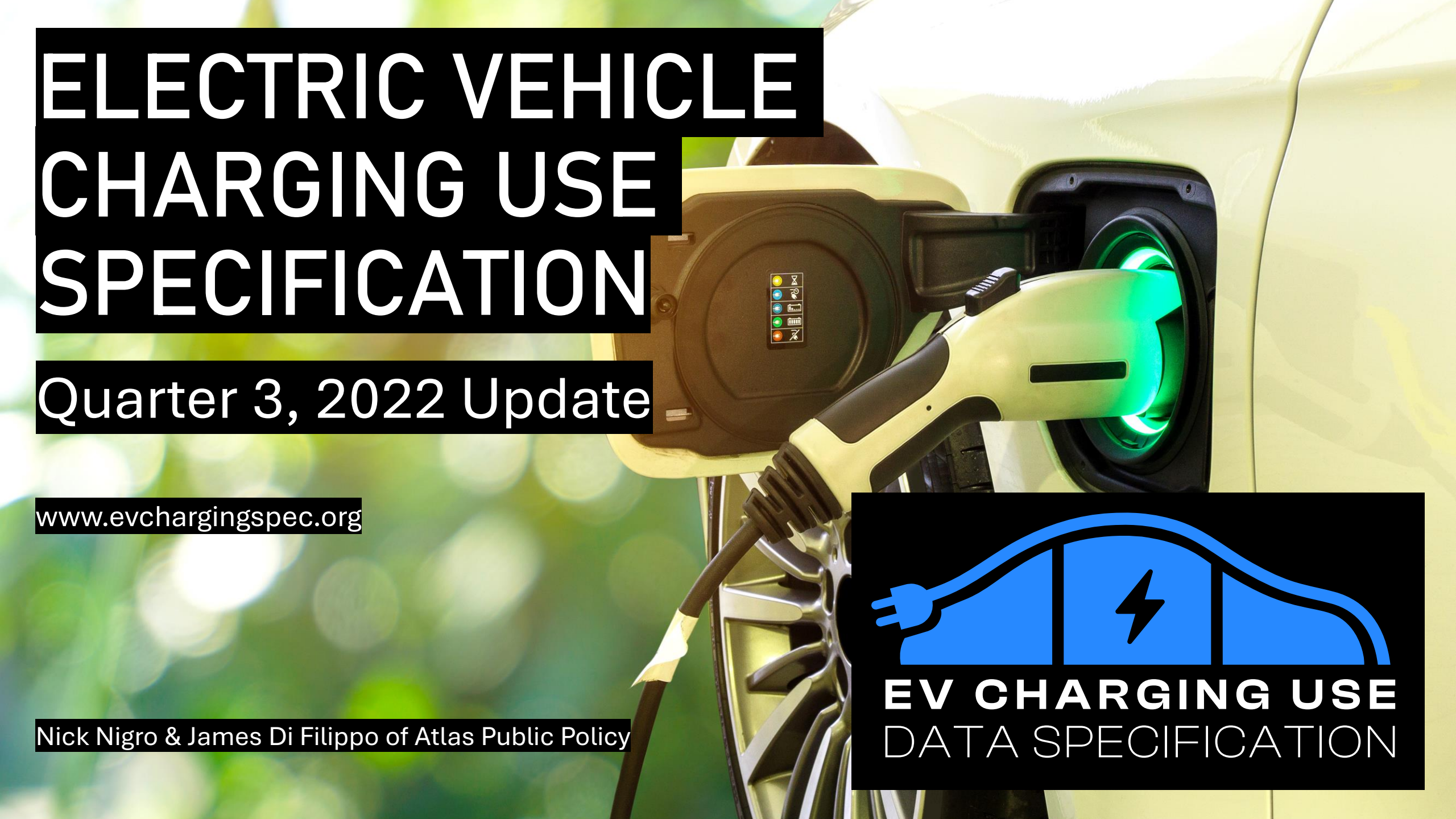
ELECTRIC VEHICLE CHARGING USE SPECIFICATION

Quarter 3, 2022 Update

www.evchargingspec.org

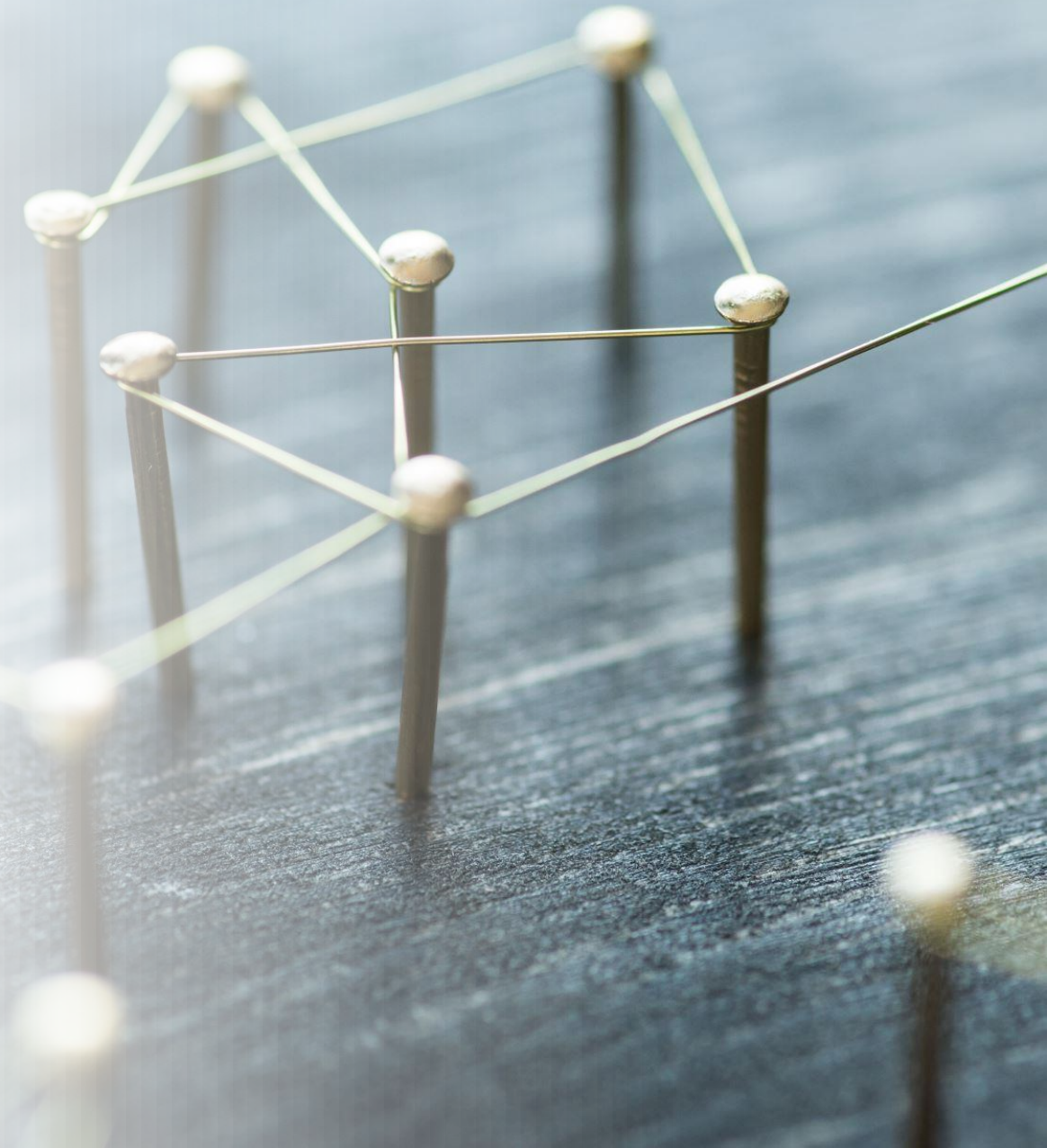


EV CHARGING USE
DATA SPECIFICATION

Nick Nigro & James Di Filippo of Atlas Public Policy

AGENDA

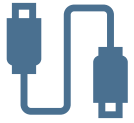
1. Specification overview
2. Alignment with NEVI guidelines
   NEW ADDITIONS
3. Reliability and Grid Impacts
4. Designing a vendor survey



OVERVIEW OF THE CHARGING USE DATA SPECIFICATION

Core Specification

Glossary & Type/Format Definitions



Extensions

Supplementary materials

ALIGNING WITH NEVI GUIDELINES

Added Table 5: Operating Costs

Field	Definition
maintenance_cost	Total amount paid for maintenance costs during reporting period
repair_cost	Total amount paid for repair costs during reporting period
electricity_cost	Total amount paid for station electricity use during reporting period (estimated if station is not individually metered)
electricity_disbursed	Amount of energy in kWh delivered by station during reporting period
network_costs	Sum of costs associated with network access, including network service fees, communications costs, transaction fees, etc.

ALIGNING WITH NEVI GUIDELINES

Other changes include:

- ✓ New fields for onsite generation and storage in the **site registration** table
- ✓ New explicit session & charge-end time stamps in the **session reporting** table
- ✓ New successful completion field in the **session reporting** table

MEASURING RELIABILITY

What is reliability?

- Customer can successfully initiate a session
- Session terminates with plug-out or complete charge
- The charger delivers expected power levels
- …and?

Key metric for reliability has been ‘uptime’ which is vague and does not necessarily measure these dimensions of reliability well

Are there additional / better metrics the industry could use?

What can hardware and software currently measure?

GRID IMPACTS

What are reliable ways to measure grid impacts?

Utilities typically use 15-minute interval data but that is not consistently available at the charger or site level

Under which circumstances is it important to measure the grid impacts of Level 2 charging?

What can current and soon-to-be-released EVSE measure and report?

SURVEYING VENDORS

Atlas plans on fielding a survey of hardware vendors

Questions to include:

- Remote status monitoring (e.g., station heartbeat)
- Power and energy usage monitoring
- Physical sensors (e.g., cord damage sensing)
- Power delivery (requested by vehicle versus station capability and actual delivery)
- Failure modes and reporting (error coding)

We are looking for survey partners and volunteers for survey instrument review and testing.

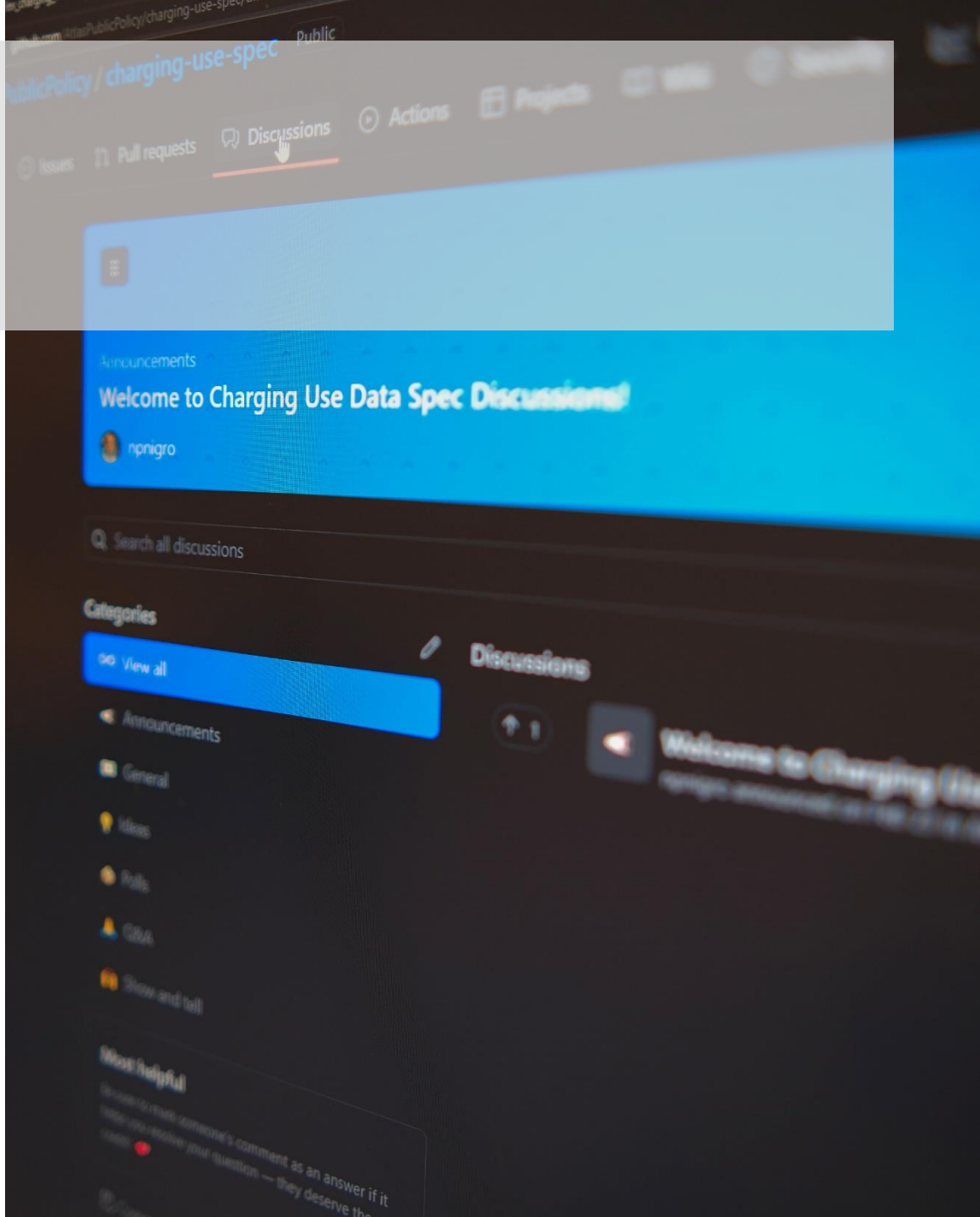
CONTRIBUTE & GET INVOLVED

COMMENT / SUGGEST CHANGES ON GITHUB

Anyone can contribute on GitHub by either leaving a comment, replying to other comments, or suggesting revisions to the specification itself through GitHub's collaboration tools.

COMMENT BY EMAIL

Atlas is also processing comments by email at info@evchargingspec.org. All received comments will be published on GitHub (with or without attribution)



ENGAGED PARTIES

- Alliance for Transportation Electrification
- Idaho National Laboratory
- State Energy and Environment Offices
- Federal Agencies
- State Associations
- Utilities and Charging Service Providers

*Drop us a line at info@evchargingspec.org if you'd like to be listed under **Engaged Parties** on https://evchargingspec.org.*

ATLAS PUBLIC POLICY

A DC-based policy tech firm established 2015

Atlas Public Policy equips businesses and policymakers to make **strategic, informed decisions that serve the public interest**. Atlas builds analytical tools and dashboards using powerful, accessible technology, and offers expert advisory services to tackle the pressing issues of the day.

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