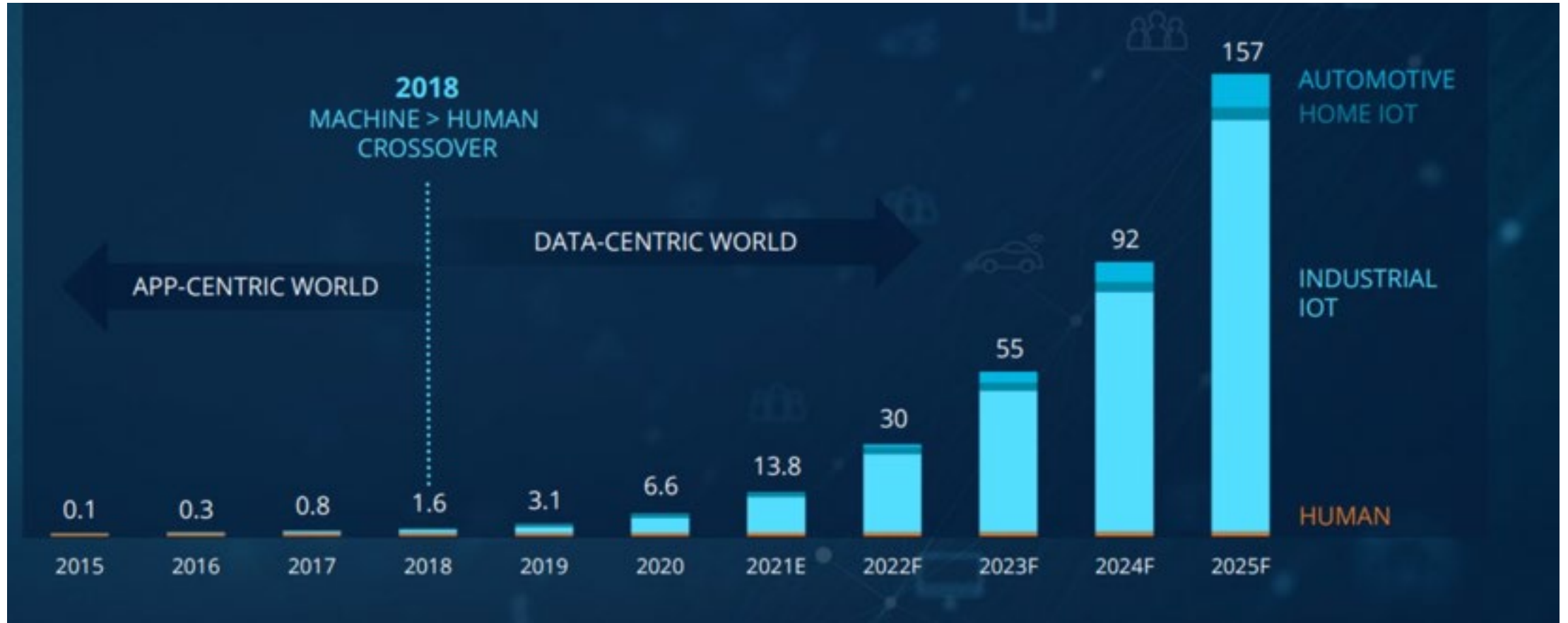
# The Explosion in Data Is Coming

- Internet traffic has increased **5x** in the past **5 years**
- **90%** of all data that exists today has been created in last **2 years**



Zettabytes

# It's No Longer About Human Consumption of Data



# RVA757 Connects Top Priority: Become a Global Internet Hub



[www.RVA757Connects.com](http://www.RVA757Connects.com)

[www.GlobalInternetHub.com](http://www.GlobalInternetHub.com)



RVA757 Connects Board



Megaregion  
Institutional Council  
(The MIC)

Executive Committee

RVA757 Connects Committees

Governance &  
Nominations

Sarah Jane  
Kirkland  
Moses Foster  
Co-Chairs

Development

Mitch Haddon  
Chair

Government  
Relations

Ross Grogg  
Chris Lloyd  
Co-chairs

Finance

TBD

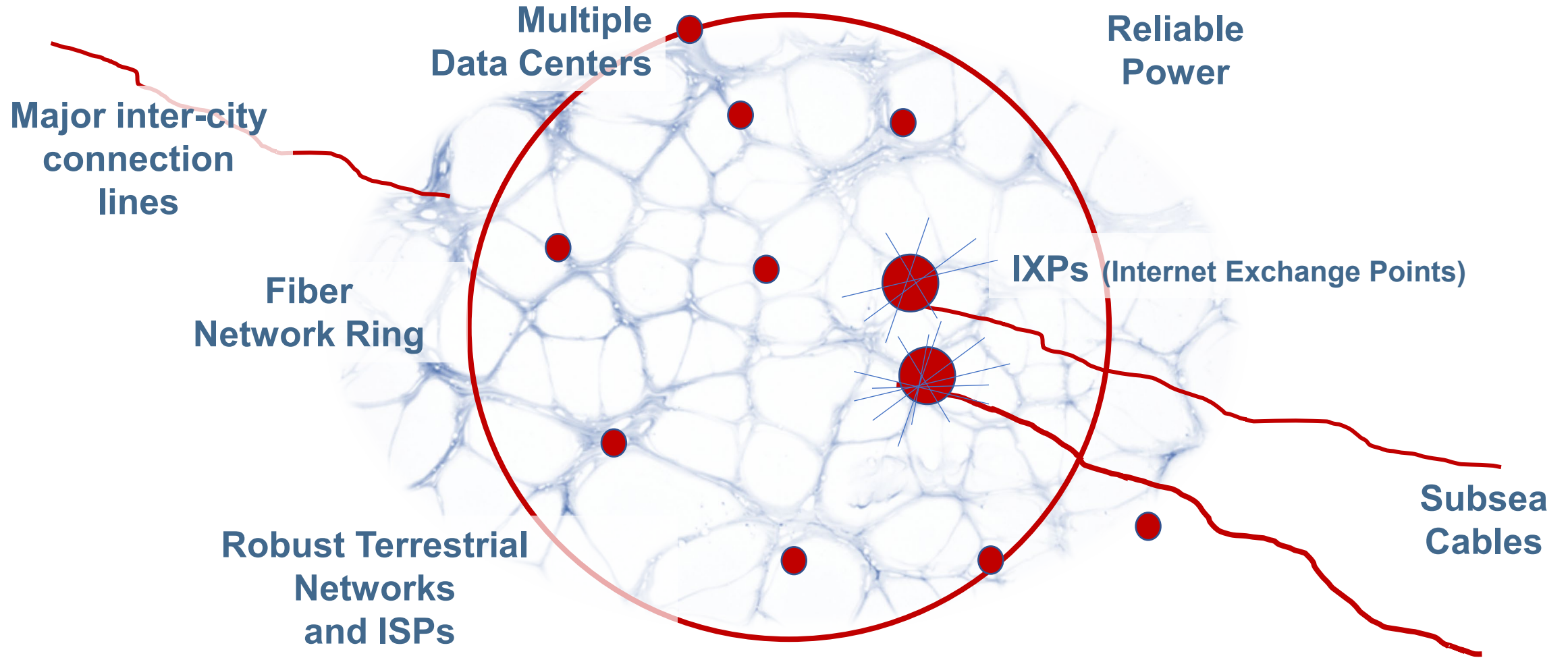
Communications

Giovanna  
Genard  
Chair

Global Internet  
Hub Council

Dominion Energy  
CarMax  
Bank of America  
Cox Communications  
Dragonfli  
Pixel Factory  
Henrico County  
Virginia Beach  
ODU  
Alliance  
GRP

# Components of a Digital Infrastructure Hub



# Together (RVA and 757) Have All of These Components

## VIRGINIA'S I-64 INNOVATION CORRIDOR: RICHMOND REGION AND HAMPTON ROADS

### The World's Next Global Internet Hub

**I-64 INNOVATION CORRIDOR**

A handful of locations around the world make the internet work. They are called Global Internet Hubs and all are thriving cities. But this is about to change.

The world's next Global Internet Hub isn't a city but rather a Megaregion in Virginia that extends from the Richmond area to the Hampton Roads region. The 5,000 square mile area in Central and Southeastern Virginia is just two hours south of Washington, D.C. It is often called the I-64 Innovation Corridor.

The key to the I-64 Innovation Corridor becoming a Global Internet Hub is combining the digital assets of both the Richmond area and Hampton Roads to create a world-class digital ecosystem. There is an established list of core characteristics of what makes a Global Internet Hub, when you view the Richmond area and Hampton Roads together, we have seven of these core components.

**10 Largest Global Internet Hubs**

1. Frankfurt 2. Singapore 3. London 4. Amsterdam 5. Paris 6. Hong Kong 7. Marseille 8. Stockholm 9. Miami 10. Vienna

**Subsea Cables Landing at Virginia Beach**

**Cybersecurity Expertise**

**Virginia's I-64 Innovation Corridor Digital Assets**

- 1. Innovation Center
- 2. Digital Assets
- 3. Talent

**The Megaregion's Educational Assets**

The I-64 Innovation Corridor is home to several universities, community colleges and state schools.

**Megaregion Digital Infrastructure Providers**

1. Energy 2. Network Carriers and Communications Providers 3. Data Centers in Richmond 4. Data Centers in Hampton Roads 5. Internet Exchanges 6. Software-Defined Networking Providers 7. Subsea Cables

**Richmond Region**

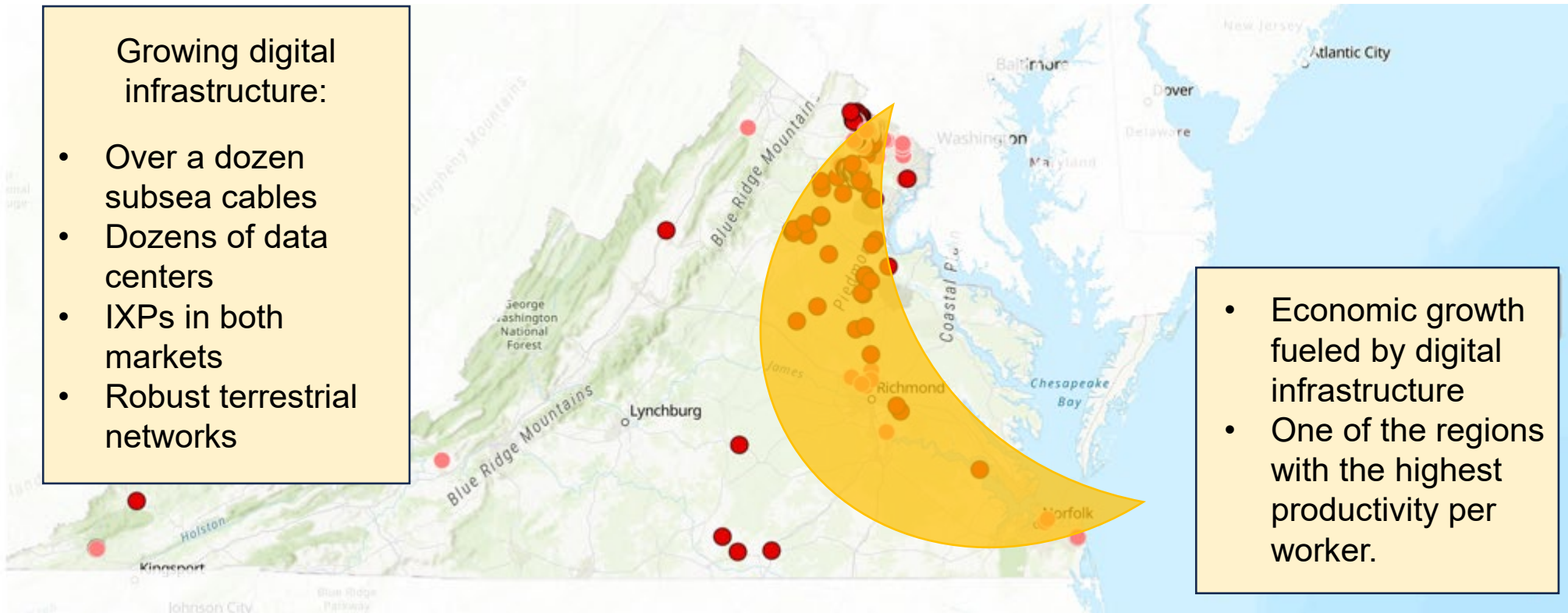
**Hampton Roads Region**

# Our Vision:

## Va.'s Golden Crescent Becomes The World's Most Advanced Digital Infrastructure Epicenter

Growing digital infrastructure:

- Over a dozen subsea cables
- Dozens of data centers
- IXPs in both markets
- Robust terrestrial networks



- Economic growth fueled by digital infrastructure
- One of the regions with the highest productivity per worker.



# Why World-class Digital Infrastructure Matters

# Internet hubs deliver many advantages

## Community Advantages

- Municipal / County budget funding
- Increased access to high-speed internet
- Improved public safety, transportation, and flooding/SLR services
- Enhanced educational opportunities
- Improved healthcare
- Increased work-from-home opportunities
- Service to underserved neighborhoods
- Enhanced locational appeal for remote workers

## Business Advantages

- Faster and more reliable service
- Lower costs
- Competitive advantage to conduct business at the speed of light
- Edge computing
- Larger tech talent pool

## Future-proofing the Community

Help a community remain relevant in the future with next gen capabilities.

Every “next generation” of technology adds new functionality, capacity, and performance, often by an order of magnitude.

In this industry, a generation is one to three years.

**The leading-edge hubs and users will have digital resources, tools and capabilities that are not widely accessed to others** - real-time massive data acquisition / analytics, use of augmented intelligence and creation of new, highly beneficial knowledge.

All of this will drive the winning companies and organizations of tomorrow...and future economic growth and prosperity.



# IT/Tech Job Growth Correlates to Worker Productivity and GDP Growth

\*List provided by TeleGeography and InterGlobix: Includes Seattle, Denver, Dallas, Atlanta, and Portland.

\*\*List provided by regional economic development agencies: Nashville, Raleigh, Charlotte, Miami, Orlando, Tampa, Myrtle Beach, Atlanta, Jacksonville, Charleston, and New Jersey.

Source: JobsEQ Data and S.I.R.'s calculations

## Summary Table – JobsEQ as Data Source (SIR)

Metropolitan Statistical Area (MSA)	Total Tech Jobs 2022	10-Year Tech Job Annual Growth Rate	Average 2022 Tech Job Wages	10-Year Worker Productivity Total Growth	10-Year GDP Total Growth (All Industries)
Mature Digital Infrastructure MSAs*		4.54% Avg.	\$116,233 Avg.	33.5% Avg.	64.6% Avg.
RVA & 757's Direct Competitors**		3.54% Avg.	\$103,473 Avg.	30.0% Avg.	56.8% Avg.
USA – Total	5,850,692	3.1%	\$111,800	31%	47.4%
<b>I-64 Innovation Corridor</b>		1.19% Avg.	\$105,900 Avg.	24.5 % Avg.	33.0% Avg.
Richmond	24,900	1.5%	\$107,900	26%	39.9%
Virginia Beach/Norfolk	25,879	0.9%	\$103,900	23%	26.7%

# **Data Centers Are Expanding Locations and Becoming More Efficient**

# Rapid Expansion Everywhere

- AI is driving rapid expansion in data center development.
- OpenAI, Microsoft and other AI companies have begun rolling out tools for users to deploy custom chatbots and GPT applications. OpenAI has laid the groundwork for an app store that could create a supercharged developer ecosystem.
- As demand soars, the data center space crunch will create ripples through almost all elements of digital infrastructure, impacting the supply chain, pricing, cooling, design and power infrastructure.

## Blackstone Aims To Cash In On AI With \$81 Data Center Push

July 31, 2023 | Dan Rubin, Data Centers (<https://www.bisnow.com/content/authors/dan-rubin-4965330/>) <https://www.bisnow.com/news/data-center/cloud-giants-increase-data-center-spending-amid-ai-push-118739>

Blackstone (<https://www.bisnow.com/tags/blackstone/>) is preparing to pump billions into subsidiary QTS Data Centers (<https://www.bisnow.com/tags/qts-data-centers/>) to fund new developments as the firm looks to capitalize on Big Tech's escalating artificial intelligence arms race (<https://www.bisnow.com/national/news/data-center/cloud-giants-increase-data-center-spending-amid-ai-push-118739>).



The asset management giant plans to spend \$8B through QTS to build new data centers, the Financial Times reports (<https://www.ft.com/content/ef62e31f-2f5e-4142-9689-93048e2a440d>). Much of this investment will come from the firm's \$68B Blackstone Real Estate Income Trust (<https://www.bisnow.com/tags/blackstone-real-estate-income-trust/>), even as the nontraded REIT sells off assets in other sectors to pay investors seeking to withdraw their money.

## Latest Earnings Show 'A Tsunami Of AI Demand' Hitting Data Centers

August 8, 2023 | Dan Rubin, Data Centers (<https://www.bisnow.com/content/authors/dan-rubin-4965330/>) <https://www.bisnow.com/news/data-center/latest-earnings-show-a-tsunami-of-ai-demand-hitting-data-centers-119000>

Artificial intelligence continues to boost data center demand in what could end up being a record leasing year for the sector.



The second quarter saw hyperscale giants like Microsoft (<https://www.bisnow.com/tags/microsoft/>) and Google (<https://www.bisnow.com/tags/google/>) continue their massive investments in data centers to support AI, driving a streak of massive lease deals that may just be a preview of what's to come.

But even as the world's largest tech companies plan to further increase capital expenditures in the months ahead, data center REITs Digital Realty (<https://www.bisnow.com/tags/digital-realty/>) and Equinix (<https://www.bisnow.com/tags/equinix/>) may not be in a position to fully capitalize on the opportunity.

- Microsoft's capex increased by \$3B last quarter mostly due to spending on data centers and other digital infrastructure
- QTS has spent \$1B buying land in five states to use for data centers

# Many Data Centers are Owned By Tech Companies That Invented and House AI – They Are Using AI To Improve



- Data centers have a history of innovation.
- Data centers partner with utilities, energy developers, suppliers, and other organizations to lower operational costs and impact.
- Maximizing the efficient use of energy in data centers is next:
  - Competitiveness in the marketplace
  - Individual corporate and collective sustainability goals
  - Bottom lines
  - Counter NIMBYism

# Virginia Has the Early Lead In Data Center Locations

# Rapid Expansion of Data Centers Is Happening Across Virginia



8:33:53.621 PM [10m sq ft Amazon files for four data center campuses in Virginia's Spotsylvania and Caroline Counties](#) - DCD

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HOME | NEWS | CLOUD & HYPERSCALE

## 10m sq ft: Amazon files for four data center campuses in Virginia's Spotsylvania and Caroline Counties

Cloud giant planning 10 million sq ft of development south of Fredericksburg

June 05, 2023 | By: Dan Swinhoe | 1 Comment

Amazon is planning four new data center campuses in Virginia's Spotsylvania and Caroline Counties amounting to more than 10 million of square feet of development.

First reported by the [Fredericksburg Free Lance-Star](#), the company has filed four applications with Spotsylvania County for new data center campuses.

Amazon has filed to develop the [Summit Crossing Tech Campus](#), the [Carter's Store Tech Campus](#), the [Cosner Tech Campus](#), and part of the [Onock Tech Campus](#) in the county. Most of the Onock campus will be in neighboring Caroline County.



Most of the campuses are close to the town of Carter's Store, located south of Fredericksburg. Documents suggest the company is planning to invest around \$1 billion in each project, most of which will be built out in phases until around 2035.

A fifth proposal, known as [Hunters Ridge](#), has also been filed, but seemingly separately from Amazon's plans.

**Update:** An AWS spokesperson reached out to DCD to say: "We recently submitted an application in Spotsylvania County as part of the due diligence process in exploring possible locations for investment. We are spending time in each community listening to residents and local leaders to

<https://www.dcdcentralparks.com/news/10m-sq-ft-amazon-files-for-four-data-center-campus-in-virginia-spotsylvania-and-caroline-counties/>

HOME | NEWS | CLOUD & HYPERSCALE

## Microsoft files for six-building data center campus in Virginia's Mecklenburg County

Company makes third data center filing in Southern Virginian county in last 12 months

April 12, 2023 | By: Dan Swinhoe | Have your say



Microsoft has filed to build another data center in Southern Virginia's Mecklenburg County.

The US Army Corps Of Engineers' Norfolk District this week received a [joint permit application](#) for Federal and State permits from the company.

According to the application – listed as LYH03 Bailey – Microsoft is proposing to construct a new data center facility to house servers used in cloud-based computing on land located west of Skipwith Road and north of Butler Farm Road.

"This facility will be constructed as an addition to Microsoft's established southern Virginia Regional Network Group, which has outgrown current capacity faster than anticipated," the application said.

Site plans suggest six buildings of equal size – listed as LYH03-08 – on 369 acres of currently greenfield land. Further details weren't included.



According to the US Army, the new campus will result in the permanent loss of more than 5,000 ft of streams and wetlands. The commentary

– US Army Corps of Engineers | Microsoft

## Virginia's Data Center Cluster Could Double in Size

Dominion Energy says it has received customer orders that could double the amount of data center capacity in Virginia by 2028, with a projected market size of 10 gigawatts by 2035. That represents a huge increase from current data center power use, which reached 2.67 gigawatts in 2022.

Data Center Frontier: Oct.2023



# NOVA Is The Data Center Epicenter



Virginia Has Over 300 Data Centers.

90 percent - 275 data centers - are located in Northern Virginia, including Loudoun County, Prince William County, and Fairfax County.

Source: Dgtl Infra

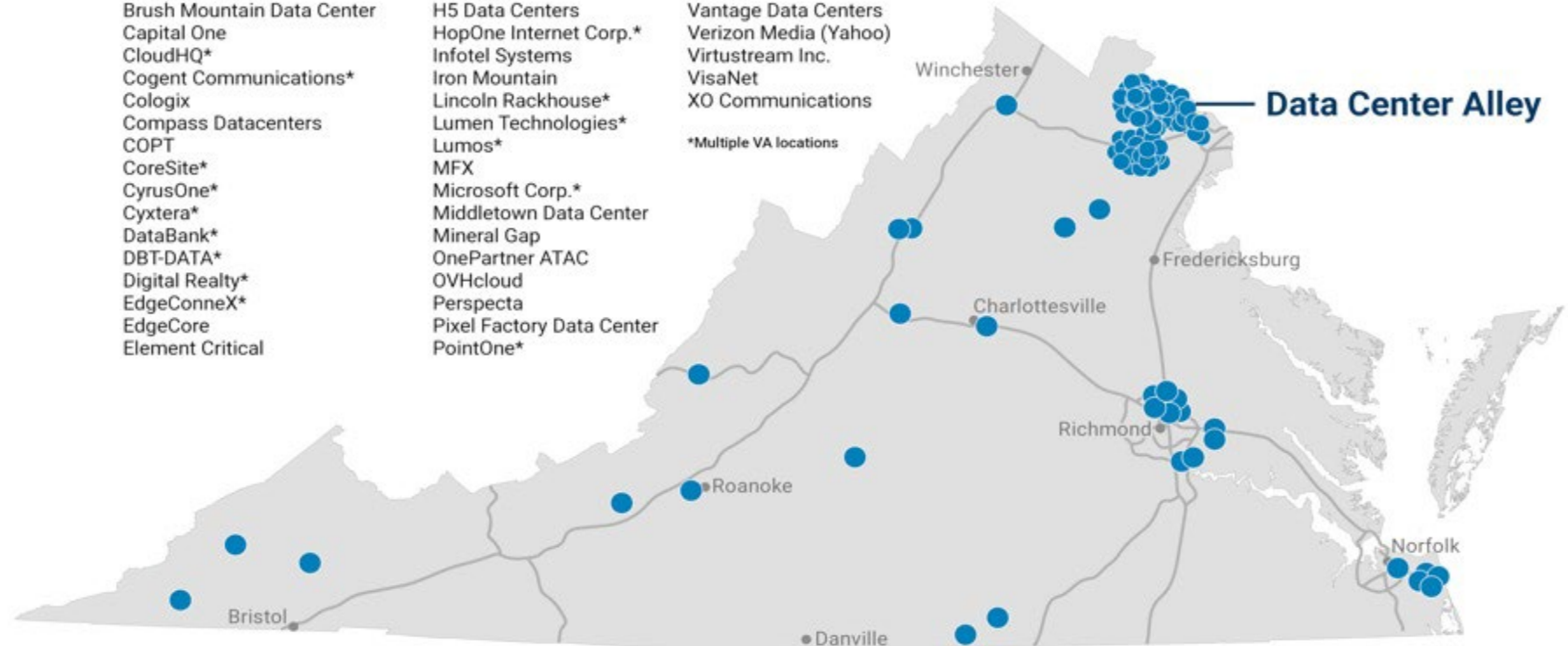
## Major Data Centers in Virginia

365 Data Centers  
 ACA International  
 Aligned  
 Amazon Web Services\*  
 Aptum Technologies  
 Bank of America  
 Brush Mountain Data Center  
 Capital One  
 CloudHQ\*  
 Cogent Communications\*  
 Cologix  
 Compass Datacenters  
 COPT  
 CoreSite\*  
 CyrusOne\*  
 Cyxtera\*  
 DataBank\*  
 DBT-DATA\*  
 Digital Realty\*  
 EdgeConneX\*  
 EdgeCore  
 Element Critical

Equinix\*  
 Evoque  
 Facebook  
 Flexential  
 Globalinx Data Centers  
 Google\*  
 H5 Data Centers  
 HopOne Internet Corp.\*  
 Infotel Systems  
 Iron Mountain  
 Lincoln Rackhouse\*  
 Lumen Technologies\*  
 Lumos\*  
 MFX  
 Microsoft Corp.\*  
 Middletown Data Center  
 Mineral Gap  
 OnePartner ATAC  
 OVHcloud  
 Perspecta  
 Pixel Factory Data Center  
 PointOne\*

Quality Technology Services (QTS)\*  
 RagingWire\*  
 Sabey Data Centers  
 SAIC and VITA\*  
 Stack Infrastructure\*  
 Telxius  
 Vantage Data Centers  
 Verizon Media (Yahoo)  
 Virtustream Inc.  
 VisaNet  
 XO Communications

\*Multiple VA locations

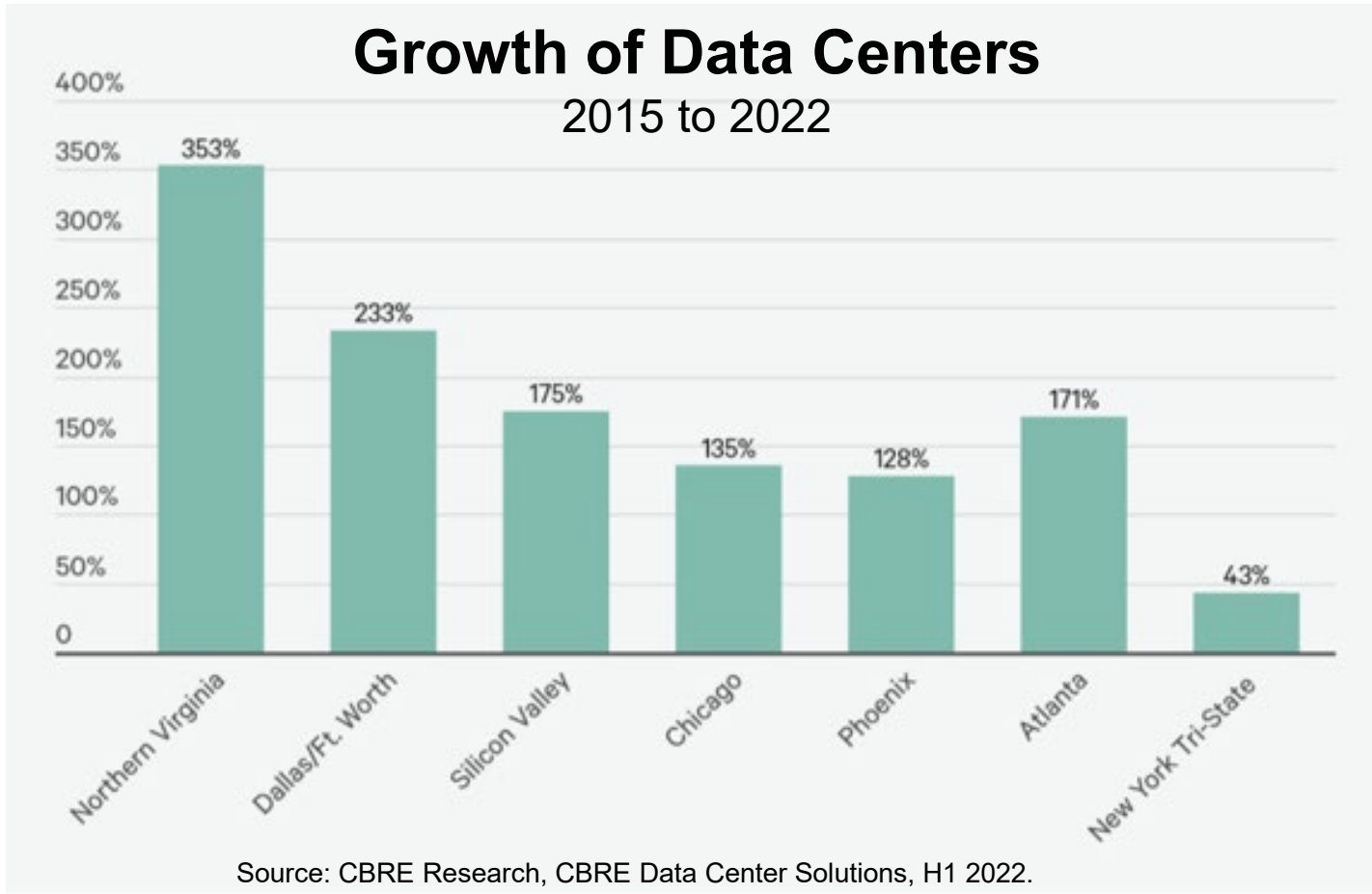


Source: Data Center Hawk, Baxtel.com, Company Websites

● Publicly Disclosed Data Center Location

Source of Image: VEDP Website: <https://www.vedp.org/industry/data-centers>

# Northern Virginia Data Center Market Continues to Grow



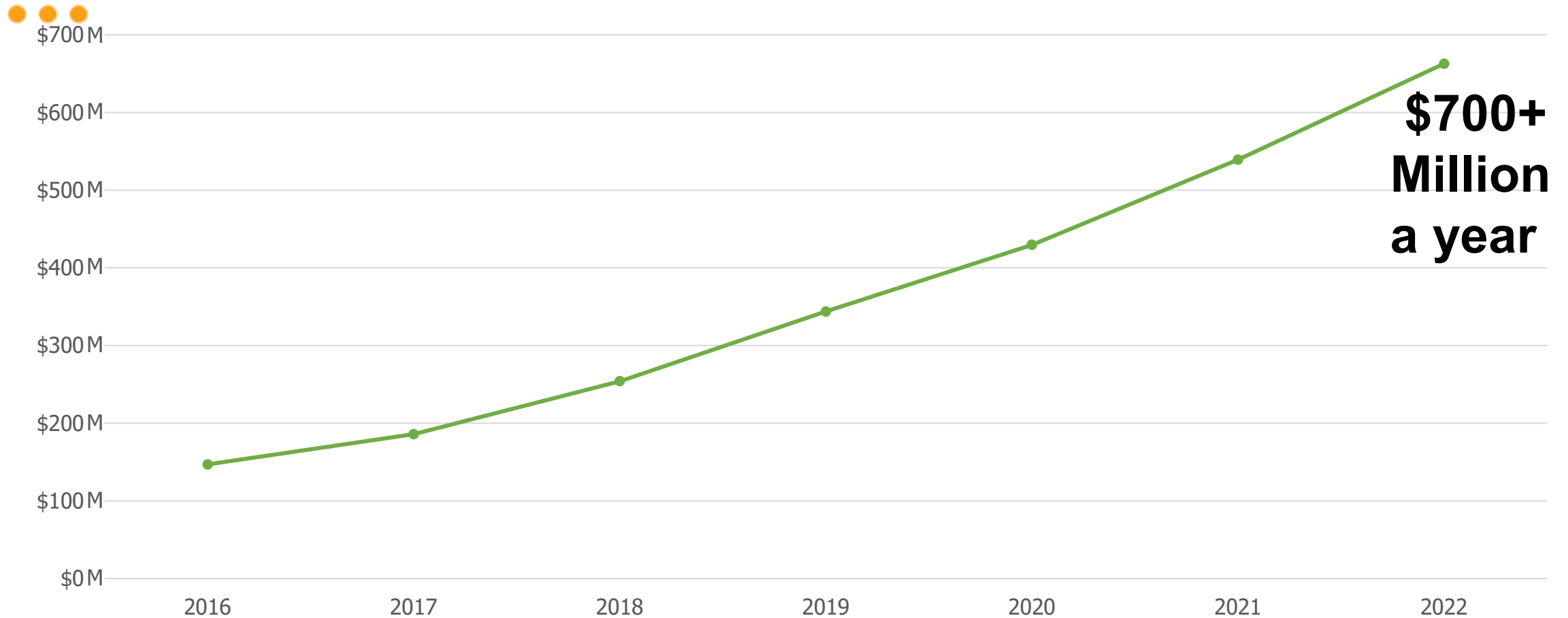
The average vacancy rate across North American data center markets stood at 2.7% in the third quarter of 2023, according to. In some markets, like Northern Virginia, the vacancy rate is about 1 percent.

Source: datacenterHawk as reported in Data Center Frontier

# **Data Centers Are Paying Huge Local Taxes and Contribute to the Community**

# Loudoun County

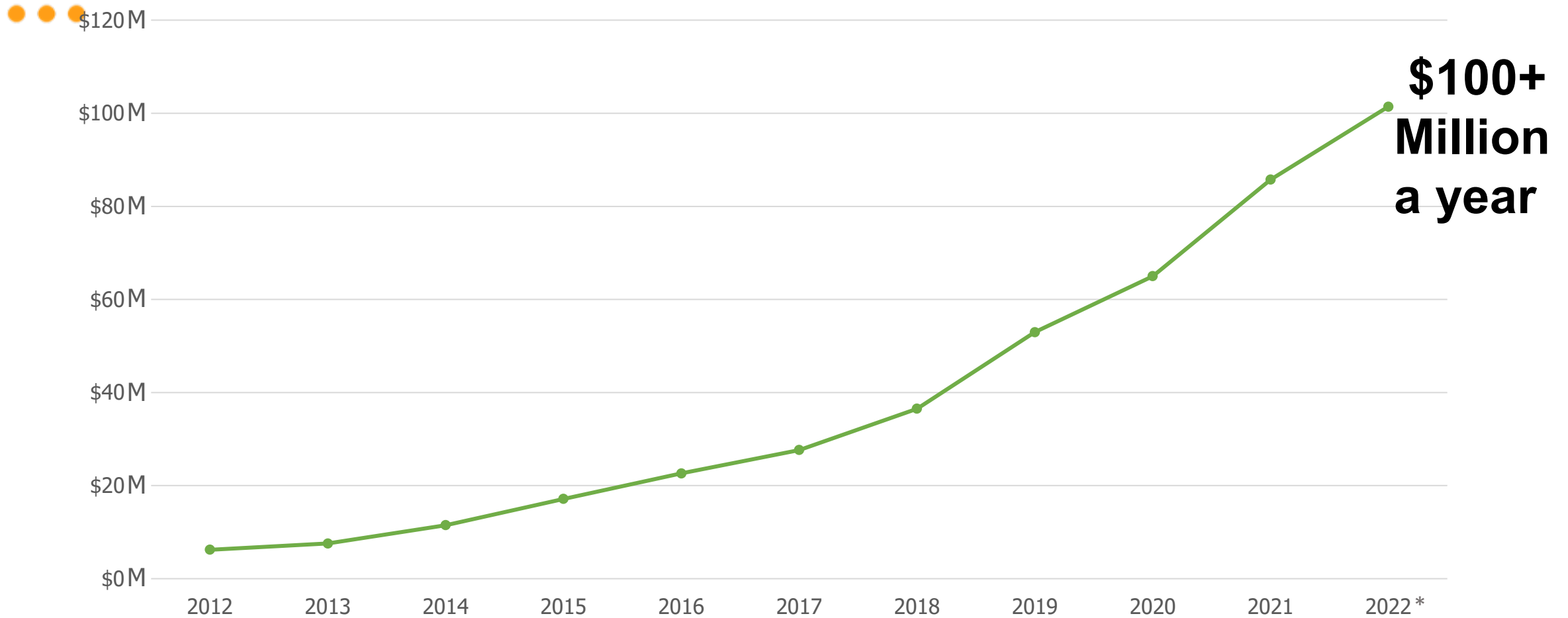
## Total Data Center Tax Revenue (\$Millions) per Tax Year



Source: DC News Now, In Northern Virginia, growing data center revenue is volatile, tax records show, Aug. 17, 2023, <https://www.dcnnewsnow.com/news/local-news/virginia/loudoun-county/in-northern-virginia-growing-data-center-revenue-is-volatile-tax-records-show/>

# Prince William County

## Total Data Center Tax Revenue (\$Millions) per Tax Year



Source: DC News Now, In Northern Virginia, growing data center revenue is volatile, tax records show, Aug. 17, 2023, <https://www.dcnewsnow.com/news/local-news/virginia/loudoun-county/in-northern-virginia-growing-data-center-revenue-is-volatile-tax-records-show/>

\*Preliminary; Data based on 1/1/2022 Land and Property Books;

# Hanover County

Hanover County tax projections say the Tract data center park would offer an estimated tax revenue of around **\$40 million per year**, over the first five years.

Its 20-year estimate totaled almost **\$1.8 billion** in tax revenue.

VIRGINIA'S NEWS LEADER

## Richmond Times-Dispatch

Friday, March 29, 2024 WHERE YOUR STORY LIVES richmond.com • \$3

FRIDAY, MARCH 29, 2024 NEWS RICHMOND TIMES-DISPATCH

### Hanover OKs data center project near Ashland

**SEAN JONES**  
Richmond Times-Dispatch

The growing data center industry has gained a foothold in Hanover County after supervisors this week approved permits and rezoning for a 1,200-acre park.

The green light paves the way for Hanover's first data centers.

Denver-based Tract, a developer specializing in data centers, is planning a technology park exclusively for data centers on Hickory Hill Road, northeast of Ashland. Tract representatives said the park would have between 30 and 38 buildings once finished.

The final site plan is subject to adjustments from the concept presented to the board of supervisors.

County tax projections say the park would offer an estimated tax revenue of around \$40 million per year, over the first five years. Its 20-year estimate totaled almost \$1.8 billion in tax revenue.

Supervisors said the project had the potential to take care of many growing financial needs in the county for schools, public safety and social services.

The board on Wednesday unanimously approved three requests from the developer.



HANOVER COUNTY

The Hanover County Board of Supervisors approved this site for a proposed 1,200-acre data center park.

#### Stoneman faces criticism on issue


Beaverdam Supervisor Jeff Stoneman was criticized by some residents who said he had run for office on a campaign of protecting the county's rural character and curbing development.

"It's been brought up that we need to keep Hanover rural and some of us ran on that as a campaign," Stoneman said. "I can't think of a way that you can do

ate a restriction on the number of other data centers.

"I think one campus of data centers is probably a good thing for the county," Prichard said. "If you're going to protect the rural character of a place, you can't do it by putting a data center on every corner. I would like to see us restrict the number."

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HANOVER COUNTY

Hanover County supervisors approved this site plan for a data center park on Hickory Hill Road north of Ashland.

fore traveling up Interstate 95 into Northern Virginia.

Data centers have also become a flashpoint in local and state politics, especially in parts of Northern Virginia, where residents are concerned that the facilities are too close to areas of historic and natural significance.

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Also, a \$250,000 tax would be levied on each server cabinet.





In RVA, \$3.2 Million in Community Investments (to date) and Rising – Schools and Non-profits

**But Now - NOVA is  
Experiencing Resident  
Pushback.**

# Data Center Challenge in NOVA

Google Anti data center protest NOVA

1 InsideNoVa.com Digital Gateway data center opposition ...

1 InsideNoVa.com Devlin Technology Park data center ...

4 KRON4 political upset in northern Virginia ...

6 WJLA Prince William County ...

1 InsideNoVa.com Devlin Tech Park data center proposal ...

1 InsideNoVa.com Data center legislation faltering ...

1 Fauquier Times Amazon tones down its data center noise ...

1 FOX 5 DC 'No to data centers': Protestors pus...

1 InsideNoVa.com Digital Gateway vote ...

2 WUSA9 Amazon Web Services Data Center in Mana...

4 NBC4 Washington Virginia Community Protests Building ...

1 Prince William Times Devlin Technology Park ...

# Data Center Challenge in NOVA

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## 'A dystopian hellscape:' PW Digital Gateway opponents sue to block data center corridor

By Ben Peters, bpeters@insidenova.com Jan 12, 2024 18



**Prince William Times** 64°  
Mostly Cloudy

April 20, 2024

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## 'Our voices must be heard': Residents file lawsuits challenging the Digital Gateway

By Cher Muzyk and Jill Palermo Times Staff Writers Jan 17, 2024 Updated Jan 18, 2024 0



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Democracy Dies in Darkness

## Data center backlash fuels Prince William board chair's election loss

By Antonio Olivo

June 21, 2023 at 7:04 p.m. EDT





# What's The Issue with Data Centers In NOVA?



Source: PEC

## Common Arguments from DC Opposition

**1.Environmental Concerns:** Data centers consume a significant amount of electricity, much of which may come from non-renewable sources, leading to concerns about carbon emissions and environmental degradation. Additionally, they require extensive cooling systems which can use large volumes of water, raising concerns in areas facing water scarcity.

**2.Impact on Local Infrastructure:** The high power and water needs of data centers can strain local utilities, potentially requiring upgrades that can be costly or logistically challenging. This can lead to conflicts with local communities and governments over resource allocation.

**3.Noise Pollution:** The cooling systems and backup generators in data centers can generate considerable noise, which can be a nuisance for nearby residents.

**4.Economic Issues:** While data centers create some jobs, they typically do not employ as many people as other industries might for a comparable amount of land used. This can lead to concerns about the economic benefits versus the cost of local incentives and subsidies provided to attract these facilities.

**5.Real Estate and Land Use:** Data centers often occupy large tracts of land and can lead to increased real estate prices, making it more difficult for other businesses and residents to afford property in the area.

**6.Aesthetic and Cultural Impact:** In some cases, the large, warehouse-like structures of data centers may not fit with the local landscape or architectural norms, potentially leading to cultural clashes.

**Other Markets Are  
Experiencing Resident  
Pushback, Too.**



# North Carolina: Residents voice concern around Fayetteville data center site annexation

Jun 30, 2022 | Posted by MadalineDunn

Residents in Fayette County have voiced concerns about the consideration of approval for the annexation of 412 acres of land in the center of the county, enabling the development of a data center. According to the city report: "If annexed, the properties would be zoned BP Business Park and designated as Suburban Office on the Future Land Use Map." The purpose of the annexation and zoning is said to be to "combine these tracts with the adjoining properties" with limits to "establish a 600-acre multi-use business park which would include research and development, life science, and data center facilities."

Currently, city staff is pushing for approval for the development, which has been presented as offering 100 jobs and a billion-dollar ultimate investment. However, citizens have been vocal about their opposition and are calling for a plan to attend the rezoning meeting on 6-30-22 at 6:00 p.m. in the Fayetteville City Hall, 210 Stonewall Avenue. Residents voice "concerns" and "get FCDA and city officials to reassess their plans."

In a statement, the group rallying against the annexation approval said: "Do not be fooled by the pretty promises of a 'center' campus.' Data centers, also euphemistically called The Cloud, are pitched to towns as a way to boost the economy without burdening schools and roads."

The group called the Fayette County data center project the "brainchild" of FCDA and rich investors.

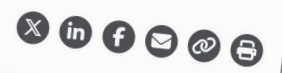
# South Carolina Daily Gazette

ECONOMY + WORKFORCE STATEHOUSE

## Data centers gobble up energy. Should SC block them from getting special deals?

Beyond data centers, the EV industry is also fueling the need in SC for more electricity

BY: JESSICA HOLDMAN - APRIL 15, 2024 8:00 AM  
Posts by Jessica Holdman



# US state of Georgia could pause data center tax breaks over power concerns

Lawmakers call for exemptions to be halted

February 08, 2024 By: Matthew Gooding Have your say



Politicians in the US state of Georgia want to suspend a tax break offered to data center operators because of the strain new developments are putting on the power grid.

Lawmakers in the state legislature announced the plan as part of a wide-ranging view of incentives offered to businesses which began last [June](#).

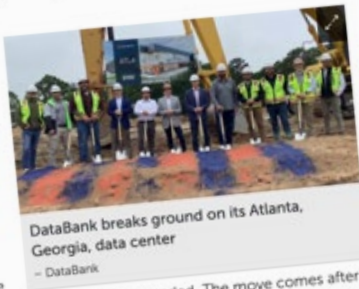
## Georgia's tax incentives for data centers

Georgia has given data center operators an exemption from the state's sales tax since [2018](#). Companies receive the tax break if they hit certain thresholds relating to investment and job creation. The exemptions were due to stay in place until 2028, but were subsequently extended to 2033.

But now state politicians are calling for a pause to be put in place on the tax break while Georgia's power grid is expanded. The move comes after utility company Georgia Power said last year it needed to build more infrastructure to provide an additional 3,400MW of power and meet demand. It pinned 80 percent of this demand on the state's data centers.

At a press conference on Wednesday, Republican Jon Burns, speaker of the Georgia House of Representatives said: "These centers currently are using a disproportionate amount of our state's

site. [Learn more](#)



DataBank breaks ground on its Atlanta, Georgia, data center  
- DataBank

Analysis

## Georgia Legislature Suspends Tax Exemption for Data Centers

State commission to examine impact of data hubs on Georgia's power grid.

By Jack Rogers | March 22, 2024 at 06:03 AM

**f** Pushback is growing to the rapid expansion of data center footprints that are beginning to outpace the capacity of utilities to provide the huge amount of electricity needed to support data processing for generative AI.

**in** The state legislature in Georgia has passed a bill suspending the state's sales tax exemption for data centers for two years. The bill establishes a state commission that will examine the impact of data centers on Georgia's state power grid during the hiatus for the incentive.

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## State Tax Exemption for DC Equipment:

- Ohio: 40 years
- Pa.: 25 years
- Indiana: 50 years
- Alabama: 30 years
- Texas: 20 years
- Tenn.: Forever
- Iowa: Forever

## US tax breaks, state by state

Which US states are offering tax incentives to attract data center investment?

January 06, 2016 By: David Chernicoff [Have your say](#)



There is no question that data centers have become a hot property, from the perspective of states looking for the economic development they bring. Large data center projects, with investments ranging into the multi-billion dollar range, have enough clout to change the way that prospective locations do business, motivating local government to pass tax laws advantageous specifically to the data center business.

Most states already have economic development processes in place that arrange for tax incentives, investment assistance, loan guarantees, and other forms of business assistance designed to attract business development. But with the huge investments that data centers can represent, the playing field has changed and many states have started to change their tax structure to find ways to encourage large investments from data center operators and make them more compelling locations than their neighboring communities.

Not every state has gotten aboard the data center tax incentive bandwagon, but here's how these programs shape up in the United States, with the states that do offer such programs, through the end of 2015:

### Alabama

The Alabama Data Processing Center Economic Incentive Act of 2012 provides for data center specific tax abatement on sales, use and non-education property taxes at both the state and local level. The abatements can be applied for as long as 30 years if the total capital investment exceeds \$400 million. It also requires the creation of 20 new jobs (compared with 50 for non- data center employers) with an annual compensation, including benefits, of at least \$40,000.

### Arizona

Working with the Arizona Department of Revenue, the Arizona Commerce authority is certifying

Source: Data Center Dynamics

## Why Is The Equipment Tax Such a Big Deal?

- NVIDIA CEO Jensen Huang announced at GTC 2024 that the Blackwell B200 AI chip could cost between \$30,000 and \$40,000 per unit.
- Equipment inside data centers is updated continuously.



# Why Today's Conversation Is So Timely



**2023**

NOVA citizen pushback on Data Center Growth

**Feb. 2023**

Virginia General Assembly Charges JLARC to Restudy Data Centers

**Jan. 2024**

15 Bills Introduced in General Assembly to Control Data Center Growth. All Were Suspended Until the JLARC Study Complete

**April 2024**

Resident Pushback Has Georgia Close To Bringing Back the State Tax On Data Centers.

(Unintended chilling effect?)

**Fall 2024**

JLARC Study Complete

**Jan. 2025**

General Assembly Considers New Laws Governing Data Centers



**At the Same Time . . . Data Center Investment in Virginia**

# Appendix

## What's the truth about Data Centers? *Perception Versus Reality*

# Opening Comments from our Panel



- **Brian Jenkins**, President – Development, Hourigan (Richmond-based development company that is proposing a data center campus in eastern Henrico County).
- **Sharon Lam**, Senior Vice President, Land Strategy, Tract (A data center land acquisition and development company that just received approval for a data center campus in Hanover County).
- **Stan Blackwell**, Director, Data Center Practice, Dominion Energy
- **Christopher Lloyd**, Senior Vice President and Director, Infrastructure and Economic Development, McGuireWoods Consulting



# Q&As

# What Should RVA757 Connects Do Next?

# Ramp Up Advocacy Now – We Have 4 Months

*We Must Be Proactive Before JLARC*



**2023**

NOVA citizen pushback on Data Center Growth

**Feb. 2023**

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(Unintended chilling effect?)

**Fall 2024**

JLARC Study Complete

**Jan. 2025**

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Ramp up outreach before JLARC and Coming Legislation

# 1. Refine Our Messaging

*Tie Data Centers to the Bigger Digital Infrastructure Ecosystem to our 21<sup>st</sup> Century Competitiveness*



## Our Pre-JLARC Report Release Narrative:

- **The Data Center Topic is About More than Data Centers:** Digital infrastructure is more than just data centers. It includes subsea cables, fiber networks, Internet Exchange Points, and data centers. Collectively, this ecosystem gives us a competitive advantage over other regions and even states.
- **This is About Our Future :** We lag behind cities we compete against in the Southeast and the overall U.S. average when it comes to the growth in IT/Tech jobs. Investing in our digital infrastructure in the I-64 Innovation Corridor will ensure that these high-paying IT/Tech jobs of the future and the industries of tomorrow will be here. In turn, this will help attract companies and grow our overall workforce and economic prosperity.”
- **Now is the Time to Send a Message To The Industry “Come Here, Thrive, But Be Sensible.”** While other states start to saying “no,” we should say “yes.” Eliminate the Sunset Law, support Dominion Energy, and put in place sensible expectations for new data centers that protect our communities, families, and environment.

## 2. Continue Outreach to All General Assembly Members.



*“As discussions heat up over data centers, we hope you will keep this map top of mind to fully appreciate that the Global Internet Hub is more than just data centers. It visually shows the comprehensive nature of our entire digital infrastructure – from subsea cables and fiber networks to data centers and internet exchange points. The narrative throughout the brochure explains why investing in digital infrastructure in the I-64 Innovation Corridor will ensure that the high-paying IT/Tech jobs of the future and the industries of tomorrow will be here. In turn, this will help attract companies and grow our megaregion’s overall workforce and economic prosperity.”*





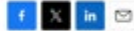
# House Communications, Technology, and Innovation Committee





# House committee looks beyond data centers to Virginia's high-tech future

RADIO IQ | By Brad Kutner  
Published February 19, 2024 at 4:57 PM EST



▶ LISTEN • 1:24



*“When you look across the country at jurisdictions with mature digital infrastructure, they’re growing fast in GDP and tech workers, and that correlation is so important,” he said — suggesting cities like Denver, Portland and Seattle were already ahead of the curve in planning their digital infrastructure dominance. “How do we catch them,” John W. Martin, president and CEO of RVA757 Connects, asked.*

# 3. Continue to Advance Global Internet Hub Actions

Updated Sheet in the Documents Portal



## Members:

- Dominion Energy
- CarMax
- Cox Communications
- Bank of America
- Henrico
- Virginia Beach
- ODU
- Dragonfli Group
- Pixel Factory
- Hampton Roads Alliance
- Greater Richmond Partnership

RVA757 connects		Global Internet Hub Strategic Plan Next Steps		I-64 INNOVATION CORRIDOR	
		November 14, 2023			
Strategic Imperative	Lead Org.	Action Framework	Immediate Next Steps		
1. <b>Global Internet Hub:</b> Establish a Global Internet Hub Council	GIH Council RVA757 Connects	<ul style="list-style-type: none"> <li>• Turn the Steering Committee into GIH Council.</li> </ul>	<ul style="list-style-type: none"> <li>• Send letters of requests for support.</li> </ul>		
2. <b>Local Stakeholder Awareness:</b> Through outreach and education, increase awareness, familiarity, and support among local stakeholders in the I-64 Innovation Corridor for digital infrastructure development.	GIH Council RVA757 Connects	<ul style="list-style-type: none"> <li>• Create a presentation deck and handout (map) to explain the essence of a GIH (completed).</li> <li>• Make presentations to local governments, business organizations, and other stakeholders with the plan as a handout.</li> <li>• Long-term: explore certification programs</li> </ul>	<ul style="list-style-type: none"> <li>• Briefing Presentations made to Virginia Beach, Suffolk, and General Assembly Technology Committee.</li> <li>• After the November 7 election, reach out to all jurisdiction in I-64 Innovation Corridor to schedule briefings.</li> </ul>		
3. <b>Global Investor Awareness:</b> Increase international awareness of and familiarity with the I-64 Innovation Corridor among the global digital infrastructure community, in general, and digital infrastructure investors, in particular. Attract additional international subsea cables.	Hampton Roads Alliance Greater Richmond Partnership RVA757 Connects	<ul style="list-style-type: none"> <li>• Maintain and update the Global Internet Hub website.</li> <li>• Place an Executive Summary map of the I-64 Innovation Corridor's digital assets along with the Strategic Plan's highlights in global trade publications.</li> <li>• Create a roadshow presentation about the I-64 Innovation Corridor as a GIH for state and local economic development agencies to use as appropriate.</li> <li>• Starting in 2024, attend and present at the most important GIH international events.</li> </ul>	<ul style="list-style-type: none"> <li>• Review consulting proposal by Vinay Naggal</li> <li>• Review map insert proposal by InterGlobix magazine.</li> </ul>		
4. <b>Terrestrial Networks:</b> Support the growth of robust local internet networks and routes connecting other hub markets.	GIH Council RVA757 Connects	<ul style="list-style-type: none"> <li>• Have the GIH Council create a comprehensive inventory of established and planned networks.</li> <li>• Put this annual inventory on the globalinternet.org website.</li> </ul>	<ul style="list-style-type: none"> <li>• Create the inventory. Share with the terrestrial network industry for confirmation.</li> </ul>		
5. <b>Subsea Cables:</b> Attract additional international subsea cables 5A. Secure additional landing sites 5B. Diversify Cable Landing Stations 5C. Work on no-anchor protection zone	Virginia Beach Hampton Roads Alliance RVA757 Connects	<ul style="list-style-type: none"> <li>• Planning and building subsea cables takes 6-8 years. Now is the time to influence the next 10-12 cables needed for the East Coast.</li> <li>• Advance Virginia's shoreline as an opportunity for more subsea cable landings.</li> </ul>	<ul style="list-style-type: none"> <li>• Package this opportunity in a PowerPoint deck (TeleGeography is standing by to assist)</li> <li>• Approach investors and operators</li> <li>• Work with appropriate parties to accelerate the adoption of a no-anchor protection zone</li> </ul>		
6. <b>Data Centers:</b> Support the growth of data centers.	Hampton Roads Alliance Greater Richmond Partnership Virginia Beach Henrico County	<ul style="list-style-type: none"> <li>• Now is the time to support data center growth given Amazon's announcement and NOVA's Issues.</li> <li>• Support local and regional economic development organizations in inventorying and packaging viable data center sites in the I-64 Innovation Corridor.</li> <li>• Work to repeal the 2035 sunset law for state tax incentives for data centers. This tax will come back in 2035 unless it is eliminated.</li> </ul>	<ul style="list-style-type: none"> <li>• Review Alliance's top site study.</li> <li>• Finalize the decision on site certification plan and funding source - GO Virginia or the state's site-ready budget</li> <li>• Formulate an advocacy plan with VEDP to repeal the 2035 sunset law</li> </ul>		

# Discussion



# Closing Remarks

**Tom Frantz**

Co-Chair, RVA757 Connects





**How did you like this  
meeting format?**



# Let's Continue to Connect and Engage



**Board:** November 20, 10 a.m. to noon via Zoom

**Virtual Innovation Spotlight webinars** (first Wednesdays of the month at noon): ■

- Wednesday May 1 at noon: Grenova, a Richmond-based company that has developed game-changing technology that allows for substantial reduction in laboratory carbon emissions and plastic waste.
- Wednesday June 5 at noon: TBD

**Convergence:** Thursday October 3 at the Williamsburg Lodge (Meeting from 9 a.m. to 5 p.m.; with ending reception from 5 p.m. to 6:30 p.m.)





**What we're  
all about . . .**

**Convene**

**Connect**

**Collaborate**

**Innovate**

**Grow**



**We're  
Adjourned**



# Appendix

## What's the truth about Data Centers? *Perception Versus Reality*

# Types



## Perception

All data centers  
are alike.

## Reality

### **Hyperscale/Enterprise:**

Business owns/controls servers and peripherals, may own facility

### **Multitenant and Build to Suit:**

Facility owner leases to multiple tenants.

Data centers vary widely in their specifications, purposes, and capabilities. Some are dedicated to cloud storage, others to hosting websites, and some to complex data processing or artificial intelligence tasks.

# Economic Benefits



## Perception

Data centers offer little local economic benefit since they don't require a large workforce.

## Reality

Data centers bring substantial investment into local infrastructure, improve telecommunications capabilities, and attract other businesses to the area, enhancing economic development.

# Virginia's Data Center Industry



## Jobs

- 2021 Direct Employment: **17,380**
  - 32% Increase Since 2017
- 2021 Total Employment (Direct, Indirect, and Induced): **86,290**
  - 26% Increase Since 2017

## Labor Income

- 2021 Total Labor Income: **\$7.9 billion**
  - 57% Increase Since 2017

## GDP Impact

- **\$13.525 Billion** in 2021
  - 52% Increase Since 2017

*Source: PwC, "Economic, Environmental, and Social Impacts of Data Centers in the United States," September 2023*



# Data Center Tax Revenues Support Local Priorities



2020 Local Tax Benefit For Every \$1 Spent on Local Services

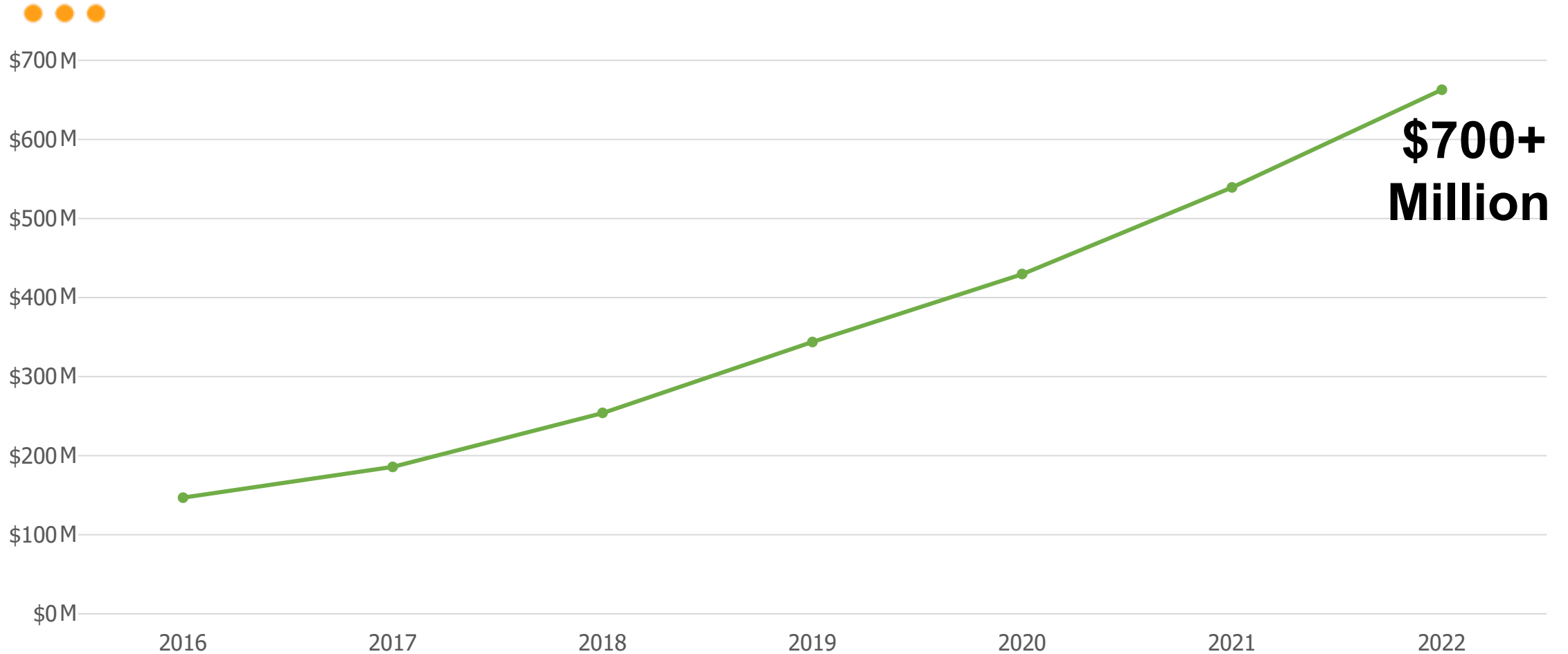
Loudoun County  
\$1.00 → \$11.50

Prince William County  
\$1.00 → \$14.70



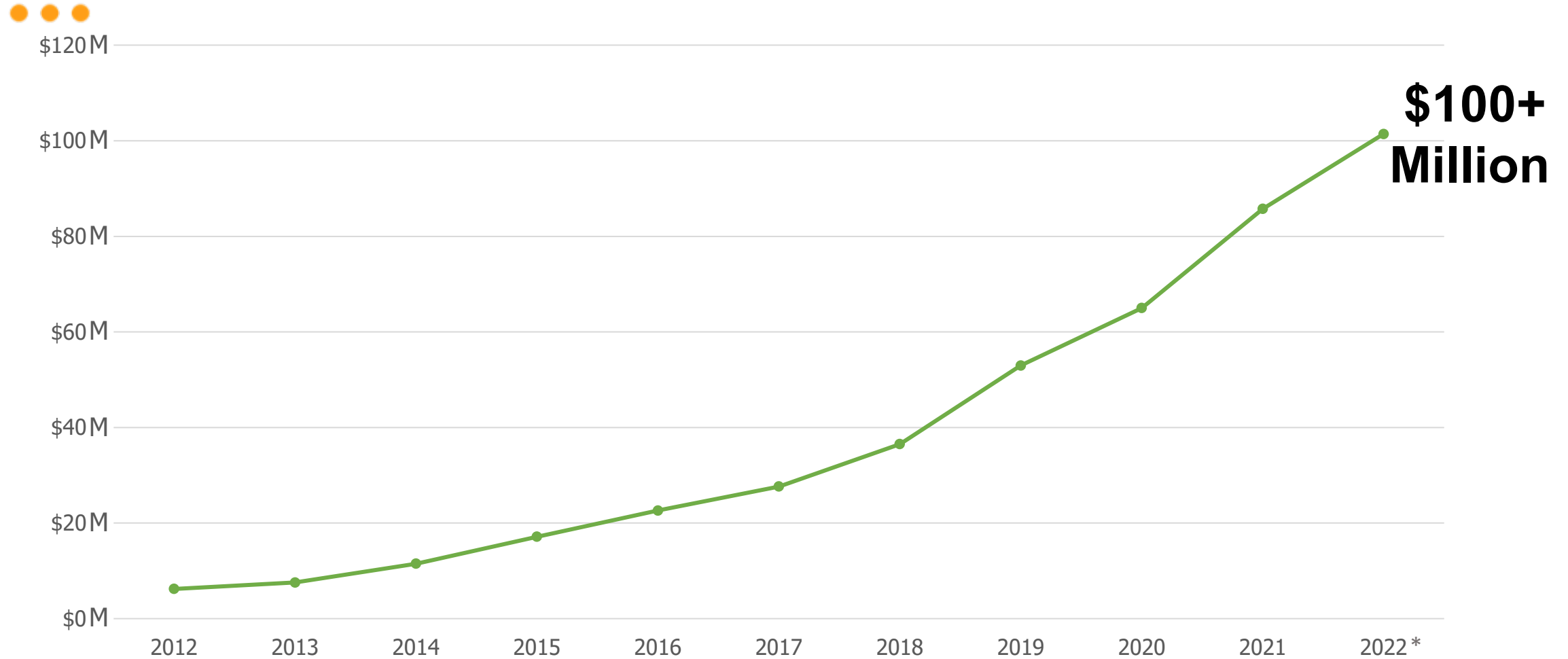
Source: NVTC Report: The Economic and Fiscal Contribution that Data Centers Make to Virginia, January 2022 (Mangum Economics)

# Loudoun County: Total Data Center Tax Revenue (\$Millions) per Tax Year



Source: DC News Now, In Northern Virginia, growing data center revenue is volatile, tax records show, Aug. 17, 2023, <https://www.dcnnewsnow.com/news/local-news/virginia/loudoun-county/in-northern-virginia-growing-data-center-revenue-is-volatile-tax-records-show/>

# Prince William County: Total Data Center Tax Revenue (\$Millions) per Tax Year



Source: DC News Now, In Northern Virginia, growing data center revenue is volatile, tax records show, Aug. 17, 2023, <https://www.dcnewsnow.com/news/local-news/virginia/loudoun-county/in-northern-virginia-growing-data-center-revenue-is-volatile-tax-records-show/>

\*Preliminary; Data based on 1/1/2022 Land and Property Books;

# Hanover County:

Hanover County tax projections say the Tract data center park would offer an estimated tax revenue of around **\$40 million per year**, over the first five years.

Its 20-year estimate totaled almost **\$1.8 billion** in tax revenue.

VIRGINIA'S NEWS LEADER

## Richmond Times-Dispatch

Friday, March 29, 2024 WHERE YOUR STORY LIVES richmond.com • \$3

NEWS RICHMOND TIMES-DISPATCH

### Hanover OKs data center project near Ashland

**SEAN JONES**  
Richmond Times-Dispatch

The growing data center industry has gained a foothold in Hanover County after supervisors this week approved permits and rezoning for a 1,200-acre park.

The green light paves the way for Hanover's first data centers. Denver-based Tract, a developer specializing in data centers, is planning a technology park exclusively for data centers on Hickory Hill Road, northeast of Ashland. Tract representatives said the park would have between 30 and 38 buildings once finished.

The final site plan is subject to adjustments from the concept presented to the board of supervisors.

County tax projections say the park would offer an estimated tax revenue of around \$40 million per year, over the first five years. Its 20-year estimate totaled almost \$1.8 billion in tax revenue.

Supervisors said the project had the potential to take care of many growing financial needs in the county for schools, public safety and social services.

The board on Wednesday unanimously approved three requests from the developer.

**Stoneman faces criticism on issue**


Beaverdam Supervisor Jeff Stoneman was criticized by some residents who said he had run for office on a campaign of protecting the county's rural character and curbing development.

"It's been brought up that we need to keep Hanover rural and some of us ran on that as a campaign," Stoneman said. "I can't think of a way that you can do

ate a restriction on the number of other data centers.

"I think one campus of data centers is probably a good thing for the county," Prichard said. "If you're going to protect the rural character of a place, you can't do it by putting a data center on every corner. I would like to see us restrict the number."

Residents in favor of the project said it would provide a boost in construction jobs while imposing a relatively small impact com-



The Hanover County Board of Supervisors approved this site for a proposed 1,200-acre data center park.

Hanover County supervisors approved this site plan for a data center park on Hickory Hill Road north of Ashland.

before traveling up Interstate 95 into Northern Virginia.

Data centers have also become a flashpoint in local and state politics, especially in parts of Northern Virginia, where residents are concerned that the facilities are too close to areas of historic and natural significance.

the cost for power.

The overall tax projections are based on total power usage at the site – about \$7 million per megawatt. At full power, the park is projected to be a 2,400-megawatt site.

Also, a \$250,000 tax would be levied on each server cabinet.

# New Jobs



## Perception

While data centers create some jobs, they typically do not employ as many people as other industries might for a comparable amount of land used.

## Reality

During construction, a data center can have hundreds of workers. Many stay on as contracted support.

# Energy Cost



## Perception

Data centers impact the electric rates in residential neighborhoods next door.

## Reality

Residential electric rates are set by the SCC on a statewide basis.



# Energy Use



## Perception

Data centers consume a significant amount of electricity, much of which may come from non-renewable sources, leading to concerns about carbon emissions and environmental degradation.

## Reality

Modern data centers often use green technologies, renewable energy sources, and innovative cooling techniques to reduce their carbon footprint.

# Water Use



## Perception

People often believe that data centers use an excessive amount of water for cooling purposes.

## Reality

While it's true that water-cooled systems are common, many facilities are moving towards more sustainable practices, such as using recycled water or air-cooling systems that significantly reduce water usage.

# Aesthetic and Cultural Impact



## Perception

In some cases, the large, warehouse-like structures of data centers may not fit with the local landscape or architectural norms, potentially leading to cultural clashes.

## Reality

Modern data centers are often built with offsets and heights that make them invisible to people on adjacent properties.

# Noise



## Perception

The cooling systems and backup generators in data centers can generate considerable noise, which can be a nuisance for nearby residents.

## Reality

The cooling systems and backup generators in modern data centers make little noise, most of which doesn't extend beyond the property.

# Security



## Perception

Data centers are significant security risks because they attract cyberattacks

## Reality

Data centers are actually among the most secure facilities in the world in terms of both physical and cyber security, employing advanced security measures to protect the data they house.

# Scalability



## Perception

Data centers are rigid and cannot be easily scaled or updated.

## Reality

Modern data centers are designed for scalability and flexibility, allowing for expansion and technological updates without major disruptions. Sites are similar to advanced manufacturing sites.



# Ruralness



## Perception

Data centers will urbanize rural localities.

## Reality

Data centers are usually on larger parcels of land, but only use a fraction of the property. With height restrictions and relative low number of daily workers, data centers are actually the optimal way to keep rural areas rural.

# Future Positioning



## Perception

Data centers are a necessary cost center - an expense.

## Reality

Data centers with Generative AI are the new form of 21<sup>st</sup> century factories – creating significant value (data tokens) from raw data and electricity.

# Nvidia CEO wants enterprise to think ‘AI factory,’ not data center



In Monday March 18's keynote at Nvidia's GTC 2024 event, CEO Jensen Huang kept repeating the phrase "AI factory."

"In the last Industrial Revolution, the raw material that went into the factory was water," Huang told TechCrunch in an interview after the keynote. "And the product was electricity."

He was comparing this — turning raw material into something else that have value — to the notion of data centers, which are purely money pits. "There's a new Industrial Revolution happening in these [server] rooms: I call them AI factories," Huang said. "The raw material that goes in is data and electricity. What comes out of it is data tokens. The token is invisible and will be distributed all over the world. It's very valuable."

The distinction makes a lot of sense in a world where Nvidia benefits tremendously if it can persuade companies to think of data centers and AI tools in a different way. "The last time, data centers went into your company's cost centers and capital expenditure. You think of it as cost. However, a factory is a different thing. It makes money," he said. "The new world of generative AI has a new form of factory."