



Tantalus

Smart Grid Resiliency

Federal Funding and Future-Proofing your Utility for Whatever Comes Next

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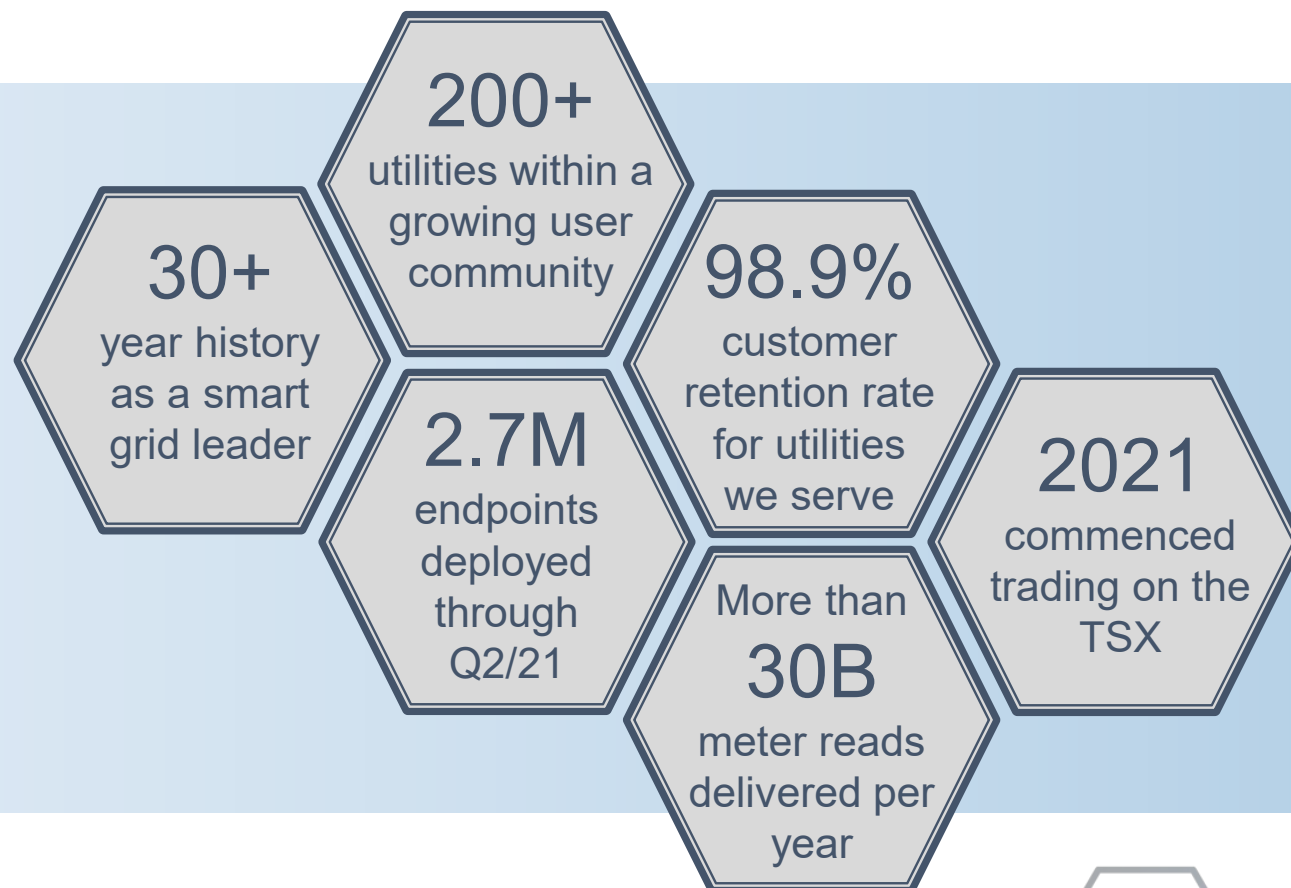
PURPOSE



FLEXIBILITY



RELATIONSHIPS



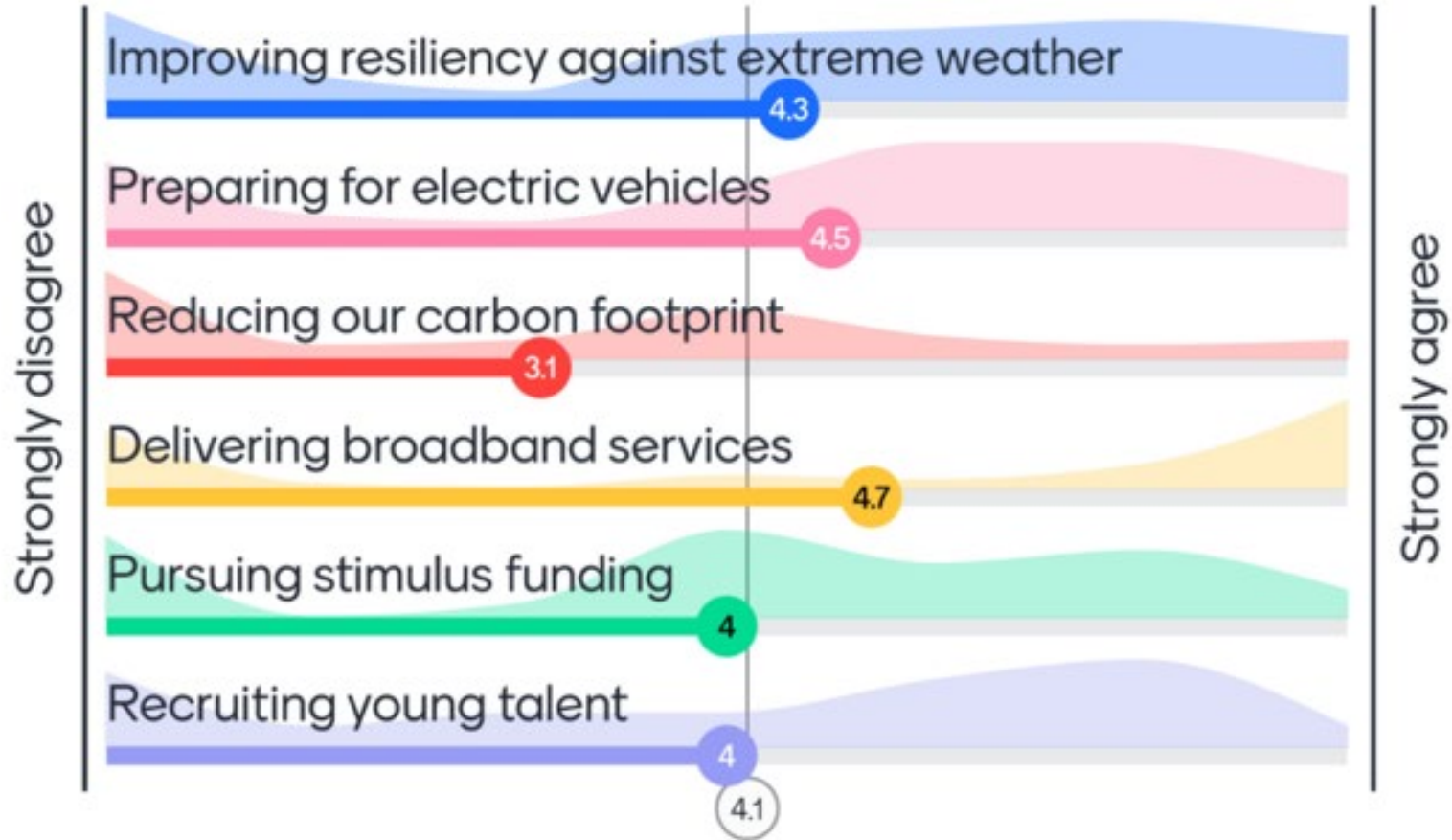
What Utilities Are Up Against

Macro trends and daily pressures



GRID 2021: Key Take-Aways

Where our user community is prioritizing efforts



Macro Trends

Utilities everywhere are facing unprecedented challenges that their grids were never designed to handle



Extreme Weather



Increased Outages



Shifting Consumer Behavior

Macro Trends

Utilities everywhere are facing unprecedented challenges that their grids were never designed to handle



Electrification of Everything



Decarbonization of Everything



The Platform: TUNet

How we digitize the distribution grid

The TUNet Platform — Digitizing the Distribution Grid

Comprehensive solution that includes an I-IoT network, connected devices, software and services

Tantalus Customer Success

Software Applications



- Next-Gen Advanced Metering
- Load Management
- Grid Optimization
- Lighting Control / Smart Cities

Enterprise Software:

Tantalus Control Center (TCC)



- User Interface
- APIs / Standards
- Device Mgmt. / Data Warehouse

Connected Devices:

TRUEdge



- Edge-based computing
- Reads multiple protocols
- Ecosystem of devices
- Granular Data
- Water and Gas

Communications Network:

TUNet



- Wide Area (WAN) / Local Area (LAN)
- Cellular/Radio Frequency / Fiber
- Push-based design
- Security



GRID 2021: Key Take-Aways

EVs will impact the distribution grid

EVs ARE COMING

Bloomberg estimates 70%
of new vehicle sales by
2040



MANAGE THE GAP

ERCOT 80GW Peak
22M Cars at 100kWH =
2200 GW



EVs WILL IMPACT THE GRID

Transportation accounts for 30%
of GGE

AC on Full = 5kW

L2 EV Charger = 7kW



Vision: The Truly Sustainable Utility

How Tantalus' solution empowers long-term success



How Our Solutions Enable the Sustainable Utility

Improving the efficiency, reliability and sustainability of utilities and the communities they serve

Workforce safety
Improve reliability
Asset management
System planning

Reduce costs
Offer dynamic pricing
Extend asset life
Improve ROIs

OPERATIONAL



ENVIRONMENTAL



Reduce carbon footprint
Embrace DERs
Equitable delivery
Enhance ESG efforts



SUSTAINABLE
UTILITY



FINANCIAL



COMMUNITY

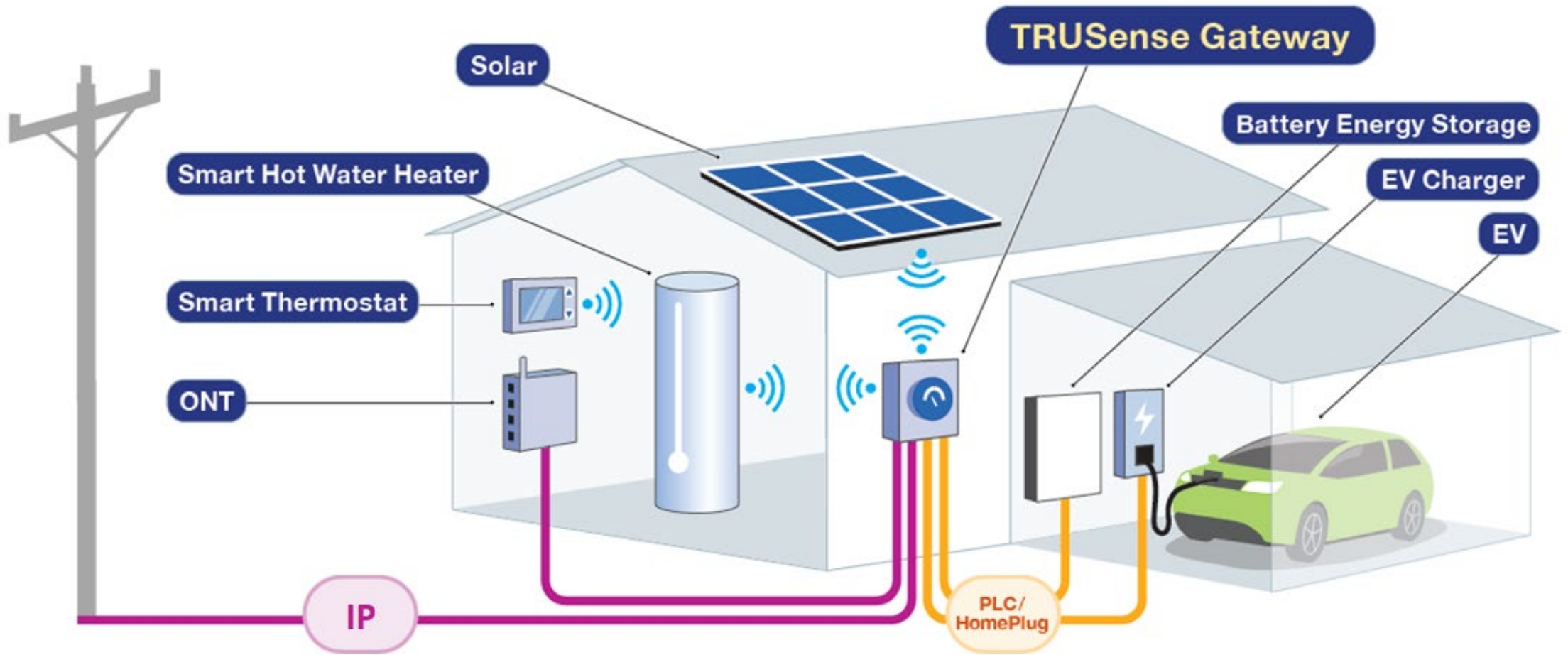
Affordable accessibility
Reliable connectivity
Safety & security
Economic development

The Prepared Utility Checklist

Get Ready	Know Where They Are	Carrot and Levers	Manage Reliably
Digitize the Grid	Identify DERs and EVs	Profile load	Control your destiny
Analyze and Predict	Be ready for more	Explore Rate Structures	Separately meter DERs
Monitor your transformers	Engage customers early	Automate and control	Remember other loads

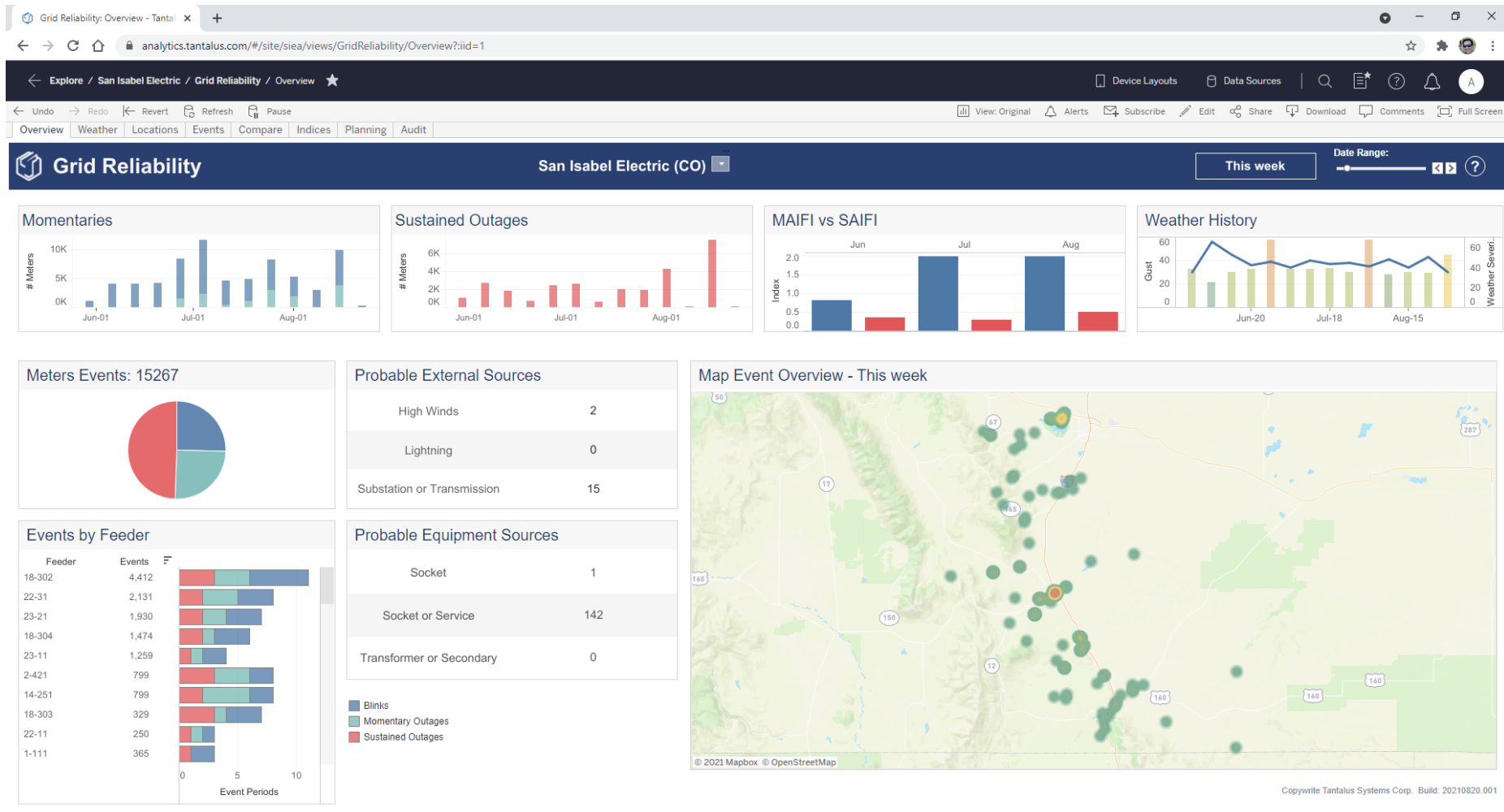
TRUSense Gateway

Next generation solution for behind-the-meter DERs



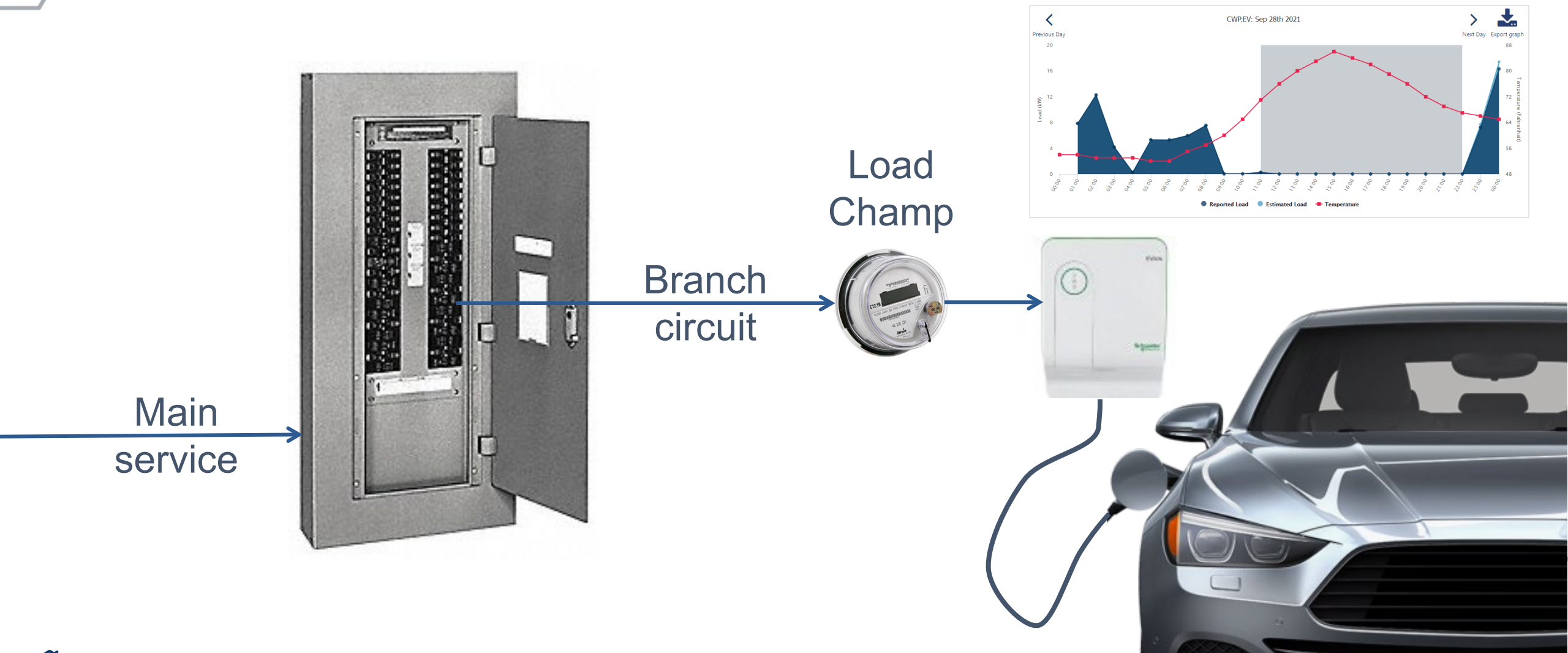
Predictive Analytics

Data is king



Electric Vehicle Charging

Submeter, bill and control with Load Champ and TLMS



Helping ECG Members Access Federal Funds to Build Grid Resiliency

Working alongside Becker to facilitate the funding process...Every step of the way

[About](#)[Smart Grid Solutions](#)[Customers](#)[Resources](#)[Investors](#)[Contact Us](#)

Explore Funding Solutions with Tantalus

Funding

Budgets are tight throughout the U.S.; utilities need reliable power and smart grid solutions to keep the power on and prices down in times of crisis. The transition to low-carbon energy, disruptive technologies such as renewables and electric vehicle charging, and regulatory requirements for utilities to reduce their environmental footprints are forcing utilities to transition to smart grid solutions and fiber-to-the-home (FTTH) communications programs but where will the money come from?

If you want to accelerate your TUNet deployment or bring Tantalus smart grid solutions into your community, don't let the access to funding be a stumbling block. There are a variety of funding resources that Tantalus can help you access. Our funding consultants will provide your utility with a free review of all available grants.

Contact us today to review your funding options. Our team will help you select and apply for the Smart Grid solution(s) and/or Broadband Infrastructure program(s) that are the best fit for your utility. Click on any of the funding options listed below to see more detail or [read our FAQ](#).

Explore Federal Funding Solutions Watch the Webinar Recording

In case you missed it – watch the on-demand recording for an update on the Federal funding opportunities available for utilities.

[Request Access](#)



Tantalus

Federal Funding Opportunities for Smart Grid Solutions (and more)

Electric Cities of Georgia 2021 Annual Conference

December 6, 2021

What we'll discuss today:

- **Background:** Types of federal funding, how it's disbursed, and how to spend it
- **Current federal funding opportunities:** Including Georgia's allocation of new federal spending (i.e., American Rescue Plan and the Bipartisan Infrastructure Deal)
- **Strategies for Success:** How we can help best position your project to receive funding

In a Typical Year...

There over **1,000** grant programs administered by **26 federal agencies** providing more than **\$400 billion** to states and local governments through grants, formula allocations and other payments

\$6.2 Trillion of Spending in just 18 Months

CARES Act in April 2020 -- \$2.2 trillion

Funding to public agencies including cities, counties, transit agencies, local law enforcement, and tribal governments (including \$150 billion to states and locals)

CRRSA in December 2020 -- \$900 billion

Omnibus/relief bill that provided a down payment on additional funding, including extensions for state and local funding and \$266 million for a broadband deployment program

American Rescue Plan Act in April 2021 -- \$1.9 trillion

More than \$350 billion in highly flexible direct allocations for state, local and territorial governments with a focus on use for critical infrastructure

Infrastructure Investment & Jobs Act in November 2021 -- \$1.2 trillion

\$550 billion in new spending to improve infrastructure, deploy broadband and EVs, fortify the grid, etc.

American Recovery and Reinvestment Act of 2009 was a \$787 billion package that provided \$7 billion for broadband deployment and \$4.5 billion in smart grid investments

Types of Federal Funding

- ***Formula funds*** are distributed to state and local governments based on metrics like population, poverty, crime, and vulnerability statistics
- ***Competitive funds*** require the completion of an application in order to receive them

We will always work to find the best fit for you, keeping in mind the extended timelines and complexity of application process that come with a competitive application

Who would fund your projects?

Funds are available from:

- Department of Treasury
- Department of Homeland Security
- Department of Housing & Urban Development
- Department of Energy
- Department of Agriculture
- Department of Commerce

*There is **no penalty** for pursuing multiple federal funding sources, and most of these funding opportunities **do not have a match requirement**.*

Typical Federal Funding Timeline

(Due dates and process are dependent upon Congressional Appropriations timeline)



SUMMER	<ul style="list-style-type: none">▪ Submissions of formula funding budgets and competitive grants▪ Development of next fiscal year Federal funding roadmap▪ Competitive grants awarded▪ Funds awarded and work to expedite drawdown and expenditure of awarded funds
FALL	<ul style="list-style-type: none">▪ Congress passes appropriations bills and information on funding levels when projected grants become available▪ Arrange calls and meetings with relevant Federal agency program officers to pitch your project while developing your relationships with key agency officials and staff▪ Line up research and community partners
WINTER	<ul style="list-style-type: none">▪ Competitive grant solicitations released, and final drafting begins▪ Formula funding levels for grants to communities are released and budget justifications drafted
SPRING	<ul style="list-style-type: none">▪ Competitive grants submitted and engage Congressional delegation for political support

Allowable Uses of Federal Funds

- Advanced Metering Infrastructure
- Load Management System & Distributed Energy Resource Integration Solutions
- Grid Optimization & Distribution Automation Solution
- Smart Community Solutions
- Broadband

Federal Funding is Tied to Use Cases, not Specific Technologies Underlying Your Project

Notable Funding Sources

- **American Rescue Plan (ARP)**
 - \$350 billion in state and local aid, with states receiving half their allocation this year and the other next year (**infrastructure investments are an encouraged use**)
- **Infrastructure Investment & Jobs Act (IIJA)**
 - \$1.2 trillion over five years.
- **FEMA Building Resiliency and Community Grant (BRIC)** 
 - \$990 million, FEMA deadline is 1/28/22 although states have their own internal deadlines.
 - Power infrastructure resiliency must be part of your Local Hazard Mitigation Plan, or amended to include prior to submission
- **USDA Rural Broadband/ReConnect Program** 
 - \$1.15 billion, deadline February 22, 2022
- **USDA Rural Utility Services Electric Program**
 - \$5.5 billion to support smart grid initiatives.

Georgia's Share of the \$1.9T American Rescue Plan

- **Georgia and its cities and counties** are set to receive **\$4.853 billion** out of the ARP's \$350 billion **direct allocation** to state and local governments.
- Half of funding this year, with the second to follow in May – **we can research your community's allocation for you and arm you with information to advocate for a share of funding**
- Allowable uses include infrastructure investments (**ex.: smart grid solutions & broadband**)

Federal goal is to make your community whole and then to allow you to stimulate the economy through local government spending on infrastructure, innovation, and government service

Georgia's Share of the \$1.2 Trillion Infrastructure Bill

- Georgia ranks 9th in state-recipients of total IIJA formula funds
- **Total: \$12.34 billion**
 - **Highways:** **\$8.9 billion**
 - **Public Transit:** **\$1.4 billion**
 - **Water Infrastructure:** **\$913 million**
 - **Airports:** **\$619 million**
 - **Bridges:** **\$225 million**
 - **EV charging networks:** **\$135 million**
 - **Broadband:** **\$100 million**
 - **Cybersecurity:** **\$24 million**
 - **Wildfires:** **\$22 million**

Key IIJA Funding Programs

Electricity & Resiliency

- Expanded eligibility for the Hazard Mitigation grant program to replace or install wildfire resilient electrical transmission or utility poles.
- \$8.7 billion (\$7.3 billion formula; \$1.4 billion competitive) to create the Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation (PROTECT) grant program.
- \$5 billion in grants to electricity generation and distribution sector stakeholders to improve resiliency to disruptive events including natural disasters.
- \$5 billion in competitive financial assistance to utilities to demonstrate new approaches to improve grid resilience.
- \$3 billion in grants to match investments in smart grid technologies.
- \$2.5 billion for charging and fueling infrastructure grants.
- \$500 million to fund Safeguarding Tomorrow Through Ongoing Risk Mitigation (STORM) Act state and local resilient infrastructure projects.

Cybersecurity

- \$2.23 billion through FEMA for federal assistance programs that will include local governments upgrading their cybersecurity and critical infrastructure.
- \$1.3 billion to create the State and Local Cybersecurity grant program within the Department of Homeland Security (DHS).
- \$1 billion for tribal governments to address cybersecurity threats.
- \$250 million for a competitive Department of Energy (DOE) grant program for counties or utilities to prepare and respond to cyberattacks.
- \$140 million to create the Cyber Response and Recovery Fund.

Broadband

- \$42.45 billion to create the Broadband Equity, Access and Deployment program.
- \$1.25 billion to create the competitive State Digital Equity Capacity grant program.
- \$1 billion to create the Middle Mile competitive grant program.

Side Note: IIJA's Water Infrastructure Funding

- \$29.3 billion in new eligibilities for EPA's drinking and clean water revolving loan funds.
- \$15 billion for capitalization grants to remove lead waterlines, among other things.
- \$4 billion to the EPA to address PFAS contaminants in drinking water.
- \$2.5 billion to the Army Corp of Engineers for inland waterway projects and for coastal and hurricane related projects.
- \$1 billion into the state revolving loan fund to address emerging contaminants.
- \$200 million to address lead contamination in drinking water in schools.
- \$100 million in competitive grant funding for eligible water storage projects.
- \$50 million annually for a competitive pilot program for states to implement water system improvements, particularly prioritizing underserved communities.

Successful Applicants for Federal Funding:

- Have a plan that aligns with the federal funding stream (resiliency, EV & broadband rollout, decarbonization, equity, cutting red tape, stimulating the economy) -- **it's about project use, not items!**
- Attract local support for the project early on (government and non-government)
- Coordinate with other local agencies, including Emergency Management -- **update your Local Hazard Mitigation Plan!**
- Have early conversations with federal funding program managers
- Compile data to support your request, including history of solid stewardship of grant funding -- **funding begets funding**

We're Here to Help with Federal Funding Success

Opportunity Analysis

- Provide an analysis of competitive and formula funding opportunities along with recommendations about the best approach based on your project

Advocacy

- Edit and position your applications for success
- Put you face-to-face with program officers and decision makers
- Engage your Congressional delegations for political support

Leverage Funding

- Help you to expedite drawdown of awarded funds
- Quickly reprogram unexpended prior year funding

Next Steps

- Contact Tantalus to request a federal funding consultation
- Allow us to help you leverage Georgia's ARP and IIJA allocations
- Consider applying to the FEMA BRIC or USDA ReConnect programs with our assistance

Questions?

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Transforming Utilities and Communities.



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TSX: GRID