



Beyond the Kettle

How The CES Is Growing the Markets That Drive Galvanizing Demand



Agenda

Today's Discussion



What Is The CES

Who we are and the markets we serve



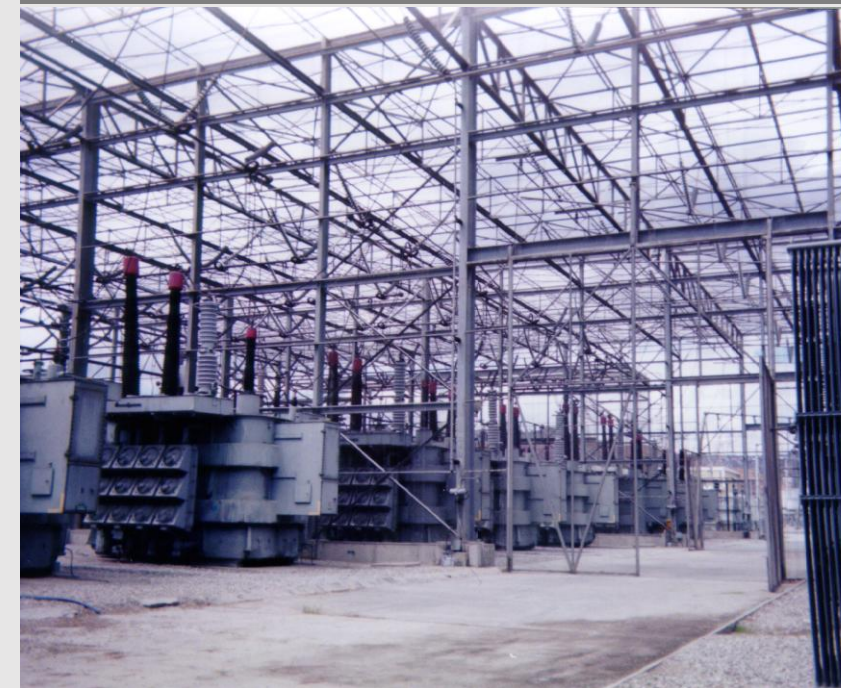
Why The CES

A different approach to growing the market



What Are The Opportunities

T&D and solar market outlook



Turning Opportunities Into Action

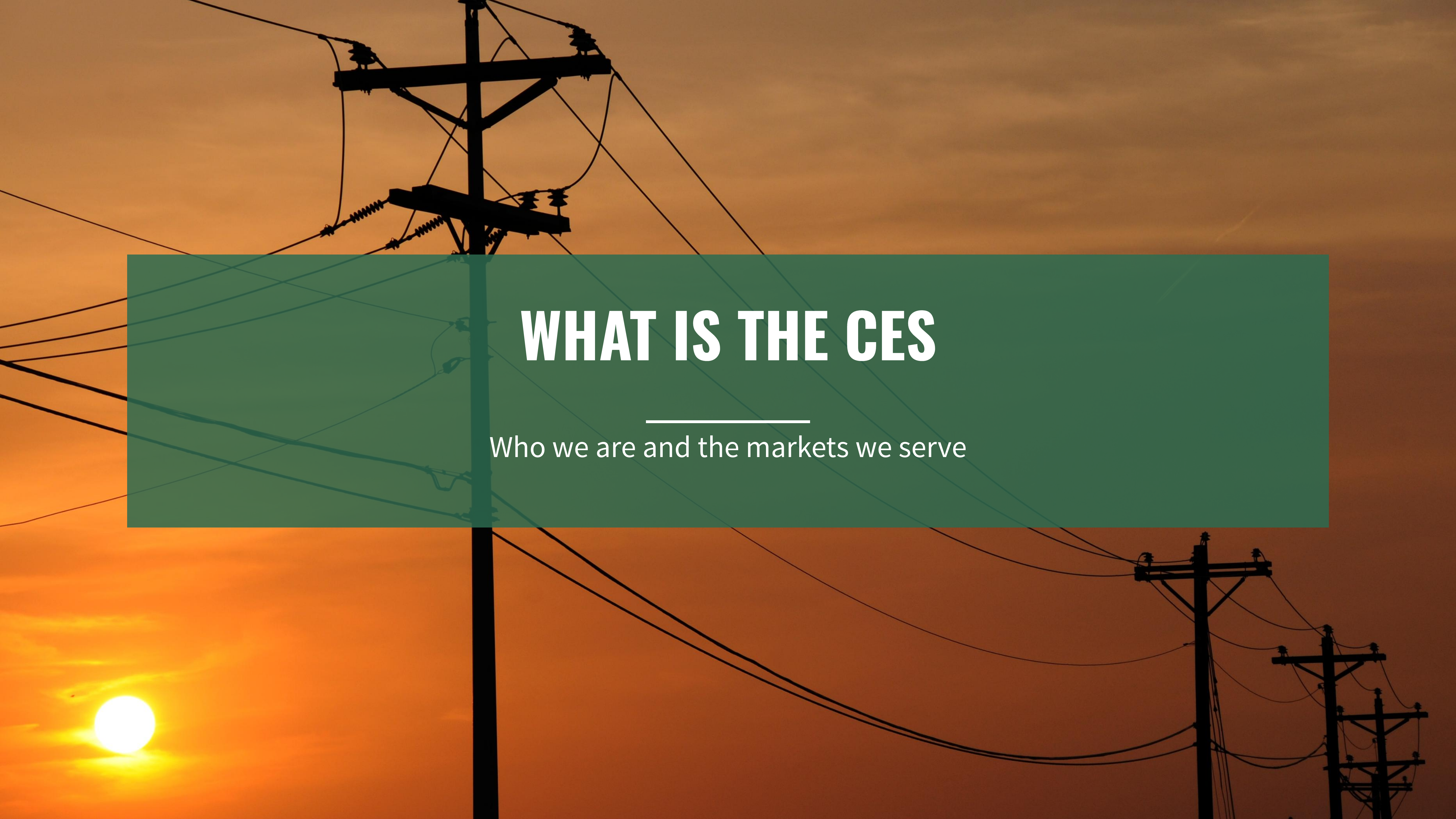
2026 initiatives and accomplishments



What's next

2027 priorities and opportunities to get involved





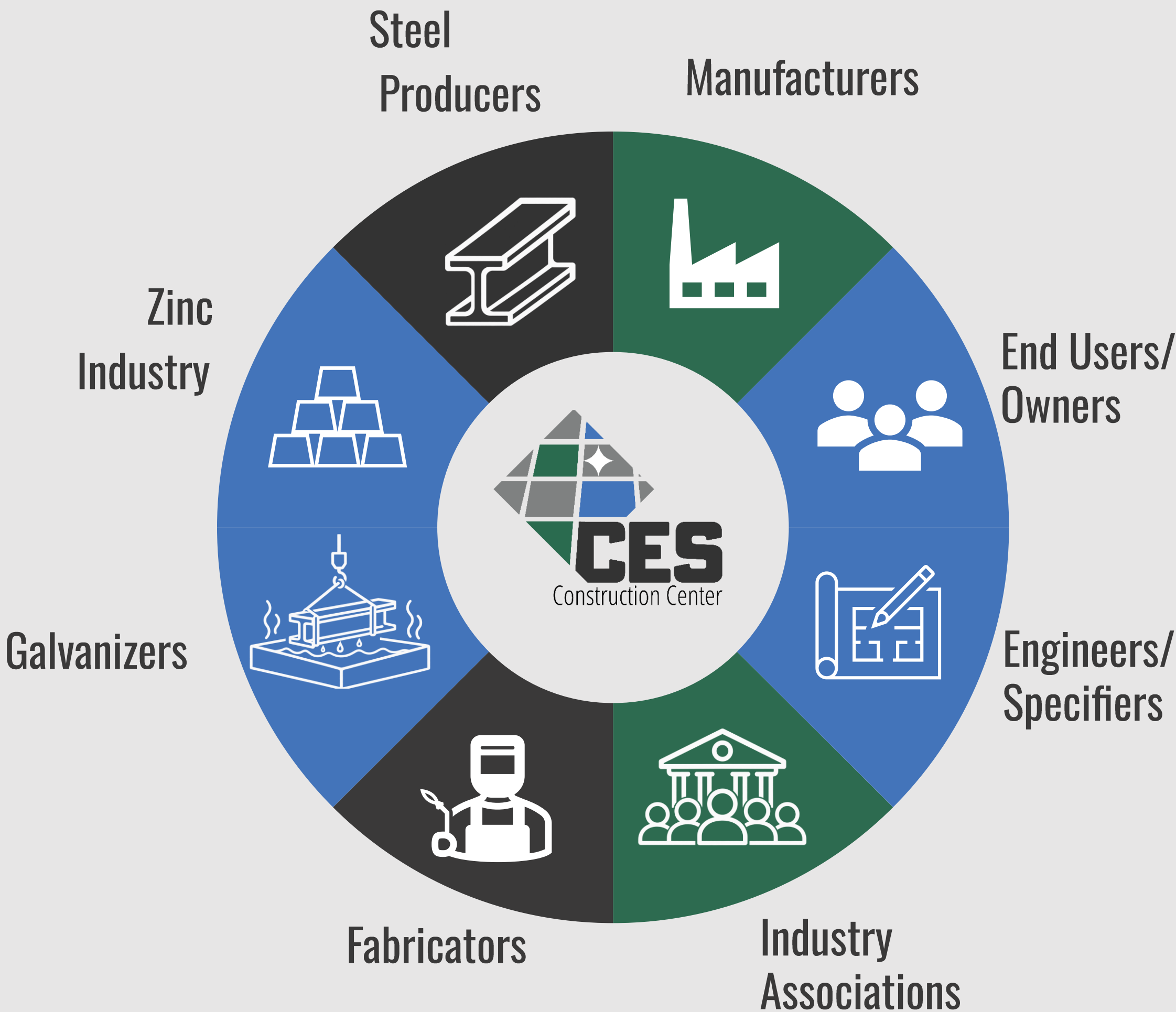
WHAT IS THE CES

Who we are and the markets we serve

What is The CES

A Coalition Across the Steel Value Chain

The CES brings together the organizations that produce, protect, fabricate, specify, and use steel to address shared challenges and grow opportunities in energy infrastructure.



● COLLABORATE

Connect the steel value chain around shared priorities

● AMPLIFY

Create a stronger, unified voice for steel

● COORDINATE

Align technical, education, advocacy, and market-development efforts

● ADVANCE

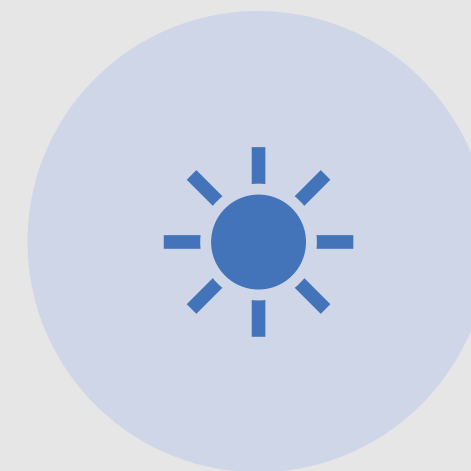
Develop solutions that overcome barriers and expand opportunities for steel

**One coalition. The entire value chain.
A stronger voice for steel.**

Current Markets We Are Focusing On



TRANSMISSION &
DISTRIBUTION
(STEEL UTILITY POLE
COALITION)



SOLAR



EMERGING ENERGY MARKETS (DATA
CENTERS, WIND, STORAGE, NUCLEAR, ECT)



WHY THE CES?

A different approach to growing the market

Why The CES?

There are two ways to grow the market

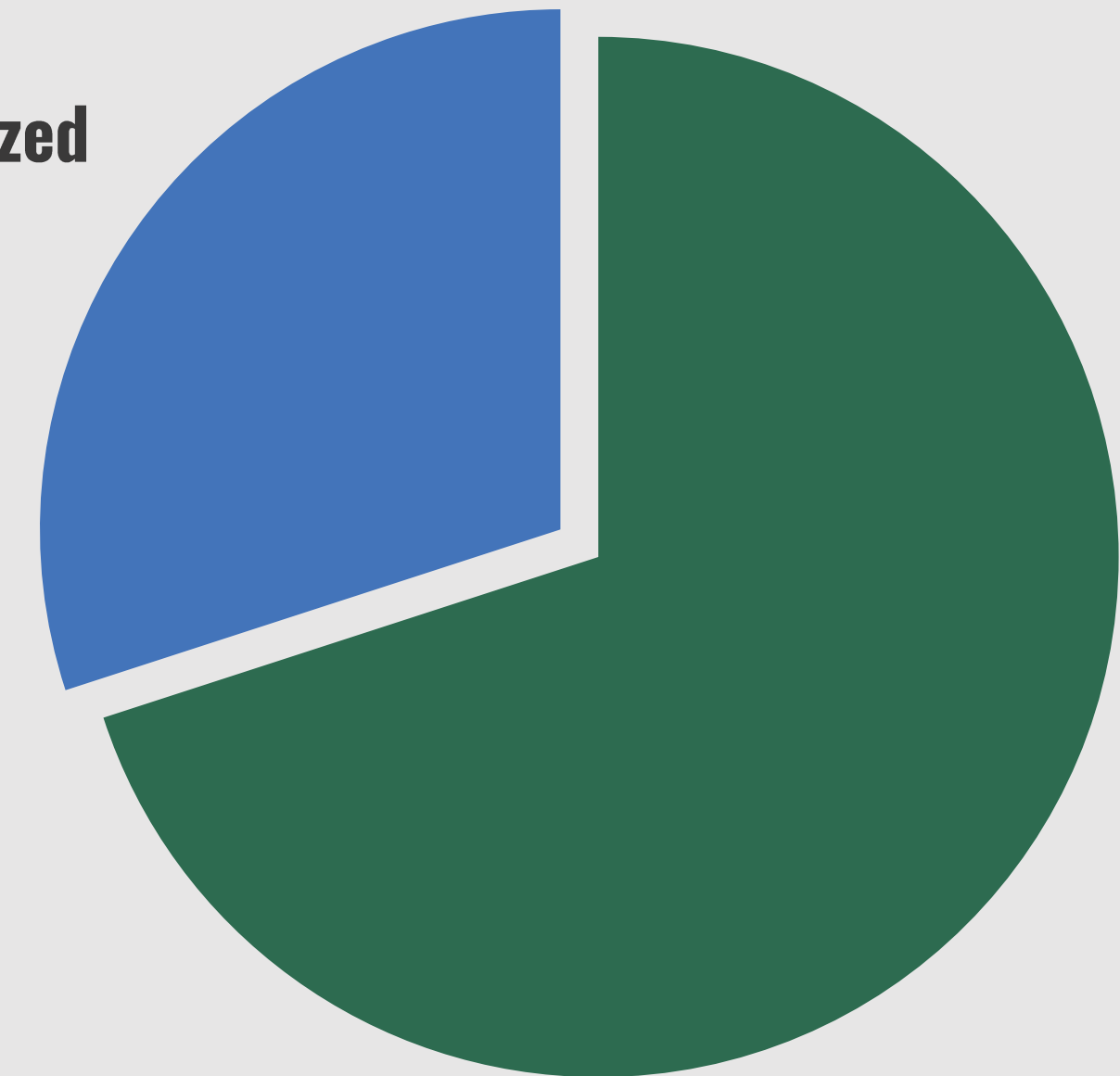
AGA's Traditional Approach

Grow and defend hot-dip galvanizing's share within existing steel markets.

AGA works to increase the use of HDG on steel products and applications through education, technical support, specification development, and direct market development

All Steel In The Electric Utility Market

Hot-Dip Galvanized



Why The CES?

Grow the opportunity!

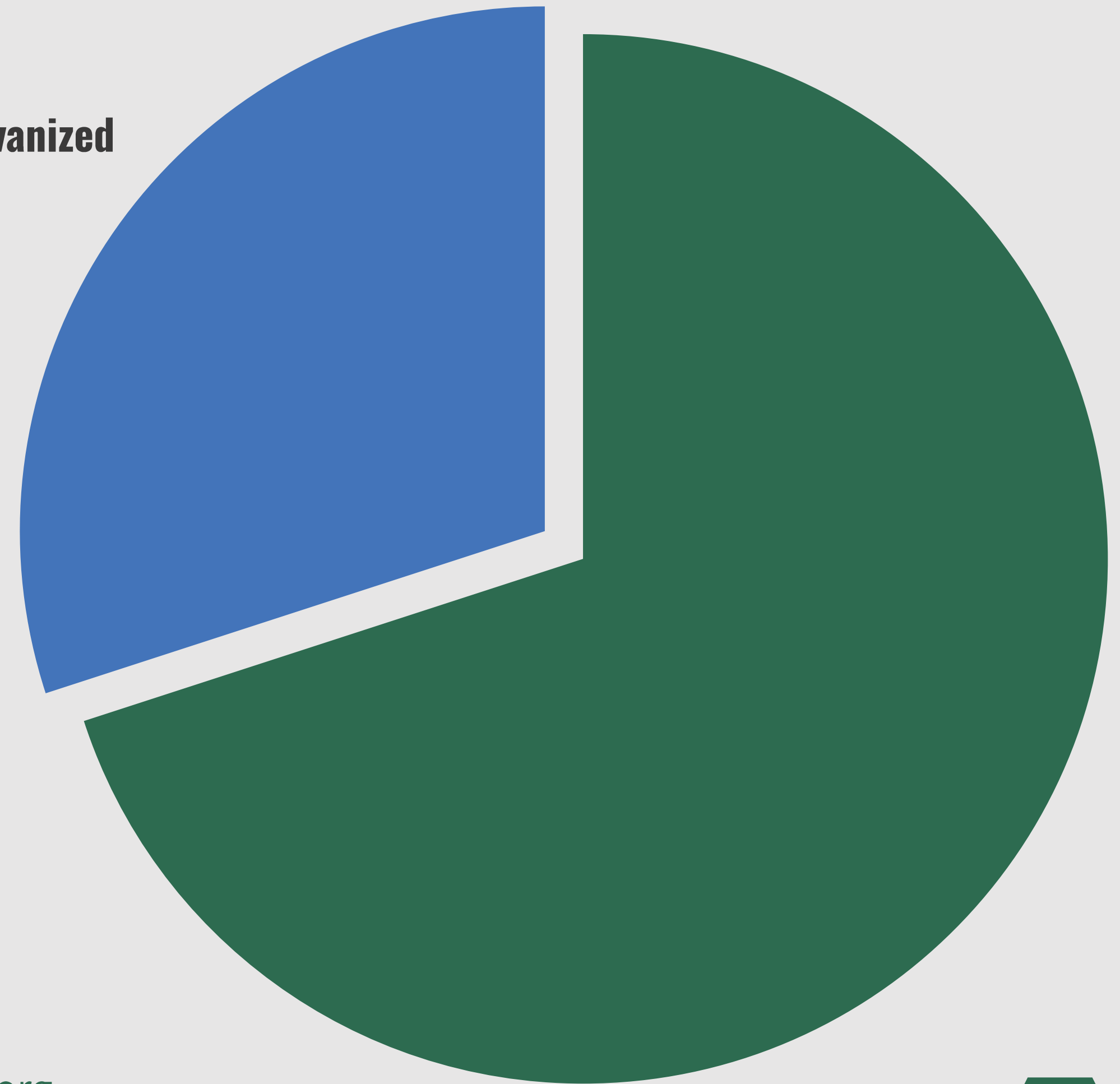
CES's Complementary Approach

Grow the overall market for steel and applications where HDG has an opportunity to succeed.

CES works further upstream to increase the use of steel, creating a larger addressable market for hot-dip galvanizing.

All Steel In The Electric Utility Market

Hot-Dip Galvanized



CES Works Upstream

Influencing material and product decisions before corrosion protection is selected

Step 1

Infrastructure Need



Step 2

Material Selection



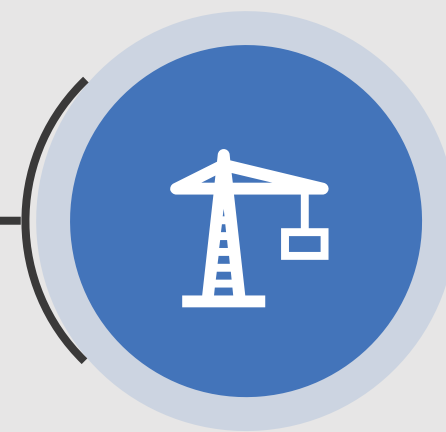
Step 3

Product / System Selection



Step 6

Project Completion



Step 5

Fabrication &
Galvanizing



Step 4

Corrosion Protection

Why Upstream Matters

Earlier Influence

Engage owners, engineers, and specifiers while materials and systems are still being evaluated.

Design with HDG in Mind

When steel is selected, CES can help ensure corrosion protection and galvanizing requirements are considered earlier in the design process.

Better Positioned to Win

HDG becomes part of the project conversation from the beginning rather than a coating option considered near the end.

Why a Separate Coalition?

The CES structure makes our market-development efforts more effective.

Credibility

Advocate for steel solutions through a market-focused coalition rather than a single material/coating interest.

Direction

With AGA and IZA leading CES, we can direct resources toward steel markets and initiatives that create opportunities for zinc and HDG.

Resources

Pooling funding, expertise, relationships, and capabilities across the value chain allows CES to pursue projects no single organization could as easily tackle alone.

Reach

CES can engage utilities, developers, manufacturers, engineers, associations, and other stakeholders beyond AGA's traditional audience.

An aerial photograph of a multi-lane highway interchange with several cars driving. To the right of the highway, there are tall white utility poles with power lines. The background shows a cityscape and a large body of water under a cloudy sky. A green semi-transparent rectangular box is overlaid in the center of the image, containing the title and subtitle text.

WHAT ARE THE OPPORTUNITIES

T&D and solar market outlook

T&D: A Growing Need for Steel Infrastructure

Load growth, aging infrastructure, and grid modernization are driving investment

→ **Demand is Growing**

Record electricity demand, driven in part by data centers, manufacturing, and other large loads.

→ **The Grid is Aging**

70% of transmission lines are 25+ years old, while 92% of service interruptions originate on distribution systems.

→ **Investment is Accelerating**

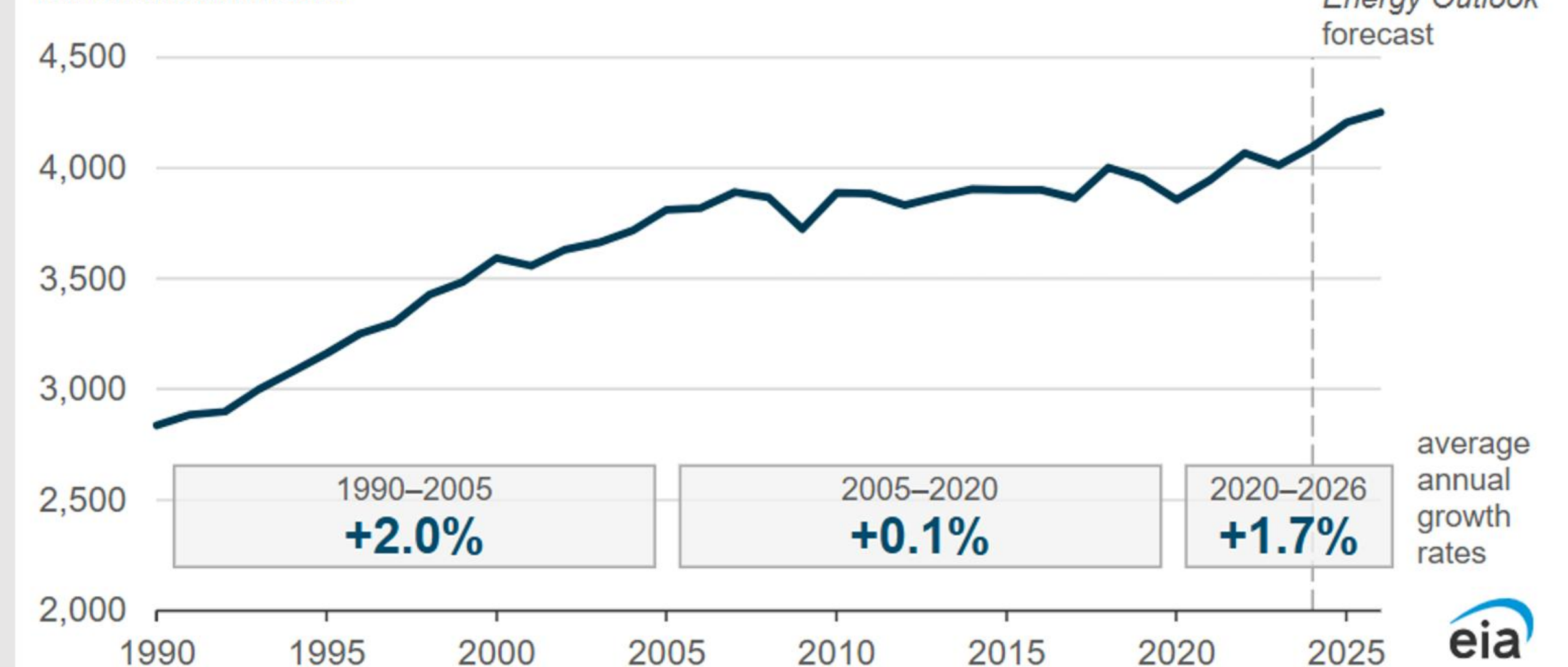
More than **7,000 circuit-miles** of transmission projects entered service in 2025, compared with 884 miles in 2024.

MAY 13, 2025

After more than a decade of little change, U.S. electricity consumption is rising again

U.S. electricity consumption (1990–2026)

billion kilowatthours



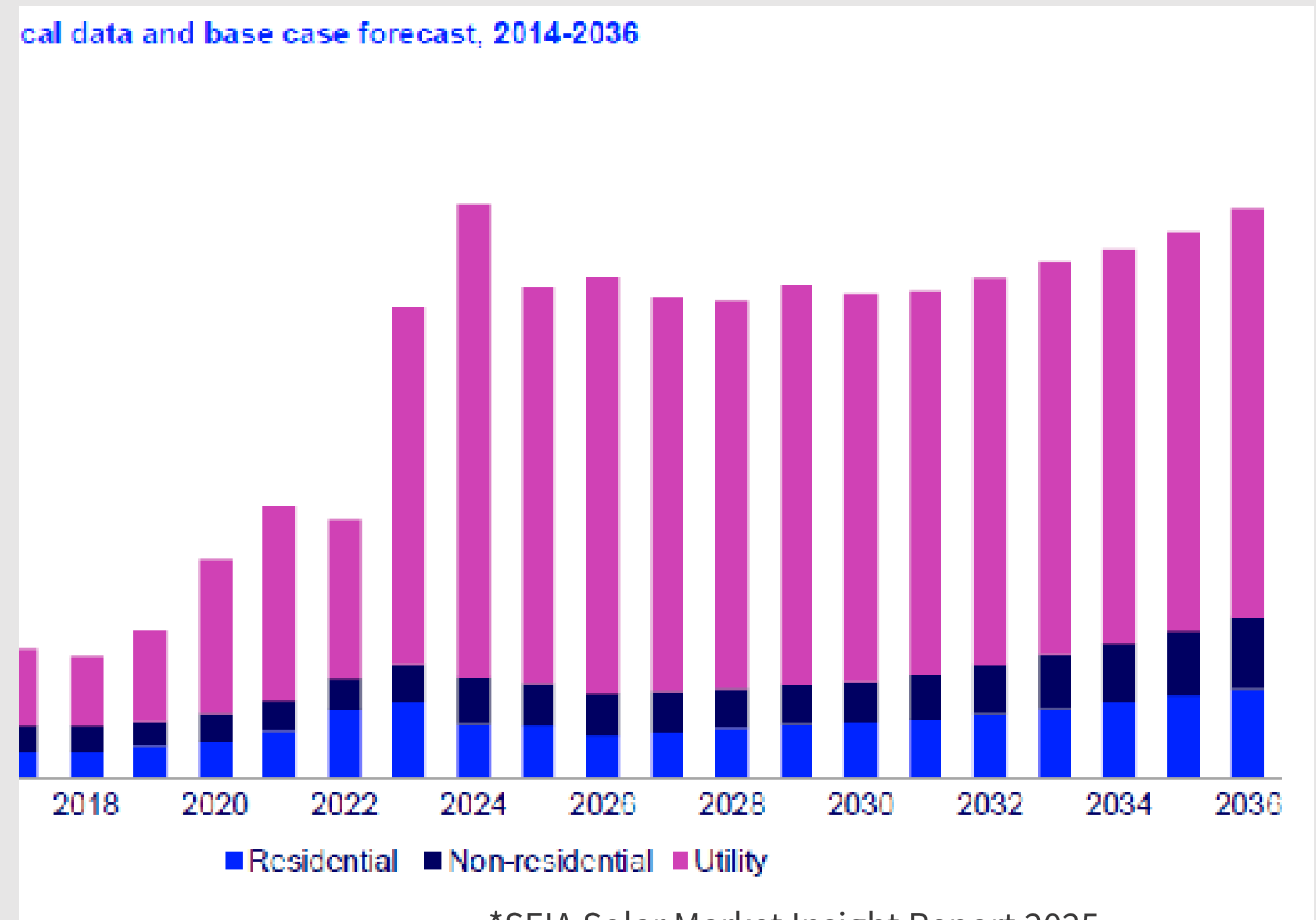
Data source: U.S. Energy Information Administration, *Monthly Energy Review* and *Short-Term Energy Outlook*, May 2025
Data values: *Electricity Overview* (history) and *U.S. Electricity Industry Overview* (forecast)

Solar: A Massive Steel Market

Near-term headwinds, but significant long-term construction remains

- 43.2 GWdc Installed in 2025
- 34.7 GWdc Utility-scale solar installed in 2025
- ~199 GWdc Utility-scale solar projected from 2025–2030 in the base case
- **Near-Term:** Policy, tariffs, interconnection, and labor create headwinds through 2027.
- **Long-Term:** Growth is expected to resume as domestic supply expands and electricity demand increases.

US Solar PV Installations and Forecast to 2030



*SEIA Solar Market Insight Report 2025

<https://seia.org/research-resources/us-solar-market-insight//>



TURNING OPPORTUNITIES INTO ACTION

2026 Initiatives and Accomplishments

CES Program Impact Since Launch

January 2025 – Present

AGA's initial investment helped establish a dedicated market development program for steel in clean energy

- **60+** companies engaged
- **15** technical resources developed
- **1,400+** linemen trained
- **498** solar professionals educated
- **18** Website Resources Developed
- **5** Codes & Standards Committees
- **8** Major Industry Conferences

As CES transitions from startup funding to an industry-supported program, continued member support is critical to sustaining and expanding this work.

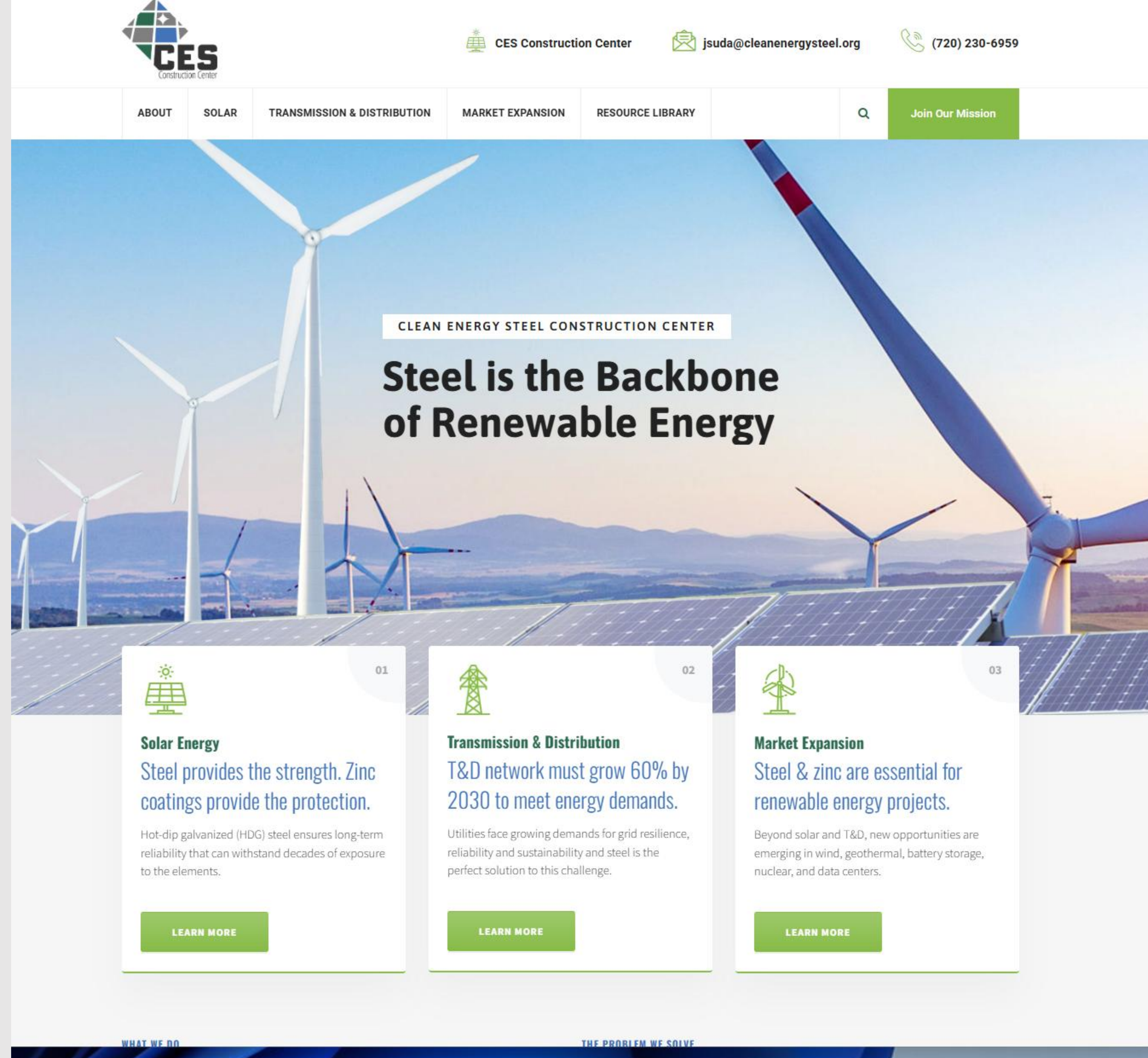


CleanEnergySteel.org

→ Launched CleanEnergySteel.org, creating a centralized online resource with 18 pages dedicated to clean energy markets, technical resources, and member outreach.



CleanEnergySteel.org
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Utility Pole Material Comparison Series

Develop practical resources that help utilities and engineers evaluate pole materials based on performance, durability, constructability, resilience, and life-cycle considerations.

Completed

→ Steel vs. Ductile Iron Resource Package

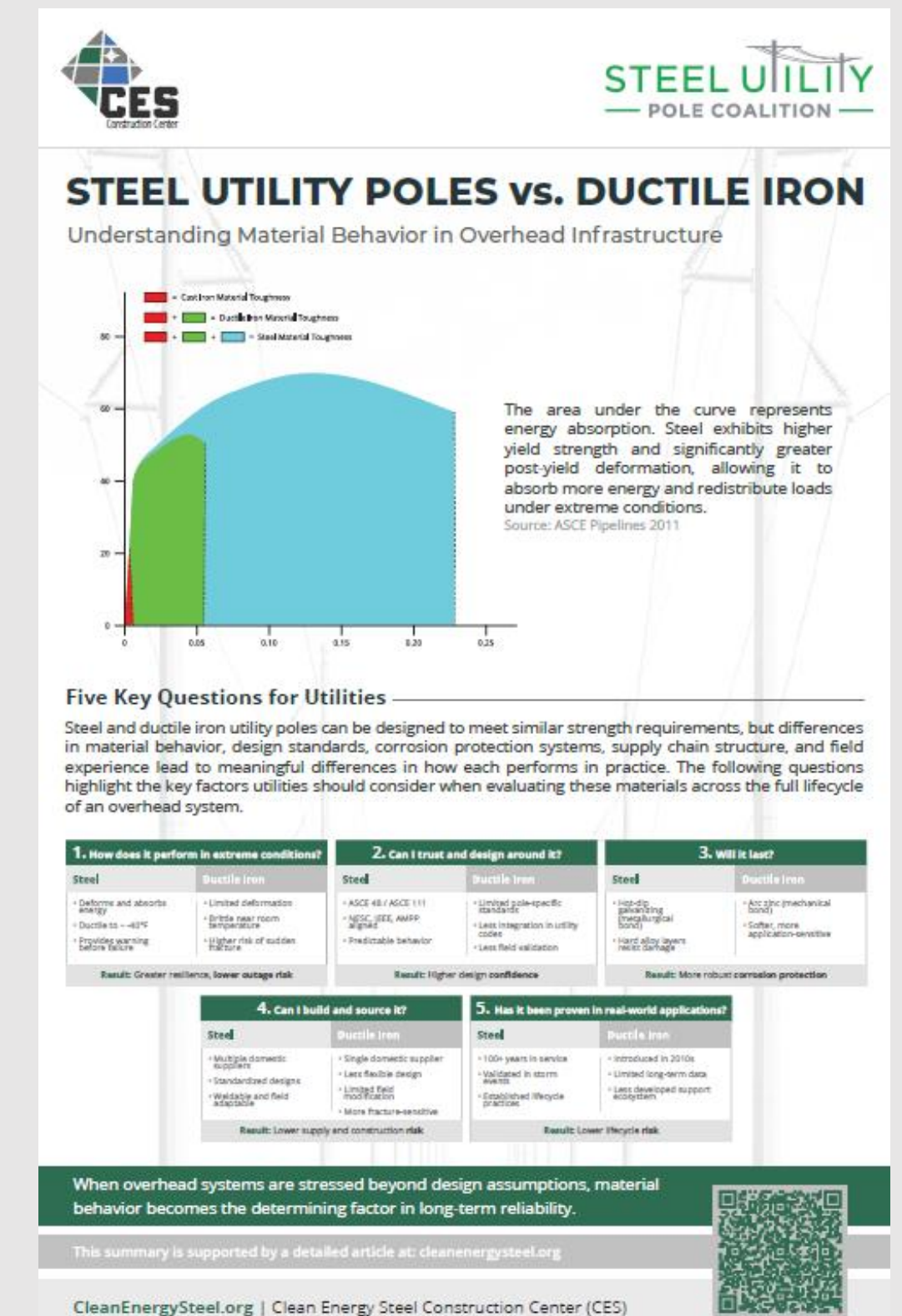
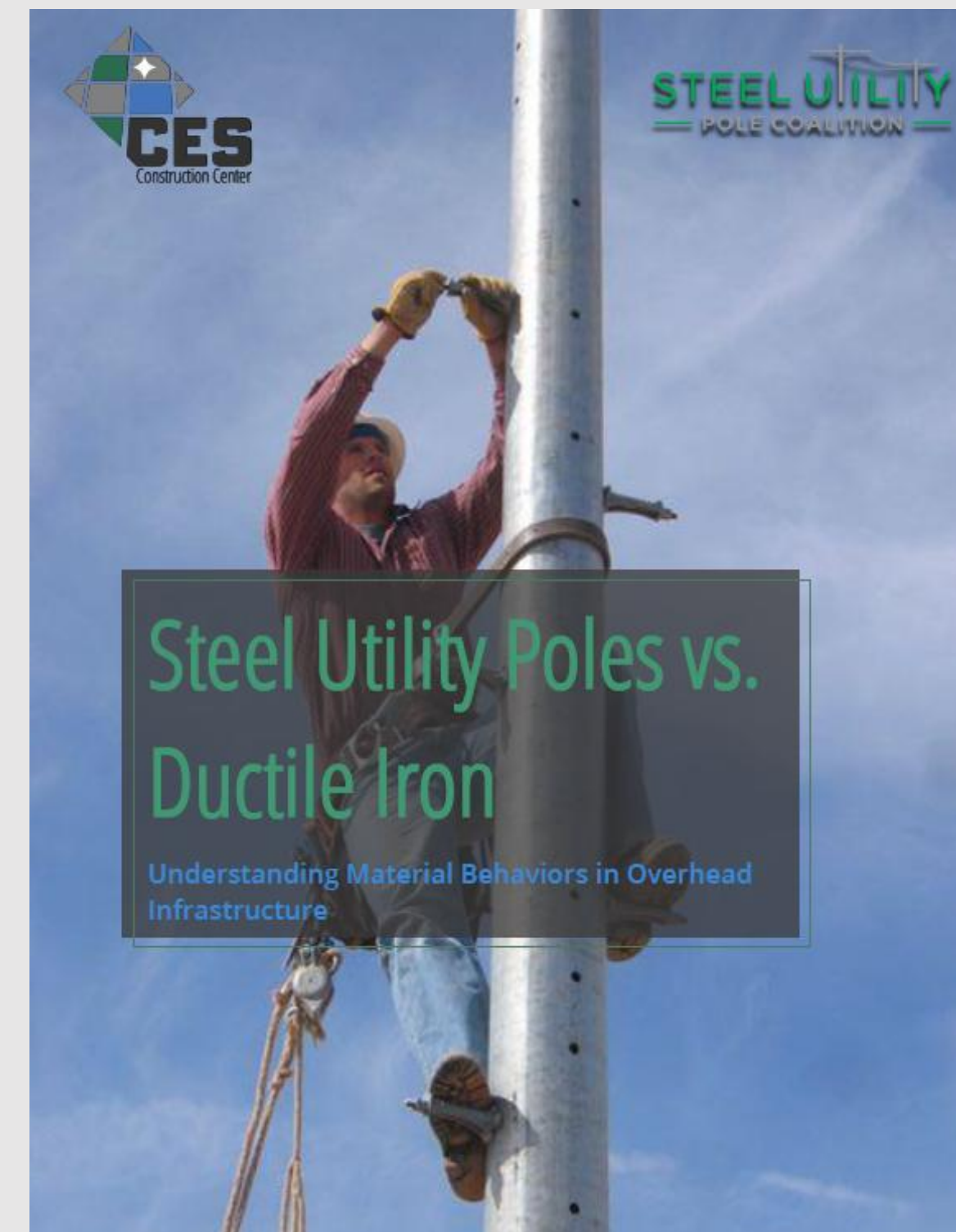
- Technical Position Paper
- Summary Article
- One-Page Marketing Doc
- Presentation

→ Steel vs. FRP/Composite

- Technical Position Paper
- (other resources such marketing docs and presentations will be released in sept of 2026)

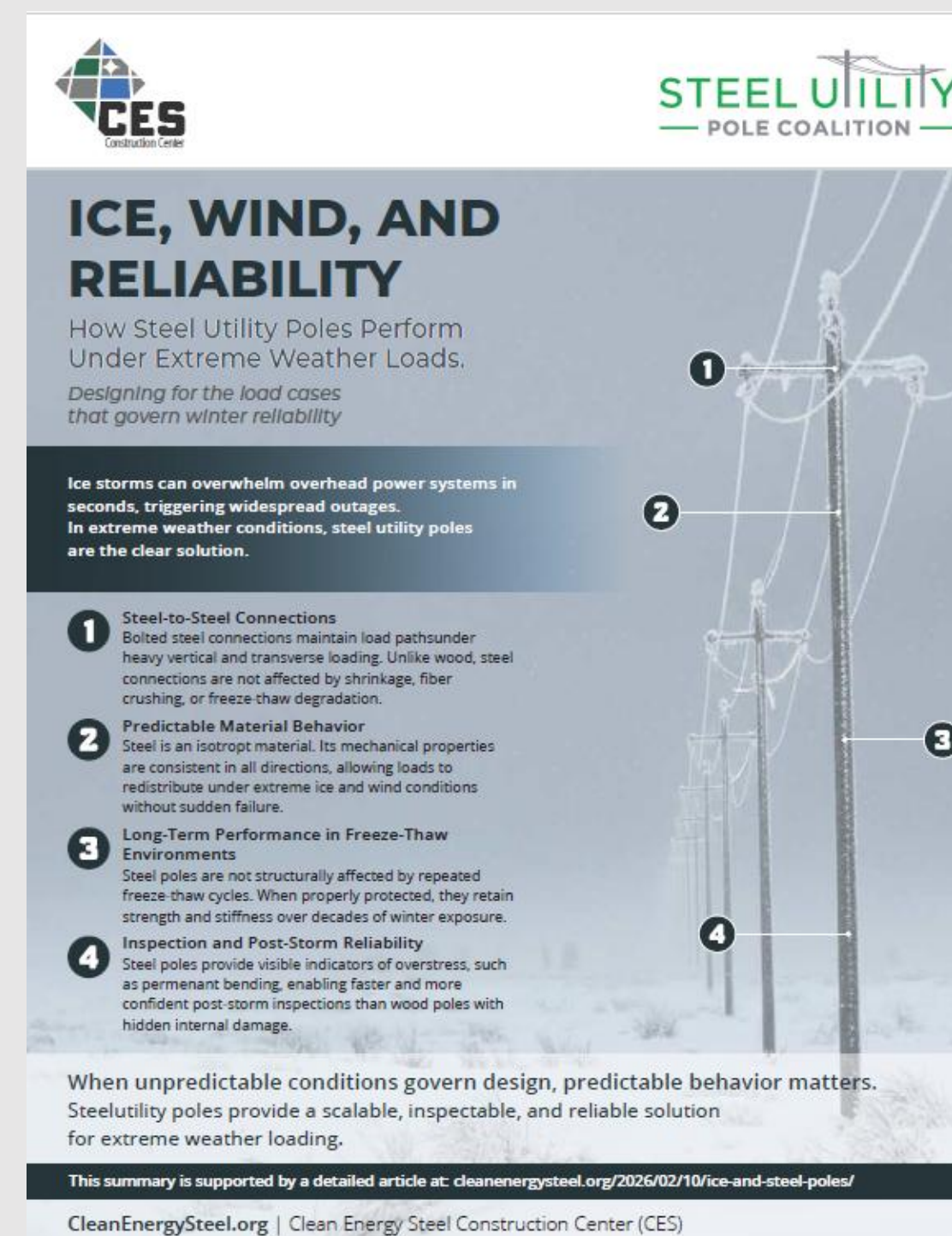
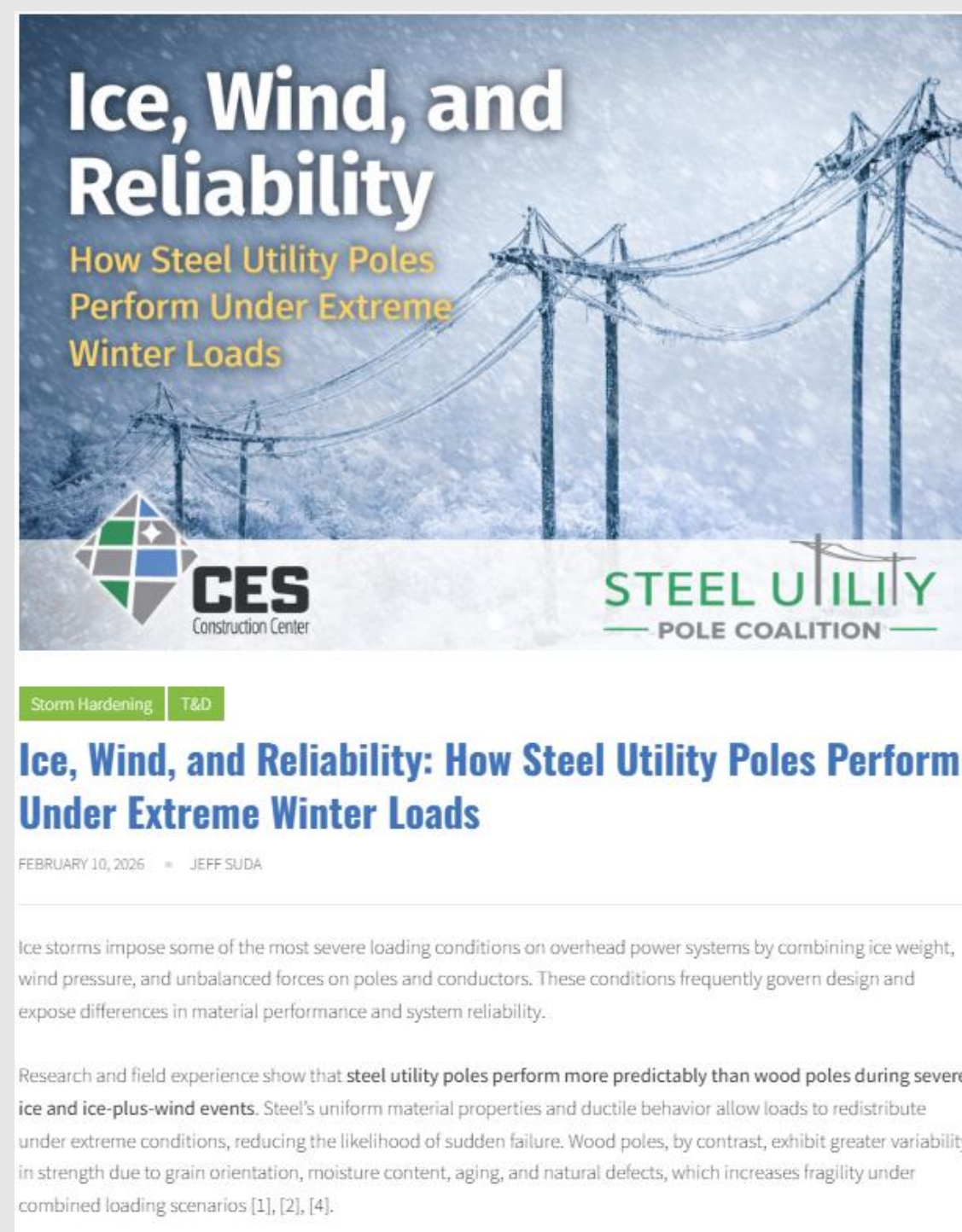
Planned Topics

- Steel vs. Wood
- Steel vs. Concrete
- Comprehensive Utility Pole Material Selection Guide



Storm Hardening & Extreme Event Performance

Develop practical resources that help utilities and engineers understand how pole systems perform during real-world environmental and impact loading events, while identifying strategies to improve grid resilience and reliability



Completed

- Ice, Wind & Reliability Resource Package
 - Technical Article
 - One-Page Marketing Doc
 - Presentation

→ Wildfires

Planned Topics

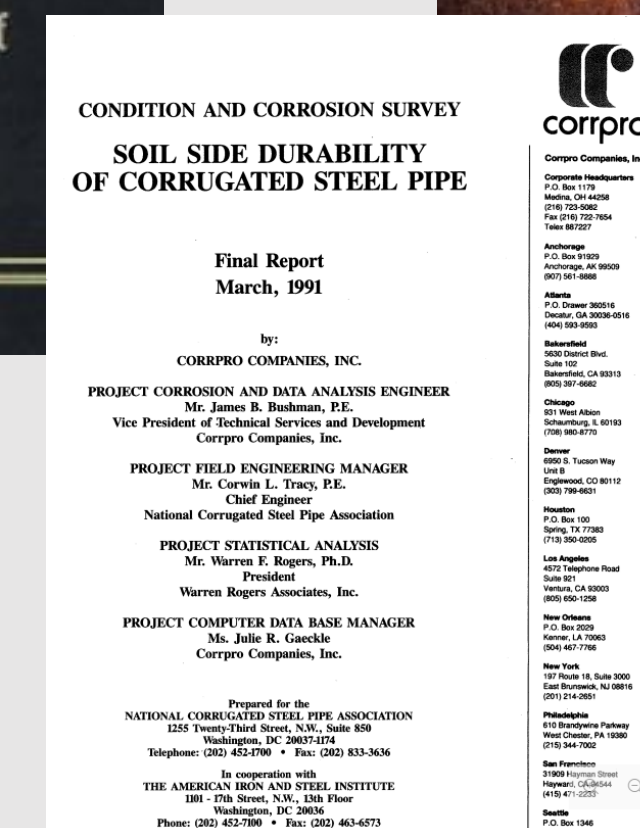
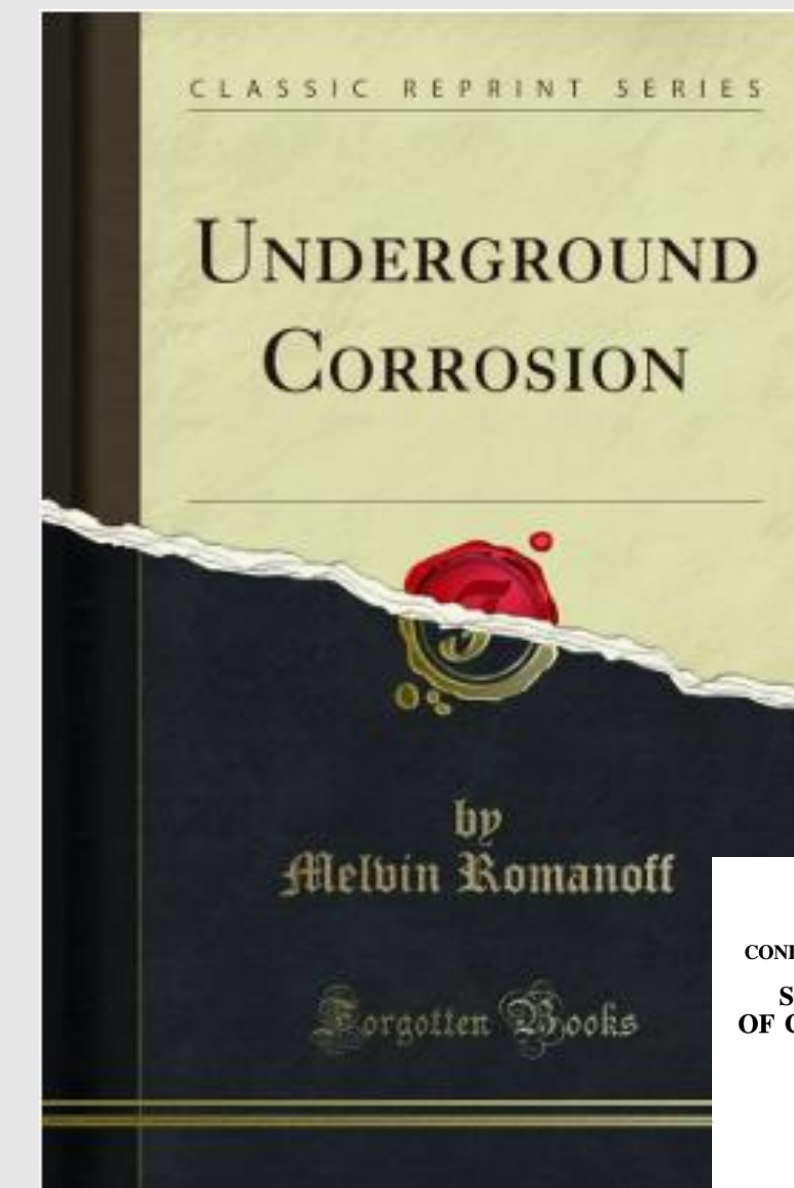
- High Winds & Microbursts
- Hurricanes
- Vehicle Impacts

Corrosion of Solar Foundations

Develop a technical resource that addresses the lack of a clear industry framework for evaluating corrosion and coating performance in solar foundations.

Goal

→ Provide a clear overview of the methods currently being used, identify shortcomings, and offer recommendations toward a more consistent and technically defensible approach for evaluating corrosion and coating performance.



Additional Technical Resources

Understanding the Codes That Shape Utility & Clean Energy Infrastructure

- Overview of major industry standards and organizations
- <https://cleanenergysteel.org/2026/02/02/utility-codes/>

Why Harsh Solar Sites Demand Hot-Dip Galvanizing

- Impact of erosion and environmental exposure on coating performance
- <https://cleanenergysteel.org/2026/03/11/harsh-solar-sites-hdg/>

Corrosion, Coatings & Performance in Solar Applications

- Overview of coating technologies and durability considerations
- <https://cleanenergysteel.org/2025/11/15/coatings-for-solar-infrastructure-understanding-durability-options-for-steel-systems/>

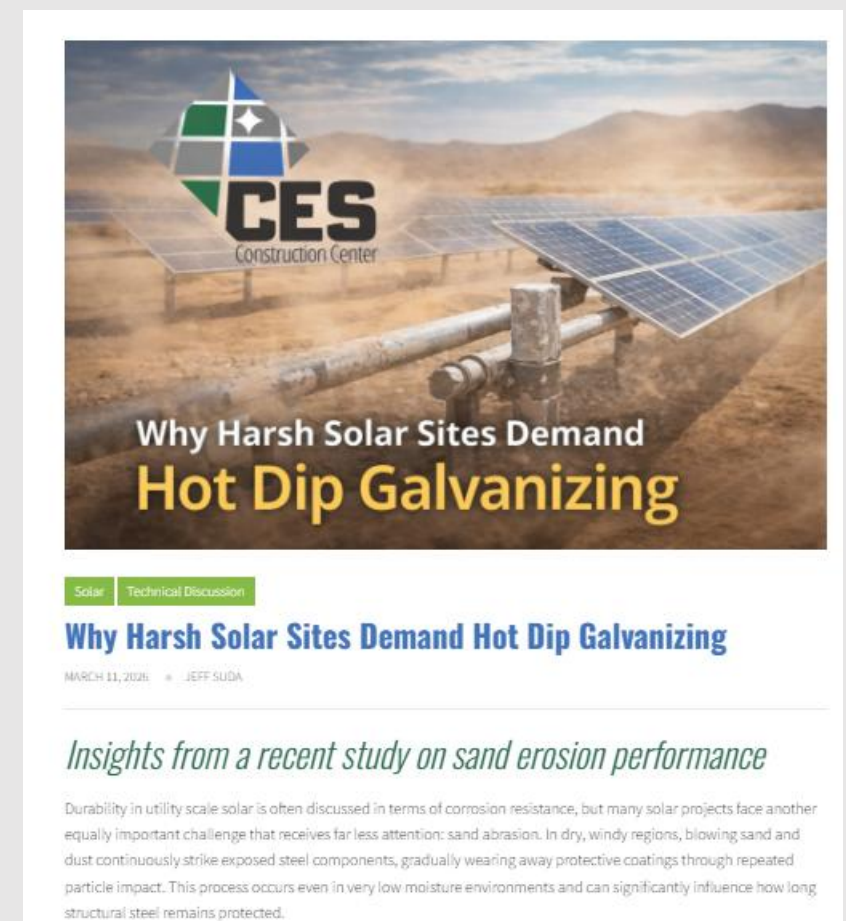
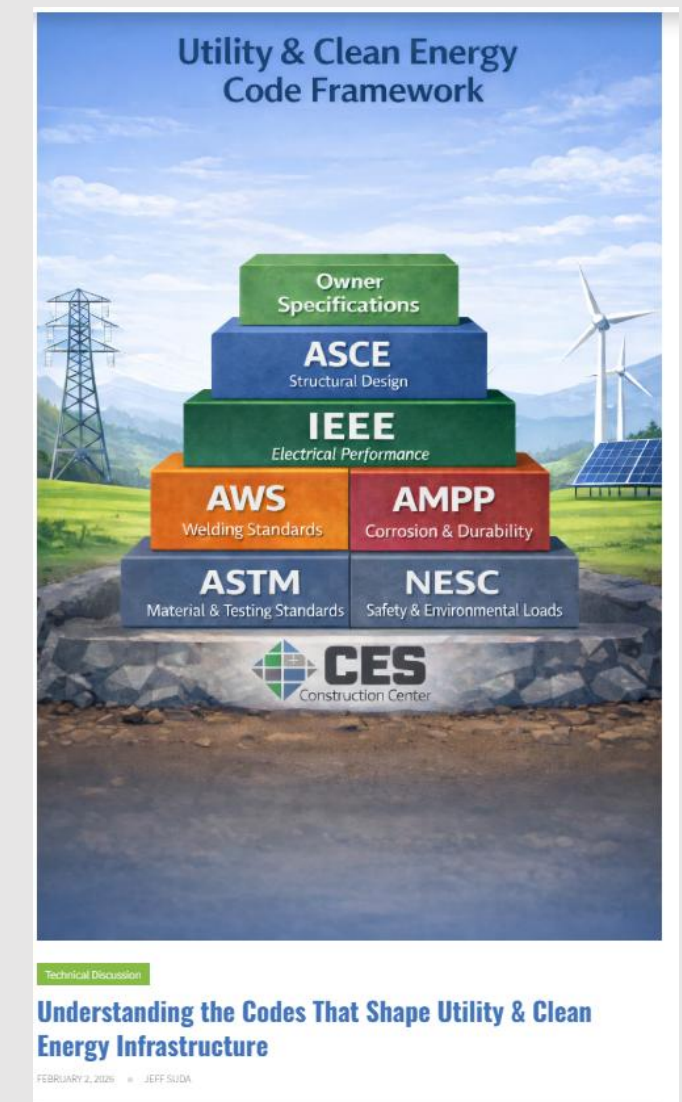
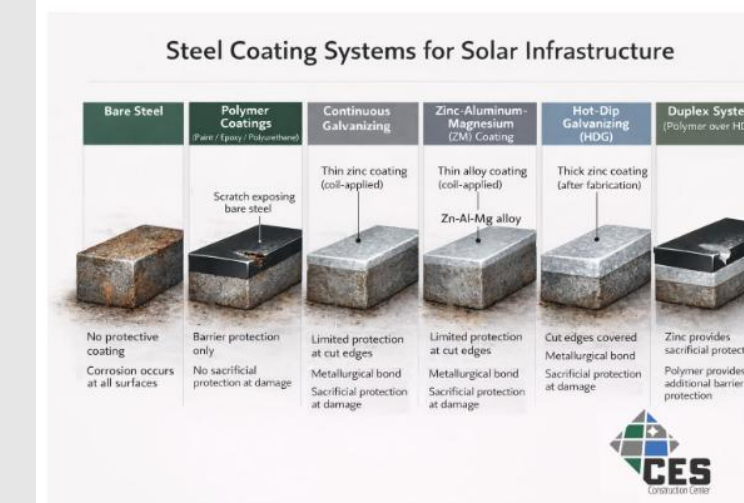
DOE Resilience Investment Guide Identifies Steel Poles as a Key Hardening Strategy

- Summary of DOE recommendations and grid resilience initiatives
- <https://cleanenergysteel.org/2026/02/25/doe-resilience-investment-guide/>

Coatings for Solar Infrastructure: Understanding Durability Options for Steel Systems

NOVEMBER 15, 2025 • JEFF SUDA

Corrosion protection is one of the most important considerations in solar infrastructure. The Clean Energy Steel Construction Center (CES) emphasizes the need for proper characterization of the soil and an assessment of atmospheric corrosion rates to properly evaluate the various durability options currently used in solar projects. Piles, racking, and support structures must perform for decades under challenging soil and atmospheric conditions. CES encourages engineers to consider full soil characterization and established corrosion protection methods to ensure long service life in these applications. At the same time, it is important to understand how to evaluate the longevity of zinc coatings on a project-basis, and the strengths and limitations of alternative durability options.



Standards & Industry Committees

CES participates in codes, standards, and technical organizations outside the traditional galvanizing community, ensuring HDG is represented where infrastructure requirements and design practices are developed.

ORGANIZATION	AREA OF INFLUENCE
NESC SC5	Safety requirements for utility structures
ASCE 48	Design of steel transmission pole structures
IEEE PES	Electrical utility engineering & design
ASCE Solar PV Structures	Structural design of solar infrastructure
AMPP SC11	Corrosion protection & durability



An aerial photograph of a building's roof, showing a grid of solar panels and several large HVAC units. A semi-transparent green rectangular box is centered over the image, containing the text 'WHAT'S NEXT' and '2027 priorities and opportunities to get involved'.

WHAT'S NEXT

2027 priorities and opportunities to get involved

Top View

From Building the Platform to Scaling the Impact

Build CES

2025

Launched the coalition, established priority markets, and built the foundation for a broader steel market-development program.

Establish credibility & programs

2026

Built technical resources, industry relationships, education programs, and a stronger presence in codes and standards.

Scale high-impact market development

2027

Put CES resources to work, deepen industry engagement, advance key technical initiatives, and grow the coalition.

2027 CES Priorities

- **Turning Resources Into Results**
Actively promote and deploy the technical content developed in 2026 to influence material selection and support steel adoption.
- **Advance Corrosion & Foundation Resources**
Continue developing practical guidance around corrosion, coatings, foundations, and service life, particularly for solar and other emerging applications.
- **Grow The Coalition**
Bring more steel producers, manufacturers, galvanizers, fabricators, and other industry partners into CES to expand our reach and capabilities.
- **Strengthen Endgagement**
Get CES resources and expertise directly in front of utilities, developers, engineers, EPCs, and specifiers and use their feedback to identify the next barriers to address.



CleanEnergySteel.org

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WHAT MEMBER SUPPORT MAKES POSSIBLE

CES is transitioning from AGA startup funding toward a sustainable, industry-supported program.



Continued CES funding supports:

- New technical resources and research
- Galvanizer representation in codes and standards
- Education of utilities, engineers, EPCs, and developers
- Identification and development of emerging markets
- Direct engagement with industries specifying steel
- Continued expansion of CleanEnergySteel.org

AGA's initial investment built the foundation.
Continued industry support will determine how much further we can take it.

HELP US CONTINUE THE MOMENTUM

CES is transitioning from AGA startup funding toward a sustainable, industry-supported program.

Continued CES funding supports:

- If your company sees value in these programs, resources, and market development efforts, we need your support to continue and expand them.
- Become a CES Member

Contact

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