



**SUSTAINABLE
FLEET
TECHNOLOGY**

CONFERENCE & EXPO 2023

**Track A Session 3:
Innovative Financing**

August 16, 2023



DOING MORE WITH LESS

LEASE & FINANCE
SOLUTIONS FOR
GOVERNMENT AGENCIES
& PUBLIC EDUCATION



Sourcewell 
Awarded Contract
Contract # 011620-NCL

NCL GOVERNMENT CAPITAL | NCLGOVCAP.COM | 320.763.7600

MUNICIPAL FINANCING SPECIALIST

- ▶ State
- ▶ County
- ▶ City
- ▶ K-12
- ▶ Higher Education
- ▶ Federal
- ▶ Tribal

20+ years expertise in municipality funding. With vendor partners, we work to improve the communities we live in, one transaction at a time.



SOURCEWELL AWARDED CONTRACT FOR FINANCING



**NCL Government Capital holds the only
Sourcewell awarded contract for financing.**

BETTER TOGETHER



OVERCOME BUDGET OBJECTIONS

- ▶ I can't make this purchase until my next budget cycle
- ▶ Can we do a portion this year and some next year?
- ▶ I need to reduce my order



TAX EXEMPT MUNICIPAL LEASE

- ▶ Not the same as a “traditional lease” such as your vehicle lease
- ▶ Least expensive form of financing available to government
- ▶ Lease-to-own structure with no residual
- ▶ Very similar to a loan with the added benefit of non-appropriation



FUNDING SOURCES

- ▶ **Tax Credits**
 - Inflation Reduction Act of 2022 – Direct payments for government
- ▶ **Grant Funding**
 - Usually requires matching funds and not guaranteed
- ▶ **Tax-Exempt Municipal Leasing**
 - Can supplement to cover funding gaps and be used to help secure grant funding
- ▶ **Existing Budget**



THANK YOU



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NCL Government Capital – Paving the way for communities and schools to access the financing they need to help build a better tomorrow.



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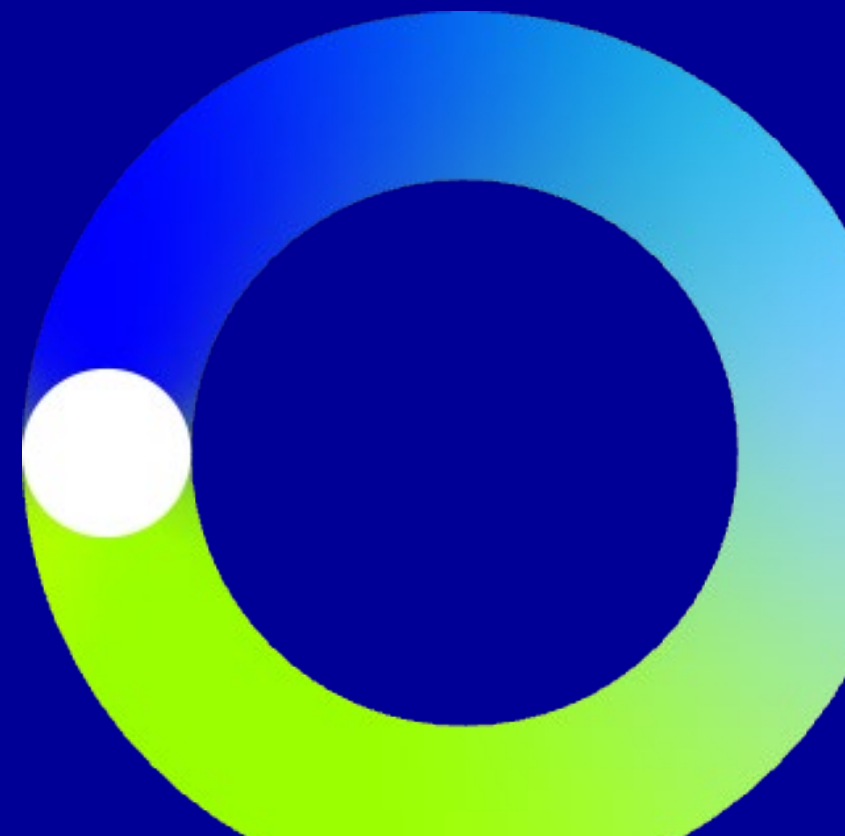


Sustainable Fleet Technology Conference & Expo

Innovative Financing Panel

Greg Fields

08-21-2023





Net Zero
Aim
2050



Reimagining energy
for people and our planet

Our vision

Buying
energy &
managing
costs

Choosing the
right charging
equipment

Managing the
new functions
of EV
technology

Paying for &
constructing
charging
infrastructure

bp pulse offers charging and energy management solutions for consumers and businesses operating electric trucks, buses, vans, and light duty vehicles.



Innovating Financing Examples



Red Hook
Yard Tractor
TCO
Modeling
cost savings



Logan
School Bus
**Charging as
a Service**



Anaheim
Transit
Network
\$5M
Funding for
Transit Bus
Operations



Resources
useful links
Federal
State
Local

Customer case study



Red Hook
Terminals
operates the
largest fleet of
heavy-duty
electric yard
tractors on the US
East Coast, with
two facilities in
the Port of NY/NJ



Overview

Red Hook purchased ten BYD 8Y electric yard tractors. As the tractors were getting ready to deploy at Red Hook's intermodal yard in Port Newark, NJ, Red Hook engaged bp pulse for charge management services to optimize the charging of their fleet.

Project features

bp pulse is deploying its patent-pending Charge Management System, omega, for five years to automate all aspects of charging.

omega integrates with the local utility, the chargers provided by BYD, and Red Hook's telematics software.

Through the various integrations, **omega responds dynamically in real-time**, nearly eliminating the time Red Hook operators need to spend managing charging schedules and energy costs.

Partners



Customer case study



Logan Bus is the largest school bus operator for the New York City Department of Education, with over 2,500 school buses.

Overview

Logan Bus and bp pulse partnered on a demonstration project, funded by NYSERDA, to showcase innovative concepts for EV charging infrastructure and accelerate the use of electric school buses.

Project features

bp pulse is providing **Charging-as-a-Service**, assuming responsibility for all charging aspects of the Logan Bus EV fleet.

UES is converting five existing Class C diesel school buses to electric, leveraging their 7-step process for **repowering vehicles**.

Rhombus Energy is providing a **vehicle-to-grid (V2G)** EV charging system.

A partnership between CPower and bp pulse is offering the local transmission and distribution grids flexibility to integrate the EV chargers as a **distributed energy resources (DER)**.

Partners



Customer case study



Anaheim Transportation Network (ATN) is a network of transit and microtransit routes with service to more than 70 stops around Anaheim and Orange County.

Overview

ATN was awarded \$5 million from the CEC to advance its electrification efforts. ATN has partnered with bp pulse for the management of the charging operations from design, installation, equipment purchases, and operations.

Project features

Through a competitively-bid RFP, bp pulse is providing a 20-year purchase power agreement and Charge Management Services to manage all aspects of charging ATN's 46 electric buses.

Includes a 545kW solar canopy to support a microgrid.

\$4.8M of fuel savings over 20 years compared to natural gas.

With omega, the peak electrical demand remains below 2 MW (would be 5 MW without) and reduces utility service upgrade requirements.

Custom integration with routing and fleet mgmt. tools, Tripshot and Optibus.

Partners

CALIFORNIA
ENERGY
COMMISSION



Federal Links Local Links

Nationwide: [Reconnecting Communities Pilot Program Community Planning Grants FY2023](#) . Proposals are due by 9/28/2023.

Nationwide: [Neighborhood Access and Equity Program Capital Construction Grants FY2023](#) . Proposals are due by 9/28/2023

Nationwide: [Energy Efficiency and Conservation Block Grant \(EECBG\) Program Notice of Intent](#) .

State Links

North Carolina
<https://afdc.energy.gov/laws/all?state=NC>

South Carolina
<https://afdc.energy.gov/laws/all?state=SC>

Virginia: <https://afdc.energy.gov/laws/all?state=VA>

Virginia: [Virginia Electric Vehicle Infrastructure Phase I Statewide Charging Station Deployment Request For Applications \(RFA\)](#) . Proposals are due by 9/15/2023.

Kentucky: [Kentucky's EV Charging Station RFP](#) . Proposals are due by 8/24/2023.

Tennessee:
<https://afdc.energy.gov/laws/all?state=TN>

Duke Energy:
<https://www.duke-energy.com/energy-education/electric-vehicles/ev-initiatives>

Dominion Energy : VA
<https://www.dominionenergy.com/virginia/save->





Thank you

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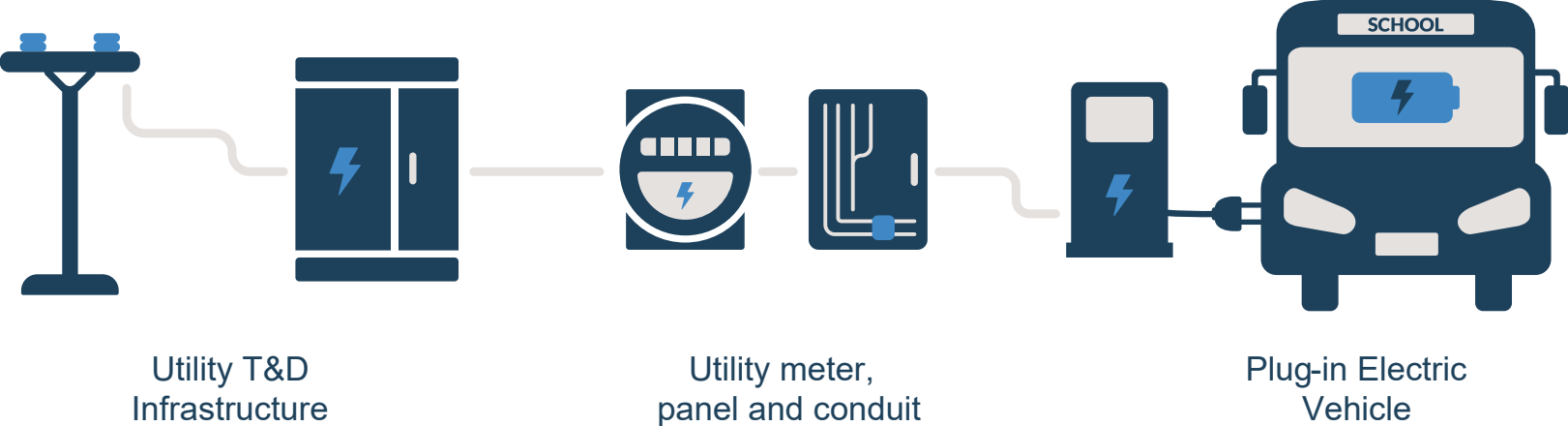
Inclusive Utility Investments for Transportation Electrification

Holmes Hummel
Founder & Co-Executive Director

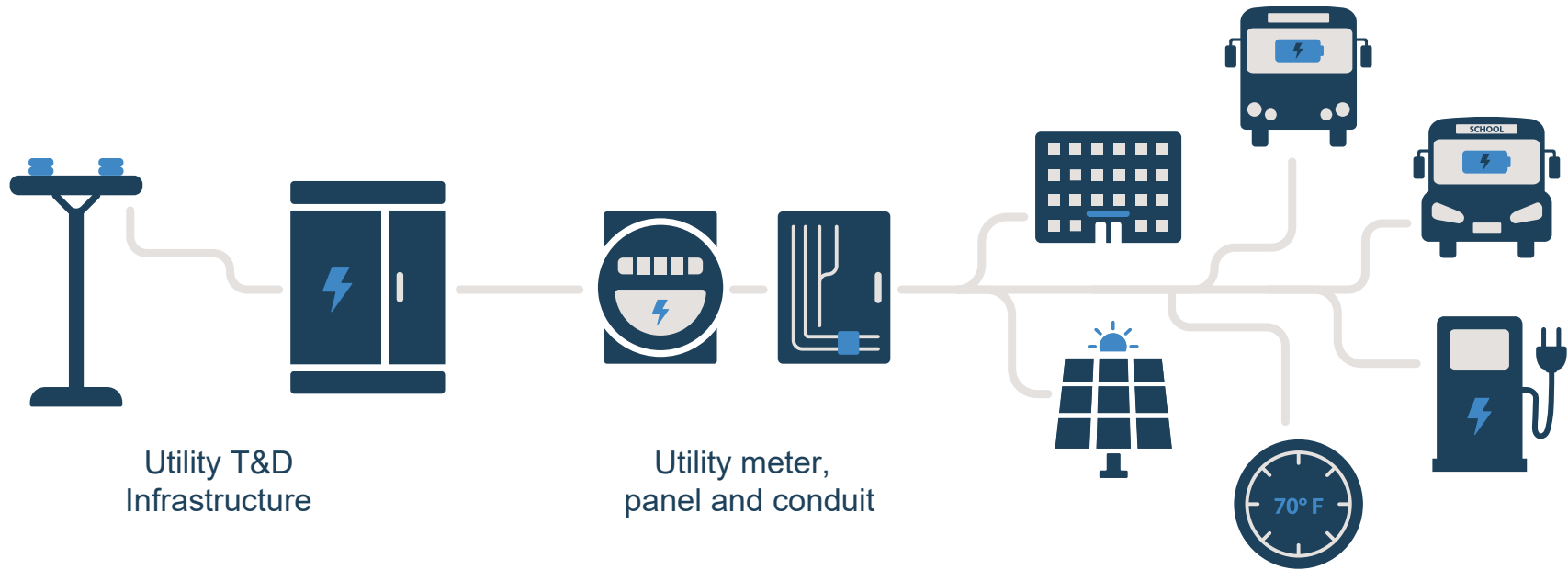
August 16, 2023



Willingness to pay for electrification upgrades is **constraining the pace of transition** —and utilities have **unique instruments** to reduce that upfront cost barrier



Transportation electrification is one among several types of upgrades facing financial barriers to adoption that **stratify who gets upgrades and how soon**



Inclusive Utility Investments

A financial solution that allows utilities to invest in all **cost-effective** clean energy upgrades at a site and recover those costs with a **site-specific, tariffed charge** on the customer's utility bill that is **less than the estimated cost savings** from the upgrades.

https://www.energystar.gov/products/inclusive_utility_investmen

Inclusive Utility Investments in Electric Transportation

- Accelerate investments on EV infrastructure and EV fleets in **affordable and equitable terms**
- Reduce pressure on rate increases for all customers. This mechanism is **rate neutral** after cost are recovered.
- Utilities receive approval from Commissions or oversight Boards:
 - to pay for the upfront costs for **EV charging infrastructure** or **on-board batteries**
 - to recover these investments via **a service charge on the bill** for that service location, until all costs are recovered
 - the annual cost of the service charge is capped at 80% of the estimated savings from switching from diesel to electric
- Assets belong to the customer after cost recovery
- Customers could be individuals or fleet owners with **high savings potential** (i.e. high mileage vehicles)



● Detroit Pilot approved by Michigan Public Service Commission

eFleet Battery Support Program

- DTE will invest in 5 on-board batteries or up to **\$2m** for electric transit buses
- The Detroit Transport Agency will use complementary public funds (FTA) to cover the rest of the e-buses costs
- After the approval of this pilot in November 2022, the Commission requested to expand the use of the mechanism **from transit to school buses and other fleets**
- DTE filed in January 2023 a new proposal for another **\$3m**



Opportunities for Utilities with Electric School Buses

Stakeholders can engage utilities to...

- Define electricity rates (no demand charge?)
- Build and own utility-side infrastructure that supports transition to electric bus fleets
- Pay for the charger and other assets on the customer-side, on terms with full cost recovery
- Inform energy management and V2X dispatch that generates more value streams.



**ALLIANCE FOR
ELECTRIC
SCHOOL BUSES**

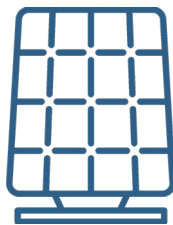


What is bidirectional charging?

Bidirectional charging— not only to store energy but send it back to:



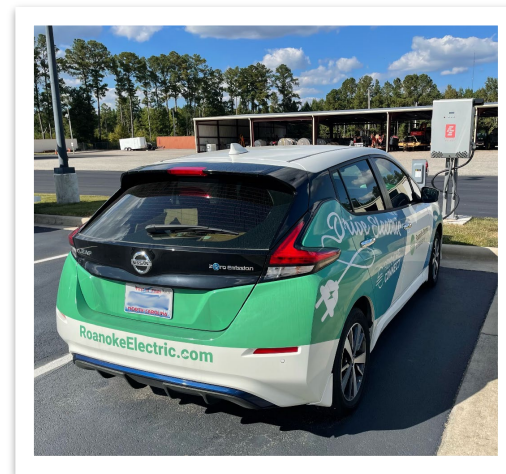
Home/Building (V2B)



Electric Grid (V2G)



Everything Else (V2X)



Partners for V2X Research in North Carolina



Roanoke Electric Cooperative

Your Touchstone Energy® Cooperative 



NC CLEAN ENERGY
TECHNOLOGY CENTER



CLEANENERGYWORKS



This North Carolina project team chose well-defined **use cases** from a menu of options

Customer Bill Management

- Reduce the monthly demand charge for the maximum demand at the member owner's facility

System Capacity Requirements:

- Reduce the amount of power purchased by the utility during peak hours for the system statewide

System Backup and Resiliency

- Supplement and support the existing diesel backup generator
- Transition reliably from grid-connected operations to Islanded Microgrid, and back

Conclusions– Initial Performance

- To our knowledge, this is the first examples of a UL Listed, bidirectional EV charging in the U.S.
- Demonstrated two value streams being exercised simultaneously

Total Real-World Savings for REC



\$267.54 per month



\$3,210.48 per year

- This exceeds the lease cost of the vehicle for Roanoke Electric
- This covers >48% of the 60-month financed cost of a 2022 Nissan Leaf S Plus



Thank You

www.cleanenergyworks.org

Funding and Financing your Sustainable Fleet

How can Sourcewell help?

August 2023

Overview

- Who is Sourcewell?
- How does Cooperative Purchasing work?
- How can we help?



Agencies face two decisions

- What are they going to buy?
- How are they going to buy it?

Agencies have two choices

- Bid it themselves
- Buy off an established contract



Cooperative purchasing can help

- Connecting buyers and sellers
- Creating efficiencies and savings



Finance options

- Supplier's internal financing options
- 3rd party supplier

Questions to consider

- How does procurement view financing?
- Does your financing have to be bid?
- What financing suppliers can help with federal tax credit?



Doing more with less



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Contracts awarded in these Sustainable Fleet Categories

- EV Charging Infrastructure Contracts
- Electric vehicle equipment
- Electric vehicles
- Electric low speed vehicles



Other Fleet category examples

- OEM Automotive Parts & Supplies
- Fleet Management, Asset Tracking, & Telematics
- Above Ground Fuel Storage, Management, & Dispensing Equipment
- Fleet Electrification Transition Planning Management -NEW





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Thank you!