



QUANTA

2022 SUSTAINABILITY REPORT

BUILDING MOMENTUM



CONTENTS

Quanta is playing a pivotal role in helping to accelerate the energy transition while focusing on employee safety and conducting our business in a sustainable manner.

Every day, we are building critical infrastructure that enables a future where homes, businesses, and vehicles are powered by low-carbon electricity delivered by a modernized and resilient electric grid.

Our people, the core of everything we do, power modern life.

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ABOUT THIS REPORT

Scope

This report, Quanta's 2022 Sustainability Report (SR), was published in September 2023 and reflects activities and initiatives in our fiscal year 2022 (January 1, 2022, to December 31, 2022), as well as certain subsequent events and initiatives that occurred after the end of fiscal year 2022, which we have endeavored to note as such. All quantitative data for Quanta included in this report, unless otherwise stated, represents fiscal year 2022. Additionally, unless otherwise noted, data in this report reflects the majority of our global operations (United States, Canada, and Australia), as relevant. All references to "Quanta," "Quanta Services," "Company," "us," "we," "our," or similar terms in this report are references to Quanta Services, Inc., together with its subsidiaries.

Our last report, the *2021 Sustainability Report*, was published in August 2022.

The preparation of the information included in this report, including, among other things, emissions and energy usage data, workforce data, and specific project metrics, requires the use of estimates and assumptions. As a result, such information may be inaccurate, and there is no assurance that such information will not need to be revised in connection with our publication of any future reports. Additionally, Quanta's methodology for determining any such information may not be comparable to the methodology utilized by other companies or third parties. The information contained in this report has not been audited by any independent auditor, and Quanta does not currently seek external assurance of information contained within this report. This report is prepared as a reference tool, and Quanta may elect to modify the format and content or discontinue publication of such reports at any time without notice. This report has been reviewed by the Governance and Nominating Committee of Quanta's Board of Directors (Board).

Report Structure: Our Commitment to Transparency

This report follows an impact, environmental, social, and governance (IESG) structure, leading with a discussion of our positive "Impact" on society, followed by the "People" (social) section because people are at the center of what makes Quanta who we are, followed by "Planet" (environmental) and "Principles" (governance). This report has been written for a broad range of stakeholders, including but not limited to our customers, suppliers, investors, and nonprofit organizations.

Quanta continues to seek ways to enhance sustainability disclosure that is meaningful to our business and stakeholders. In this regard, and to improve ease of use and comparability with peers, we herein index our reporting (where applicable) against frameworks from the:

- Sustainability Accounting Standards Board (SASB),
- Global Reporting Initiative (GRI),
- Task Force on Climate-related Financial Disclosures (TCFD), and
- UN Sustainable Development Goals (SDGs).

These standards provide criteria for us to report against across a range of IESG topics and are summarized in the appendix on page 124.

We welcome your feedback on this report. For more information or to provide comments, please contact us at sustainability@quantaservices.com.

Forward-Looking Statements

This report (and oral statements regarding the subject matter of this report) includes forward-looking statements intended to qualify under the "safe harbor" from liability established by the Private Securities Litigation Reform Act of 1995. These forward-looking statements include any statements reflecting Quanta's business or financial outlook and expected opportunities, technological developments, competitive positioning, future economic and regulatory conditions, and other trends in particular markets or industries, as well as other statements reflecting expectations, goals, targets, intentions, strategies, assumptions, plans, or beliefs about future events or performance or that do not solely relate to historical or current facts. These forward-looking statements are not guarantees of future performance; involve or rely on a number of risks, uncertainties, and assumptions that are difficult to predict or are beyond our control; and reflect management's beliefs and assumptions based on information available at the time the statements are made. We caution you that actual outcomes and results may differ materially from what is expressed, implied, or forecasted by our forward-looking statements and that any or all of our forward-looking statements may turn out to be inaccurate or incorrect. For additional information concerning some of the risks, uncertainties, assumptions, and other factors that could affect our forward-looking statements, please refer to Quanta's Annual Report on Form 10-K for the year ended December 31, 2022, as well as any other documents filed with the SEC, which are available on our website (quantaservices.com). Should one or more of these risks materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those expressed or implied in any forward-looking statements. You should not place undue reliance on Quanta's forward-looking statements, which are current only as of the date of publication of this report. Quanta does not undertake and expressly disclaims any obligation to update or revise any forward-looking statements to reflect events or circumstances after such date or otherwise, and Quanta does not undertake and expressly disclaims any obligation to verify any written or oral statements made by any third party regarding the subject matter of this report.

Additionally, any forward-looking projections or estimates included in this report are based on assumptions that are inherently subject to significant uncertainties and contingencies, many of which are beyond Quanta's control, and such projections and estimates involve increasingly higher levels of uncertainty the further out they extend from the date of preparation. The assumptions and information underlying such projections and estimates are inherently uncertain and are subject to a wide variety of significant risks and uncertainties that could cause actual results to differ materially from those contained in the projections and estimates. Moreover, statements in this report may be based on standards or methodologies that are still developing and for which internal controls and processes are continuing to evolve. Further, certain statements are based on third-party data, estimates, or standards which Quanta has not independently verified or reviewed. While estimates and assumptions used are believed to be reasonable at the time of preparation, the inclusion of projections and estimates in this report should not be regarded as guarantees. Our disclosures based on any standards may change due to revisions in framework requirements, availability of information, changes in governmental policies or other factors which may be beyond control. The inclusion of projections and estimates in this report should not be regarded as an indication that Quanta considered or considers such information to be a reliable prediction of future events.

A MESSAGE FROM OUR CEO



At Quanta, building the energy transition is our business. There is no overstating the size of the challenge before us. We are at the heart of helping society meet its greatest challenges by building the infrastructure necessary to enable a carbon-neutral economy, and the more than 47,000 employees across Quanta are committed to furthering our mission.

Given our reach and resources, we feel a deep sense of responsibility to our stakeholders and the people we serve to advance our sustainability strategy. We strive to grow our positive

WE MUST CONTINUALLY STRIVE TO GET BETTER AND BETTER IN EVERY ASPECT OF OUR BUSINESS AND DAILY LIVES. NO MATTER HOW MUCH WE GROW, THERE IS ALWAYS ROOM FOR IMPROVEMENT. AT THE HEART OF OUR GROWTH AND SUCCESS WILL REMAIN OUR MOST IMPORTANT ASSET, OUR PEOPLE.

impact on society while reducing our footprint, investing in safety, diversifying our workforce, and operating ethically, responsibly, and sustainably.

In this report, you will see many stories and quotes from our employees, told in their own words, about what motivates and gives them purpose. Our culture is our lifeblood, and I am proud to hear our employees talk passionately about how people are central to what drives them to do better every day. It is this spirit that is the core of who we are. Our mission is always, in every way, to continue getting better, and these values are inspired by our people and ingrained in our culture, motivating every action we take.

The job of building a more sustainable business has no endpoint. There is always more to do. This report provides transparency around our sustainability strategy and how we are measuring the progress we made in 2022. As we look toward the future, it is evident that our people will drive our sustainability efforts. Together, we will continue collaborating with our customers to lead the energy transition with an unwavering focus on safety. Thank you for your trust and confidence in Quanta Services.

EARL C. "DUKE" AUSTIN, JR.

President & Chief Executive Officer

WHAT BRINGS US TOGETHER

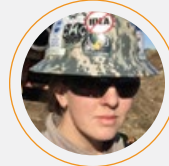
WHO WE ARE: MANY VOICES, ONE TEAM

At Quanta, we mean it when we say that our most valuable asset, what truly sets us apart, is our employees. Every day our skilled and highly trained workforce performs the unglamorous yet vital work to build the energy transition and keep the power flowing no matter how tough the conditions.

It's not a walk in the park. Whether installing wind turbines in the searing heat of the New Mexico summer, keeping the lights on after a sub-zero ice storm in Canada, or knee-deep in a muddy trench fixing a gas leak in Australia, every day our employees are putting their own grit, energy, and time into working for Quanta.

And we will never take this for granted.

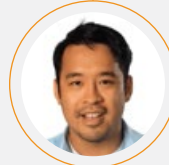
Here we recognize and showcase the voices of our most valuable asset, our employees—told in their own words—about what motivates and gives them purpose. Spread over more than 200 operating companies on different continents and working in extreme temperatures and environments, at Quanta, our mission is always, in every way, to continue getting better.



We spend more time with our work colleagues than with our own family...there are people within Quanta that have become family to me.

JOANNA FENNELL

Assistant QC Manager, QA/QC ▶ Canada



Everyone I work with is very collaborative. We make work fun.

VU TRAN

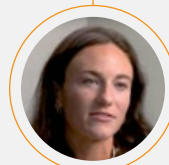
Senior PV Engineer ▶ United States



WE'RE ALL OUR BROTHER'S
KEEPER OUT HERE.

JUAN CARLOS DEL TORO

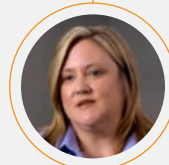
Apprentice ▶ United States



It really is the family culture that you look for in a job.

EMMA WORKMAN

Project Manager ▶ United States



I feel like I'm home. I feel like this is where I belong. I love what I do. I love working with people, and I love helping them.

AMANDA LOTT

Director, HR and Employee Development ▶ United States

WHAT MAKES US PROUD

WHAT DRIVES US

MY DAD, A LINEWORKER, IS SO THRILLED AND EXCITED. EVERY DAY HE TELLS ME HE'S PROUD OF ME.

VALERIA NARVÁEZ

Lineworker & LUMA
College Graduate ▶ Puerto Rico



No day is ever the same. With such a variety of tasks and new challenges, it is such an engaging and involved career.

SCOTT OATES

Apprentice ▶ Australia



Quanta has a great culture around safety and support from all levels of management right through to apprentices...I can strive for my best, push for more, and achieve great results driven by outcome.

BRENTON BARNES

Site Manager ▶ Australia



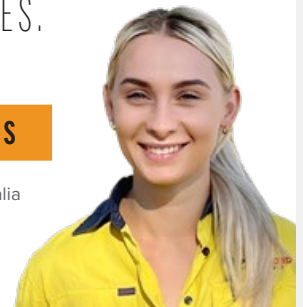
I appreciate the support because of the

CONTINUOUS GROWTH OPPORTUNITIES

THAT QUANTA PROVIDES TO THEIR EMPLOYEES.

CHEYENNE WATKINS

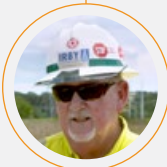
Assist & Assure Coach ▶ Australia



Our lineworkers revel in the idea that every day they are doing something that the average person cannot do.

LUTHER BOONE

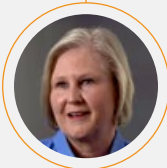
Regional Safety Manager ▶ United States



It makes us feel proud—not only do we serve our customers, but we also serve our communities.

MARGARET RUSHING

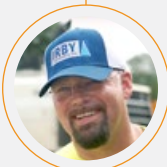
Operating Company Chief Financial Officer ▶ United States



You're changing the landscape. When you retire, your kids and grandkids will see it and be proud of what you're doing.

BRANDON COX

Superintendent ▶ United States



I just couldn't imagine doing anything else.

CHRIS SWINDOLL

Superintendent ▶ United States



MAKING AN IMPACT: HOW QUANTA CREATES VALUE FOR SOCIETY

As a leading specialty infrastructure solutions provider in North America, we are uniquely positioned to capitalize on the megatrends and opportunities to lead the energy transition and provide critical infrastructure services that enable the technologies of tomorrow. Our focus on people is at the heart of our growth strategy and success. By investing in safety, training, and recruitment programs to meet our customer's needs, as we grow, so does our positive impact on society.



Human Capital

- 47,262 employees
- 200+ operating companies
- 34,291 active jobs in 2022

Financial Capital

- \$24.1 billion backlog at FYE 2022
- 54% of cash used for acquisitions, 2018–2022
- 26% of cash used for capital expenditures, 2018–2022
- \$905 million of cash used for stock repurchases, 2018–2022

INFRASTRUCTURE SOLUTIONS DRIVING CUSTOMER SUCCESS

and expanding our total addressable market

OUR STRATEGY



2022 INPUTS

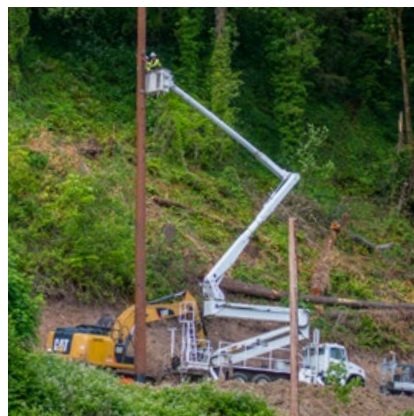


Relationship Capital

- Top 10 customers accounted for 36% of 2022 revenues
- Largest customer accounted for 9% of 2022 revenues

Natural Capital

- 11.4 petajoules consumed
- 36.2 million gallons of water used



Infrastructure Capital

- 74,051 vehicle assets (owned, leased, and rented)
- 1,092 facilities (owned and leased)



Financial Capital: Our Impact

\$3.8 billion in renewable energy infrastructure solutions revenues

5-year CAGR as of December 31, 2022:

13%
revenues

19%
adjusted EBITDA

26%
adjusted EPS



Cutting-edge craft skills, expertise, and world-class execution



Leading the way on the energy transition



Enabling technology



Collaborative and comprehensive customer solutions

Human Capital: Our Impact

16%
decrease in "Stuff That Kills You" (STKY) actual rate YOY

\$1.12 B
diverse vendor spend



26,361
students trained at Quanta training facilities



2022 OUTPUTS

Natural Capital: Our Impact



4.5 GW
utility-scale wind and solar constructed

1,354 MWh_{AC}
utility-scale energy storage capacity installed

30 MW
EV charging capacity installed

2022 NOTABLE AWARDS: QUANTA SERVICES

#1

Healthiest Employer of Texas for employers with over 10,000 employees



#3

in the Engineering & Construction category of Fortune's World's Most Admired Companies



No. 1,412 on the Forbes Global 2000 list



Finalist for the Safety Innovation Award in the 2022 Green Cross for Safety Awards



#9 on the **2022 Healthiest 100 Workplaces in America** by Healthiest Employers



Named one of *Engineering News-Record's* **Top 25 Newsmakers** for 2022



#1 on the **Top 50 Electrical Contractors list** by *Electrical Construction & Maintenance* magazine



#285

on the 2022 **Forbes Fortune 500** list



No. 1 Overall Specialty Contractor and No. 1 Overall Electrical Contractor, *Engineering News-Record* **Top 600** list

IN FOCUS

RECOGNIZING QUANTA OPERATING COMPANIES



Blattner Holding Company (Blattner) was named one of the **Top 200 Workplaces in Minnesota** by the *Star Tribune* for 2022 and was ranked in the top 10 in the Large Company category.

Solar Power World ranked Blattner No. 2 out of 411 companies on the **2022 Top Solar Contractors list**.



KC Murray, EHS Manager for Hallen, was recognized as the Distribution Contractors Association **2022 Safety Director of the Year**.



HBK Engineering, LLC, was ranked in the *Engineering News-Record's* **2022 Top 500 Design Firms Sourcebook**. Published annually, this list ranks the 500 largest U.S.-based design firms, both publicly and privately held, based on design-specific revenue. Companies were ranked based on revenue for design services performed in 2021. HBK ranked No. 166 overall (No. 294 in 2021) and No. 15 in Telecom (No. 32 in 2021).



Irby Construction Company was ranked No. 16 among the **top 100 Mississippi-based companies** by the *Mississippi Business Journal*.

Irby was honored by Entergy with a **Premier Vendor Award** in the area of Innovation and Continuous Improvement for significantly improving processes in the area of safety excellence with its Lineman Calculator.



J.W. Didado Electric won **two first place awards from the American Trucking Association**: in the Miscellaneous/Local Division, Unlimited Mileage, in the Truck Safety Contest; and in the Miscellaneous Division, Unlimited Employees Category, in the Industrial Safety Contest.



Mears Group, Inc., earned the **2022 Military Friendly® Employer designation**.



Carl Segneri, Vice President, Business Development, for M.J. Electric, was the winner of the **IEEE PES Chicago Chapter Outstanding Engineer Award** for the 15 or More Years of Experience category.



Nova Group was awarded the **2022 Construction Risk Partners Build America Merit Award** in the Federal & Heavy New category for work completed at Andersen Air Force Base in Guam.



For the second year in a row, the Wataynikaneyap Power Transmission Project has been chosen as a **Clean50 Top Project award winner**.

OUR SUSTAINABLE CULTURE OF INNOVATION

Innovation is a key enabler to help accelerate the energy transition. At Quanta, our culture of innovation means that everyone within the organization—from the CEO to a fieldworker—is constantly striving to do better every day.

Innovative businesses are fast, flexible, and focused. Innovation is the holy grail of business and is the quest for products and services that lead to sustainable competitive advantage. Quanta Services has been built on a history of strong, innovative, and entrepreneurial leaders and is a company that encourages flexibility and creativity and supports responsible risk-taking. At Quanta, we aim for people to come together from different fields of expertise and cultures to develop new ideas more quickly than in rigid, homogeneous environments.

An illustration of our culture of innovation is the recent formation of Innoversa Mobile Solutions (IMS), a wholly-owned subsidiary of Quanta Services that specializes in manufacturing and integrating mobile energy storage systems (MESS) and mobile electric vehicle (EV) chargers and testers, which

have been designed to improve the reliability and resiliency of energy supply and EV charging systems in support of transportation electrification.

These innovative solutions were initially developed and piloted by Quanta Technology in 2019 as an alternative to fossil fuel-based generation for backup power and EV charging support. The modularity and customization of these solutions address a technology gap in the market and support unique mobile generation applications for utility fleets and seasonal (short-term)



energy needs of commercial and industrial customers. Applications include dynamic modular EV charging, temporary charging for events, festivals, construction projects, and roadside assistance. The MESS is rated at 1.3 MWh and has the capacity to fully charge 20 typical EV vehicles from empty.

As the interest in mobile generation grows, Quanta believes IMS is well-positioned to address the market through manufacturing these mobile solutions and can customize specific aspects of the design and interconnection to address various customer needs.

DESIGNED & DELIVERED BY INDUSTRY EXPERTS

IMS has a close partnership with Quanta Technology experts for developing, designing, customizing, testing, and verifying these mobile energy solutions. In addition, being an emerging technology that has the potential to enable and support electrification and decarbonization of a wide number of current fossil-fueled applications, our experts have initiated engagement with major standardization agencies in North America (such as IEEE and CSA) to propose and develop new standards and guidelines for mobile and transportable energy storage systems and high-power EV charging infrastructure.



BUILDING MOMENTUM: OUR SUSTAINABILITY STRATEGY

Through our leading role in building the energy transition, our vision is to leave a measurable, sustainable legacy on people and our planet with a steadfast focus on our customers, employees, and communities.

IMPACT

PEOPLE

PLANET

PRINCIPLES

OUR VISION



Grow Our Positive Impact

By supporting our customers and always putting safety first, we are enabling and accelerating the energy transition to a more sustainable future. As Quanta grows, so does our positive impact on the world.

Focus on Safety

Our goal is to complete every project without incident or injury, and we are committed to investing in our craft-skilled workforce, benefiting our employees, customers, and the overall industry.

Reduce Our Footprint

By investing in low-carbon options, we strive to be more efficient in our operations, even as our business grows.

Embed Sustainability

Our sustainability strategy must be embedded in all aspects of our business. Everybody owns it.

OUR VALUES



Sustainability Is Who We Are

Our efforts in building the energy transition define us. We believe good business decisions drive sustainability, and sustainability is good for business.

People First, Always

We are a people industry with a strong family culture. Led by our unwavering principles and commitment to safety, our commitment to people is integral to who we are and what we do.

Customer Focus

We recognize our customers are expecting us to invest in solutions that reduce our footprint.

Culture of Innovation

It is not enough to have sustainability leaders at the top of our organization making decisions; rather, we recognize that they must be cultivated at all levels and in all geographies of Quanta.

IN FOCUS

OUR COMMITMENTS: INTERVIEW WITH QUANTA'S DIRECTOR OF SUSTAINABILITY

Q Why did you decide to join Quanta?

A By most estimates, we have less than three decades to reshape and rebuild the global economy. That's going to require an extraordinary amount of capital investment. So, the opportunity to be part of Quanta, which is in the middle of driving this transition, and to build a sustainability program within this context, was too good to miss.

Q Tell us more about Quanta's sustainability strategy.

A Even though sustainability can be a highly complex topic, the strategy should not be. I fundamentally believe that if you allow ambiguity to filter into what you're trying to do, you suddenly lose control of the agenda. At Quanta, with its decentralized operating model, having a very clear and simple strategy and vision and a few beacons of the progress you are making that you can use to reinforce that vision is incredibly important. In the simplest terms, our strategy is about (1) what we want to do, (2) why we want to do it, and (3) how we will do it. You can't get much simpler than that.

Q What does it mean to embed sustainability?

A Sometimes one person could be the difference in whether the company succeeds or doesn't. But I think this is not the case when it comes to sustainability. We need every employee to own sustainability. That's not the job of one, it's the job of all, and it has no end.

Q What part of this year's report are you proud of?

A It's great to see progress made across several key sustainability metrics we measure. Beyond this, I particularly enjoyed working on the "Who We Are: Many Voices, One Team" section. In any work environment, you want to feel that your work matters and makes a difference. It's great to see that focus on family and clarity of purpose in Quanta employees.

Q What's keeping you busy?

A Unraveling all the intricacies associated with decarbonizing Quanta's fleet is a big challenge. First and foremost, the truck is a productivity tool in a critical industry, so we first need to fully understand all the costs and operational implications associated with decarbonizing the on-road portion of our fleet before we share more clarity on our vision.

GRANT FORMAN, PH.D.,

is a chemist by training. For almost 15 years, he held senior management positions in climate change and sustainability before joining Quanta in 2021 as Director of Sustainability.

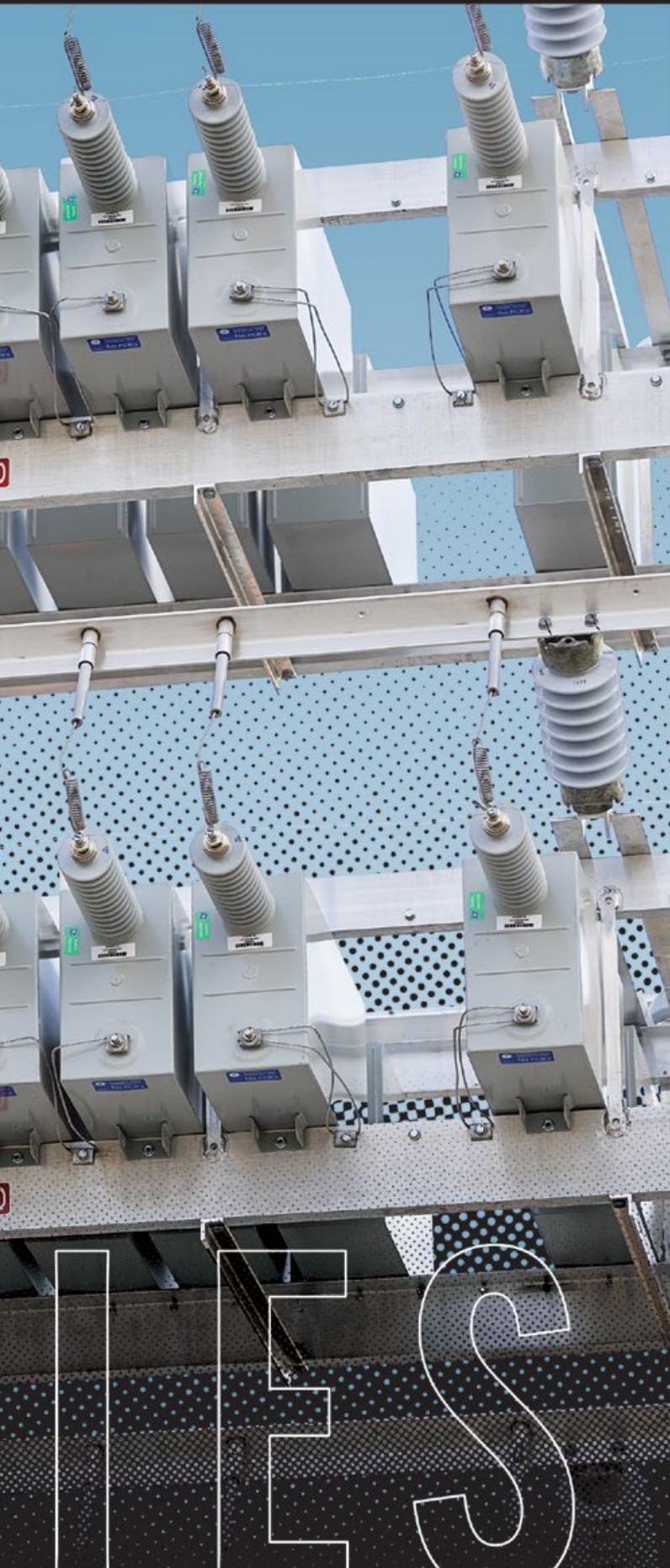


YEAR

**2022: THE YEAR
IN STORIES**



NS FOR



We are creating an enduring positive impact on society by applying our services to help accelerate the energy transition and enable infrastructure expansion and modernization. This positive impact sets us apart, drives growth, creates value for Quanta and our stakeholders, and helps guide everything we do.

This year's focus stories highlight our key role in transforming the rapidly evolving North American energy landscape and underscore our continuing commitment to the well-being of our employees, our customers, and the communities in which we operate.

IN THIS SECTION

- 18** How Quanta's Role in the North American Energy Transition Is Gaining Momentum
- 28** Responding to Increasing Extreme Weather & Climate Disasters

YEAR IN STORIES

Eliminating carbon emissions on a net basis is poised to create the most significant reallocation of capital in history and requires record levels of investment in clean energy infrastructure to transform energy production, delivery, consumption, and efficiency. Boosted by the Inflation Reduction Act, the energy transition in North America is gaining momentum.

HOW QUANTA'S ROLE IN THE NORTH AMERICAN ENERGY TRANSITION IS

GAINING MOMENTUM





Although many governments and companies have committed to ambitious climate action and the imperative to address climate change is being increasingly recognized, it should not be surprising that more must be done to transition to a carbon-neutral economy. Achieving global decarbonization by 2050 entails nothing short of a fundamental transformation of the global economy.

Central to mitigating climate change risk is a transformation of the energy sector, which contributes to around 90% of total greenhouse gas (GHG) emissions.¹ According to industry estimates, the United States will need to add thousands of gigawatts of clean energy to the electric grid by 2035 to meet its decarbonization goals, potentially requiring hundreds of billions of dollars in additional capital for generation, transmission, and distribution.²

→ QUANTA'S ROLE

By supporting our customers across all industries in which we operate and always putting safety first, we are enabling and accelerating this transformative transition while growing our positive impact on the world. Diversified across technology and geography in North America and Australia, Quanta operating companies provide front-end engineering, procurement, project management, and construction services to all energy transition sectors, including wind, solar, energy storage, transmission, distribution, and EV charging.

Quanta operating companies are responsible for the construction of a **quarter of all the utility-scale renewable capacity** installed in the U.S.

¹ [epa.gov/ghgemissions/sources-greenhouse-gas-emissions](https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions)

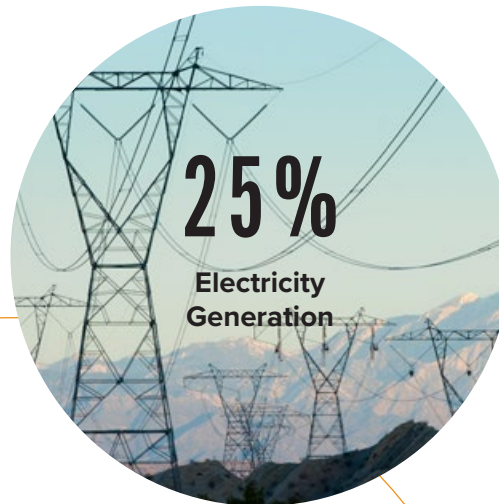
² [mckinsey.com/capabilities/sustainability/our-insights/toward-a-more-orderly-us-energy-transition-six-key-action-areas](https://www.mckinsey.com/capabilities/sustainability/our-insights/toward-a-more-orderly-us-energy-transition-six-key-action-areas)

Modernizing the power grid will be crucial to ensure that areas with high potential for renewable generation integrate and connect with demand centers. It is estimated that the U.S. will need to add about twice as much transmission as it has today to fully decarbonize by 2050.³ Developing new flexibility solutions, such as batteries, and integrating them with more conventional assets will be vital to ensuring a balanced energy system. Transportation will also need to decarbonize, requiring roughly \$90 billion in infrastructure investments in the U.S. by 2030.⁴

These changes are expected to continue to create significant opportunities for Quanta. By providing critical infrastructure solutions for our customers, we are playing a pivotal role in helping to accelerate this transition while focusing on employee safety and conducting our business socially, economically, and environmentally responsibly.

³ esig.energy/wp-content/uploads/2021/02/Transmission-Planning-White-Paper.pdf

⁴ utilitydive.com/news/us-reaches-140k-public-ev-charging-ports-as-key-federal-official-says-90b/638821/



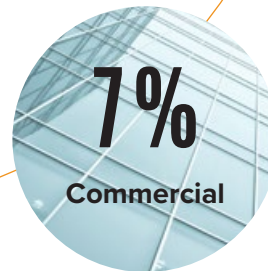
THE SIX MAJOR SOURCES OF U.S. CARBON DIOXIDE EMISSIONS

By helping to modernize the power grid, adopt new technologies, and advance clean energy, Quanta is poised to help drive emissions reductions across every major contributor to greenhouse gas emissions in the U.S.



5.22 B

total tons CO₂e emitted in 2020



Source: epa.gov/ghgemissions/sources-greenhouse-gas-emissions

IN FOCUS

INFLATION REDUCTION ACT OF 2022: RESHAPING THE U.S. ENERGY LANDSCAPE

The Inflation Reduction Act of 2022 (IRA) was signed into law in August 2022 and represents an investment of up to \$369 billion in energy and climate spending over the next 10 years.

The IRA has the potential to dramatically transform the U.S. energy industry by lowering the costs of carbon-free technologies, accelerating decarbonization, and shaping domestic industrial policy.

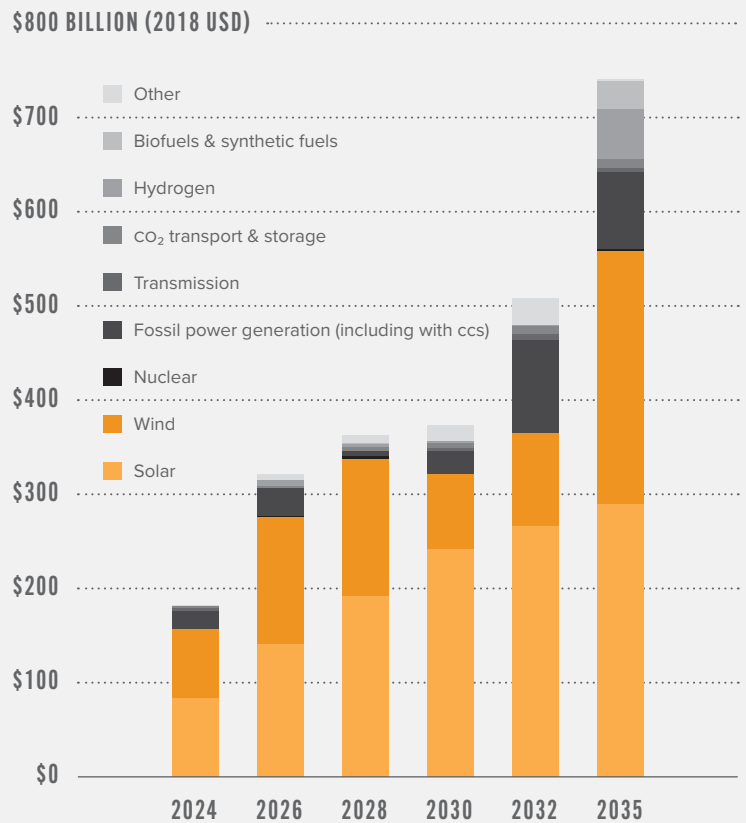
The IRA is designed to provide incentives and investments across the entire energy supply chain—for existing technologies (e.g., new wind, solar, and storage and existing nuclear) and more nascent technologies, such as hydrogen and carbon capture and storage (CCS).

To ensure long-term energy security and economic growth, the IRA links numerous provisions, incentives, and bonus credits to domestic content and prevailing wage and apprenticeship requirements. In addition, the law emphasizes building domestic supply chains for solar, wind, battery storage, and electric vehicles.

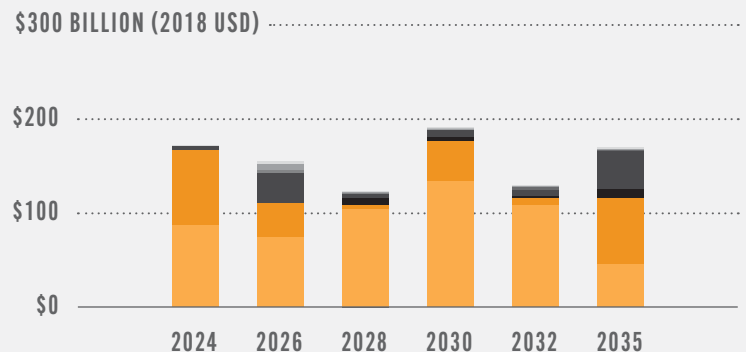
The massive scope and scale of the IRA has the potential to fundamentally change the U.S. energy industry. At a basic level, technological and economic shifts can boost emerging decarbonization options such as decarbonized gas infrastructure—hydrogen, renewable natural gas, carbon capture and sequestration, and related pipeline build opportunities.

ESTIMATED ANNUAL CAPITAL INVESTMENT IN ENERGY SUPPLY-RELATED INFRASTRUCTURE

CAPACITY INVESTMENT WITH THE IRA



CAPACITY INVESTMENT WITHOUT THE IRA



Source: repeatproject.org/docs/REPEAT_IRA_Preliminary_Report_2022-08-04.pdf

Growth in Wind & Solar Set to Continue

The IRA's clean energy investments, if achieved, aim to at least double the rate of renewable installations by 2030. In the U.S., renewables provided almost 70% of all new capacity in 2022, and solar power is expected to account for more than half the expected new generating capacity.⁵ Notably, most developers are now expected to pair solar facilities with one- to four-hour lithium-ion battery storage systems. If the current wind and utility-scale solar pipeline projects come online by the end of 2026, renewable generation is projected to double 2021's total. In addition, the IRA is designed to provide the industry with some additional certainty by extending tax credits for wind and solar over the next 10 years and allows developers to gain investment tax credits for standalone energy and wind-plus storage projects for the first time.⁶

⁵ renewablesnow.com/news/solar-and-wind-each-added-more-capacity-in-us-than-natural-gas-in-9-mo-2022-803930/

⁶ whitehouse.gov/wp-content/uploads/2022/12/Inflation-Reduction-Act-Guidebook.pdf

QUANTA'S IMPACT

▶ **4.5 GW**

utility-scale wind and solar capacity installed by Quanta in 2022

▶ **8.3 MT**

(million tons) approximate CO₂e avoided by Quanta's 2022 wind and solar installations*

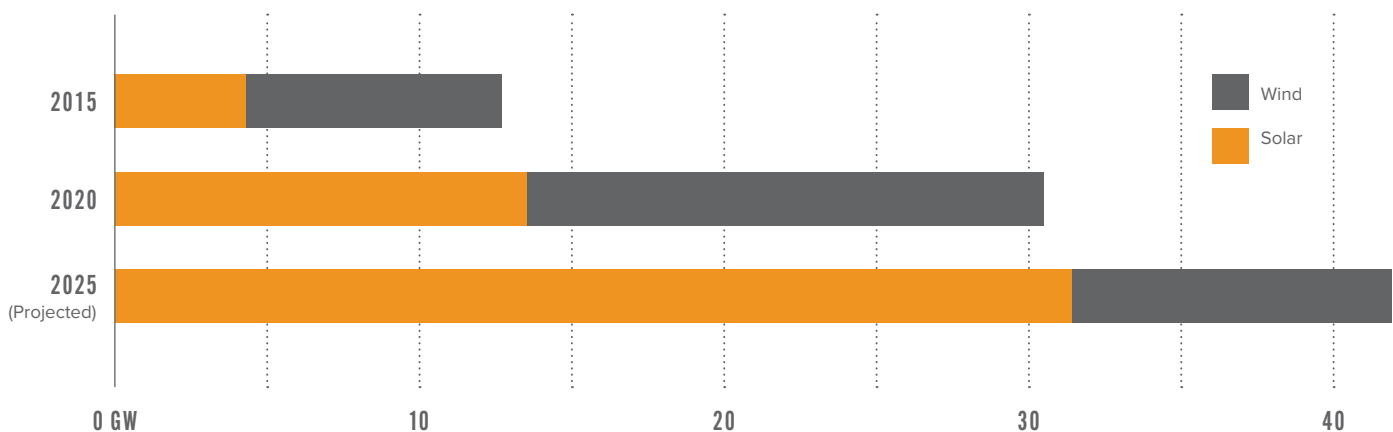
▶ **60 GW**

cumulative total approximate utility-scale renewable capacity installed by Blattner, over a quarter of the total 227 GW in the U.S.

*See "Sustainability Data Metrics" on page 126 for calculation methodology, assumptions, and estimates.



ANNUAL U.S. UTILITY ONSHORE WIND & SOLAR CAPACITY ADDITIONS



Source: about.bnef.com



BUILDING THE LARGEST RENEWABLE ENERGY INFRASTRUCTURE PROJECT IN U.S. HISTORY

In 2023, Quanta operating companies were awarded the construction of SunZia Southwest Transmission Project, a 550-mile, ±525 kV high-voltage direct current (HVDC) transmission line located across federal, state, and private lands between central New Mexico and south-central Arizona, with the capacity to transport 3,000 MW of renewable energy.⁸ The SunZia Transmission line will be the conduit for the largest wind project in U.S. history, a 3,500+ MW SunZia Wind facility in New Mexico. Combined, the SunZia wind and transmission projects represent the largest clean energy infrastructure project in U.S. history, enough to power the needs of more than 3 million Americans. In addition, the project stands to deliver widespread economic benefits across New Mexico and Arizona, with an estimated investment of over \$8 billion, with significant amounts going to governments, communities, schools, and landowners across New Mexico and Arizona.

Transmission & Distribution: Renewable Energy Drives Growth

Interconnecting renewables, replacing aging infrastructure, resilience investments, and load growth in growing regions are driving investments in transmission and distribution (T&D). Transmission and distribution investment in North America has been growing steadily for at least a decade and is poised for another round of measurable growth driven by renewable energy capacity needs.⁷ Key drivers include replacements and upgrades of aging T&D facilities for safety, reliability, and resilience and to incorporate new and improved technologies.

⁷ nrel.gov/docs/fy23osti/84327.pdf

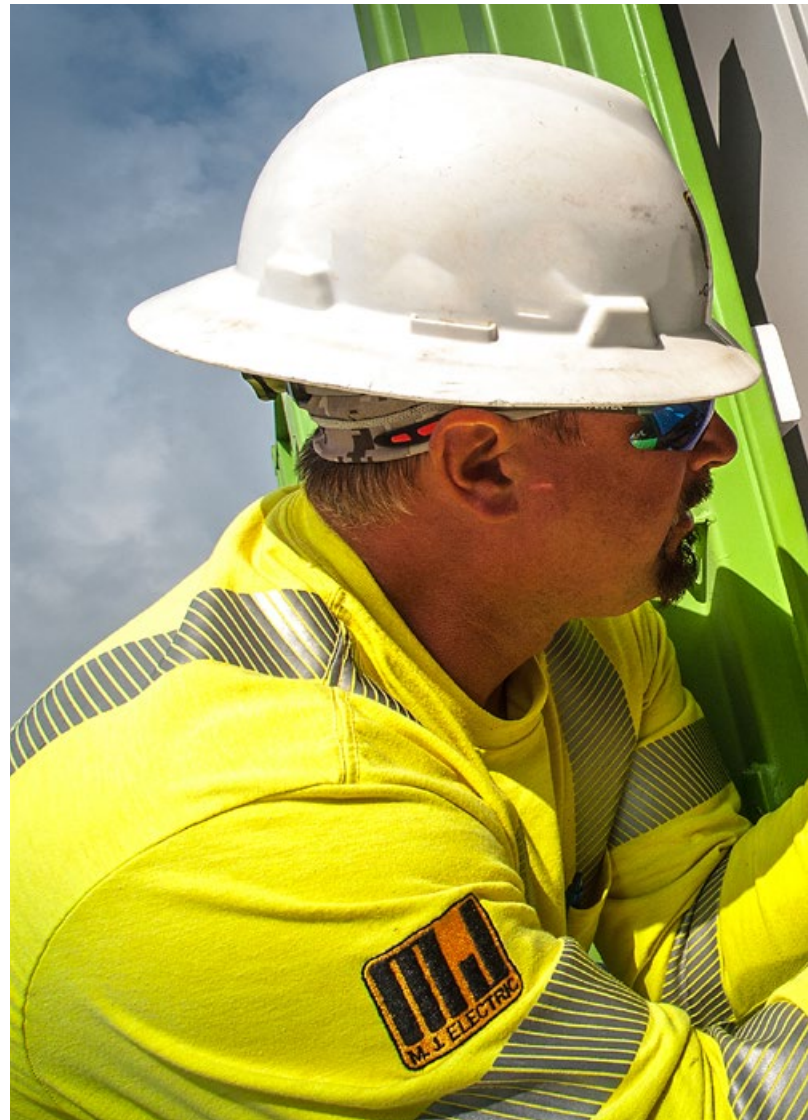


⁸ investors.quantaservices.com/news-events/press-releases/detail/338

Battery Storage: Growth Takes Off

A large amount of existing and planned solar and wind capacity in California and Texas represents a growing need for battery storage as a means of firming renewables and paving the way for a cleaner grid. Battery storage projects should be significantly boosted by the IRA, with standalone projects now eligible for tax incentives.⁹ The American Clean Power Association expects annual battery storage capacity additions to top 10 GW by 2023 and to continue at that level through 2026.¹⁰ Developers are building even larger battery storage projects as more capacity becomes available in the U.S. For example, more than 23 large-scale battery projects, ranging from 250 MW to 650 MW, are scheduled to be deployed by 2025.¹¹

Demand for domestically manufactured batteries is expected to increase further due to the domestic content required to fully maximize the energy storage investment tax credit available under the IRA. In 2022, Quanta invested and partnered alongside energy innovator KORE Power, a leading U.S.-based developer of lithium-ion battery cells and manufacturer of integrated solutions for the e-mobility and energy storage sectors. This strategic alliance with KORE Power aims to enhance Quanta’s ability to deliver comprehensive energy solutions in partnership with our customers.¹²



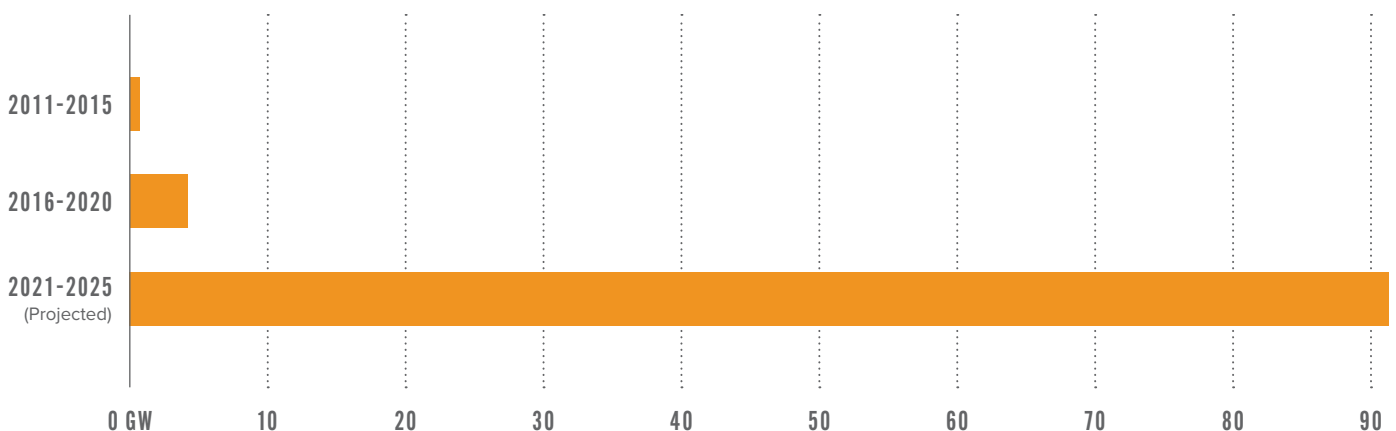
⁹ [whitehouse.gov/wp-content/uploads/2022/12/Inflation-Reduction-Act-Guidebook.pdf](https://www.whitehouse.gov/wp-content/uploads/2022/12/Inflation-Reduction-Act-Guidebook.pdf)

¹⁰ [cleanpower.org/resources/u-s-energy-storage-monitor/](https://www.cleanpower.org/resources/u-s-energy-storage-monitor/)

¹¹ [eia.gov/todayinenergy/detail.php?id=54939](https://www.eia.gov/todayinenergy/detail.php?id=54939)

¹² [bloomberg.com/press-releases/2022-11-30/kore-power-announces-75m-first-close-of-150m-investment-round-with-siemens-as-lead-investor-and-joined-by-quanta-services](https://www.bloomberg.com/press-releases/2022-11-30/kore-power-announces-75m-first-close-of-150m-investment-round-with-siemens-as-lead-investor-and-joined-by-quanta-services)

U.S. BATTERY STORAGE MAXIMUM POWER CAPACITY BY YEAR



Source: [eia.gov/todayinenergy/detail.php?id=54939](https://www.eia.gov/todayinenergy/detail.php?id=54939)



BUILDING THE SOUTHERN HEMISPHERE'S LARGEST BATTERY PROJECT

A Quanta operating company in Australia is part of a winning consortium to develop and construct the Waratah Super Battery. Located north of Sydney, Australia, and built at the site of an old coal-fired power station, the 1.5 million square foot battery energy storage system (BESS) is expected to be the largest committed battery project in the southern hemisphere and the most powerful battery in the world. The company was selected as the engineering, procurement, and construction (EPC) company responsible for all site works, BESS installation, and electrical works, including high voltage connection. The Waratah Super Battery project can provide a continuous active power capacity of at least 700 MW and a usable energy storage capacity of at least 1,400 MWh.



QUANTA'S IMPACT

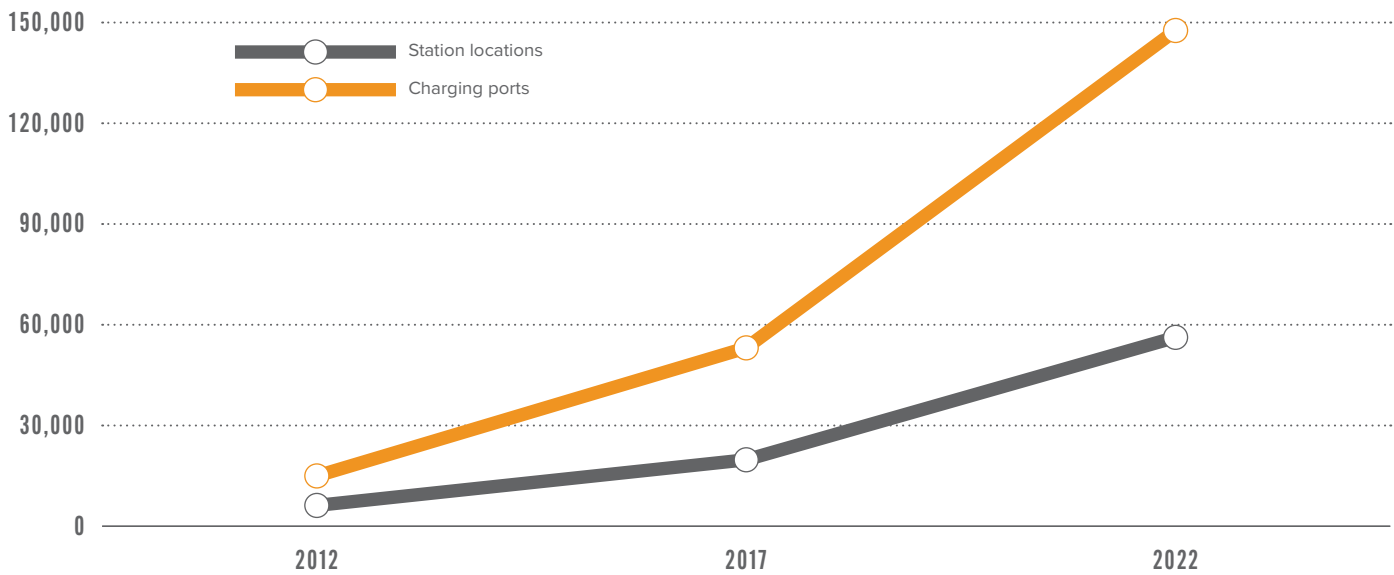
→ **1,354 MWh_{AC}**

utility-scale energy storage capacity installed in 2022

→ **700 MW**

continuous active power capacity created by the Waratah Super Battery

TOTAL PUBLIC & PRIVATE ELECTRIC CHARGING STATIONS & PORTS IN THE U.S.



Source: afdc.energy.gov/fuels/electricity_locations.html

EV Charging: Capacity Set to Quadruple

If federal zero-emission vehicle sales targets are met, the U.S. could have more than 48 million electric vehicles (EV) on the road by 2030.¹³ The U.S. has now crossed 6% in total EV market share, working toward its goal of a 50% share by 2030. Although the number of charging stations across the country more than doubled between 2015 and 2020, the number needs to quadruple again to meet the goal of 500,000 chargers by 2030.

Currently, there are 47,300 Level 2 and 7,600 DC fast charging stations in the U.S. and Canada.¹⁴ The IRA provides \$7.5 billion for a national network of EV charging, including construction, upgrades, and five years of operating and maintenance costs, with the goal of installing 500,000 chargers by 2030.¹⁵ Electricity demand will grow with increased EV ownership and charging stations, highlighting the need for reliable supply. McKinsey estimates that if EV ownership meets the federal 2030 uptake goal, annual demand for electricity to charge them will surge from 11 billion kilowatt-hours (kWh) currently to 230 billion kWh in 2030.¹³

¹³ mckinsey.com/industries/public-and-social-sector/our-insights/building-the-electric-vehicle-charging-infrastructure-america-needs

¹⁴ afdc.energy.gov/fuels/electricity_locations.html

¹⁵ whitehouse.gov/briefing-room/statements-releases/2022/06/09/fact-sheet-biden-harris-administration-proposes-new-standards-for-national-electric-vehicle-charging-network/

NAVISTAR PARTNERS WITH QUANTA FOR EV CHARGING INFRASTRUCTURE

Recently Navistar announced a newly formed partnership with Quanta for the engineering, construction, and support of power assessment for charging infrastructure evaluation, providing ease of use for EV customers. In partnership with Quanta, Navistar will provide International Truck and IC Bus customers with a comprehensive vehicle and charging infrastructure solution that is designed to enable fleets to implement battery-electric vehicles quickly and efficiently.

“Our electric vehicles are only as strong as the grid that powers them,” said Mathias Carlbam, President and CEO, Navistar. “The differentiator of this partnership is Quanta’s ability to complete site construction and utility work. This allows our team to offer the customer a one-stop-shop approach to all aspects of an EV transition.”

IN FOCUS



QUANTA'S IMPACT

→ **30 MW**

EV charging capacity installed in 2022

QUANTA'S CAPABILITIES: **BUILDING EV CHARGING INFRASTRUCTURE**

With rapid EV adoption on the horizon in North America, a significant scale-up in supporting infrastructure is needed to create a national EV charging network that is convenient and reliable for drivers across all vehicle types. Quanta provides site assessment, engineering, and project management services to business and commercial fleet owners, automakers, and EV charging companies.

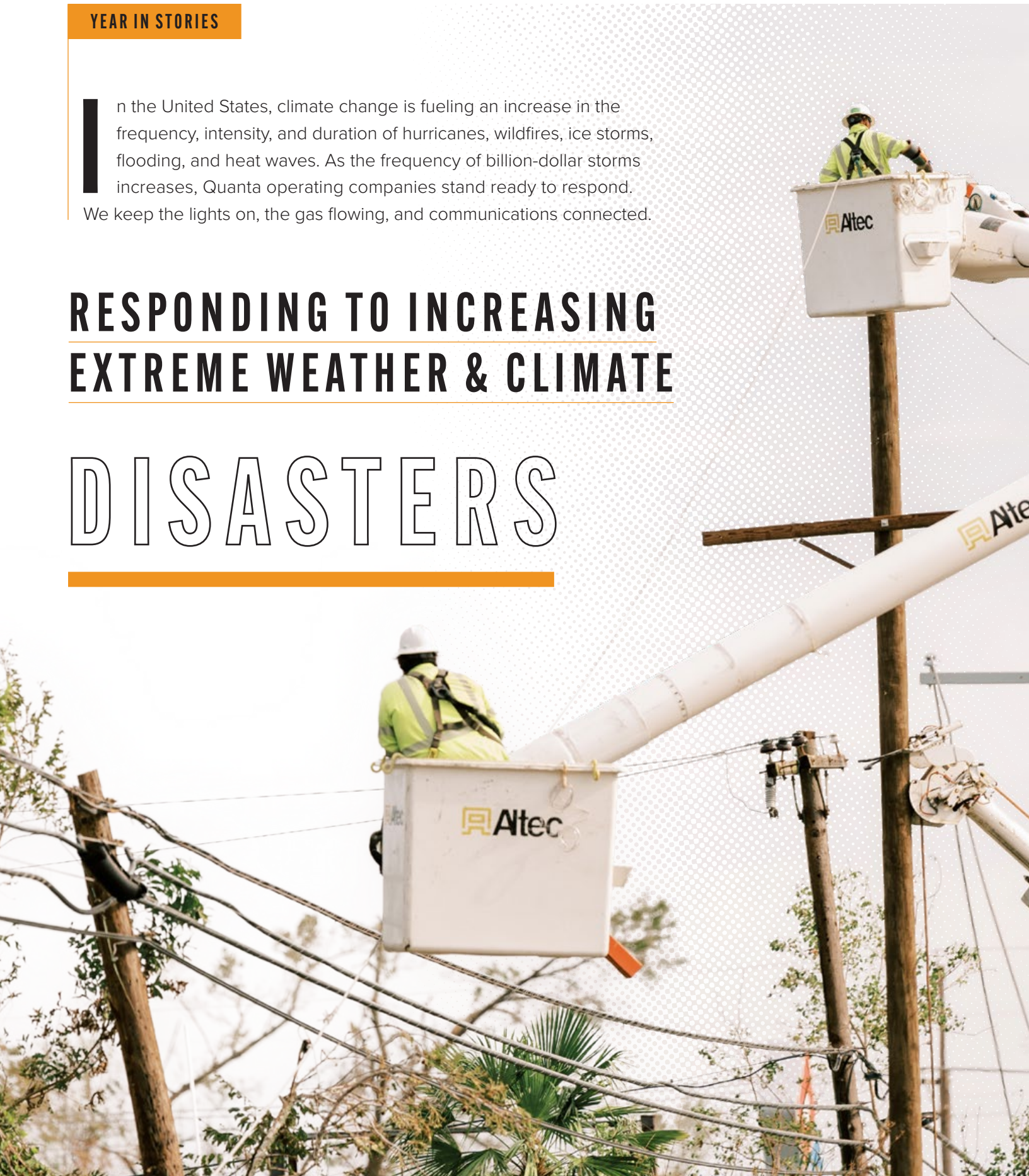
As technologies in vehicle electrification continue to mature, Quanta operating companies can integrate engineering, procurement, project management, utility coordination, and construction to offer complete turnkey EV infrastructure capabilities for chargepoint operators and fleet owners. Work includes sizing of charger requirements as well as an assessment of electric infrastructure. Quanta's EV infrastructure experience consists of both Level 2 chargers and Level 3 DC fast chargers and all of the associated electrical infrastructure, including transformers, switchboards, and panels.

YEAR IN STORIES

In the United States, climate change is fueling an increase in the frequency, intensity, and duration of hurricanes, wildfires, ice storms, flooding, and heat waves. As the frequency of billion-dollar storms increases, Quanta operating companies stand ready to respond. We keep the lights on, the gas flowing, and communications connected.

RESPONDING TO INCREASING EXTREME WEATHER & CLIMATE

DISASTERS





2022 YEAR IN REVIEW

▶ **9,757**

total lineworkers deployed for storms
Nicole, Ian, Elliot, and Fiona

▶ **809,249**

man-hours spent restoring power services
in response to major storms in 2022

HURRICANE IAN

▶ **3,585**

total lineworkers deployed at the
peak of Hurricane Ian

▶ **2.3 M**

end users whose power was restored

▶ **21**

consecutive days of work

▶ **472 K**

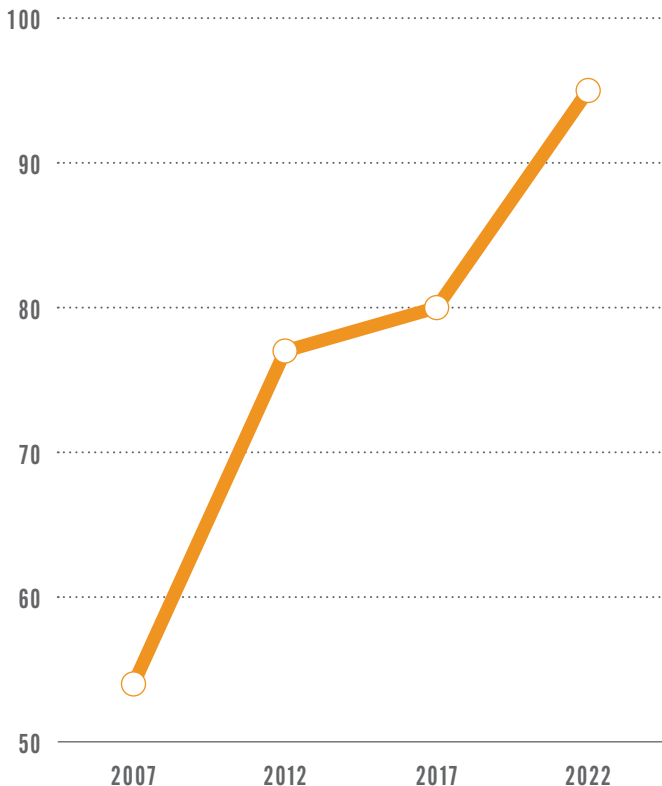
man-hours across 17 operating companies
spent restoring power services

The costs of extreme weather are growing.¹ The U.S. experienced an estimated 18 billion-dollar weather and climate disasters in 2022, well above the average of seven events per year.² In recent years, disasters that have caused at least a billion dollars in damages have increased to become monthly occurrences. This dramatic change is notable because, until this past decade, the U.S. typically only experienced a handful of billion-dollar weather and climate disasters per year (see graph, right).³

These extreme weather events are increasing the number of weather-related power outages across the U.S. For example, from 2000 to 2021, there were 1,542 weather-related major power outages, of which 58% were caused by severe weather such as high winds, rain, and thunderstorms, while 22% were caused by winter weather, including snow, ice, and freezing rain.⁴

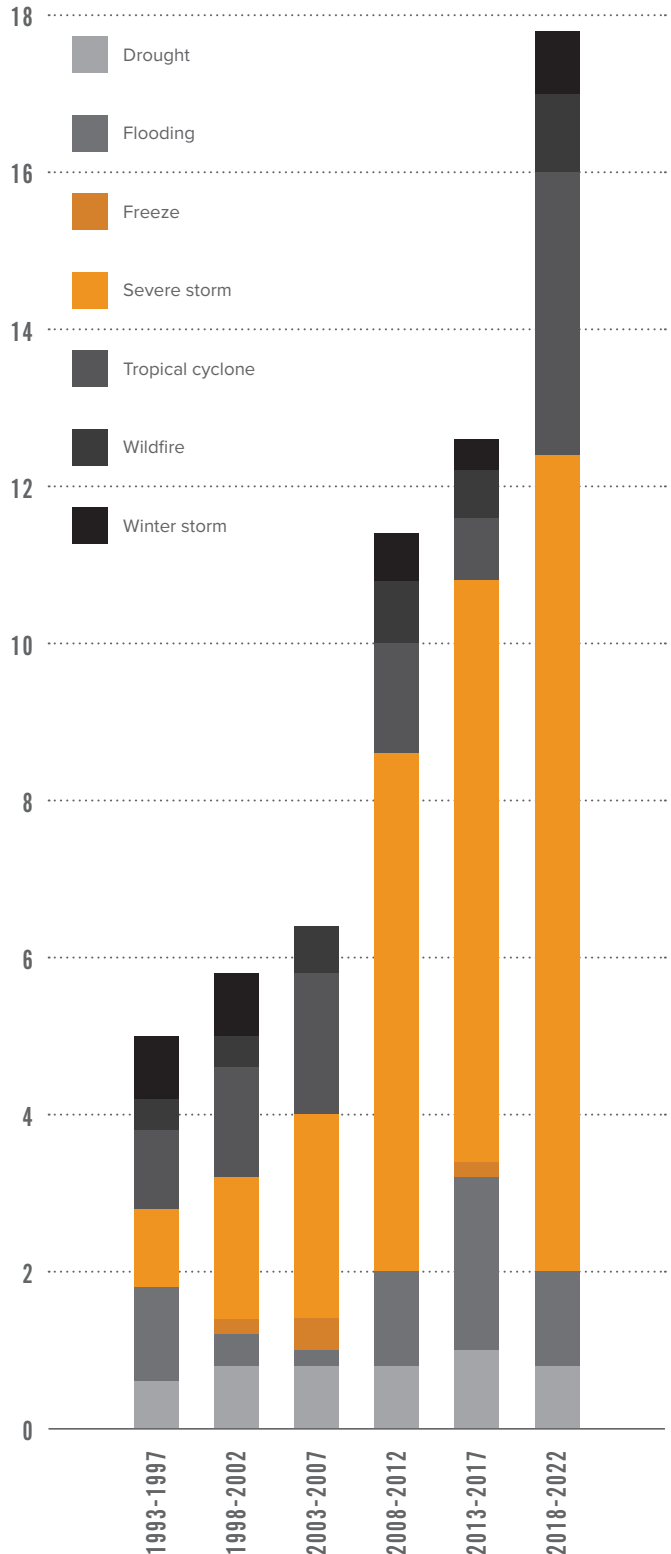
¹ [whitehouse.gov/cea/written-materials/2022/09/01/the-rising-costs-of-extreme-weather-events/](https://www.whitehouse.gov/cea/written-materials/2022/09/01/the-rising-costs-of-extreme-weather-events/)
² [ncei.noaa.gov/access/billions/](https://www.ncei.noaa.gov/access/billions/)
³ [noaa.gov/news/ian-is-15th-billion-dollar-disaster-year-so-far](https://www.noaa.gov/news/ian-is-15th-billion-dollar-disaster-year-so-far)
⁴ [climatecentral.org/climate-matters/billion-dollar-disasters-in-2022](https://www.climatecentral.org/climate-matters/billion-dollar-disasters-in-2022)

NUMBER OF MAJOR WEATHER-RELATED U.S. POWER OUTAGES



Source: oe.netl.doe.gov/OE417_annual_summary.aspx

NUMBER OF U.S. BILLION-DOLLAR DISASTERS PER YEAR (CPI-ADJUSTED)



Source: [ncei.noaa.gov/access/billions/summary-stats](https://www.ncei.noaa.gov/access/billions/summary-stats)



TEMPORARY CAMP DELIVERS REPAIRS AHEAD OF SCHEDULE

Within two days of an urgent request to repair a storm-damaged transmission line caused by Hurricane Ian, Quanta had constructed a temporary 160-person camp adjacent to the project right-of-way. A Quanta mobile command center was set up and relocated to the base camp. The project was completed, and the line was returned to service six days ahead of schedule.

Hurricane Ian

In September 2022, Hurricane Ian made a series of landfalls across Cuba and the U.S. and will be regarded as one of the costliest tropical cyclones ever recorded. The Category 4 storm, which struck the southwest coast of Florida near peak intensity with 150 mph winds, left widespread and catastrophic damage near the landfall point in the greater Fort Myers/Naples/Port Charlotte region. Ian would later weaken and re-emerge in the Atlantic Ocean before making a final landfall in South Carolina as a Category 1 hurricane with 85 mph winds.⁵

The most substantial damage was due to the magnitude of the storm surge near the landfall locations on the east side of the center of Ian's circulation, with Florida power outages peaking at 2.3 million. However, that number was reduced to below 1 million a week later. In addition, torrential rain from Ian led to notable inland flood damage across nearly two dozen Florida counties. The total financial cost from Ian is anticipated to result

in total economic losses (including direct physical injury, direct non-physical financial loss, and net-loss business interruption) approaching or exceeding \$100 billion. This would make Ian one of the costliest natural hazard events in U.S. history, regardless of peril.

At the peak of the response to Hurricane Ian, Quanta had 3,585 resources and related equipment deployed from 18 Quanta operating companies. Crews worked 16-hour rotating shifts around the clock. Away from their families, brave lineworkers even slept in their trucks the first few nights following the storm, as hotels didn't have working power.

⁵ [nesdis.noaa.gov/news/hurricane-ians-path-of-destruction](https://www.nesdis.noaa.gov/news/hurricane-ians-path-of-destruction)

HURRICANE FIONA

Damage Assessments

▶ **\$4 B+**

in damages sustained

▶ **54%**

of distribution feeders damaged

▶ **30%**

of transmission lines damaged

▶ **7**

substations submerged

Restoration Efforts

▶ **90%+**

customers restored in 12 days

▶ **2.5 K+**

utility workers deployed

▶ **239**

total flight hours with over
12,000 miles flown

Hurricane Fiona

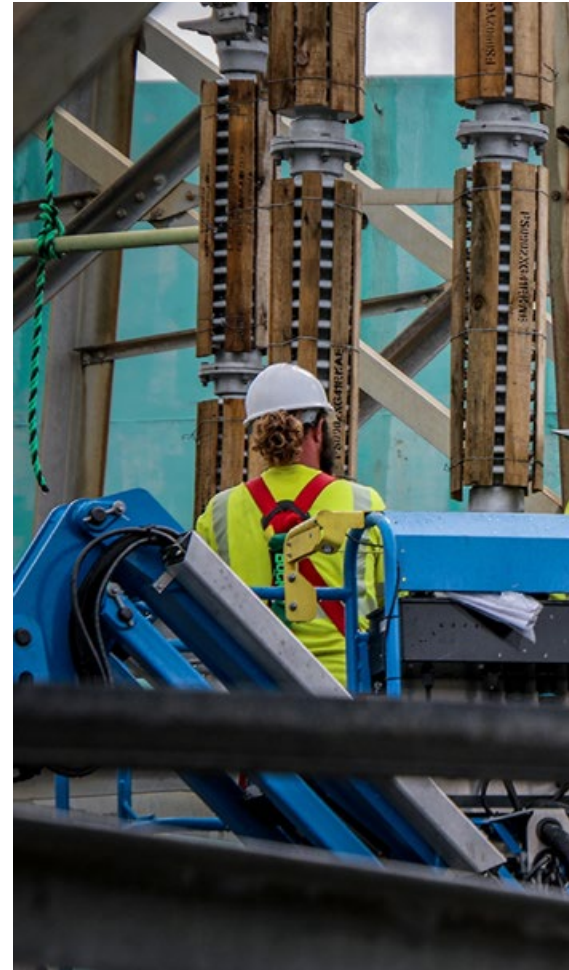
Hurricane Fiona made landfall in Puerto Rico on September 18, 2022, and inundated the island with vast amounts of rainfall, according to data from the National Hurricane Center.⁶ Southern Puerto Rico was hit with 12 to 20 inches of rain, while some areas received a maximum of nearly three feet of rain during the storm. Landslides destroyed many bridges and roads, making many residents' homes unlivable. Damage assessments indicated that 54% of distribution feeders and 30% of transmission lines sustained damage, while seven substations were submerged.

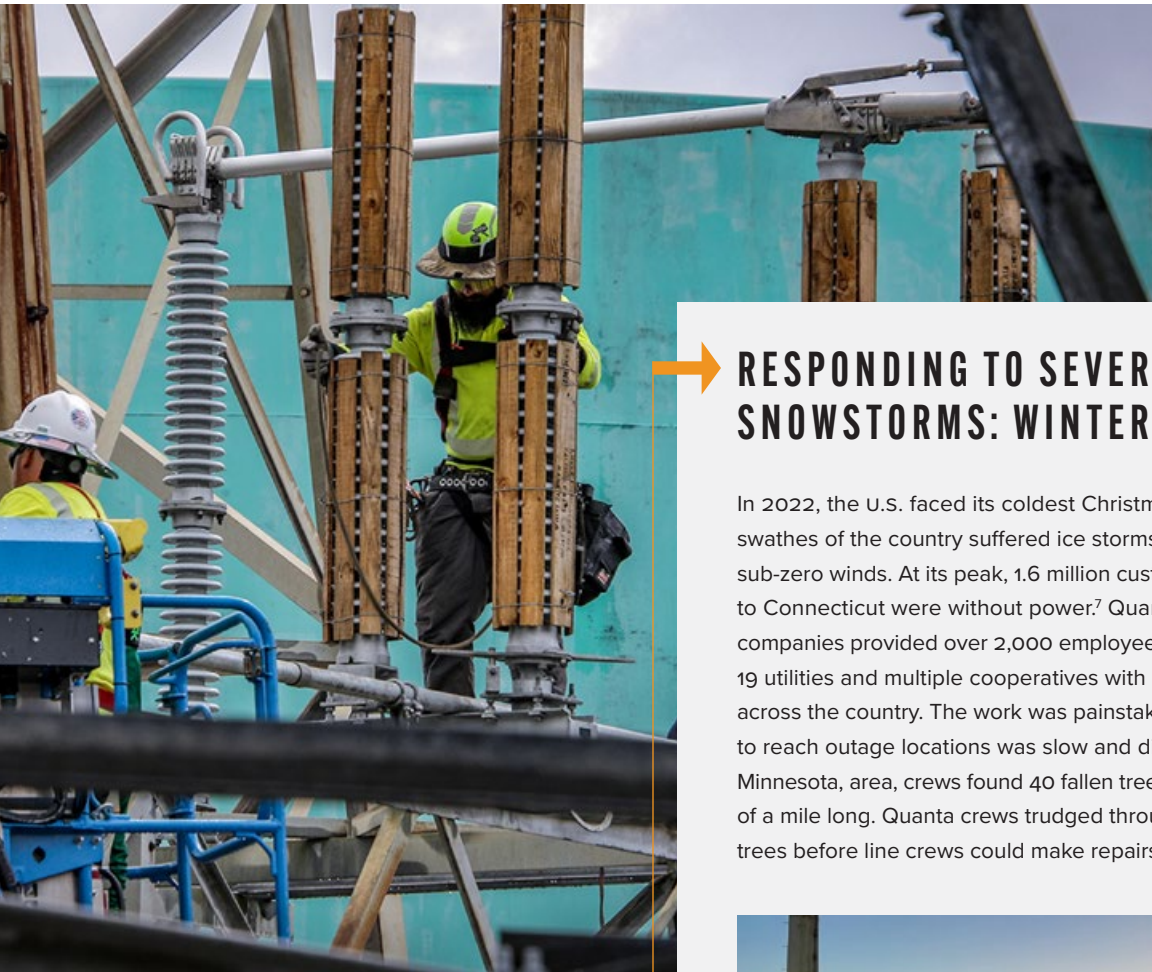
LUMA's Response

LUMA Energy, LLC (LUMA), a joint venture in which Quanta owns a 50% interest, is responsible for the operation and maintenance of Puerto Rico's electric transmission and distribution system. LUMA's response and restoration efforts following Hurricane Fiona represented a historic undertaking in Puerto Rico. LUMA followed a rigorous emergency response plan (ERP) that prioritized restoration in an organized manner to restore power to critical customers such as Lifeline residential services customers, hospitals, and water facilities. LUMA prepositioned crews, vehicles, and equipment before Hurricane Fiona's landfall. As restoration efforts progressed following Hurricane Fiona and the hardest-hit areas became accessible, LUMA deployed crews and contractors to prioritize restoration in the southern and western regions.

LUMA made historic progress restoring customers affected by Hurricane Fiona. Over 90% of customers had their power restored in less than two weeks, representing a significant improvement compared to storms before LUMA's operation and maintenance of the grid.

⁶ nhc.noaa.gov/archive/2022/al07/al072022_public_a.024.shtml



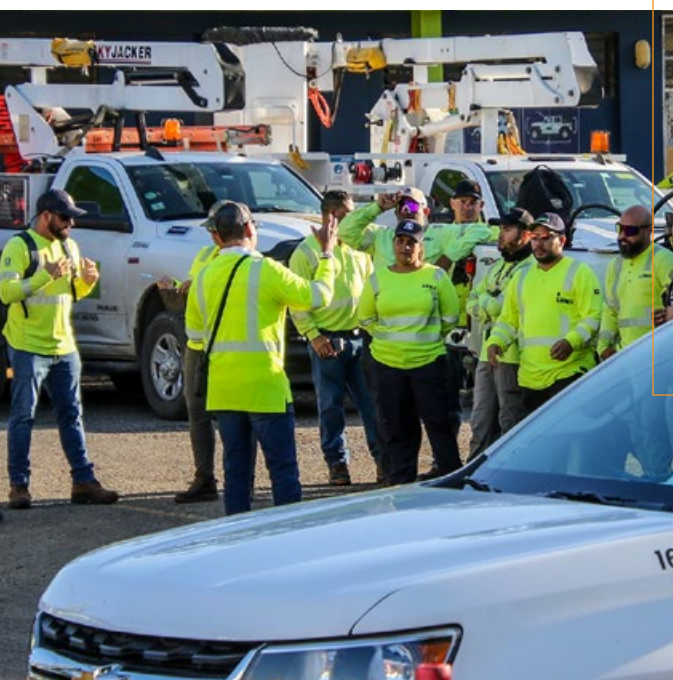


RESPONDING TO SEVERE SNOWSTORMS: WINTER STORM ELLIOT

In 2022, the U.S. faced its coldest Christmas in living memory as swathes of the country suffered ice storms, whiteouts, and ferocious sub-zero winds. At its peak, 1.6 million customers in states from Texas to Connecticut were without power.⁷ Quanta's family of operating companies provided over 2,000 employees to safely serve and support 19 utilities and multiple cooperatives with over 1,000,000 outages across the country. The work was painstaking; clearing downed trees to reach outage locations was slow and difficult. In the Kettle River, Minnesota, area, crews found 40 fallen trees on a line only three-quarters of a mile long. Quanta crews trudged through the snow to remove the trees before line crews could make repairs to restring the lines.



⁷ newsbreak.com/news/2868705022814-us-grid-operator-asks-households-to-reduce-power-amid-rolling-blackouts-in-brutal-winter-storm-elliott



IN FOCUS

THE STATE OF THE GRID: WORKING WITH CUSTOMERS TO IMPROVE GRID RESILIENCY

Hurricane Ian has provided yet another example of the growing need for significant improvements in grid resiliency in the U.S.

The Department of Energy estimates that grid power outages cost U.S. businesses approximately \$150 billion in direct losses annually.⁸ A recent University of California, Berkeley lab study assessed the social and economic costs of more extended and frequent power outages.⁹ These costs arise from impacts such as school closings, food spoilage, supply chain disruptions, and deleterious health outcomes and underscore the need for improvements:

- The U.S. has more power outages than any other industrialized nation.
- The average annual number of weather-related power outages increased by roughly 78% between 2011 and 2021, compared to 2000 to 2010.
- Both frequency and duration of grid outages have been at their highest since 2013.
- Forty states are experiencing more extended grid outages than ever. California, Louisiana, Maine, and Florida are at the forefront, with greater than a 50% increase in power outage duration.
- The average age of critical power grid components is 40 years old, with more than a quarter of the grid 50 years old or older.⁹

⁸ energy.gov/sites/prod/files/oeprod/DocumentsandMedia/DOE_SG_Book_Single_Pages%281%29.pdf

⁹ emp.lbl.gov/publications/improving-estimated-cost-sustained



In Florida, Quanta operating companies have worked with a customer to enhance grid resiliency by replacing more than 3,700 aging H-frame 500 kV structures. A notable feature of the project was that foundations were installed under existing energized 500 kV transmission lines, allowing for increased outage flexibility and a reduced overall impact on the customer base. Key to the success of the multi-phase project was the implementation of an electronic quality management plan (QMP) that required sophisticated project tracking, data collection, and reporting.



UNDERSTANDING TERMINOLOGY

Reliability is a measure of the ability of a power system to supply power to customers in a continuous manner.

Resiliency is the ability of a power system to withstand severe weather conditions resulting in less damage and a more rapid return to normal.

Hardening the system refers to taking deliberate measures to minimize the impacts of severe weather events, such as installing stronger structures, fire-resistant poles, and shorter spans; and undergrounding existing overhead lines.

MAIN TYPES OF GRID RESILIENCY PROGRAMS

Storm Hardening

Hardening networks to withstand the increasing frequency and severity of storms, including wind and flooding

- Undergrounding feeders and primaries
- Right-of-way widening
- Pole replacements with higher-class wood poles or with concrete, steel, or composite poles

Fire Mitigation

Preventing utility-owned, equipment-caused fires

- Pole replacements with composites or steel
- Covered conductors and tree wire
- Fire wrapping
- Fuse replacements
- Undergrounding

Grid Modernization

Replacing aging equipment with hardening, a secondary objective

- Advanced Metering (AMI)
- Pole and conductor replacement programs
- Underground conductor replacements
- Grid automation
- Increased vegetation management cycles
- Increasing feeder and primary voltage ratings

COMMITMENT

**OUR COMMITMENT
TO PEOPLE**

TOP PEOPLE



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- 58 LUMA: Improving Lives Through Action
- 66 Driving Organizational Impact: Diversity & Inclusion
- 74 Serving & Strengthening Our Communities & Employees

2022 HIGHLIGHTS

▶ **16%**

decrease in “Stuff That Kills You” (STKY)
actual rate YOY

▶ **\$1.12 B**

total diverse vendor spend

▶ **17%**

increase in the number of students trained
(campus and mobile training programs) at NLC YOY

OUR OPPORTUNITIES

Accelerating the representation of women and people from traditionally underrepresented groups

Fully embedding greater equity throughout our business practices and talent management processes conducive to producing positive workplace and business outcomes

Continuing to work to ensure that everyone in our communities has an equitable chance to succeed

PROTECTING OUR EMPLOYEES:

A CULTURE OF SAFETY

Our goal is to complete every project without incident or injury.

Quanta's management team creates a culture in which all employees have the opportunity and responsibility to take ownership of their safety and the safety of their coworkers. At the end of the day, there's nothing more important than our employees coming home safely.





OUR COMMITMENT TO SAFETY

At Quanta, safety is a core value and an inseparable part of our organizational culture. We recognize that people are our most important asset, and their safety is our greatest responsibility.

Safety is integral to everything that we do at Quanta—every day, in every operation, and across every work site. Quanta is committed to the health and safety of our employees, customers, contractors, and the communities in which we work. Underpinned by The Capacity Model™, our commitment is to foster and support a safety culture that identifies and proactively addresses risks before they become injuries or accidents. We continually enhance our safety program, demanding that everyone, from executive management to the most recently hired trainee, understand the importance of maximizing workplace safety and health.



WE WANT TO REDEFINE THE WAY WE THINK ABOUT SAFETY AT QUANTA.

The Capacity Model™ is a new way to plan, execute, and learn from our work. In 2022, we introduced new programs to embed further a culture that looks at safety in fieldwork differently.

MATT COMPHER

Vice President of Health, Safety & Environmental





The Capacity Model™: We Are Changing the Way We Do Safety

During high-risk work, one wrong move can create a severe incident. At Quanta, we want to plan and execute work as if a failure will happen today. The way we respond to failure is essential. With The Capacity Model™, we are changing how we react to failure. Rather than focusing on blame and punishment, we are moving towards learning and improving. The Capacity Model™ provides a framework for us to discuss how an incident happened, rather than why it happened—asking why looks for someone to blame, but instead asking how focuses our attention on what factors caused the event.

THE CAPACITY MODEL™: WHAT'S NEW IN 2022

In 2022, we launched training initiatives to help socialize and embed The Capacity Model™ across our companies. These include:

- Released **“Stuff That Kills You” (STKY) Controls for Crews** and **“Introduction to Learning Teams”** courses
- **Updated The Capacity Model™ website**, which now features many publicly available courses and resources, including Quanta’s Safety Philosophy video (learning.thecapacitymodel.com)
- Developed **“The Capacity Model™ Executive Training”** course for new and existing executives



Learn more about The Capacity Model™ at quantaservices.com/safety/capacity-model/.

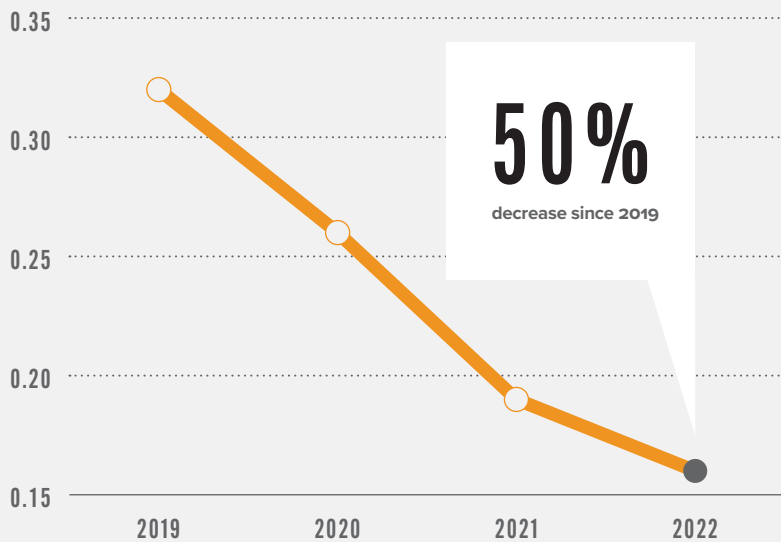
2022 HIGHLIGHTS & PROGRESS



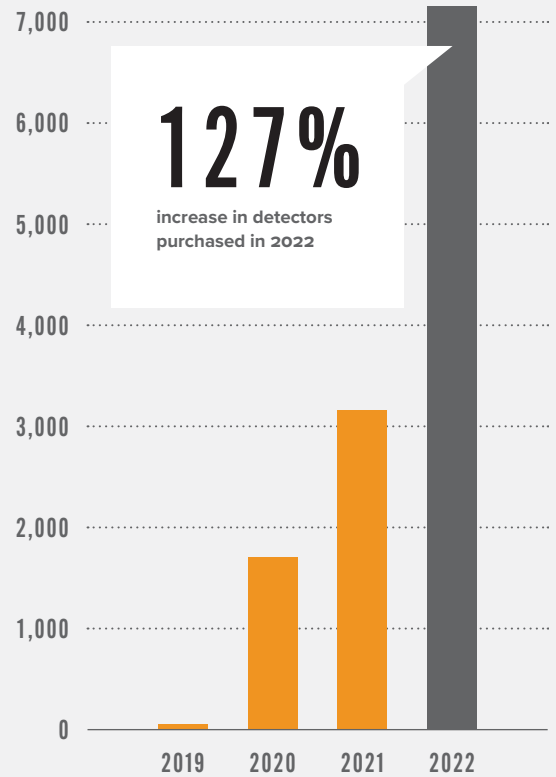
TOTAL LIVES SAVED DUE TO DEPLOYED AUTOMATED EXTERNAL DEFIBRILLATORS



“STUFF THAT KILLS YOU” (STKY) ACTUAL RATE



TOTAL PERSONAL VOLTAGE DETECTORS PURCHASED FOR STORM RESPONSE ACTIVITIES



The three reasons I never compromise safety are for

**MY FAMILY, MY COWORKERS,
AND FOR MYSELF.**

CHANDA LYTTON

Senior Project Manager

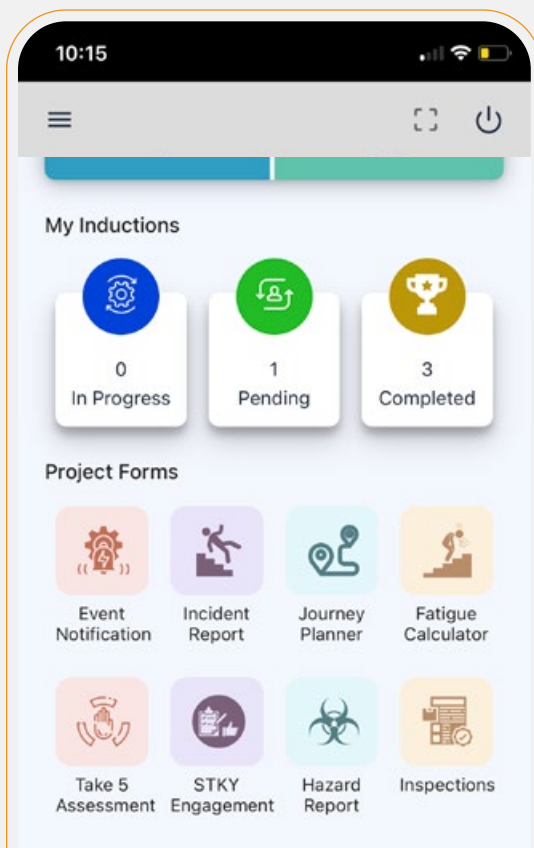


IN FOCUS



INNOVATING THROUGH SAFETY

Innovation and safety are part of our DNA and come together in the CEO Innovation & Entrepreneurial Awards. Instituted in 2013, Quanta has collectively awarded more than \$935,000 to the winners of this competition, and many of these ideas have been practically implemented in the field.



The dual purpose of this program is to continually encourage and recognize entrepreneurial drive and creativity and to benefit our customers and the overall industry with ongoing innovation. A notable Innovation Award finalist with a strong focus on safety is detailed below.

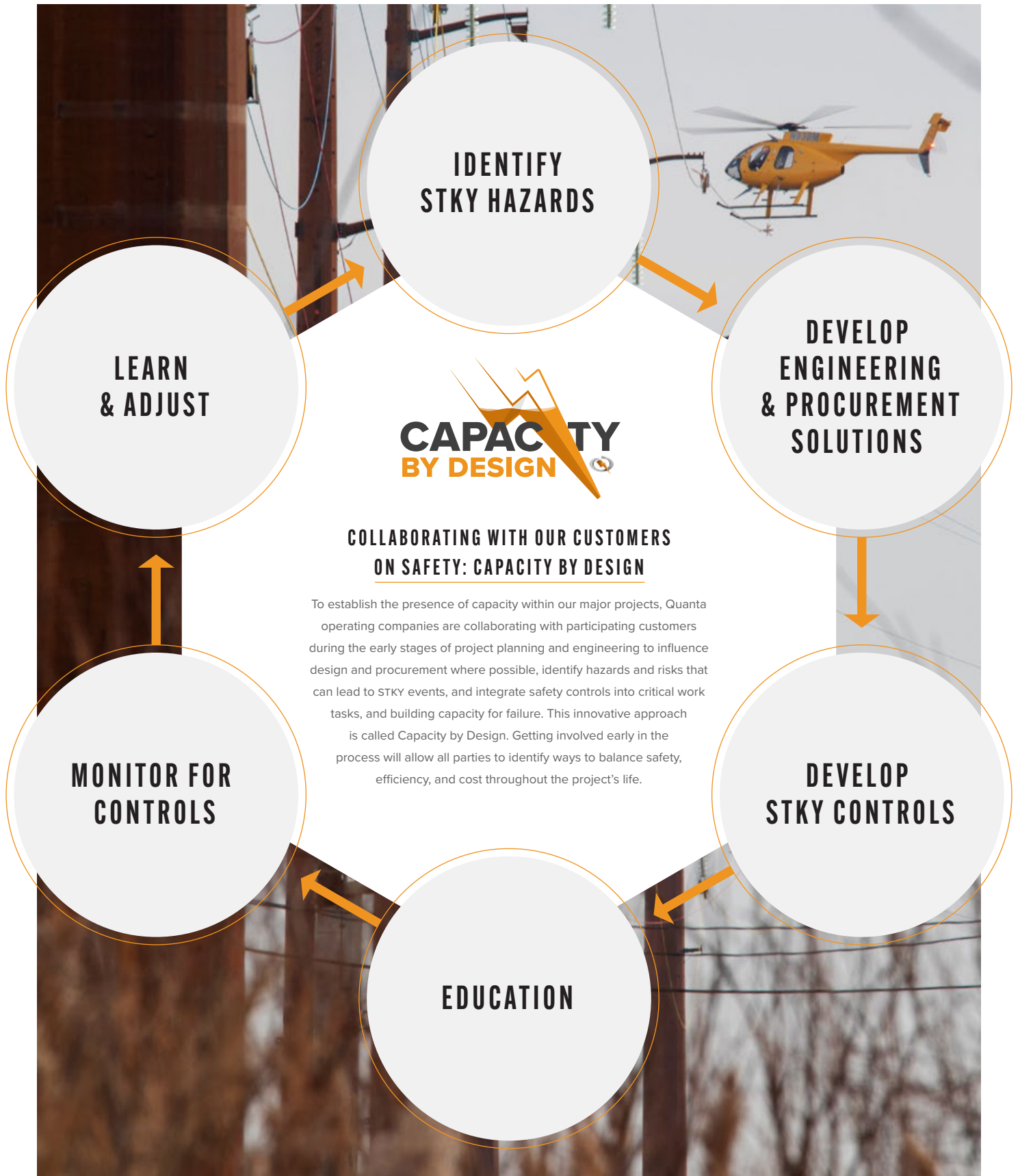
A Quanta operating company in Australia has implemented a digital safety solution app named QEST (Quality, Environment, Safety Training). QEST has been developed to reduce the administrative burden on operational teams associated with safety requirements. QEST was designed to be a field-led tool that makes the lives of project teams more efficient. The app allows site and project managers to redirect their time toward safer outcomes, better project quality, and meeting project schedules while allowing for planning and ensuring that capacity in all aspects of project management is built and sustained. Since implementation, safety advisors on project sites have reported significantly reduced time spent dealing with administrative duties. As a result, they have spent more time in the field having STKY discussions, building capacity with work crews, and focusing on safer outcomes.

QEST ENABLES A GREATER FOCUS ON FIELD SAFETY, STKY ENGAGEMENTS, BUILDING CAPACITY, AND OVERALL **SAFE PRODUCTION OF PROJECT DELIVERABLES.**

CARL HOGG

Head of Safety, Quanta Australia
Operating Company







AEDs in the Field

In 2022, Quanta's automated external defibrillator (AED) program saved its 39th life since inception. A Quanta crew member noticed that the foreman standing nearby started to collapse. The crew member was able to catch the foreman before he fell to the ground. He noticed that the foreman's lips were purple, and he was not breathing, so he immediately dialed 911 and began CPR. He instructed another crew member to get the AED out of the truck. The AED pads were applied to the foreman's chest, and the AED unit indicated that a shock was advised. The crew members called "clear" and activated the AED to shock the foreman. EMS arrived and took over for the crew as the first shock was delivered. EMS noted the foreman was now breathing and loaded the foreman into the ambulance, took him to the hospital, where he was stabilized, given a favorable prognosis, and later released to go home.

Quanta currently has more than 13,000 AEDs deployed around the organization.

BY THE NUMBERS

39

lives saved due to AEDs
since program inception

13 K+

AEDs deployed to job sites

SAFETY PROFESSIONAL TRAINING: PWR UP

PWR UP is a year-long Safety Professional Development Program, allowing new Quanta Safety, Health, and Environmental Quality (SHEQ) graduates to gain hands-on experience at different Quanta operating companies. Participants are assigned to three different companies throughout the year on a four-month rotation. They obtain training, view fieldwork, network with personnel, and participate in daily safety activities to enhance their professional skills. Participants are assigned mentors from the Quanta SHEQ team, ensuring successful growth and understanding of fundamental safety principles throughout development. After completing the program, participants can be hired full-time as safety professionals at a Quanta operating company.

IN FOCUS



USING TECHNOLOGY TO ENHANCE ROAD SAFETY

Quanta is implementing technology devices that interface with existing traffic control equipment.

Once deployed, the devices intelligently report work zone data directly to navigation systems and in-dash of connected cars in busy urban environments. The platform improves safety for drivers and workers and travel times and, eventually, will aid real-time decisions of drivers as they approach active work areas.


Benefits include:

- Real-time status for construction, emergencies, maintenance, and other roadway anomalies
- Creates a connected set of work zone traffic control and roadway infrastructure for drivers, contractors, and traffic managers
- Takes all work zone equipment and turns it into internet-connected equipment
- Creates a layer of safety for both workers and motorists

ELEVATING SAFETY & PRODUCTIVITY:

TRAINING & EDUCATION





Our positive impact on society extends to our world-class training, empowering thousands to have safe and rewarding careers in the electric power, renewables, telecommunications, and natural gas industries. Answering the call every day to power the economy, our graduates play a critical role in operating, maintaining, and constructing a safe and reliable energy delivery system.

AT QUANTA, OUR COMMITMENT TO **WORLD-CLASS SAFETY AND TRAINING IS UNWAVERING.**

This is achieved by leveraging the Quanta Craft Training Network, a collection of professional trainers and educators, curriculum developers, mobilized training services, and regionalized training facilities, all directed by strong educational leaders. Built with scalability in mind, Quanta Services' training grows with the organization and is informed by field operations and guidance from safety, diversity, and inclusion experts. These programs, and the professional educators who deliver them, are continually measured and improved for value and effectiveness.

With tens of thousands of people trained annually, Quanta's investment in its people and their development is unmatched. Between the Quanta Advanced Training Center at Lazy Q Ranch, Northwest Lineman College, Stronghold University, Quanta operating company training groups, the United States Department of Labor, and countless relationships with leading colleges and universities, Quanta Services will continue to attract, train, and retain the finest skilled craft workers in the industries we serve. Our employees, customers, and communities deserve nothing less.

AARON HOWELL

Vice President, Learning Strategies



Northwest Lineman College: Improving Safety & Reliability Throughout the Industry

Northwest Lineman College (NLC), founded in 1993 and acquired by Quanta in 2018, is an industry-leading educational institute for the power delivery industry, providing training and consultation services globally. Connected to more than a thousand employers across the U.S., NLC offers complete solutions from pre-apprentice to advanced training and has remained committed to doing what's best for the student for over 30 years.

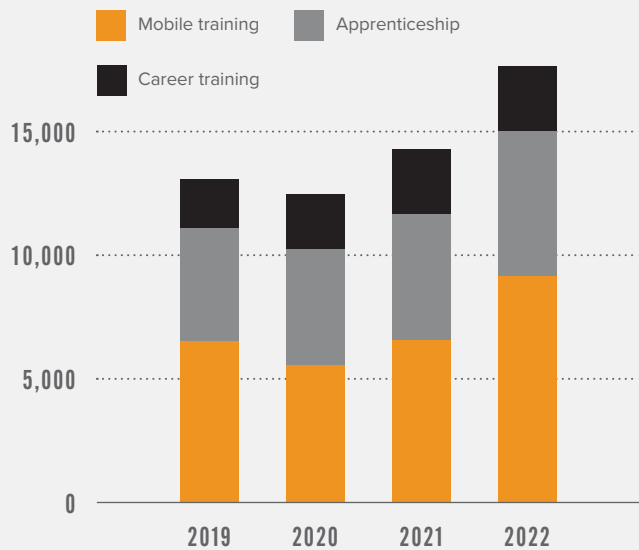


NLC'S INDUSTRY IMPACT

NLC continues to grow its reach, enabling thousands of people to have safe and rewarding careers in electric power, telecommunications, and natural gas.

STUDENTS TRAINED

In 2022, NLC increased its positive impact on society by training 17,642 students, a 17% increase over 2021 and a 35% increase since 2019.



NLC MISSION

To improve lives, the industries we serve, and the country, Northwest Lineman College will be a dynamic, visionary, and leading educational institution providing the benchmark standard of human performance, training, and products for the trades that exceed the expectations of customers.

NLC VALUES

PASSION

Love what you do and have fun.

INTEGRITY

Do the right thing—even when no one is watching.

EXCELLENCE

Innovate always and be professional.

BY THE NUMBERS

▶ **17 K+**

students trained in 2022

▶ **76%**

graduate employment rate

▶ **30**

years in business

LOCATIONS

MERIDIAN, IDAHO

- 5 classrooms
- 7,200-square-foot lab facility
- 25-acre outdoor training yard



OROVILLE, CALIFORNIA

- 6 classrooms
- 15,000-square-foot lab facility
- 12-acre outdoor training yard



DENTON, TEXAS

- 3 classrooms
- 12,000-square-foot lab facility
- 12-acre outdoor training yard



EDGEWATER, FLORIDA

- 3 classrooms
- 10,000-square-foot lab facility
- 16-acre outdoor training yard



Quanta Services' Apprenticeship Programs

Quanta Services provides comprehensive apprenticeship training for its operating companies through Northwest Lineman College's library of apprenticeship programs, which exceed the U.S. Department of Labor's Office of Apprenticeship standards. As a result of its acquisition of NLC, Quanta has been able to standardize its apprenticeship program for lineworkers. This includes the registration of a National Guideline Standard with the Federal Office of Apprenticeship. This gives non-union operating companies the basis for training their apprentices and provides the roadmap for newly acquired operating companies to launch registered apprenticeship programs.

The largest of these programs is the Lineman Apprenticeship Program. It uses a learning management system for module study and instructor-led training at any of NLC's campuses or Quanta's satellite training facilities. Apprentices completing the program earn a U.S. Department of Labor certification for journey-level lineworker. Other programs in NLC's library provide apprenticeships for substation and underground cable installers. Quanta is also designing new apprenticeship programs to support training needs for additional craft labor.

Quanta's apprenticeship programs are mutually beneficial to both the apprentice and Quanta. Quanta owns its apprenticeship programs, ensuring they align with the industry's needs and with Quanta. Individuals can be recruited by Quanta directly from pre-apprenticeship programs, and graduates receive advanced standing into apprenticeship and can transition between Quanta's operating companies with no effect on progression.

QUANTA'S APPRENTICESHIPS BY THE NUMBERS

→ **1,036**

apprentices currently enrolled

→ **941**

apprentices participating in instructor-led programs

→ **95**

apprentices participating in distance-learning modules





I HELP SHAPE THE INDUSTRIES WE SERVE BY ENSURING THE NEXT GENERATION OF LINeworkERS HAVE THE **KNOWLEDGE, SKILL, AND BEHAVIORS TO PERFORM IN THE FIELD.**

JOSE LOPEZ

Northwest Lineman College
Training Supervisor



IN FOCUS

NEW IN 2022: QUANTA CREW LEADERSHIP COURSE

In 2022, NLC launched the Quanta Services Crew Leadership certification course to enhance the knowledge and behavior of those in frontline, job-site leadership positions.

On construction sites today, workers are stepping into crew leadership roles earlier in their careers. The industries that Quanta serves are constantly changing in work processes, tools, materials, and equipment. However, the one thing that remains constant from one generation of leaders to the next is maintaining the knowledge of optimizing the most valuable asset to every crew leader: our people.

The Quanta Services Crew Leadership certification program is designed to reflect the influence of those senior leaders in Quanta Services who have served in the trenches and have moved into higher leadership positions. Still, their legacy continues to pave the way for the next generation of leadership, especially at the crew level. Their input and influence on this course led to the three key crew leadership principles:

- Lead Your People,
- Plan Your Work, and
- Run Your Business.

These three principles provide a solid foundation for the development of those serving as crew leaders. In this way, the instruction, training materials, and activities are all built to bring those crew leaders into an environment where they gain valuable leadership tools, share ideas, and learn

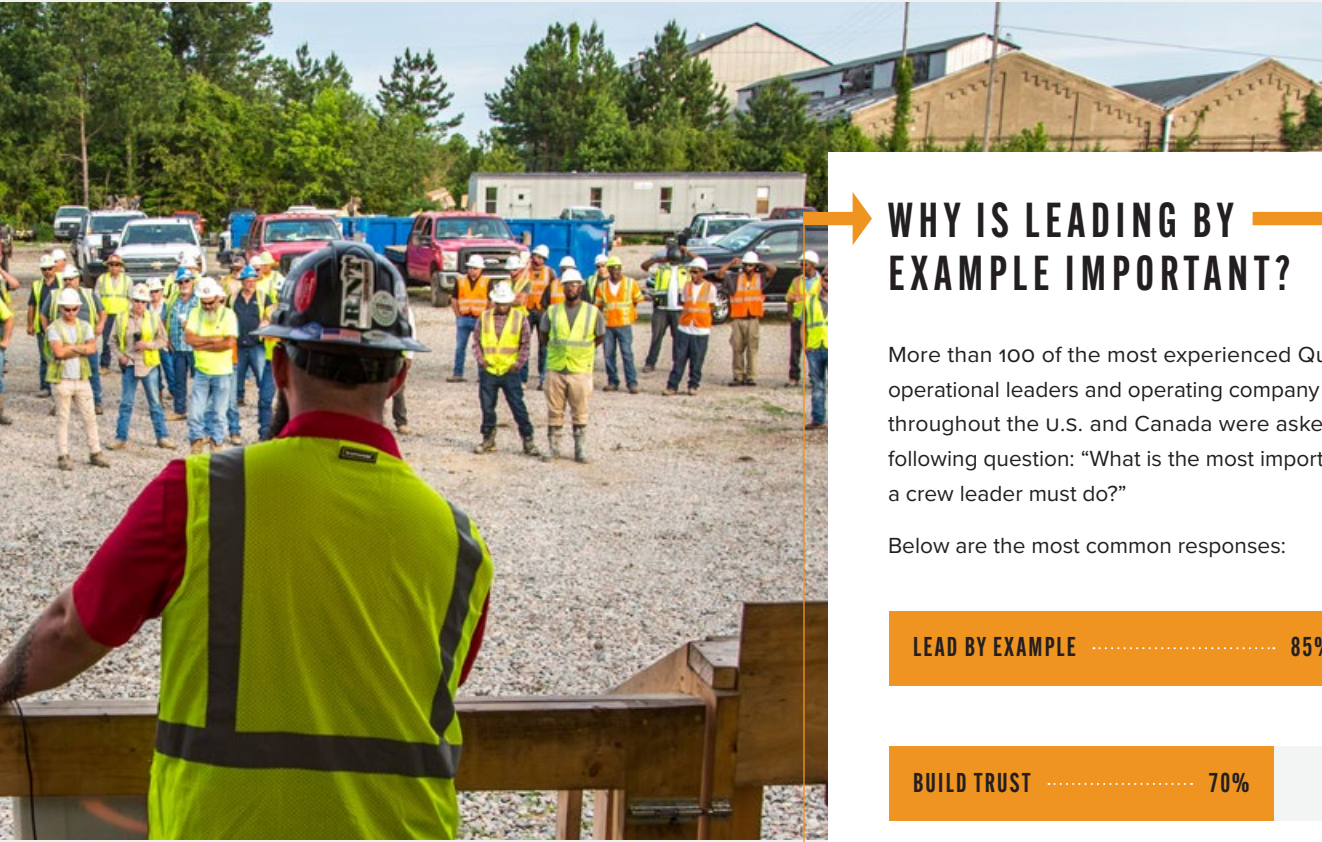


from others' experiences. The benefit to the participant is to use these tools, ideas, and experiences to meet their responsibilities with greater success. The benefit to Quanta Services is having crew leaders raising the bar across the industries we serve.

Benefits

Well-trained crew leaders bring many benefits to companies. In a survey of 3,100 employees across 13 countries, 81% of respondents claimed that having a leader who took ownership over challenges increased their engagement.¹ Furthermore, when crews trust their crew

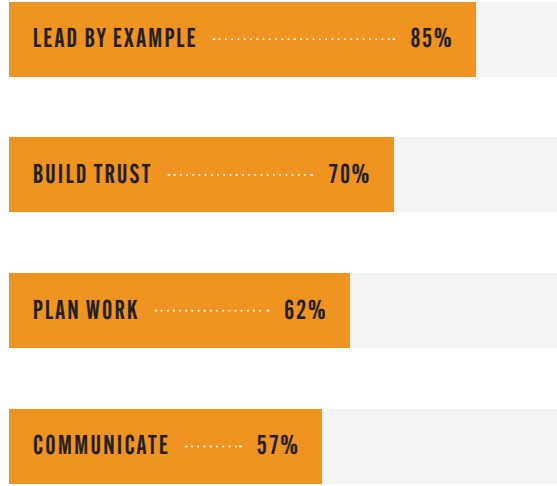
¹ td.org/magazines/the-public-manager/the-value-of-acknowledging-your-mistakes



WHY IS LEADING BY EXAMPLE IMPORTANT?

More than 100 of the most experienced Quanta operational leaders and operating company presidents throughout the U.S. and Canada were asked the following question: “What is the most important thing a crew leader must do?”

Below are the most common responses:



No matter where Quanta operating companies are located or how varied their employees’ work history is, the vast majority of Quanta leaders and presidents agree that the first step in being a successful crew leader is leading by example.

leader’s approach to overall leadership, job planning, and business tactics, companies see an increase in employee retention, productivity, and overall morale.² They can also see decreases in the cost of rework and lost or damaged tools. Over time, an investment in effective training helps businesses save time and costs often lost due to under-skilled employees who don’t know the best way to meet expectations.³ And in a utility industry facing a serious need for experienced, skilled workers, effective training can help fill that labor pipeline.

² shrm.org/hr-today/news/hr-magazine/0618/pages/why-trust-matters-at-work.aspx

³ smallbusiness.chron.com/effects-training-employee-performance-39737.html

Stronghold University

Stronghold University is an advanced craft training center that provides employees with a balanced learning approach, combining theoretical, technical, and hands-on modules. Stronghold University's courses and priorities are influenced by the business needs of Stronghold operating companies, utilizing instructors from operations with extensive field experience. In addition, Stronghold's Field Leadership series and Master Craftsmen programs are designed to offer development pathways, helping identify and mold the next generation of Stronghold's workforce. With 29 instructors and an average class size of 7.3, Stronghold University has developed 34 craft courses since 2020.



LUMA College

Founded by Quanta Services and ATCO, LUMA College for Technical Training is modeled after NLC and provides industry-leading educational experiences for companies and individuals tasked with operating, maintaining, and modernizing Puerto Rico's electric power infrastructure. LUMA College offers a 13-week pre-apprentice training program, giving trainees the knowledge, skill, and behaviors that prepare them to be highly valuable entry-level lineworkers. Using the Three-Phase Educational Model, LUMA College focuses education on three domains of learning: knowledge, skill, and behavior. This model shapes each academic course, skill competency, and behavior expectation.

LUMA College also offers the island's first Department of Labor-recognized lineworker apprenticeship program, which improves standardization and performance across the industry in Puerto Rico. Through their investment in LUMA College, Quanta Services and ATCO are demonstrating their commitment to a sustainable local workforce.



Quanta Advanced Training Center

The Quanta Advanced Training Center at the Lazy Q Ranch is a 2,200-acre campus in La Grange, Texas, that provides Quanta’s employees with hands-on training in a controlled environment. In 2022, Lazy Q Line School (LQLS) was granted direct entry into the NWLine, ALBAT, and NEAT apprenticeship programs. With these new additions, LQLS can now place an apprentice into 43 of the 50 states in the U.S. and remains the only program with national accreditation by the Employment & Training Administration (ETA).

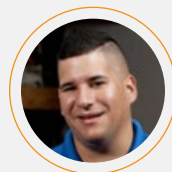
In 2022, LQLS doubled enrollment by focusing on the Veteran Electrical Entry Program (VEEP). As a result, the program’s capacity increased to 75 candidates per cohort, with 60 candidates being veterans. Given historical attrition, LQLS anticipates graduating approximately 120 apprentices in 2023. As with previous classes, all 2022 graduates were placed into an IBEW apprenticeship and are working with Quanta operating companies as line apprentices.



THIS HAS BEEN AN AMAZING OPPORTUNITY. THE BIGGEST CHANGE I HAVE SEEN IN MYSELF IS A POSITIVE ATTITUDE AND **LEARNING HOW TO WORK TOGETHER IN A TEAM.**

CHRISTIAN CASSANOVA

LUMA College Student



IN FOCUS

WOMEN ON THE LINES: FEMALES CALLED TO LINework

According to the Bureau of Labor Statistics, demand for skilled tradespeople has been outstripping supply in the U.S. for some time,⁴ with Quanta well-positioned to train a new generation of lineworkers to thrive in a lifelong career. One female lineworker, Katalin Lucas, is one of many women who have seized the opportunity to make a lifelong change.

Katalin grew up in a small rural town in southern California. Her father, a construction manager, played an influential role in her life. As a child, he would pick her up after school and take her to work sites. As a result, she got to see everything he did. “I grew up around him, being in the field and being involved in his work,” she says. They were always in the garage at home, working with their hands, fixing cars and dirt bikes in the shop. Using her hands and being outside inspired her to work in the trades.

One weekend, she came home after working at a new job and said, “Hey, Dad, what do you think about me becoming a lineworker?” His immediate response was, “I think that’d be great. You should do it.” Her next job was at an electric company, where she worked as an analyst. Her duties included writing down what lineworkers did by completing various paperwork after work. After learning and living vicariously through her coworkers, she began asking herself, *Could I be a lineworker?* “I got to be familiar with what they were doing. I was like, I want to try this.” So she started researching by watching YouTube videos and Googling what lineworkers do. The lineworkers she worked with all talked about Northwest Lineman College (NLC), highly recommended



as the best line school if she decided to pursue this new career. It didn’t take long before her mind was made up. She looked up NLC, quickly enrolled, and attended the Florida campus, where in 2020, she became the school’s first-ever female class president.

NLC’s first female corporate president, Leanna Whitney, understands a lack of awareness of women on the lines. “Because people often come to the trades based on word of mouth or knowing someone who knows someone, many women don’t naturally think of linework or even know where to start. Girls in middle school should be introduced to the trades as a great idea for their future.”

Katalin secured a job at a gas and electric company after completing the pre-apprenticeship at NLC. She is a step-2 apprentice lineworker who aims to reach journeyman

⁴ tradesnation.com/us/en/the-trades-facts-and-figures.html

status in two to three years. Being the only female on the line doesn't bother her at all. "I'm a short female, but I like knowing I must work harder."

Her advice for other women looking to enter the trade is to have confidence in yourself. "Be confident in your decision and always ask questions. You can never ask too many. Be open to learning." Her commitment to her goals is inspiring. She remains unaffected whenever questioned about her work in a once-all-male career. She said that nothing would quell her determination and dedication to achieving her goal of becoming a journeyman lineworker in the power industry.



**BE CONFIDENT IN YOUR
DECISION AND ALWAYS
ASK QUESTIONS.**

YOU CAN NEVER ASK TOO MANY.
BE OPEN TO LEARNING.

KATALIN LUCAS

Lineworker & Northwest Lineman College Graduate

LUMA: IMPROVING LIVES THROUGH

ACTION

Combining the expertise and resources of ATCO and Quanta Services, LUMA was created especially for Puerto Rico. LUMA's mission is simple: to provide customers with a robust, safe, and reliable electric service. At LUMA, people come first, and safety is the foundation of its work. The transformation and modernization of the electric grid, coupled with better services and rapid response, will allow all to live in a better Puerto Rico.





PROGRESS POINTS*

- **Improved Reliability:** Reduced service interruption frequency by approximately 35% over the past two years
- **Strengthened Essential Infrastructure:** Replaced over 5,000 damaged utility poles to strengthen reliability and system resilience
- **Established New Higher Standard for Workforce Training:** Trained more than 3,000 workers at LUMA College for Technical Training
- **Empowered Growth of Renewable Energy:** Helped connect over 54,000 customers to rooftop solar, representing more than 330 megawatts in clean energy
- **Enhanced Hurricane Response:** Developed an Emergency Response Plan (ERP) prioritizing critical infrastructure and vulnerable customers, resulting in 90% of customers' power being restored within 12 days after Hurricane Fiona

*As of June 2023

MODERNIZING PUERTO RICO'S ELECTRICAL INFRASTRUCTURE

For decades, Puerto Rico experienced an unreliable and unstable energy system. To help address these long-standing energy infrastructure issues, the Federal Emergency Management Agency (FEMA) has committed more than \$10 billion to upgrade Puerto Rico's electric system. After years of little progress, LUMA secured funding for the first FEMA projects in less than a year after assuming full system operation and maintenance. These projects, which range from replacing streetlights to entire substations, are designed to bring a brighter and more prosperous future for LUMA customers and their families.

To help improve the energy infrastructure, LUMA has identified and selected a set of near-term projects that are expected to start project execution and construction within the next three years. Overall, these capital projects will represent billions of dollars of investment and employ thousands across every municipality in Puerto Rico.



Substation Modernization

LUMA is committed to improving infrastructure to build the next-generation electric grid that Puerto Ricans deserve. As part of these efforts to increase system reliability, over 30 tons of vegetation has been cleared from the 354 substations across the island. In addition, three substations have also been restored, including one that has not been in operation since 2010.

Substations connect transmission and distribution lines throughout the island, reducing the high voltage from transmission lines to low-voltage distribution lines that bring power to homes and businesses.

Thanks to efforts like these, LUMA has seen a decrease in the number of sustained outages experienced by the average customer by 18% from December 2021 to February 2022 compared to June 2021 to August 2021. Additionally, the average outage duration for each customer served also decreased, with an improvement of as much as 45% from June 2021 to February 2022.

PROGRESS POINTS

- LUMA has initiated the **modernization of 300 substations** across Puerto Rico.
- Since June 2021, LUMA has **restored the operation of three substations**, including one that had not been in operation since 2010.
- LUMA has announced **six substation improvement projects**, representing more than \$47 million in federal funds.

BY THE NUMBERS

Vegetation Management

Overgrown vegetation can pose a real threat to energy infrastructure. With a team of 70 crews totaling 400 field staff, LUMA has been working to address overgrown vegetation on a daily basis. Despite facing many legacy challenges, LUMA has already made significant progress in vegetation management.

➔ **1.4 K+**
miles of power lines cleared
of vegetation*

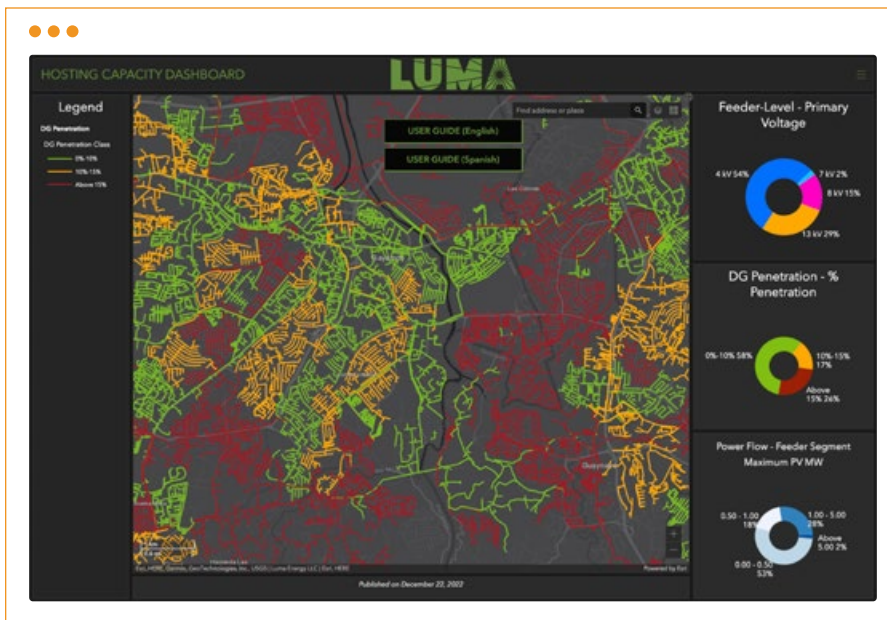
➔ **30+**
tons of vegetation removed

➔ **100%**
of substations cleared of
hazardous vegetation

*As of June 2023

ENABLING A CLEAN ENERGY FUTURE

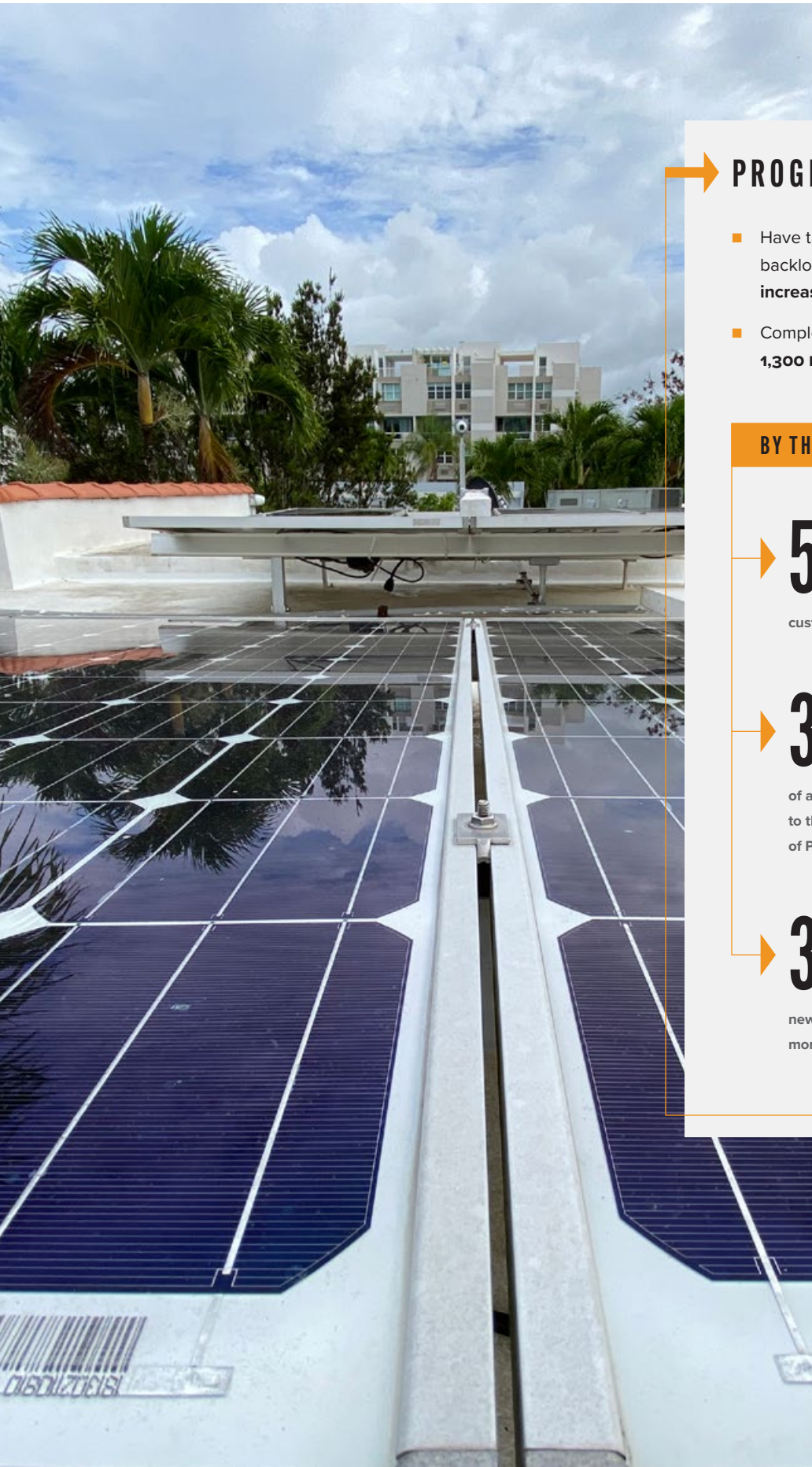
LUMA recognizes that the growth of clean energy across Puerto Rico enables a more reliable, resilient, customer-focused, and cleaner energy system for Puerto Rico. Empowering a clean energy future for Puerto Rico begins with prioritizing sustainable solutions, such as rooftop solar or renewable distribution projects. Moving forward, LUMA plans to continue to advance the transformation and modernization of the island's electric system by interconnecting even more renewable energy capacity. Through these efforts, LUMA and its partners are working to build a more reliable and resilient energy system for the people of Puerto Rico.



LUMA Launches Hosting Capacity Dashboard

Since October 2021, LUMA customers have had access to Puerto Rico's hosting capacity dashboard, allowing them to view the grid's capacity in their area and its ability to accept further solar and renewable energy installations. This map enables clients and developers to enter a specific address to verify if a distribution circuit (feeder) has room to accommodate additional projects without causing voltage surges or interruptions to the island's electrical grid. LUMA developed the map to provide visibility of the electrical distribution system capacity. Distributed generation resources include solar photovoltaic (PV) or a combination of PV and energy storage.





PROGRESS POINTS

- Have taken steps to address the existing backlog of solar hookup requests and have **increased response speed by 700%**
- Completed an EV plan and studies to **connect 1,300 MW** of utility-scale renewable generation

BY THE NUMBERS

▶ **54 K+**

customer connections to rooftop solar

▶ **330 MW**

of additional renewable energy connected to the grid during LUMA's time as the operator of Puerto Rico's electric system

▶ **3,400**

new distributed grid services added per month (approximate)

IN FOCUS

LUMA COLLEGE: EMPOWERING WOMEN TO BE LINEWORKERS

Eva Acosta and Agdiasha Lafontaine are two of four women who recently joined LUMA Energy after graduating as apprentice wardens at LUMA College. Lafontaine and Acosta join a growing number of female LUMA College graduates that are empowered and inspired to help transform and modernize the Puerto Rican electricity grid.

“Several people approached me and asked me if I would dare to study at LUMA College, climb the poles, work with power lines, work hard—and I said, ‘If I am given the opportunity, of course, why not?’ You have to take advantage of opportunities, and when I entered, I loved it,” said Acosta.

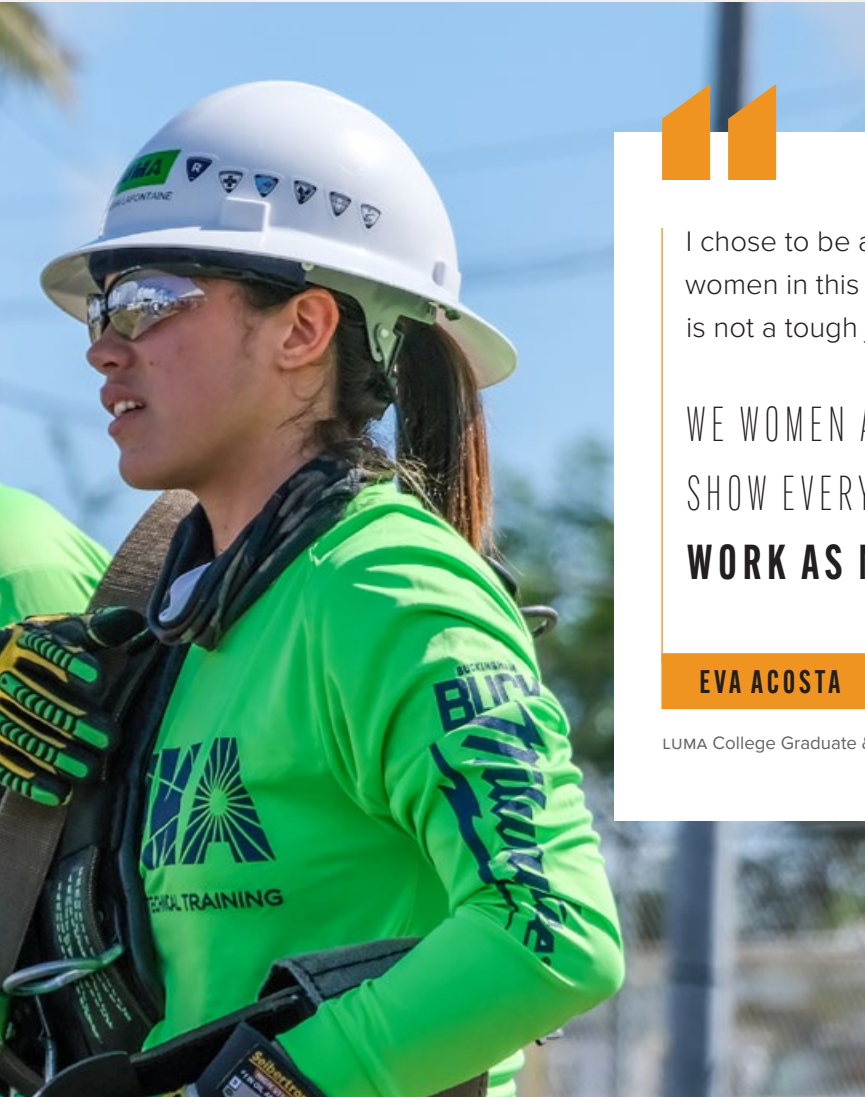
For Lafontaine, interest in the electrical industry runs in the family, so a career as a lineworker felt like it was always possible. Lafontaine thrived in the different tests that are part of the training at LUMA College.

“It has been difficult for the boys in competitions because I am very competitive,” smiles Lafontaine. “The men are my colleagues but also my competition.”



Restoring the grid after the devastation of Hurricane Fiona provided an immediate opportunity for Lafontaine and Acosta to test their newly acquired skills.

“It was different working with people, giving them the service, listening to their needs, their problems. Then, seeing the emotion, the faces when you help them,” said Lafontaine.

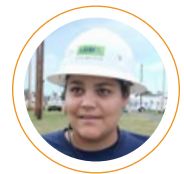


I chose to be a lineworker for a reason: there aren't many women in this field. I would like to prove to women that this is not a tough job that only men can do.

WE WOMEN ALSO HAVE THE RIGHT TO GROW, TO SHOW EVERYONE THAT **WE CAN DO THE SAME WORK AS MEN, AND SUCCEED.**

EVA ACOSTA

LUMA College Graduate & Apprentice Warden



After graduating from LUMA College, the apprentice wardens report to their new brigades, where crews do not care about gender, only about getting a job done efficiently and safely. Both aspire to become fully qualified wardens, which takes at least four years of continuous training and experience in the field.

→ WOMEN IN LINEWORK

Eva and Agdiasha were part of the Women in Linework initiative at LUMA College. In 2022, LUMA College hosted a group of more than 50 women interested in entering the linework trade, which led to 10 women being enrolled in the program, with one being made class president.

DRIVING ORGANIZATIONAL IMPACT: DIVERSITY & INCLUSION

An inclusive culture that welcomes all perspectives is critical to attracting and retaining talent, which directly impacts innovation and is crucial in delivering sustainable business growth. A portfolio of operating companies, Quanta has been built on a foundation of diversity, and we are stronger when we recognize each person's unique strengths and talents. Quanta is committed to providing a work environment where every employee has a voice and sense of belonging, regardless of race, ethnicity, national origin, age, religion, gender, sexual orientation, gender identity, disability status, or veteran and military status.





QUANTA IS UNIQUELY POSITIONED AS AN INDUSTRY LEADER TO SET THE STANDARD

for attracting, retaining, and developing talent; driving innovation and diversification in our supply chain; and advancing communities across our footprint. Our history and culture are based on excellence in all we do, and this work is no different. In 2022, we made progress by partnering with Catalyst, which helps organizations accelerate and advance women into leadership. As we continue to grow the diversity of our supply chain, Quanta's diverse vendor spend reached a significant milestone of approximately \$1 billion in 2022. In addition, we saw increased community investment across Quanta with local nonprofits, educational institutions, and others dedicated to positively impacting the economic, social, and environmental health of the communities where we live and work.

MOANICA CASTON

Vice President, Diversity & Inclusion



Diversity & Inclusion Commitment

Our commitment is to be intentional in creating a culture of inclusion and belonging, with the success of our customers, our people, and our communities at the center.

CUSTOMERS



Expand Our Operational Excellence

Align with our business partners' priorities and work to create a diverse supply chain

Support customers' local efforts to expand diverse supplier partnerships and local goals such as a seat at the Billion Dollar Roundtable

EMPLOYEES

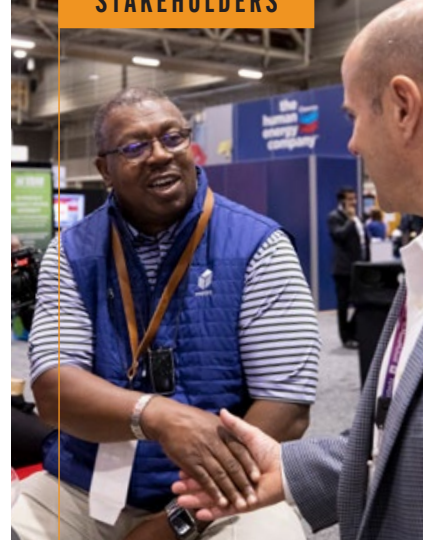


Build a Workforce of Exceptional Employees

Create diversity in our workplace

Foster an inclusive work environment

STAKEHOLDERS



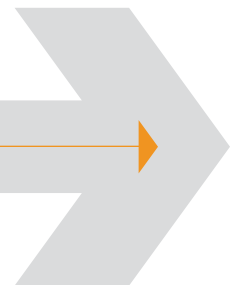
Deliver Stakeholder Value

Continued collaboration with customers to support strategic initiatives and nonprofit efforts

Identify and nurture relationships in the areas of education, youth development, and advocacy of diversity, equity, and inclusion in our local communities

OUR IMPACT

At Quanta, our focus on creating diversity and building a culture of inclusion is a dedicated strategy to support the overall performance and growth of our business. We believe our commitment to intentional efforts benefits our employees, our customers, and the communities where we live and work.



Expanding Our Commitments to Supplier Diversity

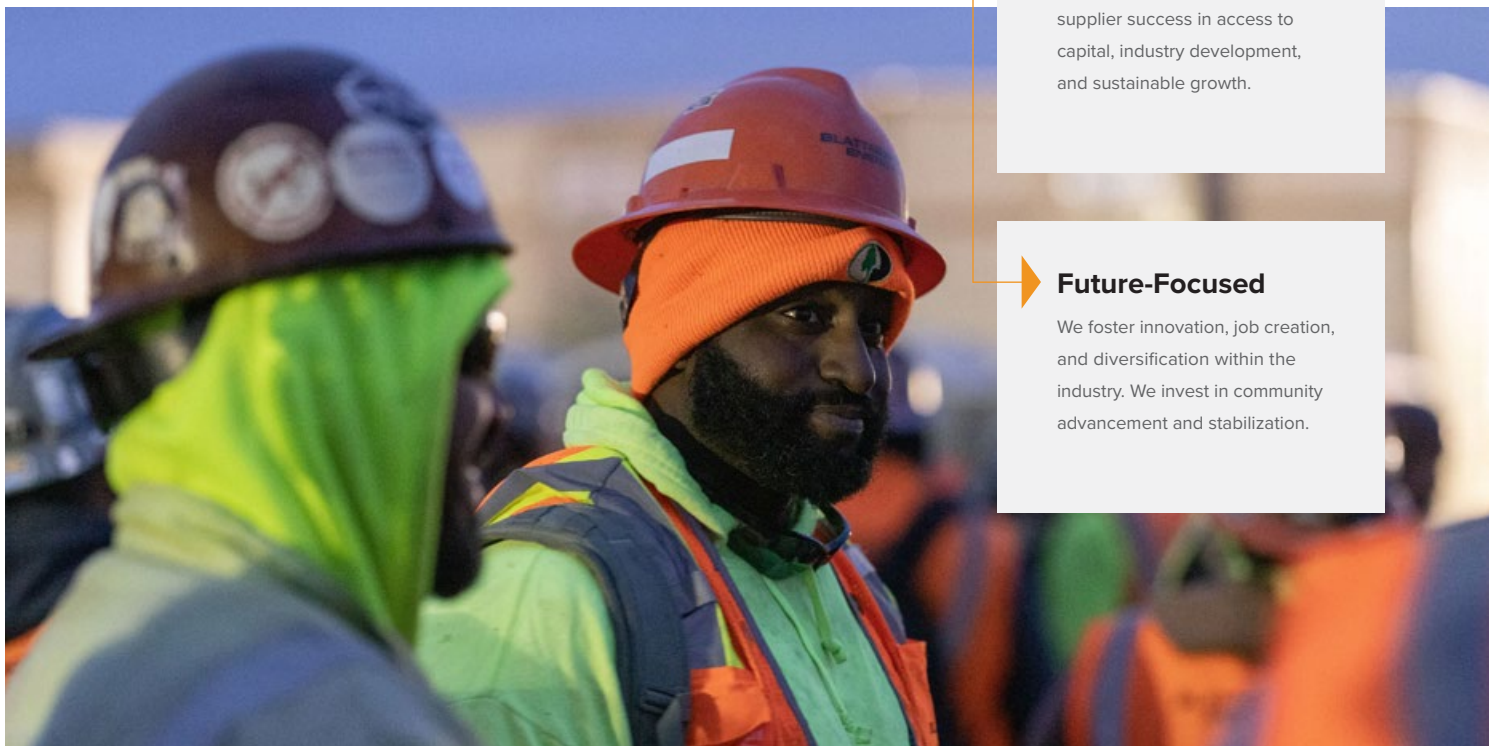
At Quanta, we want to help build an inclusive economy that works for everyone. Small and diverse businesses are set to play an increasingly important role in our economy and the communities in which we work. According to the National Minority Supplier Development Council, minorities will constitute more than 50% of the United States population by 2045.¹ Real progress is achieved when businesses that have been historically underrepresented are provided with greater access to fair opportunities that foster the growth of their enterprises.

We believe in the value of a diversified supply chain, advancing the sustainability of small and diverse businesses, and contributing to the economic stability of communities. Our supplier diversity program aims to support and promote diverse-owned businesses by providing them with access, development, and investment opportunities. In addition, we are intentional about identifying contracting opportunities, educating our workforce, and engaging with advocacy and community organizations to advance our commitment to an equitable future.

Our supplier diversity program aims to drive innovation and create a positive economic impact in the communities we serve by providing an opportunity for diverse minority suppliers to do business with us. Those suppliers are also hiring people in support of the contracts being awarded to them. In turn, the people they hire contribute back to the economy by paying taxes and being part of the community.

We are investing in small and diverse business development, implementing strategies to increase contracting success, and intent on building long-term supplier relationships.

¹ [nmsdc.org/facts-and-figures.pdf](https://www.nmsdc.org/facts-and-figures.pdf)



SUPPLIER DIVERSITY PILLARS

Intentional

We have instituted a programmatic approach to diversifying our supply chain and developing suppliers.

Commitment

We have developed policies and procedures to confirm inclusion. The support of our leadership is secured by accountability factors. We advocate for support and engagement of the cause.

Equitable

We identify contracting opportunities and support supplier success in access to capital, industry development, and sustainable growth.

Future-Focused

We foster innovation, job creation, and diversification within the industry. We invest in community advancement and stabilization.

IN FOCUS

CULTIVATING A ROBUST DIVERSE BUSINESS NETWORK

Quanta is committed to building inclusive and sustainable business opportunities for companies owned by minorities, women, people with disabilities, LGBTQ people, veterans, and service-disabled veterans.

We continue to build our network of partnerships with external organizations that are dedicated to advancing underrepresented groups. Through our work with these partner organizations, we have access to thousands of certified, diverse-owned companies, which enables us to find the right diverse business to match our needs when business opportunities arise.

Companies certified with partner organizations are given opportunities to help grow their business through various forums, including mentorship and professional advice, education and training, and networking events. Here's a closer look at the organizations we proudly partner with:



American Association of Blacks in Energy

(AABE): A national association of energy professionals founded and dedicated to ensuring the input of African Americans and other minorities into the discussions and developments of energy policies, regulations, R&D technologies, and environmental issues



Association of Women in Energy (AWE):

An organization solely dedicated to helping women in the energy industry



National LGBT Chamber of Commerce

(NGLCC): The largest advocacy organization dedicated to expanding economic opportunities and advancements for LGBTQ people and the exclusive certifying body for LGBTQ-owned businesses



National Hispanic Corporate Council

(NHCC): A collaborative community for Fortune 1000 members that provides access to Hispanic talent and consumer resources to optimize corporate performance



National Minority Supplier

Development Council (NMSDC):

The longest-operating business growth engine for the broadest group of systematically excluded communities of color (Asian-Indian, Asian-Pacific, Black, Hispanic, and Native American)



Texas Diversity Council:

Committed to fostering a learning environment for organizations to grow and leverage their knowledge of diversity

WBENC

Women's Business Enterprise National

Council (WBENC): The largest certifier of women-owned businesses in the U.S. and a leading advocate for women entrepreneurs



Women's Energy Network Colorado:

Delivers networking, professional development, and community outreach opportunities to women in all aspects of the energy sector in Colorado

Measuring Our Impact: Diverse Vendor Spend

In 2022, we expanded our capabilities to track our spending with diverse businesses by measuring our engagement and spending with vendors that reflect the diversity of the communities where we live and work and the clients we serve. In 2022, Quanta bought goods and services worth over \$1 billion from small and diverse vendors and spent approximately \$650 million on diverse enterprises through projects with our customers.

HOW OUR DIVERSE VENDORS IDENTIFY

Our diverse spending spans 1,935 individual vendors, the majority being women-owned, small disadvantaged, and minority-owned businesses.



Human Capital: Enhancing Our Diversity Disclosure

At Quanta, we believe in the power of transparency to hold ourselves accountable for continuous progress. This year, we committed to publishing our consolidated EEO-1 report for our U.S. workforce. The EEO-1 is a mandatory data collection survey that requires all U.S. private sector employers with 100 or more employees to submit demographic workforce data, including data by race and ethnicity; gender; and job categories, annually with the U.S. Equal Employment Opportunity Commission.² Consistent with our commitment, a copy of our 2022 EEO-1 report, when filed, will be available on the “Diversity & Inclusion” section of the Quanta corporate website and is summarized in a condensed manner below.

U.S. WORKFORCE REPRESENTATION DATA³

	2019	2020	2021	2022
Female employees as share of total workforce	8%	9%	10%	10%
Female employees in management and professional roles	13%	14%	14%	14%
Overall employee ethnic diversity	34%	27%	32%	38%
Ethnic diversity in management and professional roles	23%	22%	24%	29%
Diverse supplier spending (USD)	N/A	\$678.6 M	\$742 M	\$1.12 B

² [eeoc.gov/data/eeo-1-data-collection](https://www.eeoc.gov/data/eeo-1-data-collection)

³ Representation data as of November 30 each calendar year. “Management and Professional Roles” refers to (1) Executives, Senior Officials and Managers; (2) First and Mid-Level Officials and Managers; and (3) Professionals as per EEO-1 report filing. “Ethnic Diversity” refers to (1) Black or African American, (2) Native Hawaiian or Pacific Islander, (3) Asian, (4) American Indian or Alaska Native, (5) Hispanic or Latino, and (6) Two or More Races as per EEO-1 report filing.

2022 HIGHLIGHTS

Supporting Gender Equity in the Trades

In 2022, a Quanta operating company was awarded the Silver Level Rosie the Riveter Certification at the Annual Rosie Gala. The Rosie the Riveter Certification awards are designed to recognize construction contractors who support gender equity in the workforce and are leaders in encouraging women to join the trades by demonstrating a clear organizational commitment to influencing an inclusive and supportive work environment.



Promoting Our Partnership With Diverse Suppliers

In 2022, we showed our commitment to working with diverse suppliers by attending and exhibiting at the National Minority Supplier Development Council (NMSDC) 50th Anniversary Conference & Exchange in New Orleans.

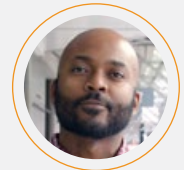


I really appreciate Quanta's effort in targeting minority businesses and actually being present at conferences like NMSDC and

SHOWING THEIR COMMITMENT TO WORKING WITH DIVERSE SUPPLIERS.

EARNEST McCOY

Founder & CEO, Alt Spec UAS



Advocating for Workplace Inclusion

A Quanta operating company sits on the Women in Energy Program Development Team (PDT) for the Western Energy Institute. The PDTs integrate a diverse mix of professionals within the energy industry, support the celebration of women, and advocate for workplace inclusion across gender, racial, and generational demographics.



Creating an Inclusive Workplace for Hard-of-Hearing Employees

The experience of hearing and using spoken language to communicate anchors our workplaces today. Meetings are conducted in spoken languages, and colleagues and customers make phone calls to share knowledge or voice concerns. Most professional services are conducted through people speaking audibly with each other. Quanta operating companies are leveraging built-in accessibility features in applications like Microsoft Teams to create a more inclusive workplace for hard-of-hearing employees.

It was brought to the attention of a Quanta manager that an employee has hearing difficulties. This employee does an excellent job of reading lips, so the challenges are rarely noticed during in-person interactions. Although Microsoft Teams offered the ability to add live captions, this feature was only enabled when team members had one-on-one meetings, but the setting wasn't enabled for larger meetings.

The Quanta corporate IT department was contacted, and live captions were enabled for larger meetings in Microsoft Teams. The employee commented that this was the first time in their career that they felt included in a Microsoft Teams meeting, making it significantly easier to follow the discussion.

SERVING & STRENGTHENING OUR

COMMUNITIES & EMPLOYEES





As a leading specialty contractor, we know what it is like to build, care for, and maintain something. Our commitment to philanthropy and employee-led volunteer programs are a natural extension of our core values. Strong businesses help create strong communities, and we are investing in programs designed for long-term, high impact while developing and engaging our best asset—Quanta employees.

We invest directly in the economic development of our communities by prioritizing hiring from within the local regions where we build our projects. Working with our customers, our projects impact the communities we serve and create a more prosperous and sustainable future.

We work to address immediate needs, such as reducing hunger and homelessness and supporting underserved communities. We also look to the future by providing programs that support science, technology, engineering, and math (STEM) education and skills training.

MEASURING OUR IMPACT

Spread over more than 1,200 individual contributions, Quanta operating companies collectively spent **\$7.71 million on community impact** in 2022, made of a combination of donations, volunteering, and education spending.

Our Support for the U.S. Armed Forces

Quanta H.E.R.O.E.S. (Hiring, Educating, and Retaining Our Exceptional Service Men and Women) is a comprehensive initiative to expand our long-standing support for the men and women of the United States Armed Forces. In addition to hiring veterans, we're committed to ensuring they have the tools they need to effectively transition into a successful civilian career. By joining the infrastructure solutions industry, they continue to serve their country, but now in a different way—by keeping the lights on, heat generated, and communications connected.

Quanta has partnered with Vector Force Development, a veteran-owned business that aims to transition military veterans to jobs in the utility industry, whether in the field or the office. Quanta operating companies have also partnered with the U.S. Chamber of Commerce Foundation's Hiring Our Heroes initiative to further expand our commitment to hiring veterans. Hiring Our Heroes launched in March 2011 as a nationwide effort to connect veterans, transitioning service members, and military spouses with meaningful employment opportunities.

OUR PARTNERS

Working with the U.S. Chamber of Commerce's vast network of state and local chambers and strategic partners from the public, private, and nonprofit sectors, the goal is to create a movement across the U.S. in hundreds of communities where veterans and military families return every day. The initiative aims to invest in veterans' futures by providing them with the training needed to have safe and successful careers in the infrastructure solutions industry. These programs aren't just for employment opportunities with Quanta. Through the H.E.R.O.E.S. initiative, Quanta is committed to encouraging other companies and partners in their industry to hire America's heroes.



Community Investment



Charitable Giving

As part of the ComEd Coolers Team, a Quanta operating company participated in the Chicago Polar Plunge to benefit Special Olympics Chicago. The company's Polar Power Team raised \$16,570, helping Special Olympics Chicago athletes by covering program costs such as transportation, sports equipment, team uniforms, and much more.



Inspiring Future Generations

As part of community helper week, workers from a Quanta operating company visited a local primary school in Wisconsin. By showcasing equipment and tools, students were given a hands-on demonstration of what it takes every day to keep everyone's power on throughout all seasons.

Empowering Affordable Permanent Housing

Volunteers from a Quanta operating company participated in a beautification project for Community First! Village. The volunteers got to work pulling weeds, moving rocks, and creating small garden beds. Community First! Village is a development of Mobile Loaves & Fishes that provides affordable and permanent housing and creates a supportive community for people coming out of chronic homelessness.



Supporting Families in Need

Employees from a Quanta operating company raced for the Ronald McDonald House Charities of Eastern Iowa and Western Illinois 38th Annual Red Shoe Run & Walk 5K. The organization is committed to providing services that directly improve the health and well-being of children while providing a community of comfort and support for families seeking medical care for a child.

IN FOCUS

QUANTA OPERATING COMPANIES AT THE HEART OF EVERY COMMUNITY

Quanta operating companies focus on collaboration in both urban and rural areas to identify and develop opportunities that strengthen the community. With strong roots in their own communities, Quanta operating companies want the places where they live and raise their families to thrive.

Central to our philosophy of human capital equity is a commitment to the well-being of children and their families, especially those facing challenges related to economic disadvantage and racial inequality.

When youth are given the necessary support, guidance, and opportunities to use and strengthen their skills, they use their assets in productive ways to interact with others and grow in their ability to recognize ways they can contribute to their environment and make a difference. We believe that creating a better future for children requires a long-term vision, and our program initiatives seek to inspire hope, purpose, and meaning to help children, youth, and families become confident and self-sufficient.



The Astros Foundation

Quanta employees contribute to the various programs and initiatives supported by the Astros Foundation throughout the year. The Astros Foundation is the official 501(c)(3) team charity of the Houston Astros. By harnessing the passion of baseball fans to support youth baseball and softball programs, the Astros Foundation recognizes and honors the military, brings awareness to childhood cancer, and directs efforts to reduce homelessness. Cornerstone initiatives include the Community Leaders program, the Astros MLB Youth Academy, and the Astros Reviving Baseball in Inner Cities program.

HOW WE GIVE BACK



Barbara Bush Literary Foundation

This is Quanta's first year as a sponsor for the Celebration of Reading Event, hosted by Neil and Maria Bush, co-founders of the Foundation, which features a notable lineup of bestselling authors to shine a light on the importance of reading in our community. Improving literacy and improving lives begins with adult literacy, and this foundation is dedicated to investing in the technology, resources, and programming necessary to support those who take a second chance at education.



National High School Rodeo Association

Quanta and the National High School Rodeo Association (NHSRA), the world’s largest youth rodeo association, recently announced a new multi-level partnership to turn their member’s experience in rodeo into career opportunities for working in the skilled trades. The National High School Rodeo Association is an international, non-profit organization dedicated to developing sportsmanship, horsemanship, and character in youth through the sport of rodeo. The NHSRA comprises over 12,500 members from 44 states, five Canadian provinces, Mexico, New Zealand, and Australia.



Candlelighters Childhood Cancer Family Alliance

Quanta employees engage directly with the Candlelighters Childhood Cancer Family Alliance through the Adopt-a-Family program at Christmas and other events throughout the year. Candlelighters Childhood Cancer Family Alliance provides emotional, educational, and practical support to families of children with cancer.



Junior Achievement

Since 2003, Quanta has supported Junior Achievement of Southeast Texas, with CEO Duke Austin serving as an Executive Committee Board member. For more than 100 years, Junior Achievement has provided authentic experiential programs that expand economic opportunity for all K–12 students. The partnership is based around a passionate community collective of role models, partners, and volunteer mentors to challenge the status quo. This group and Junior Achievement’s professional staff shape an innovative, hands-on approach to education.



Child Advocates

Quanta has worked with Child Advocates since 1999, providing support through volunteer efforts and monetary donations. Child Advocates mobilizes court-appointed volunteers to break the vicious cycle of child abuse. We speak up for abused children lost in the system and guide them into safe environments where they can thrive.



Working Collaboratively With Indigenous People & First Nations Communities

Quanta operating companies have developed strong relationships with Indigenous and local communities, their members, and service providers across our activities. With strong, vast, and diverse experience in remote regions across Canada and Australia, Quanta operating companies can design engagement strategies specific to the challenges and requirements of the geographical area.

Quanta Canada

The objective of Quanta's Canadian companies' Indigenous & Local Community Engagement Plans is to promote the success of any project through meaningful engagement with Indigenous and local communities in the areas where we work. This includes offering training and mentorship programs and employment and subcontractor opportunities to those communities impacted by the work. In addition, we hire locals directly from communities in close proximity to the work sites and provide them with relevant training to equip them with the necessary skills required for each job position.



Quanta Australia

Quanta Australia is committed to being a community partner that promotes the inclusion of Aboriginal and Torres Strait Islanders in the construction industry by providing employment opportunities within their own communities. To achieve these goals, a Quanta Australia company invites local students to project sites and attends their school classrooms in a mentoring program run by the school. Quanta Australia's project teams provide a detailed breakdown of all components associated with delivering an infrastructure project for students to ask questions and develop an understanding of career pathways within the industry.

FEATHERSTONE MENTORSHIP PROGRAM



A Quanta operating company in Canada developed the Featherstone Mentorship Program 10 years ago to provide on-the-job mentorship and training for community members interested in working in the energy infrastructure industry. The program offers an opportunity to gain hands-on experience and local participation with the intent of eliminating barriers to joining the energy industry. The program provides tangible training and work opportunities to local people and is a critical component of how the company engages with Indigenous communities and other stakeholders on projects. These efforts include employing a dedicated Indigenous Liaison to support recruiting Indigenous community members interested in gaining on-the-job work experience and providing one-on-one support to the Featherstone Mentorship Training Program.

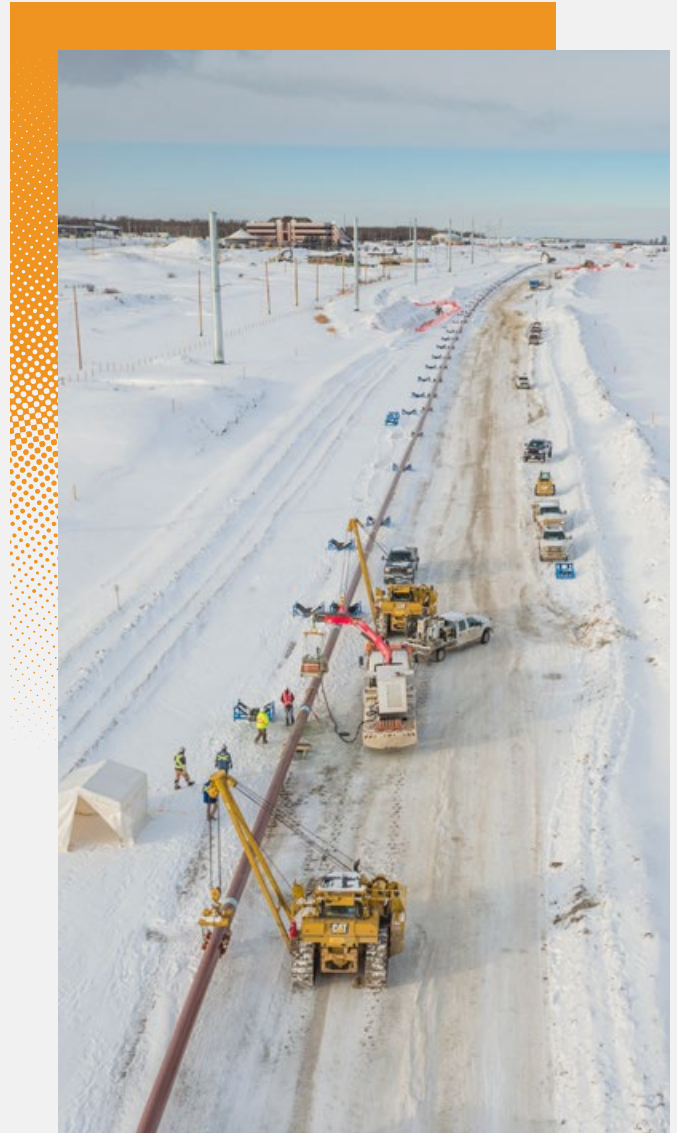
IN FOCUS

A NEW CHAPTER IN COLLABORATION

A Quanta operating company partners with Indigenous-led companies from the Skin Tye, Wet'suwet'en, and Witsset First Nations.

A Quanta operating company has partnered with three Canadian Indigenous communities along a major gas project route. The partnership is a collaboration with Natanlii Development Corporation (Skin Tye First Nation), Yinka Dene Economic Development Limited Partnership (Wet'suwet'en First Nation), and Kyah Development Corporation (Witsset First Nation). It leverages each Nation's deep knowledge and commitment to the land while providing significant opportunities for local Indigenous participation in the region. These First Nation partnership agreements were established at the beginning of the project, ensuring strong collaboration between contractors and Indigenous and local communities, and they represent an integral part of the project and the legacy it leaves.

The Quanta operating company has a long track record of working collaboratively with the communities it operates in, supporting and participating in numerous other community legacy investment projects, including the construction of a cultural center, clan cabins, and a baseball field. Additional community investment and engagement activities include sponsorship of cultural and career events.



Skin Tye
First Nation



Supporting Employee Wellness

One additional Quanta benefit offering in 2022 was its mental health first aid program, which teaches the importance of identifying signals from those experiencing mental health issues. In addition, there are wellness moments in meetings to help create a positive organizational culture. This program augments existing wellness programs, including flexible work-from-home opportunities, healthy daily lunches, and sponsoring community events.

Quanta Named Healthiest Company in Texas & Ninth Healthiest Company in the United States

In 2022, Quanta was named the healthiest company in Texas in the extra-large company category and the ninth healthiest company in the United States. Each year, the Healthiest Employers® awards program honors the best and brightest in workplace wellness.

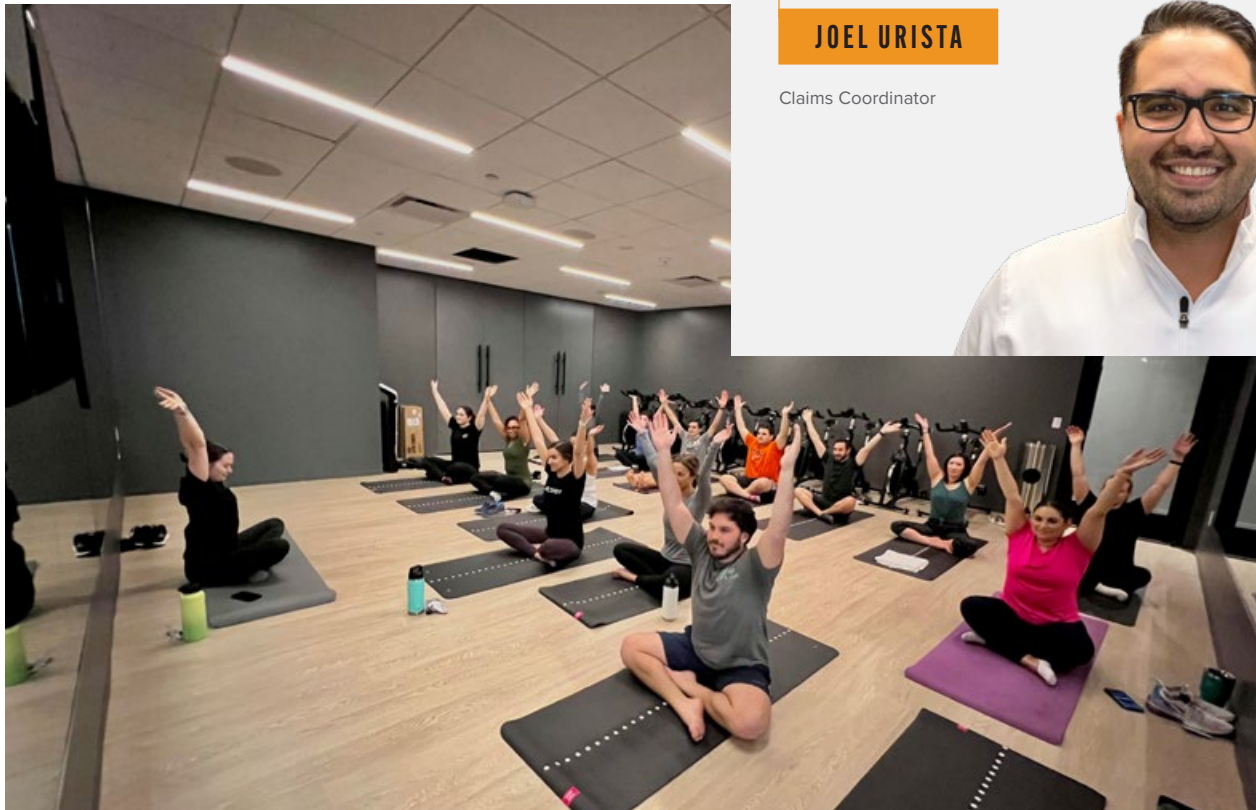


I have always wanted to be healthier and take better care of myself, but I have lacked the structure or plan to do it,” said Joel Urista, Claims Coordinator at Quanta. “However, at Quanta, healthy habits are readily available, and the wellness program addresses multiple aspects of healthy living. For many years, I would go without a physical, but the health fair here at work makes it so easy to receive one. The Virgin Pulse app also helps keep me motivated with daily tips and rewards me for participating. It is also great that the rewards are steered towards healthier living. More recently, the Wondr program has taught me many simple things to improve my eating habits.

I CANNOT SAY ENOUGH ABOUT THE WELLNESS PROGRAM AND AM HAPPY TO FINALLY HAVE **A PLAN TO HELP ME BE HEALTHIER.**

JOEL URISTA

Claims Coordinator





Raising Awareness About Human Trafficking

Human trafficking—or modern-day slavery—is a global problem in which people are illegally bought and sold for forced labor or commercial sex. Globally, there are an estimated 50 million victims of human trafficking, including thousands of children and adults in the U.S. and Canada. Human trafficking has been reported in all 50 U.S. states and 10 Canadian provinces.

Several Quanta operating companies are part of the Pipeline Contractors Association (PLCA), which plays an active role in preventing and intervening in sex trafficking. The PLCA developed the Pipeliners on Watch (POW) program, in partnership with Truckers Against Trafficking (TAT), to help educate pipeline workers on how to recognize trafficking victims and get them help. TAT and POW have developed a toolkit and other PLCA-branded resources specifically designed for the pipeline industry. In addition, POW directs its network to TAT's niche-specific training videos for the energy and trucking industries. In 2022, Annie Sovcik, TAT's Senior Director of Programs and Strategic Initiatives, gave a presentation on human trafficking prevention and intervention at a large Quanta operating company's Safety and Leadership conference.

FOCUS ON MENTAL HEALTH

With 45 suicides per 100,000 workers, the construction industry has one of the highest suicide rates of any industry!¹ To provide awareness and a safe space for important conversations about all mental health concerns, a Quanta operating company has developed a new mental health safety campaign designed to optimize the mental health of work site employees.

Bringing more awareness of mental health to our safety culture industry-wide is a step toward normalizing the conversation and keeping everyone safe.



The focus of the program is to identify individuals who may be facing mental health challenges and emphasize the importance of seeking early mental health care for better treatment outcomes. Workers are encouraged to practice active listening, which helps to maintain camaraderie and connectedness. Additional information is also provided about other organizations and resources that can be leveraged to discuss and address mental health awareness in a private setting.

¹ [cdc.gov/suicide/facts/disparities-in-suicide.html](https://www.cdc.gov/suicide/facts/disparities-in-suicide.html)

COMMITMENT

**OUR COMMITMENT
TO PLANET**



TO PLANET



IN THIS SECTION

- 86 Reducing Our Impact: Our Carbon Footprint
- 94 Collaborating With Industry to Deliver the Hydrogen Economy
- 100 Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting

2022 HIGHLIGHTS

→ **2.6%**

reduction in fleet CO₂ intensity (g CO₂ / \$ revenue) YOY

→ **9.5%**

reduction in fleet CO₂ intensity (g CO₂ / \$ revenue) since 2019

→ **INCREASED
SUSTAINABILITY
DISCLOSURE**

by publishing new metrics this year for Scope 3 emissions, biodiversity, and waste

OUR OPPORTUNITIES

Transitioning parts of our vehicle fleet to low- and zero-emission technologies

Reducing Quanta facilities' Scope 2 and water intensity through innovative methods

Accelerating the pace of change with our customers to address sustainability risks and opportunities

We are developing a comprehensive transition plan covering all of Quanta's sources of greenhouse gas emissions. Although the electrification of a portion of our fleet will be a core component of this transition plan, the truck remains the essential tool in the construction industry that enables the energy transition to be built and for our impact on society to grow. Throughout this growth, we remain focused on improving our efficiency while advancing our progress to electrify our fleet.

REDUCING OUR IMPACT:

OUR CARBON FOOTPRINT





ADDRESSING OUR FOOTPRINT

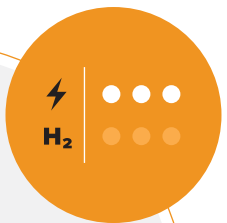
Our transition plan, when complete, will address our three significant sources of greenhouse gas (GHG) emissions by focusing on switching from the direct combustion of fossil fuels toward electric sources while at the same time decarbonizing the electricity that we consume:

- **Our Fleet:** GHG emissions from our fleet are our most significant source of GHG emissions. Over the coming years, we plan to invest in electric vehicles to reduce our Scope 1 emissions intensity.
- **Our Facilities:** Increasing energy efficiency is an important measure to reduce power demand for our more than 1,000 facilities.
- **Our Tools:** We are already partnering with major tool suppliers to transition to using battery-powered cordless systems.

Fleet Decarbonization: Understanding the Moving Parts

In late 2023, we expect to take delivery of our first all-electric Chevrolet Silverado trucks. This represents the beginning of a long-term commitment to transform, where practical, our fleet of on-road vehicles to low- and zero-emission technologies and employ the most advanced vehicle technologies to perform our services efficiently and safely across the regions we operate in.

We operate infrastructure solutions that utilize trucks as a vital tool for enabling the energy transition to be built. For Quanta, fleet decarbonization goes far beyond simply putting drivers in EVs: the transition requires the successful convergence of vehicle procurement, charging infrastructure, budgetary considerations, driver education, maintenance requirements, and much more.

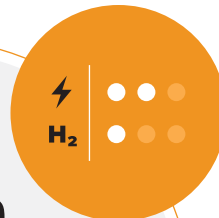


18%

Light-Duty Vehicles

About 13,000 assets

Includes pickups and cargo vans

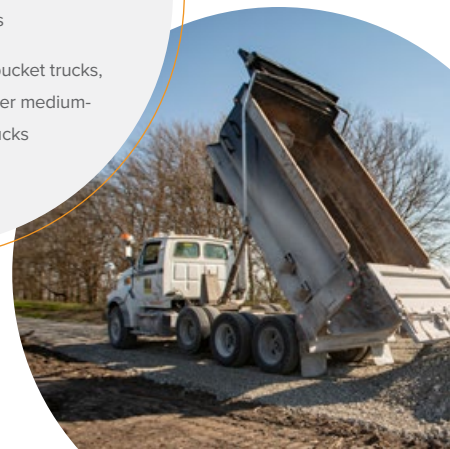


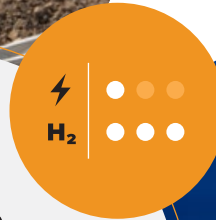
40%

On-Road Fleet

About 30,000 assets

Includes light-duty vehicles and bucket trucks, cranes, digger derricks, and other medium- and heavy-duty work trucks





60%

Off-Road Fleet


About 44,000 assets

Includes excavators, cranes, bulldozers, rollers, trenchers, and pipelayers



A DEEP DIVE INTO QUANTA'S FLEET

Quanta relies on assets of more than 74,000 owned and leased units worldwide. Our fleet is heterogeneous, with a mix of on- and off-road equipment. Technology plays a massive role in unlocking the pathways to decarbonization for Quanta.

 Long-term electric potential

H₂ Long-term hydrogen potential



IN FOCUS

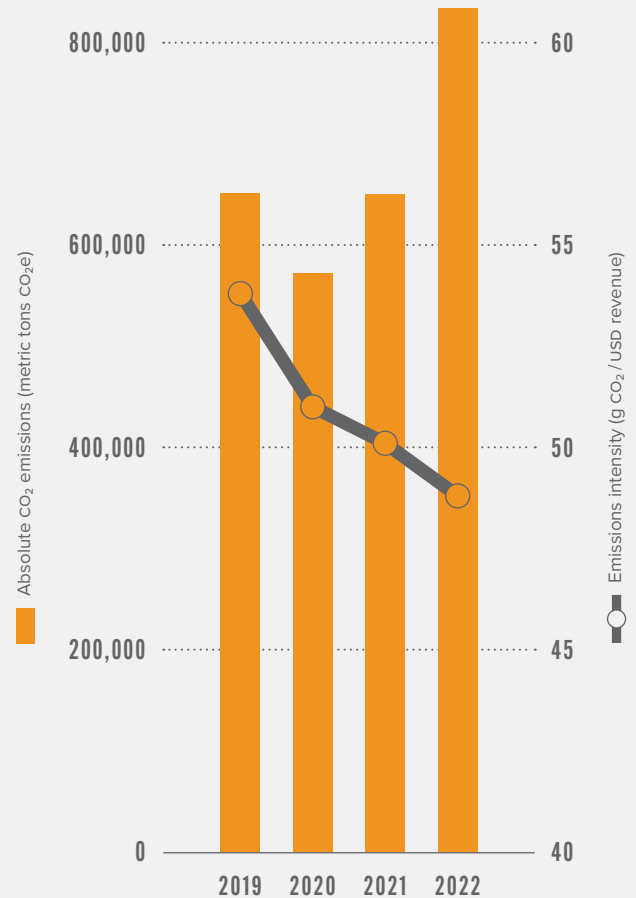
TRACKING OUR PERFORMANCE

With our growth and acquisitions, in 2022 our absolute carbon emissions increased by 28%; however, our carbon intensity decreased by 2.6%. This measurement quantifies total carbon emissions, in grams of carbon dioxide equivalent (CO₂e) per dollar of revenue (g CO₂/USD revenue). This is the fourth consecutive year we have seen our carbon intensity decrease, which can be attributed to several factors, including:

- a shift in the mix of work our companies do towards work that has a lower average carbon intensity,
- acquisition of businesses that have a carbon intensity lower than our overall business average,
- continual vehicle purchases that result in improvements in average vehicle engine and transmission efficiency,
- utilization of telematics data, which enables us to measure, assess, and optimize our fleet’s fuel efficiency and emissions performance, and
- replacing gas-powered tools with lower carbon-intensity battery-operated tools.

See the appendix on page 124 for our carbon data.

FLEET CO₂ EMISSIONS

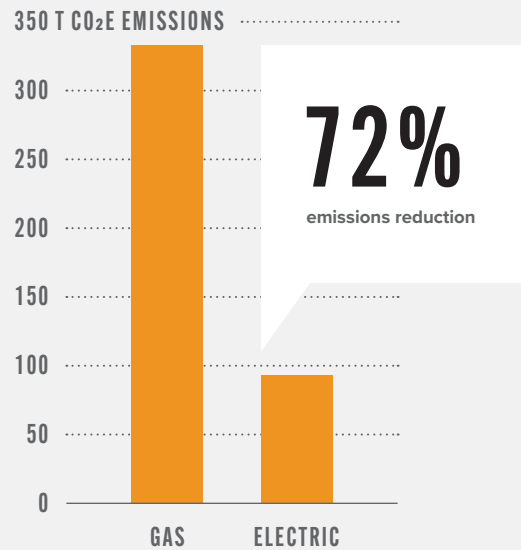




INCREASING EFFICIENCY

In addition to increasing job site efficiency and safety, replacing gas-powered tools with battery-operated tools can have a positive impact on reducing GHG emissions. For example, replacing a gas-powered saw with the MX FUEL™ 350 mm Cut-Off Saw can reduce¹ GHG emissions by 72%.² For 500 of these tools being used on average 200 days a year and displacing two gas tank refills a day, this equates to an annual savings of 2,400 tons of CO₂.

ANNUAL GHG SAVINGS FOR REPLACING 500 GAS-POWERED HAND TOOLS WITH BATTERY-POWERED CORDLESS SYSTEMS



Electric Power Tools: Reduced Emissions & Workplace Hazards

Our partnership with Milwaukee Tool is enabling us to transition to battery-powered cordless systems to create a more sustainable construction environment while at the same time increasing productivity and saving costs.

Quanta continues to purchase the MX FUEL™ range of Milwaukee Tool that provide the equivalent power of corded and gas-powered light equipment and improve user health and safety by eliminating harmful fumes and reducing noise and vibration. Battery-powered hand tools can increase productivity by allowing users to work in confined spaces with less ventilation and offer increased mobility within the job site. This can reduce worker fatigue, as fewer additional items are needed to perform the task at hand. In addition, cordless tools reduce tripping hazards and are easier to store, maximizing storage space.

Additionally, battery-powered tools do not need gas or oil, which generally results in cost savings over the lifetime of the tool, as well as eliminating the potential for deferred filter maintenance or incorrect fuel mixture being used and causing damage to the engine components.

¹ Assumptions provided by Milwaukee Tool: milwaukeetool.eu/support/mx-fuel-calculations/mxf-cos350/

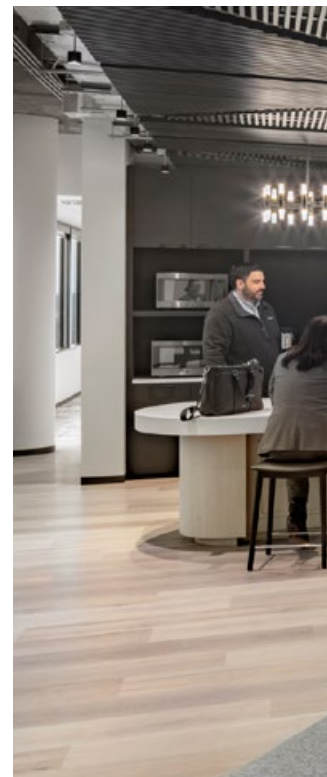
² Average 2022 U.S. grid emissions factor was used to calculate this benefit: epa.gov/system/files/documents/2022-04/ghg_emission_factors_hub.pdf

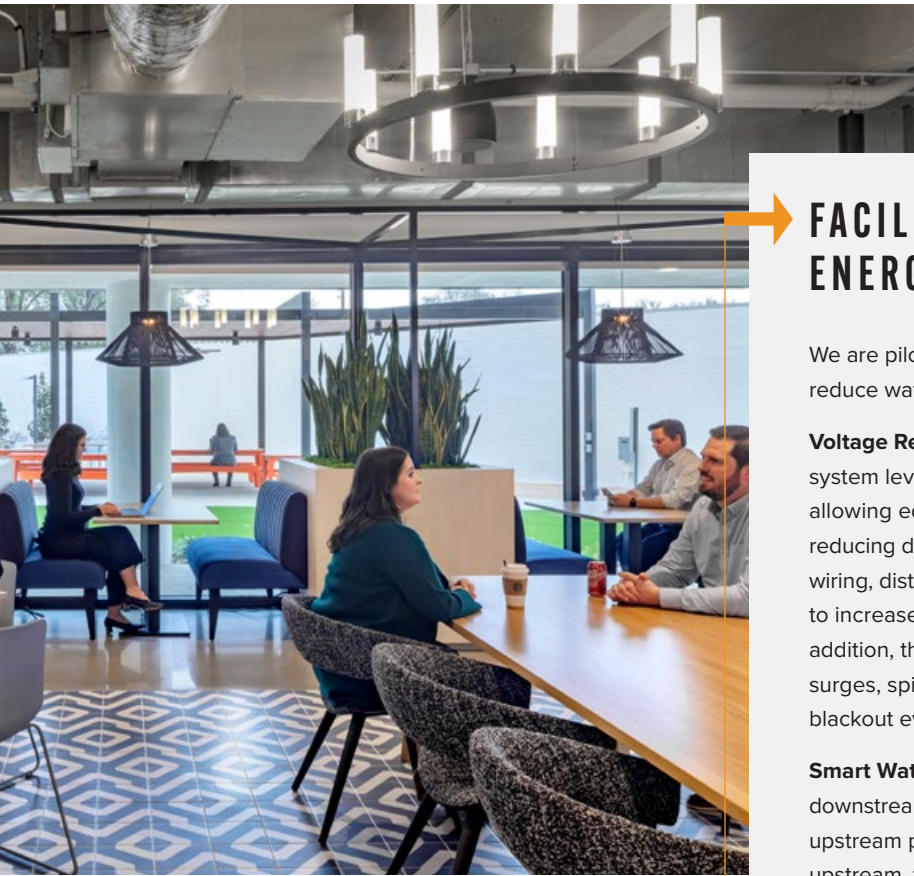
Building Sustainability Into Our New Headquarters

In 2022, Quanta completed the construction of a new LEED-certified headquarters designed to meet the needs of our workforce decades into the future. Reflecting the growing demand for healthy and sustainable buildings, the 38,700 square foot building is designed to meet industry standards in sustainability, health, and wellness.

The new headquarters uses several technologies and systems to boost efficiencies and enhance occupant health and well-being, including:

- office positions optimize exposure to natural daylight, supporting a healthier indoor environment than industry standards,
- intelligent building technology that uses sensors to regulate artificial light, temperature control, and ventilation,
- an outdoor rooftop terrace with native-planted outdoor greenspaces,
- sit–stand desks and smaller offices to encourage movement and collaboration, and
- a fully equipped on-site fitness center with daily exercise class offerings.





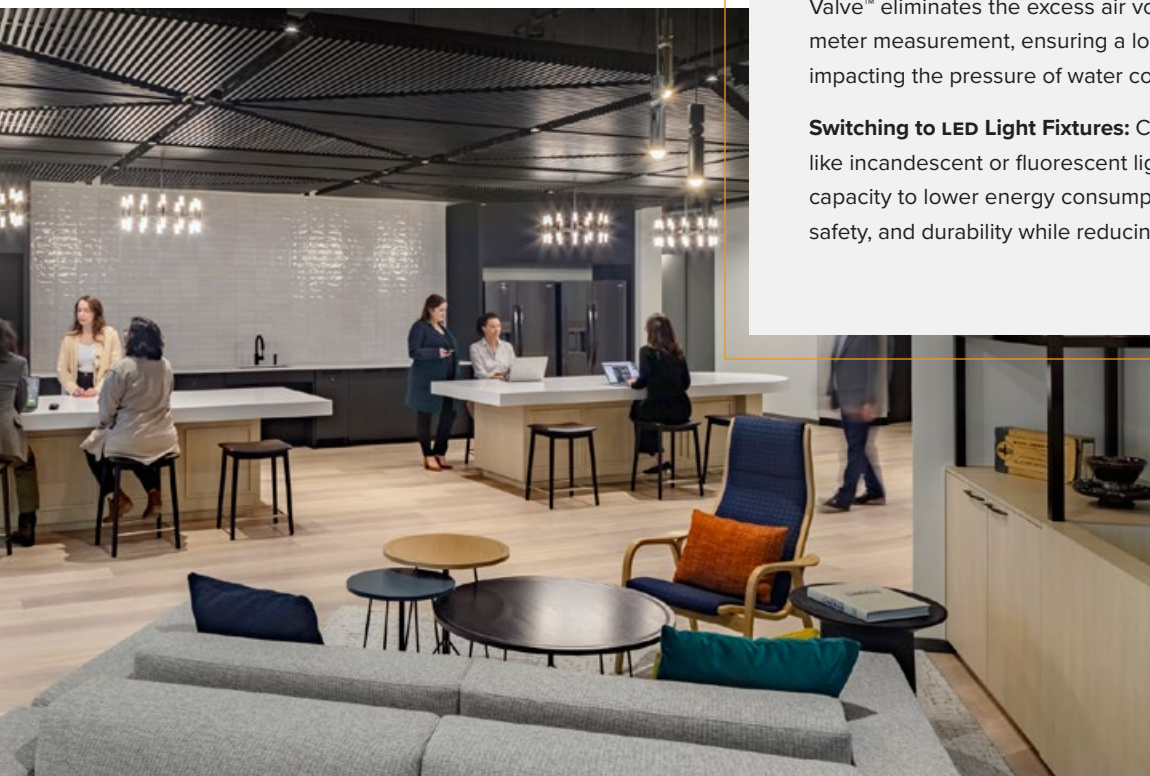
FACILITIES: PILOTING ENERGY EFFICIENCY DEVICES

We are piloting some devices at our Quanta facilities that can reduce water and electricity consumption:

Voltage Recycling System (VRS): The VRS is installed at the system level rather than directly at the electronic device itself, allowing equipment to consume sufficient real power while reducing downstream and upstream electrical losses in building wiring, distribution wiring, and transformers. The VRS is designed to increase and balance voltage across all supply phases. In addition, the VRS buffers transient voltage and eliminates sags, surges, spikes, and blips that commonly cause brownout and blackout events.

Smart Water Valve: The Smart Valve™ constantly adjusts to downstream demand while maintaining near-city (static) pressure upstream past the water meter. By not allowing pressure to drop upstream, the valve prevents air volume from expanding due to the typical pressure drop created by water demand. The Smart Valve™ eliminates the excess air volume at the point of water meter measurement, ensuring a lower meter reading while not impacting the pressure of water coming into the facility.

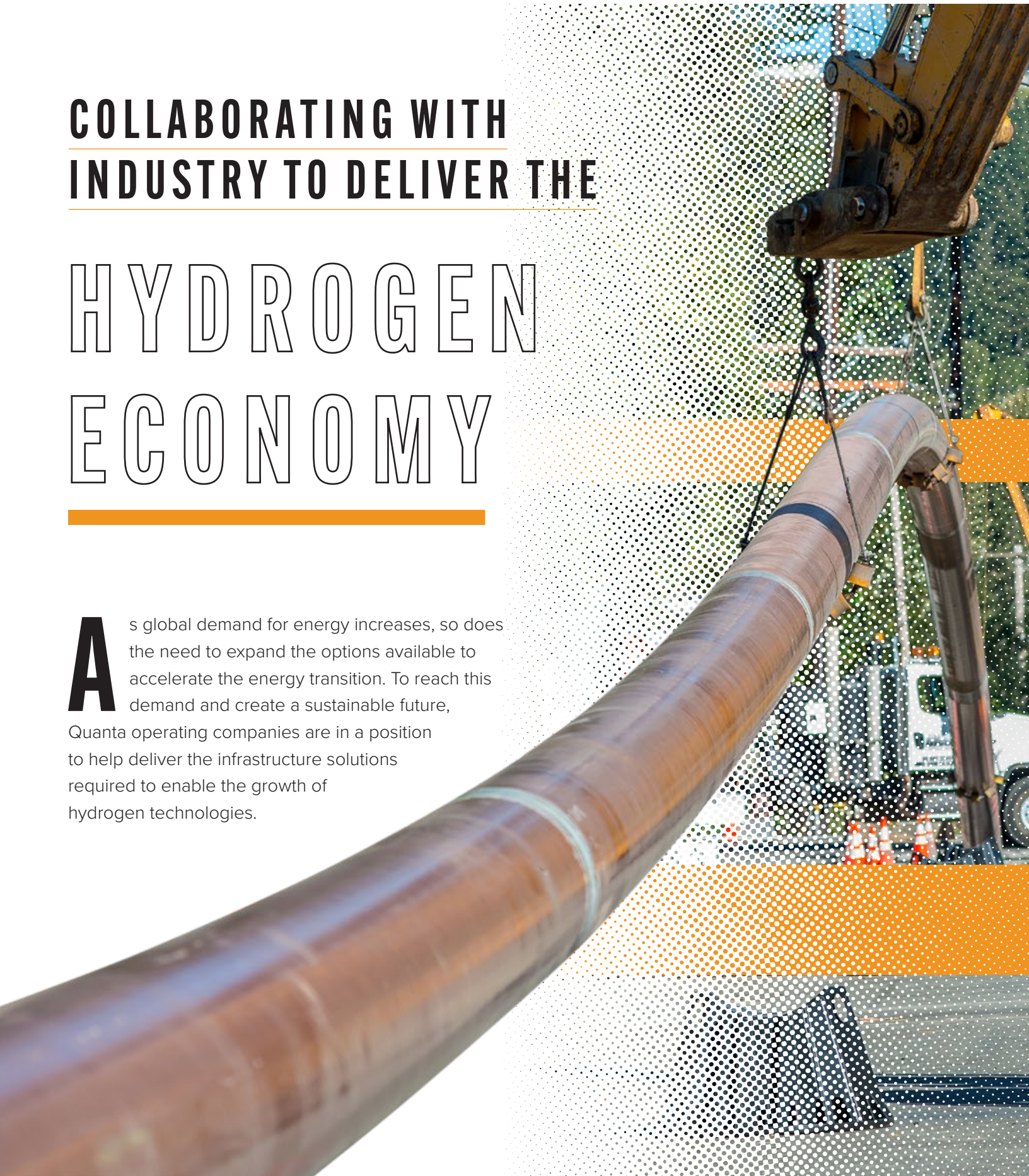
Switching to LED Light Fixtures: Compared to traditional fixtures like incandescent or fluorescent lighting, LED lighting has the capacity to lower energy consumption and increase efficiency, safety, and durability while reducing maintenance costs.

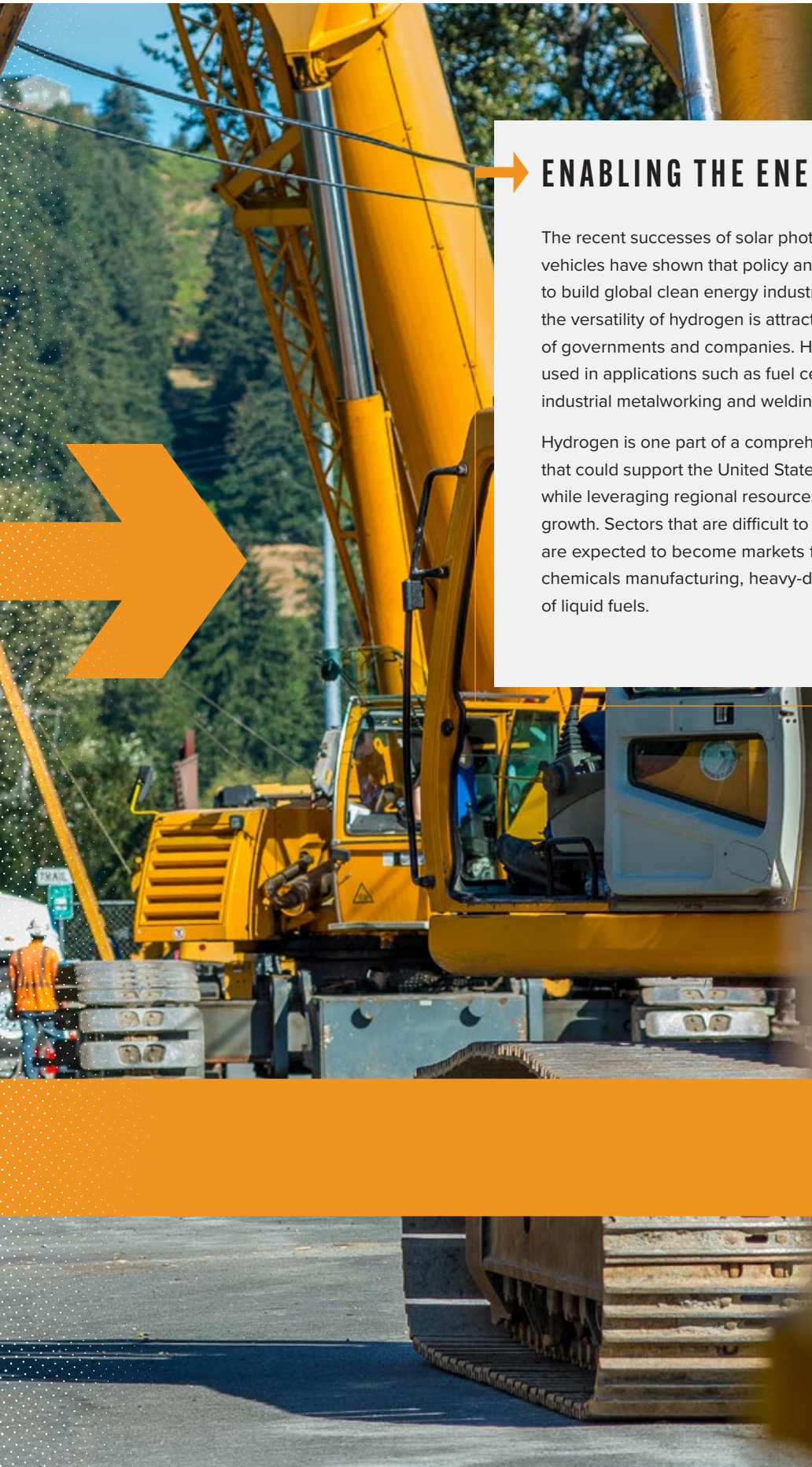


COLLABORATING WITH INDUSTRY TO DELIVER THE

HYDROGEN ECONOMY

As global demand for energy increases, so does the need to expand the options available to accelerate the energy transition. To reach this demand and create a sustainable future, Quanta operating companies are in a position to help deliver the infrastructure solutions required to enable the growth of hydrogen technologies.





ENABLING THE ENERGY TRANSITION

The recent successes of solar photovoltaics (PV), wind, batteries, and electric vehicles have shown that policy and technology innovations have the power to build global clean energy industries. With the global energy sector in flux, the versatility of hydrogen is attracting strong interest from a diverse group of governments and companies. Hydrogen can be stored, transported, and used in applications such as fuel cells, ammonia production, biofuels, and industrial metalworking and welding.

Hydrogen is one part of a comprehensive portfolio of energy technologies that could support the United States' transition to a low-emissions economy while leveraging regional resources and creating equitable and sustainable growth. Sectors that are difficult to decarbonize using traditional approaches are expected to become markets for clean hydrogen, such as steel and chemicals manufacturing, heavy-duty transportation, and the production of liquid fuels.



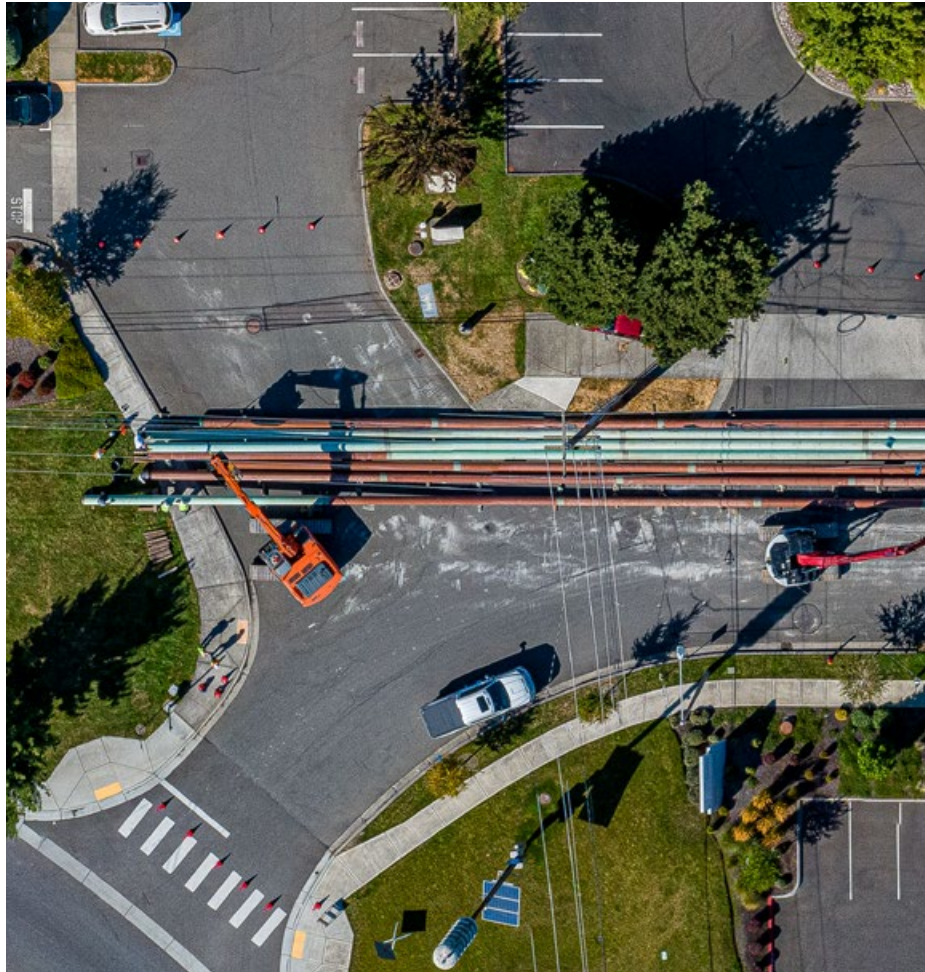
The Development & Use of Hydrogen Technologies

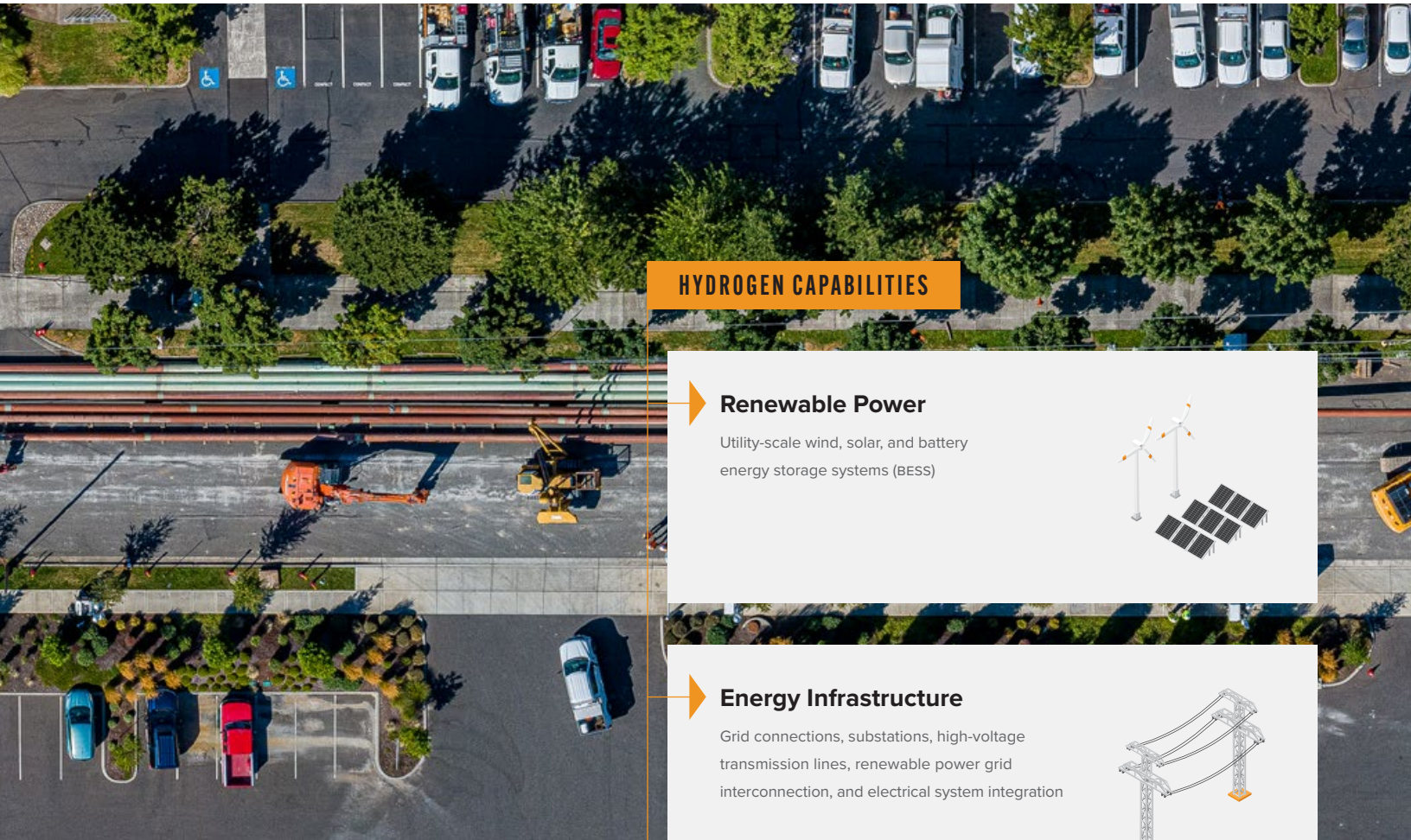
With declining costs for renewable electricity, mainly from solar PV and wind, interest is growing in electrolysis-derived hydrogen, and there have been several demonstration projects in recent years. Green hydrogen does not yet exist in the United States' energy mix. However, as of August 2022, 374 clean hydrogen projects have been publicly announced that have the potential to produce 2.2 million metric tons of clean hydrogen.¹ Building electrolyzers at locations with excellent renewable resource conditions could become an economically viable supply option for hydrogen, even after considering the transmission and distribution costs of transporting hydrogen from renewable, often remote locations to the end users.

The number of countries with policies that directly support investment in hydrogen technologies and the number of sectors they target is increasing.² Quanta has started collaborating with major hydrogen production providers to enable the adoption of hydrogen as a potential clean technology option for the energy transition.

¹ hydrogenfwd.org/hydrogen-forward-february-newsletter/

² [iea.org/reports/the-future-of-hydrogen](https://www.iea.org/reports/the-future-of-hydrogen)





HYDROGEN CAPABILITIES

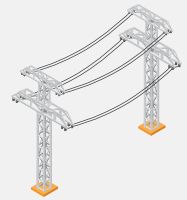
Renewable Power

Utility-scale wind, solar, and battery energy storage systems (BESS)



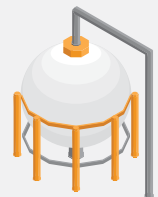
Energy Infrastructure

Grid connections, substations, high-voltage transmission lines, renewable power grid interconnection, and electrical system integration



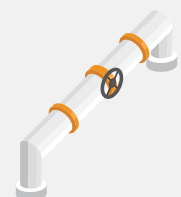
Production

H₂ production at scale in partnership with OEM providers, detailed engineering design, procurement support, control systems, instrumentation, and system integration



Delivery & Storage

Gas compression, pipelines, tank storage, pump stations, control systems, and blending



Quanta's Capabilities

Quanta teams with original equipment manufacturer (OEM) specialists to construct facilities, with the OEM providing the electrolysis equipment and Quanta working with developers to integrate the OEM-provided production equipment into a complete facility for green hydrogen production.

Quanta also provides constructability expertise to the emerging hydrogen market. We already build the complementary infrastructure for hydrogen generation in the green (renewables) and blue (gas) space. This includes related utility-scale renewables, substations, transmission lines, water lines, and pipeline infrastructure.

IN FOCUS

COLLABORATING ON HYDROGEN INFRASTRUCTURE

Quanta is part of a multi-lab, multi-industry R&D effort to overcome technical challenges associated with hydrogen transport in the U.S.

Led by the National Renewable Energy Laboratory (NREL), the collaborative research and development (R&D) project known as HyBlend™ addresses the technical barriers to blending hydrogen in natural gas pipelines.³ Quanta is one of more than 30 stakeholders from industry, nonprofits, and academia contributing to the project. GTI Energy, a leading independent nonprofit organization addressing global energy and environmental changes, is serving as an industry liaison. They will also play a key role in life-cycle and techno-economic analyses supporting publicly accessible tools to characterize the opportunities, costs, and risks of blending hydrogen in the natural gas pipeline network.

Blending hydrogen into the existing natural gas infrastructure has potential national and regional benefits for energy storage, resiliency, and emissions reductions. Hydrogen produced from renewable, nuclear, or other resources can be injected into natural gas pipelines. Conventional end users of natural gas can then use the blend to generate power and heat. Several projects worldwide are demonstrating blends with hydrogen concentrations as high as 20%. Still, the risks and long-term impact of hydrogen blending within existing pipeline networks must be better understood, making it challenging for utilities and industry to plan around blending at a large scale.

³ energy.gov/eere/fuelcells/hyblend-opportunities-hydrogen-blending-natural-gas-pipelines





AUSTRALIAN HYDROGEN COUNCIL

Quanta operating companies in Australia are members of the Australian Hydrogen Council (AHC), which is the primary representative for the hydrogen industry in Australia. AHC aims to represent the emerging hydrogen industry and connect it with its stakeholders to collectively create a clean and resilient energy future using hydrogen as a key part of the energy mix. The AHC strategic goals are to:

- progress Australia's establishment as a leading global hydrogen producer,
- advocate for policy settings that accelerate Australia's move towards clean hydrogen technologies,
- support collaboration within the industry and with governments, academia, and the public, and
- be the trusted, acknowledged, and influential voice of the clean hydrogen industry.

BIODIVERSITY, ENVIRONMENTAL & CIRCULAR ECONOMY MANAGEMENT:

RESTORING & PROTECTING

Our goals are to design projects to limit environmental impact and to better understand biodiversity in the locations where we operate by implementing appropriate protection, management, and enhancement initiatives.





We recognize biodiversity's critical role in sustaining healthy ecosystems and supporting health and well-being. We also understand the intrinsic value of biodiversity and the significance of the unique flora and fauna within our work areas. Some of our projects are adjacent to or within areas of high biodiversity, including temperate, arctic, and desert zones. In partnership with our customers, managing the environmental impact of projects and operations is a part of our commitment to responsible project execution and integral to meeting regulatory requirements and maintaining community support for our activities.

Together with our customers, we develop a risk-based approach for creating ecosystem and biodiversity management plans to minimize, mitigate, and manage ecosystem and biodiversity impacts. These plans are designed to protect sensitive wildlife areas, flora and fauna, ecosystems, and conservation areas. In addition, they establish conditions to facilitate the rehabilitation or restoration of land areas impacted by Quanta operating companies' activities.

Where our operations have affected biodiversity, we have taken steps to restore habitats, for example, by planting native vegetation, which enhances biodiversity. We also seek opportunities to contribute positively to environmental stewardship, including participating in environmental research projects and local conservation initiatives.



Making Progress: How We Measure Biodiversity

At Quanta, we understand that further progress in reducing biodiversity loss relies on the improved quantification of the connections between drivers of habitat loss and subsequent biodiversity impacts. Therefore, our goal is to measure our environmental impact where possible and work with our customers on post-construction ecological restoration, where Quanta operating companies make efforts to return sites as close as possible to their original condition after completing construction in an area. This will enable us to track our progress and develop programs that use these metrics as benchmarks for measuring our progress. As a starting point, this year, we have measured the physical footprint of our facilities because we know that our 1,092 facilities impact the environment (see “Measuring Our Biodiversity Impact,” right).

Given the complexity of our construction work, measuring the amount of land disturbed during our projects is daunting due to the sheer number of projects and continually changing conditions in the field during construction. However, this year, we have made significant progress using geographic information system (GIS) data of our major right-of-way projects to estimate the amount of land disturbed on large transmission and pipeline projects over 100 miles long that Quanta operating companies perform for customers. We anticipate using this information as a platform for greater biodiversity-related disclosure in years to come.

MEASURING OUR BIODIVERSITY IMPACT

CATEGORY	ACRES
Total area, Quanta facilities	7,865
Total area impacted, major transmission projects	49,785
Total area impacted, major pipeline projects	22,975

Our Approach to Managing Biodiversity

Our vision for biodiversity management is to work with our customers to minimize environmental impacts on projects and restore areas to re-create biodiversity value.

Technology

Where possible we plan to implement advanced technology, such as LiDAR, to enable us to better measure our environmental footprint and remediation efforts.



Restore

On a progressive basis, we want to restore areas in order to re-create biodiversity value.

We aim to preserve the indigenous vegetation of the land when we build work sites and use native plants and species when rehabilitating work sites.

We partner with our customers to implement measures such as biodegradable erosion controls and native and pollinator-friendly species into restoration seed mixes.



Minimize

At all times, we want to minimize impacts that are unavoidable, adopting best practices in our operations.

Quanta operating companies implement Quanta's Environmental Management System (EMS), which is designed to anticipate, prevent, manage, and mitigate environmental risks and conditions that could adversely affect the environment.



Avoid

On projects, we want to avoid biodiversity impacts whenever possible, and Quanta facilities are designed to limit the physical footprint to reduce potential environmental impacts.

To help avoid negative impacts on the environment, Quanta utilizes an Environmental Compliance Awareness Program (ECAP) for our operations.



Measure

To know we are making progress we have to measure our impact on the environment.





Restoring Biodiversity: Post-Construction Ecological Restoration

Ecological restoration is essential for reestablishing, enhancing, and sustaining pollination. Compared to nonnative plants, native plant species provide greater value to wildlife, produce water quality benefits, and require less irrigation, fertilizer, and pesticide maintenance. A Quanta operating company in Virginia is partnering with a customer to distribute tailor-made seed mixes to address specific physical and construction characteristics along a right-of-way. All seed mix options share some common features:

- All species native to the eastern United States and regionally appropriate for the Virginia and West Virginia counties
- Mixes designed in partnership with Ernst Conservation Seeds, Inc.
 - Variety of floral structures to accommodate different pollinators
 - Designed for May through early October blooming

Along the right-of-way, teams use survey data to allocate seed mixes for specific physical features:

- **Riparian Mix:** Created to revegetate locations on the banks along water features where erosion concerns and wet soils are present
- **Wet Meadows Mix:** Created to revegetate locations that are usually wet but sometimes dry; species can tolerate saturated or dry soils
- **Wetland Mix:** Created to revegetate locations always inundated or saturated; species can constantly tolerate wet conditions



Providing Flood Remediation Services

In the fall of 2021, heavy rain in the south and central regions of British Columbia, Canada, caused flooding along the Coldwater, Nicola, and Thompson Rivers. High river flow rates created widespread flooding, resulting in large amounts of debris being deposited along the three rivers. A Quanta operating company provided services for removing the debris lodged in and along the rivers.

Pre-planning work started in May 2022. Water levels dropped in July 2022, which allowed access to the debris lodged in the rivers and along the riverbanks. More than 675 tons of debris were removed, which included metal objects, vehicles, natural wood, lumber, plastic, pavement, and large amounts of concrete.

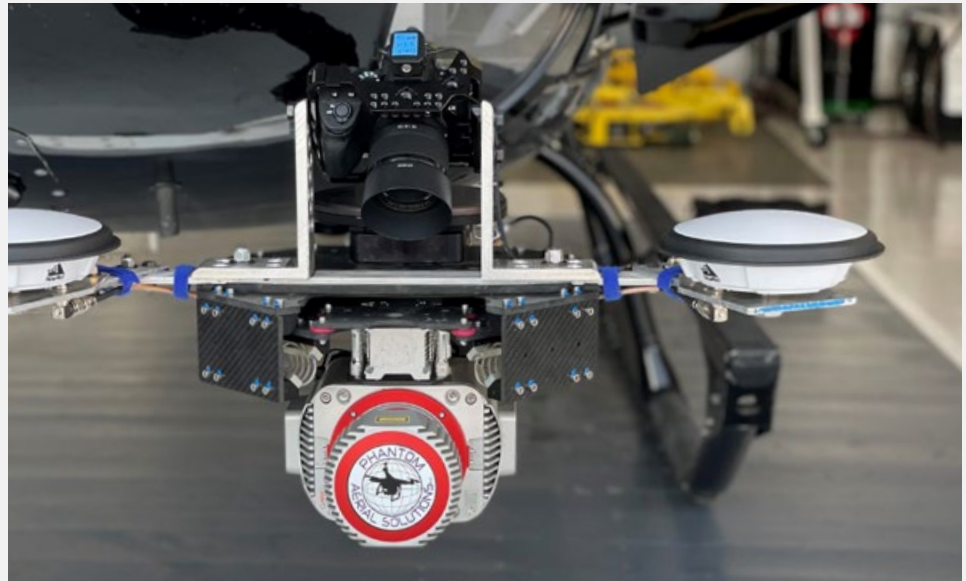
An integral part of each work team throughout the project were several First Nations groups, who provided cultural monitors to work alongside the Quanta operating company and local contractors to ensure historical artifacts were handled and reported appropriately. In addition to cultural monitors, all work site teams included an archaeologist, a biologist, and an environmental professional to inspect the sites, ensuring historical, wildlife, aquatic, and environmental requirements were maintained.

Numerous personal items were discovered, including snowshoes and wedding and family photographs. Each item was handled with care and respect, reported appropriately, and returned to local community residences.

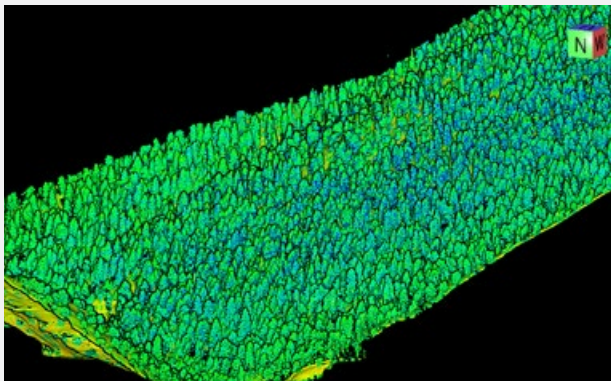
IN FOCUS

LIDAR SUPPORTING SUSTAINABILITY IN DESIGN & CONSTRUCTION OF POWER INFRASTRUCTURE

Light Detection and Ranging (LiDAR) technology provides detailed measurements of physical objects, affording dense clouds of points that make up a “digital twin” of the observed area.



Completing repeat observations over time enables detailed comparison of “point clouds,” which accurately quantify changes to the physical environment. These changes include the ability to quantify and differentiate items in the natural world, such



as terrain (for example, rock versus soil) and vegetation (trees, shrubbery, and grasses). Changes to the environment during construction can be calculated and quantified, including the volume of soil, board feet of trees, and volume of vegetation. LiDAR has been used extensively in the mining industry with multiple observations to verify the growth of plants installed during reclamation revegetation efforts.

Completing LiDAR observations pre- and post-construction can be utilized to mitigate damage claims from landowners who are adjacent to the construction corridor. Additionally, this technology can document the quality of construction to defend against claims made by the owner. LiDAR is also the preeminent technology for verifying power line condition, clearance, vegetation, and terrain measurements.

Quanta owns helicopters fitted with a LiDAR system and can integrate an analytic extraction program to support overhead and underground construction projects.



How Quanta Operating Companies Collaborate With Customers on Sustainable Environment Management

A Quanta operating company in Southern California collaborates with its customer to closely monitor environmental performance during construction projects. The customer rates and scores the company monthly across various ecological indicators, including environmental compliance, monitoring, providing environmental metrics at monthly scorecard meetings, and “good catches,” which include identifying and managing native species, such as tortoises, eagles, and other nesting birds.

Another Quanta operating company in California is working closely with its customer to preserve the endangered Joshua tree. The western Joshua tree was classified as a candidate for protection under the California Department of Fish and Wildlife in the fall of 2020. In North American deserts, rising temperatures coupled with prolonged drought may significantly reduce the Joshua tree’s current habitat.¹ Work performed by the company within ten feet of a Joshua tree results in the environmental staff being contacted for additional guidance.

¹ esajournals.onlinelibrary.wiley.com/doi/epdf/10.1002/ecs2.2763

Circular Economy Solutions: Supply Chain Sustainability in the Utility Industry

As well as being the right thing for a responsible business, a focus on circular economy and waste can bring opportunities to create new business models, drive innovation, and respond to customer expectations. Working with our supply chain is vital to help society progress towards circular materials being used in the work that we do. Quanta is a member of the Electric Utility Industry Sustainable Supply Chain Alliance (SCCA), whose mission is to advance sustainability best practices in utility supply chain activities and supplier networks.

SCCA is developing and delivering guidance and training on key sustainability topics, including greenhouse gas (GHG) emissions reporting, sustainable infrastructure construction, human rights, and climate resilience. The Sustainability Project (TSP) questionnaire, SCCA's supplier survey tool, also aims to educate suppliers on best practices while evaluating performance. In 2022, the SCCA members invited over 1,600 suppliers to respond to the TSP questionnaire.

SSCA UTILITY MEMBER IMPACT

→ **\$120 B**

in procurement spend managed

→ **35 M**

megatons CO₂e in approximate annual carbon impact of goods and services purchased

→ **1 B+**

pounds of material diverted from landfills annually

SSCA ACTION PLAN

→ Advance member supply chain sustainability programs

through strategy development guidance, facilitating communities of practice, supporting implementation, and offering one-on-one support

→ Address industry-level challenges

through annual supplier assessments, provision of trainings, education, guidance documents, deep-dive workshops, and topic-specific value chain work teams

→ Promote member performance

through peer engagement, practice sharing, benchmarking, and highlighting the valuable contributions of members to the future of the industry



Engaging With Our Suppliers

At Quanta, we recognize that organizations not only need to have systems and procedures in place to track the impact of sustainability along their supply chains, but they also need to ensure that these practices are routinely reviewed so that their business demands and expectations are in line with evolving stakeholder requirements.

Quanta Services' supply chain partners are an integral part of our operations, helping us meet client needs safely and effectively. To help achieve these objectives, we leverage industry-leading, third-party supplier management platforms to collect and review supplier and contractor information to assess and mitigate supply chain risk and to ensure our standards are met. Through these platforms, we can prequalify and continually assess suppliers and vendors. This constant engagement allows us to develop strong, long-term, and mutually beneficial supplier relationships, which are critical to successfully completing our client's projects.

MAKING PROGRESS: MEASURING WASTE

Over the long term, we are committed to reducing waste by applying the principles of a circular economy across our businesses and supply chains. This means placing value on reusing resources by moving from a linear system to one where materials are reused, repurposed, and recycled, helping to reduce pressure on the world's resources. This starts by measuring our footprint. As a result, we are pleased this year to be reporting for the first time our hazardous waste from electronic equipment and non-hazardous waste from used engine oil.



IN FOCUS

QUANTA AVIATION: SAFETY & EFFICIENCY IN DEMANDING ENVIRONMENTS

Prior to the 1980s, power line work was completed by ground-based bucket trucks or lineworkers climbing and walking along the wires. Mountainous terrain, poor weather, and inaccessible locations are some reasons for choosing an aerial alternative.

Quanta Aviation has mastered the now-standard approach of working on electrical lines without turning them off. Not only does this mean power companies no longer have to shut down and reroute electricity, but it creates safer conditions for lineworkers and results in greater efficiency and cost savings.

The efficiency of some types of work can be dramatically enhanced with aviation. One example is the installation of conductor spacers. These aluminum and elastomer devices have a simple but vitally important purpose: to separate power lines. However, they need to be inspected and eventually replaced as they age. Using helicopters, the spacer removal and installation process can be performed 30 times faster than any other method. Because these spacers are mounted every couple of hundred feet along hundreds of miles of line, any alternative approach would be an extremely time-consuming task.



IN MOST SITUATIONS, HELICOPTER PILOTS CAN TURN THEIR AIRCRAFT INTO THE WIND, BUT POWER LINE PILOTS HAVE NO CHOICE BUT **TO HOVER PARALLEL TO THE WIRES, REGARDLESS OF THE WIND DIRECTION.**



→ ABOUT QUANTA AVIATION SERVICES

Quanta Aviation has a mission to be a “one-stop-shop for a power grid that can’t stop,” with an exhaustive list of services that includes aerial transmission, new build construction support, line inspection (including X-ray and infrared camera work), line repair, fore contracts, marker ball installation, insulator washing, aerial tree trimming, and medium to heavy operations.

COMMITMENT

**OUR COMMITMENT
TO PRINCIPLES**

BRING





IN THIS SECTION

114 Ethics & Integrity: Ensuring Responsible Governance

2022 HIGHLIGHTS

▶ INCREASED SUSTAINABILITY OVERSIGHT

▶ Establishment of Environmental and Social Steering Committees that enhance the Board's oversight of sustainability

▶ Implemented a detailed sustainability scorecard system for each Quanta operating company to benchmark sustainability performance

OUR OPPORTUNITIES

Engaging with and incorporating the insights of all our stakeholders

Further assessment of risks and opportunities associated with climate change as set out by the framework defined by the Task Force on Climate-related Financial Disclosures (TCFD)

Strong governance supports our culture of innovation, safety, and customer focus, which has driven our business since 1997. Today, we focus on implementing governance principles aligned with best practices and our values to operate an ethical business that all our stakeholders trust.

ETHICS & INTEGRITY:

ENSURING
RESPONSIBLE
GOVERNANCE






BOARD OF DIRECTORS

Quanta's Board of Directors recognizes the importance of having a business strategy designed to create long-term sustainable value for stockholders and benefit all of the Company's stakeholders.

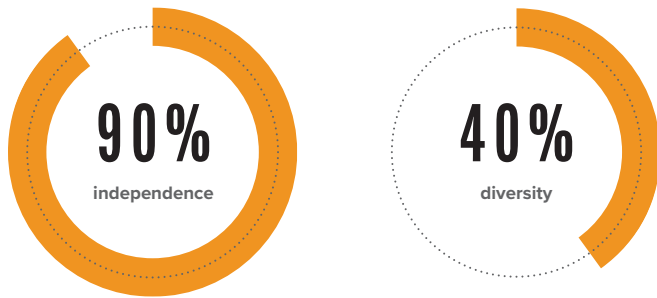
While the formulation and implementation of Quanta's sustainability strategy is primarily the responsibility of management, the Board plays an active oversight role, carried out primarily through regular reviews and discussions with management, including both broad-based presentations and more in-depth analyses and discussions of specific areas of focus and evolving business, industry, societal, operating, and economic conditions. The Board is committed to sound corporate governance policies and practices designed and routinely assessed to enable Quanta to operate its business responsibly, sustain our success, and build long-term stockholder value.



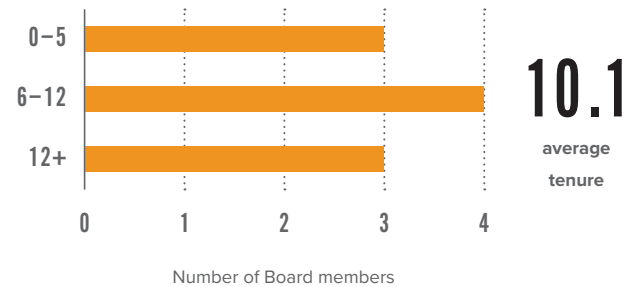
Board Diversity

Quanta’s Board comprises directors with diverse viewpoints and possesses various skills, professional experience, and backgrounds, including those concerning sustainability. As of Quanta’s last annual meeting of stockholders, 30% of our directors were women, and 10% identified as racially or ethnically diverse. In addition, 50% of Board committees are chaired by directors that are women or identify as racially diverse. Read more about the Board in our [2023 Proxy Statement](#).

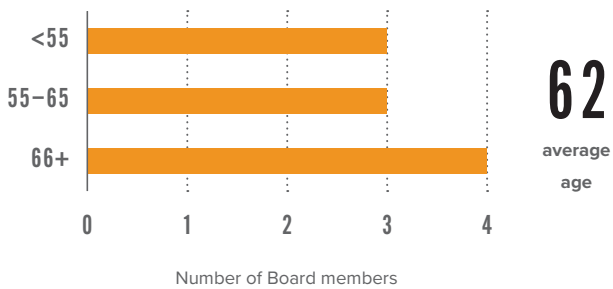
Board by the Numbers¹



TENURE (YEARS)

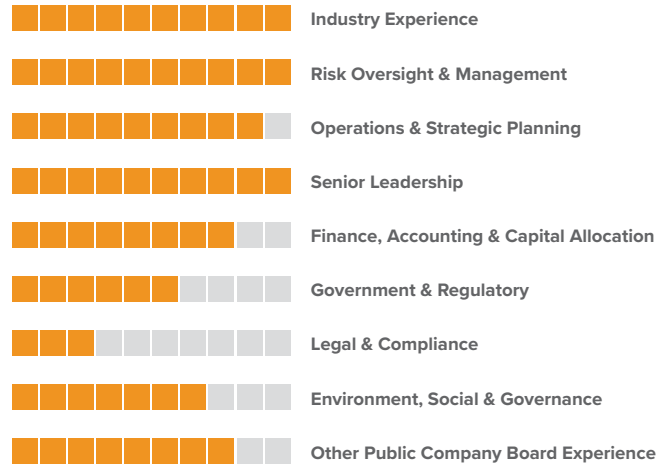


AGE



BOARD QUALIFICATIONS, SKILLS & EXPERIENCE

The Board regularly reviews the desired qualifications, skills, and experience that it believes are appropriate to oversee Quanta’s business and long-term strategy. Attributes brought by director nominees include:



¹ As of Quanta’s 2023 annual meeting of stockholders

Risk Management Oversight

The Board oversees an enterprise-wide risk management approach designed to support achieving long-term organizational objectives and enhance stockholder value. The Company's enterprise risk management assessment, managed by Quanta's Chief Executive Officer, General Counsel, and Chief Financial Officer, as well as Quanta's Chief Compliance Officer, provides visibility to the Board about the identification, assessment, monitoring, and management of critical risks and management's risk mitigation strategies. During this ongoing process, risks are assessed throughout the Company's business, including operational, industry, financial, environmental, and reputational risks; legal and regulatory risks; and data and systems security risks. A component of the Board's oversight function is not only understanding the risks the Company faces and what steps management is taking to manage those risks, but also understanding what level of risk is appropriate for Quanta. Read more about the Board's role in risk oversight in our [2023 Proxy Statement](#).

Climate Change Risk Management

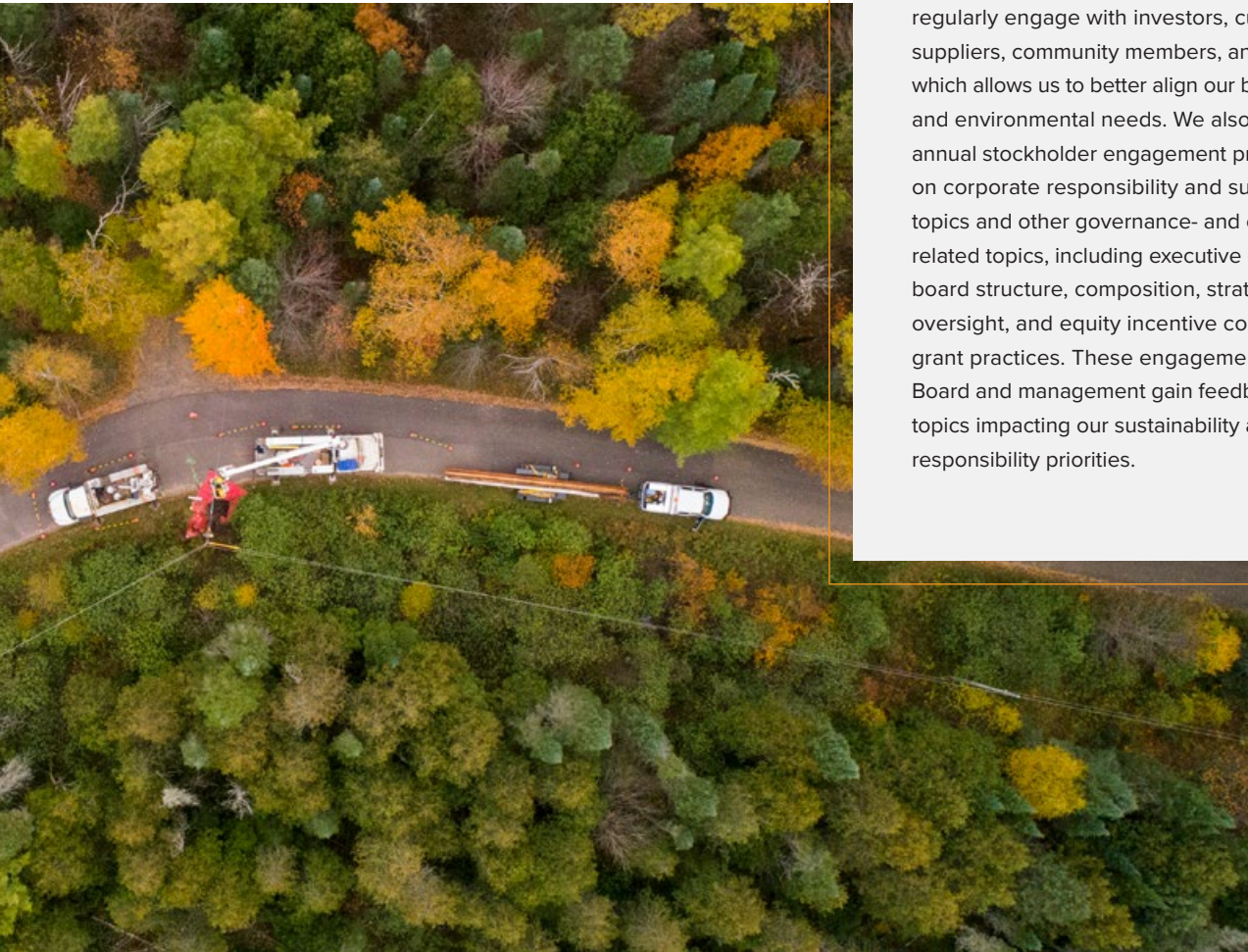
The Task Force on Climate-related Financial Disclosures (TCFD)² provides a framework of recommended disclosures for corporate reporting on climate-related risks and opportunities, categorized by Governance, Strategy, Risk Management, and Metrics and Targets. This index, updated every year, can be found in "TCFD Index" on page 144 and references Quanta's reporting against the voluntary guidelines of the TCFD.

Learn more about how we implement the TCFD framework in "[How We Manage Climate Risks](#)" in our [2021 Sustainability Report](#).

² fsb-tcfd.org

STOCKHOLDER ENGAGEMENT

Members of the Board and senior management regularly engage with investors, customers, suppliers, community members, and nonprofits, which allows us to better align our business to social and environmental needs. We also conduct an annual stockholder engagement program focused on corporate responsibility and sustainability topics and other governance- and compensation-related topics, including executive compensation, board structure, composition, strategy and risk oversight, and equity incentive compensation grant practices. These engagements help the Board and management gain feedback on various topics impacting our sustainability and corporate responsibility priorities.



Sustainability Governance

With regular input and review by our Board, management works to integrate sustainability principles into the Company’s overall business strategy. Together, we are driving our sustainability program through internal processes to facilitate the identification and management of risks. In this regard, individual Environmental and Social Steering Committees have been set up to augment existing governance frameworks and coordinate with other internal teams, working groups, investor relations, legal, and finance.

See our priority sustainability issues identified in our most recent [Materiality Assessment](#) (page 16, *2021 Sustainability Report*).



SUSTAINABILITY GOVERNANCE AT QUANTA

OVERSIGHT OF SUSTAINABILITY RISKS & STRATEGY



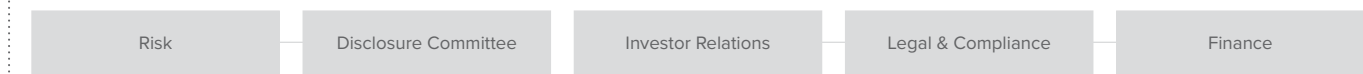
CONSIDERATION OF SUSTAINABILITY RISKS, FORMULATION & DIRECTION



IMPLEMENTATION OF SUSTAINABILITY STRATEGY



ADVISORY ROLE





ENHANCED SUSTAINABILITY OVERSIGHT AT QUANTA OPERATING COMPANIES

In 2022, we developed and implemented a detailed sustainability scorecard system for each Quanta operating company to benchmark its sustainability performance. This system enables the operating company to evaluate strategic options that satisfy each business's unique nature. In addition to better understanding sustainability performance at the operating company level, aggregation of these results provides a company-wide average score that allows us to track our progress. Additional information about this system can be found in "Sustainability Data Metrics" on page 126.



Average operating company sustainability metric score

EMBEDDING SUSTAINABILITY INTO EXECUTIVE COMPENSATION

Quanta's 2022 executive compensation program allocated 20% of the total target annual cash incentive to achieving safety performance goals. In addition, 20% of performance-based long-term equity incentives were tied to achieving sustainability-based goals, including metrics related to enhanced driver safety and reduced vehicle idle time of the Company's vehicle fleet. These performance targets reinforce our commitment to safety, training, and sustainability and are aligned with customer expectations.

Advisory Vote on Executive Compensation

Quanta conducts an annual Say-on-Pay vote and received approximately 90% approval of its 2022 executive compensation program at the 2023 annual meeting of stockholders.

Compliance & Ethics

Quanta's Code of Conduct reinforces our commitment to a work environment founded on mutual respect, trust, and accountability.

Quanta encourages our employees to speak up and provides resources to do so. All eligible salaried employees must review the Code of Conduct and complete various ethics and compliance training courses every year. To help Quanta employee's Code of Conduct and business conduct, Quanta provides training courses that include, but are not limited to, the following:

QUANTA LEGAL COMPLIANCE & ETHICS TRAINING COURSES

New Employee Legal Compliance & Ethics Training

To define Quanta and its employees' roles and expectations while working on behalf of Quanta

Leadership Academy Compliance & Ethics

A deep dive of compliance and ethical scenarios in a business setting to test employee's knowledge and behaviors in relevant situations

Code of Conduct

As defined by Sarbanes–Oxley Act (SOX), training on Quanta's Code of Conduct expected of each employee

Conflicts of Interest

To educate employees on how to identify and manage potential conflicts throughout their business dealings

Anti-Corruption

To educate employees on local and international laws when dealing with government officials, and how to avoid situations that may endanger business dealings

Anti-Trust

To educate employees on how to interact with competitors without violating anti-competition laws, and how to handle situations they may find themselves in





QUANTA'S CODE OF CONDUCT

Quanta's Code of Conduct highlights the importance of ethical behavior to our business and explains the standards of behavior expected of Company employees. The Code addresses compliance with applicable laws and Quanta's policies concerning, among other things, general business ethics, competition, anti-corruption and bribery, environmental protection, conflicts of interest, harassment and discrimination, data security and privacy, and insider trading.

Quanta's Code of Conduct also informs employees and third parties about the resources and confidential reporting mechanisms available to detect, prevent, and report unethical and illegal conduct. Our Chief Compliance Officer communicates directly with our Board of Directors about actual and alleged violations of the law or the Code of Conduct. In addition, Quanta's Code of Conduct and other policies and procedures are conducted as part of our comprehensive ethics and compliance training program.

A copy of the Code of Conduct is available on Quanta's Investor Relations website.

Anti-Corruption Policy

Quanta is committed to complying with all applicable anti-corruption and anti-bribery laws. This Policy includes guidance and requirements concerning, among other things, interactions with government officials; provision of gifts, entertainment, and travel; due diligence on certain high-risk service providers and business partners and charitable and political contributions. In addition, annual training on the Anti-Corruption Compliance Policy is conducted as part of the Company's comprehensive ethics and compliance training program.

Data Privacy & Protection Policy

Quanta's Data Privacy & Protection Policy explains Quanta's commitment to protect the personal information of its employees and other individuals and to comply with all applicable privacy, data protection, and information security laws. This Policy provides guidelines and requirements concerning data collection, protection, use, distribution, and deletion.

Human Rights Policy

Quanta is committed to ensuring that the people and communities supporting our business are treated with dignity and respect. We strive to ensure that our services are performed in a way that respects internationally recognized human rights. Our commitment to upholding the human rights of all people is captured in our Code of Conduct and Human Rights Policy.

Quanta is committed to respecting and promoting human rights for all its employees, affiliates, and partners in accordance with the United Nations Guiding Principles on Business and Human Rights, the International Labor Organization's Declaration on Fundamental Principles and Rights at Work, and the laws of the United States relating to human rights.

Quanta is committed to serving as a strong community partner, actively working to help ensure the communities we operate in are valued and respected and treated equitably and fairly. We also embrace environmental justice principles that ensure meaningful involvement in the communities we serve, regardless of race, color, national origin, or income.



Information Security Training Program

Training on cybersecurity and information usage is required annually for relevant employees, and additional training requirements are in place for certain specialized employees, including systems administrators and treasury operations personnel. Additionally, targeted training measures are implemented periodically to ensure employees and Quanta's security systems are prepared for potential vulnerabilities, such as phishing campaigns and cyber-attack crisis response simulations. Our information security training program is part of our comprehensive information security program.

Political Activity Policy

The Quanta family of companies is committed to responsibly participating in the political process and compliance with applicable federal, state, territorial, and local laws and reporting requirements. Our political and government affairs program is integral to supporting the interests of our industries, customers, employees, communities, and stockholders and advancing Quanta's strategic initiatives.

Quanta is committed to participating in the political process responsibly and complying with applicable laws and reporting requirements. Quanta's Political Activity Policy, which applies to

all directors, officers, and employees of Quanta Services, Inc., and its affiliates³, sets forth the responsibilities and expectations concerning all Company political contributions and lobbying activity. The Governance and Nominating Committee of our Board of Directors oversees our governmental affairs program and practices, and Quanta's Chief Compliance Officer administers the policy. In addition, our Government Affairs and Legal Compliance & Ethics groups ensure that our political activities are aligned with our strategic direction and initiatives and in compliance with applicable laws and reporting requirements. This Policy provides the framework for making political contributions and engaging in political activity. Additional information, including our Political Activity Policy, is available on Quanta's Investor Relations website.

Supplier Review Procedures

Quanta requires suppliers, service providers, and business partners to undergo pre-engagement due diligence and training.

³ Includes Quanta Services, Inc., and its affiliates (as defined in the policy), which does not include entities, including joint venture entities, that are not controlled by Quanta Services, Inc.

IN FOCUS

CYBERSECURITY

As information systems expand and are integrated into operations, the importance of safeguards to protect against security breaches is growing.

Protecting Quanta's information systems and our customers is a top priority, and we take a multifaceted approach to protection, focusing on the architecture, technical safeguards, policies, processes, and qualified resources necessary to prevent, detect, respond to, and recover from an adverse event. Our policies and standards for protecting core infrastructure and ensuring security for shared services leverage key controls from industry standards, such as the Center for Internet Security's Critical Security Controls, ISO 27001 standards, and the American Institute of Certified Public Accountants' Trust Services Criteria for Security (TSC). These standards provide the basis for the organizational strategy for cyber resilience. In addition to policies and governance, we use various industry-leading tools and technology such as multifactor authentication, password vaults, endpoint security, and more.

Quanta understands the importance of protecting information and has put physical, technical, and administrative measures in place. Quanta has oversight processes, including dedicated IT Cybersecurity and IT Compliance teams, to conduct regular internal compliance assessments against our key policies and standards. For third-party vendors, oversight processes are in place to analyze key vendors as part of the selection and onboarding process. Quanta's IT Cybersecurity team also has an incident response plan designed to align with industry-standard frameworks.

QUANTA IT COMPLIANCE TRAINING COURSES

Annual IT General Controls Training

To ensure IT control owners maintain an effective IT internal control framework to comply with the Sarbanes–Oxley Act (SOX) Section 404 or other similar regulations

Annual Personal Information System Usage Policy Training

To provide employees foundational awareness training around the Annual Personal Information System Usage Policy (PISUP)

IT Security Awareness Training

To educate employees about computer security, including data privacy, cloud security, IoT and home security, mobile devices, social media, and social engineering

Phishing Simulations

To prepare employees to recognize and report phishing attempts

Payment Card Industry Data Security Standard Training

To provide basic knowledge of the Payment Card Industry Data Security Standard (PCI DSS)

Privileged User Data Protection Training

To provide training on key security measures supporting data protection for various regulations

PENDIX

APPENDIX



APPENDIX



Quanta aligns its sustainability reporting against multiple globally recognized sustainability indexes to give our investors and other key stakeholders a transparent account of our progress and a holistic view of our approach and achievements. These standards include the Sustainability Accounting Standards Board (SASB), Global Reporting Initiative (GRI), and Task Force on Climate-related Financial Disclosures (TCFD), as well as the UN Sustainable Development Goals (SDGs).

IN THIS SECTION

- 126 Sustainability Data Metrics
- 132 SASB Index
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- 144 TCFD Index
- 148 SDG Index

SUSTAINABILITY DATA METRICS

Detailed below is a consolidated set of sustainability metrics that are aligned with broader reporting standards for the last four years. We are proud this year to have added new environmental-related metrics associated with waste, biodiversity, and certain Scope 3 emissions categories. We have also added new socially oriented diverse procurement and community spend metrics and included additional disclosure that demonstrates our wider impact on society as the energy transition unfolds. As our sustainability program further matures, we look forward to disclosing additional Scope 3 categories and other metrics that are aligned with our strategy.

IMPACT ON SOCIETY		UNIT	2019	2020	2021	2022
Financial Climate Change-Related Revenues						
Renewable energy infrastructure solutions revenues ¹	Million USD		\$775	\$1,305	\$1,825	\$3,779
Emergency restoration services revenues ²	Million USD		\$189.7	\$442.3	\$450.6	\$331.1
Renewables						
CONSTRUCTION³						
Utility-scale wind and solar power constructed	Installed capacity, MW		—	—	6,417	4,459
	Million metric tons		—	—	11.9	8.3
	CO ₂ e avoided ⁴					
Utility-scale battery storage constructed	Installed maximum power capacity, MW		0	50	1,009	401
EV Charging Infrastructure						
EV charging	Installed capacity, MW		—	—	—	30

ENVIRONMENTAL (PLANET)	UNIT	2019	2020	2021	2022
Energy Consumption					
DIRECT ENERGY CONSUMPTION (SCOPE 1), VEHICLE FUEL⁵					
Diesel fuel ⁶	TJ	5,947	4,851	5,605	7,348
Gasoline ⁶	TJ	2,676	2,500	2,776	3,419
Liquefied natural gas (LNG) ⁶	TJ	52	56	59	84
Aviation fuel ⁶	TJ	66	271	284	334
Total vehicle fleet energy consumption⁷	TJ	8,741	7,678	8,724	11,185
FACILITY ENERGY USE					
Natural gas ⁸	TJ	99.9	98.9	84.5	86.5
FACILITY-PURCHASED ELECTRICITY					
Indirect energy consumption (Scope 2), facility-purchased electricity	TJ	73.7	79.6	91.1	116.9
TOTAL ENERGY CONSUMPTION					
Scope 1 energy consumption	TJ	9,636.9	8,498.9	9,622.5	11,271.5
Scope 2 energy consumption	TJ	73.7	79.6	91.1	116.9
Scope 1 and 2 energy consumption, total	TJ	9,710.6	8,578.5	9,713.6	11,388.4
GHG Emissions					
VEHICLE FUEL					
Diesel fuel	Metric tons CO ₂ e	444,771	362,763	419,154	549,122
Gasoline	Metric tons CO ₂ e	198,588	185,540	206,031	253,604
Liquefied natural gas (LNG)	Metric tons CO ₂ e	2,953	3,184	3,356	4,794
Aviation fuel	Metric tons CO ₂ e	4,908	20,161	21,154	24,850
Total vehicle fleet emissions	Metric tons CO₂e	651,219	571,648	649,694	832,370
FACILITY ENERGY USE					
Natural gas ⁸	Metric tons CO ₂ e	5,029	4,978	4,253	4,354
FACILITY-PURCHASED ELECTRICITY					
Scope 2 CO ₂ emissions, location-based	Metric tons CO ₂ e	9,429	8,776	8,812	13,276
Scope 2 CO ₂ emissions, market-based	Metric tons CO ₂ e	9,428	8,767	8,797	12,685
TOTAL DIRECT & INDIRECT EMISSIONS					
Scope 1 emissions	Metric tons CO ₂ e	656,248	576,626	653,947	836,724
Scope 2 emissions, location-based ⁹	Metric tons CO ₂ e	9,429	8,776	8,812	13,276
Scope 1 and 2 emissions	Metric tons CO ₂ e	665,677	585,402	662,759	850,000
Offset emissions (Scope 1)	Metric tons CO ₂ e	—	552	1,547	2,808

ENVIRONMENTAL (PLANET)**UNIT****2019****2020****2021****2022****ENERGY & EMISSIONS INTENSITY⁹**

Scope 2 energy intensity	g CO ₂ e/MJ	129.0	116.5	109.4	113.6
Vehicle fleet emissions intensity	g CO ₂ e/USD revenue	53.8	51.0	50.1	48.8
Scope 1 CO ₂ emissions intensity, total	g CO ₂ e/USD revenue	54.2	51.5	50.4	49.0
Scope 1 and 2 CO₂ emissions intensity, total	g CO₂e/USD revenue	55.0	52.3	51.1	49.8

SCOPE 3 GREENHOUSE GAS EMISSIONS

Category 6: Business Travel ¹⁰	Metric tons CO ₂ e	18,471	13,307	16,429	20,359
Category 7: Employee Commuting	Metric tons CO ₂ e	52,586	41,227	52,561	54,385

Other Tailpipe Emissions

Nitrogen oxides (NOx) ¹¹	Metric tons	1,613	1,334	1,501	1,642
Sulfur oxides (SOx) ¹¹	Metric tons	10.0	8.5	9.2	9.9
Particulate matter (PM10) ¹¹	Metric tons	124	103	117	123
Nitrogen oxides (NOx) emissions intensity	g NOx/million USD revenue	133	119	116	96
Sulfur oxides (SOx) emissions intensity	g SOx/million USD revenue	0.83	0.76	0.71	0.58
Particulate matter (PM10) emissions intensity	g PM10/million USD revenue	10.2	9.2	9.0	7.2

Vehicle Fleet**ALTERNATIVE VEHICLES, OWNED & LEASED¹²**

Electric		3	3	3	5
Liquefied natural gas (LNG) and compressed natural gas (CNG)		233	233	233	229

Water

Total water intake, Quanta facilities ¹³	Thousand gallons	22,161	24,136	30,390	36,145
Water intensity, Quanta facilities	Gallons/thousand USD revenue	1.83	2.15	2.34	2.12

Waste**HAZARDOUS WASTE**

Electronic waste, recycled	Pounds	8,392	1,347	4,365	8,592
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NON-HAZARDOUS WASTE

Used engine oil	Gallons	—	—	—	71,040
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Biodiversity

Total area, Quanta facilities ¹³	Acres	—	—	—	7,865
Total area impacted, major transmission projects ¹⁴	Acres	—	—	—	49,785
Total area impacted, major pipeline projects ¹⁴	Acres	—	—	—	22,975

SOCIAL (PEOPLE)	UNIT	2019	2020	2021	2022
Headcount					
HEADCOUNT BY REGION					
U.S.		29,813	29,731	36,845	40,069
Canada		5,248	3,720	5,264	4,936
Australia		541	660	812	1,535
Rest of the world, total		4,706	1,686	782	722
Approximate total number of employees		40,308	35,797	43,703	47,262
Diversity (U.S. Only)					
EMPLOYEE DIVERSITY¹⁵					
Female employees as share of total workforce		8%	9%	10%	10%
Female employees in management and professional roles		13%	14%	14%	14%
Overall employee ethnic diversity		34%	27%	32%	38%
Ethnic diversity in management and professional roles		23%	22%	24%	29%
DIVERSE PROCUREMENT¹⁶					
Diverse customer spend	Million USD	—	—	—	\$666
Diverse vendor spend	Million USD	—	\$679	\$742	\$1,117
DIVERSE VENDORS					
Total unique diverse vendors used		—	—	—	1,935
Women-owned business		—	—	—	601
Veteran-owned business		—	—	—	133
Small disadvantaged business		—	—	—	326
8(a) small business		—	—	—	900
Minority-owned business		—	—	—	358
Community					
Community impact spend	Million USD	—	—	—	\$7.71
Safety					
“Stuff That Kills You” (STKY) actual rate ¹⁷		0.32	0.26	0.19	0.16
Total number of automated external defibrillators (AEDs) deployed to job sites		9,129	10,278	11,156	13,152
Total number of lives saved due to deployed automated external defibrillators (AEDs)		26	29	33	39
Total number of personal voltage detectors (PVDs) purchased for storm response activities		50	1,710	3,157	7,154

SOCIAL (PEOPLE)

UNIT

2019

2020

2021

2022

■ Training

NORTHWEST LINEMAN COLLEGE¹⁸

Veterans trained (campus career programs)	19%	20%	19%	16%
Minority students trained (campus career programs)	26%	29%	31%	30%
Female students trained (campus career programs)	0%	1%	1%	1%
Total number of students trained, mobile training programs	6,529	5,553	6,570	9,165
Total number of students trained, apprenticeship programs	4,558	4,678	5,072	5,828
Total number of students trained, career training programs	2,000	2,249	2,666	2,649
Total number of students trained (campus and mobile training programs)	13,087	12,480	15,123	17,642

LAZY Q RANCH¹⁹

Total number of students trained	1,420	801	1,341	1,298
Total number of training days	17,356	12,453	19,658	24,293

STRONGHOLD UNIVERSITY^{19, 20}

Total number of students trained	—	1,697	5,258	7,421
Total number of training days	—	2,122	6,573	5,566

GOVERNANCE (PRINCIPLES)

2019

2020

2021

2022

■ Board Diversity²¹

Gender	20%	20%	30%	30%
Ethnicity	10%	10%	10%	10%

■ Operating Company Sustainability

Average operating company sustainability metric score ²²	—	—	—	56.8
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- ¹ Quanta's Renewable Energy Infrastructure Solutions segment provides comprehensive infrastructure solutions to customers involved in the renewable energy industry. Services include engineering, procurement, new construction, repowering, and repair and maintenance for generation facilities, such as utility-scale wind, solar and hydropower generation, and battery storage facilities, as well as engineering and construction services for substations and switchyards, transmission, and other electrical infrastructure needed to interconnect and transmit renewable energy generation and battery storage facilities. Revenues for 2021 include the contribution from Blattner Holding Company, beginning on October 13, 2021, the date of acquisition.
- ² Emergency restoration services generally includes, among other things, the repair of infrastructure damaged by extreme weather events, including hurricanes, severe storms, snowstorms, tornadoes, wildfires, and inclement weather.
- ³ Data includes completed projects only
- ⁴ Provides an estimate of the emissions that have been avoided due to a region's uptake of renewables. This value will vary greatly depending on the non-renewable mix that renewables have replaced. Therefore, this estimate can only be used to provide a general indication of avoided emissions rather than an absolute number. Data includes completed projects only and includes wind re-power projects. CO₂ avoided calculations are estimates based on annual consumption and are for U.S. projects only. Source: cleanpower.org. Values for 2019 to 2021 have been revised to reflect balance-of-plant projects only.
- ⁵ Includes a small amount of fuel used for generators at some facilities
- ⁶ Includes fuel card, bulk, and other purchases at Quanta operating companies
- ⁷ Fleet energy consumption for 2019 through 2021 has been restated to reflect more accurate fuel conversion factors from the Department of Energy's Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation (GREET) model.
- ⁸ Natural gas consumed on-site at Quanta-owned and -leased facilities
- ⁹ Scope 2 emissions for 2019 through 2021 have been restated to reflect more accurate regional eGrid factors.
- ¹⁰ Includes air- and rail-based travel for Quanta employees
- ¹¹ Based on vehicle fleet composition as of December 2022, including on-road, stationary combustion, and off-road vehicles
- ¹² Total does not include LPG/propane-powered forklifts
- ¹³ Quanta-owned and -leased facilities
- ¹⁴ Projects greater than 100 miles in length only
- ¹⁵ U.S. workforce only. Representation data as of November 30 each calendar year. "Management and Professional Roles" refers to (1) Executives, Senior Officials and Managers; (2) First and Mid-Level Officials and Managers; and (3) Professionals as per EEO-1 report filing. "Ethnic Diversity" refers to (1) Black or African American, (2) Native Hawaiian or Pacific Islander, (3) Asian, (4) American Indian or Alaska Native, (5) Hispanic or Latino, and (6) Two or More Races as per EEO-1 report filing.
- ¹⁶ A diverse supplier is generally a business that is at least 51% owned and operated by an individual or group that is part of a traditionally underrepresented or underserved population.
- ¹⁷ "STKY actual events" are events that are considered life-threatening, life-altering or life-ending. STKY actual rate equals total number of STKY actual events, multiplied by 1,000,000, and divided by total work hours.
- ¹⁸ Includes training of both Quanta and non-Quanta-based employees
- ¹⁹ Training of Quanta employees only
- ²⁰ Stronghold University opened in May 2020. Length of courses range from six hours to four days.
- ²¹ As of applicable year end. As of August 2023, Board gender diversity was 27% and Board ethnic diversity was 18%.
- ²² Score is out of 100

Estimates & Assumptions

The preparation of the information included in this report, including, among other things, emissions and energy usage data, workforce data, and specific project metrics, requires the use of estimates and assumptions. As a result, such information may be inaccurate, and there is no assurance that such information will not need to be revised in connection with our publication of any future reports. Moreover, statements in this report may be based on standards or methodologies that are still developing and for which internal controls and processes are continuing to evolve. Additionally, Quanta's methodology for determining any such information may not be comparable to the methodology utilized by other companies or third parties. Further, certain statements are based on third-party data, estimates, or standards which Quanta has not independently verified or reviewed. While estimates and assumptions used are believed to be reasonable at the time of preparation, the inclusion of projections and estimates in this report should not be regarded as guarantees. Our disclosures based on any standards may change due to revisions in framework requirements, availability of information, changes in governmental policies, or other factors which may be beyond control. The inclusion of projections and estimates in this report should not be regarded as an indication that Quanta considered or considers such information to be a reliable prediction of future events.

The information contained in this report has not been audited by any independent auditor, and Quanta does not currently seek external assurance of information contained within this report. This report is prepared as a reference tool, and Quanta may elect to modify the format or discontinue publication of such reports at any time without notice.

Materiality

The discussion of materiality or significance, including discussion of material or significant ESG matters, is not an indication that such information, topics, matters, or issues are necessarily material to Quanta's investors under the federal securities law's definition of materiality in general or pursuant to disclosure or reporting requirements in connection with the rules and regulations of the Securities and Exchange Commission.

SASB INDEX

The Sustainability Accounting Standards Board (SASB) is an organization that sets independent standards to encourage the disclosure of relevant sustainability information to cater to the demands of investors. In the table provided below, you can find specific indicators from the SASB standards for the industry of Engineering & Construction Services.

ACCOUNTING METRIC	CATEGORY	CODE	DISCLOSURE OR LOCATION
ENVIRONMENTAL IMPACTS OF PROJECT DEVELOPMENT			
Number of incidents of non-compliance with environmental permits, standards, and regulations	Quantitative	IF-EN-160A.1	Not disclosed. Quanta is reviewing the feasibility of capturing and reporting such data for future disclosure.
Discussion of processes to assess and manage environmental risks associated with project design, siting, and construction	Discussion & Analysis	IF-EN-160A.2	How Quanta's Role in the North American Energy Transition Is Gaining Momentum, p. 18 Responding to Increasing Extreme Weather & Climate Disasters, p. 28 Protecting Our Employees: A Culture of Safety, p. 38 Elevating Safety & Productivity: Training & Education, p. 46 LUMA: Improving Lives Through Action, p. 58 Reducing Our Impact: Our Carbon Footprint, p. 86 Collaborating With Industry to Deliver the Hydrogen Economy, p. 94 Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting, p. 100
STRUCTURAL INTEGRITY & SAFETY			
Amount of defect- and safety-related rework costs	Quantitative	IF-EN-250A.1	Not disclosed. Quanta is reviewing the feasibility of capturing and reporting such data for future disclosure.
Total amount of monetary losses because of legal proceedings associated with defect- and safety-related incidents	Quantitative	IF-EN-250A.2	Not disclosed. Quanta is reviewing the feasibility of capturing and reporting such data for future disclosure.
WORKFORCE HEALTH & SAFETY			
Total recordable incident rate (TRIR) and fatality rate for direct employees and contract employees	Quantitative	IF-EN-320A.1	For the 2022 performance year, the Company's consolidated TRIR was 0.89 and the consolidated lost time injury rate was 0.24.

ACCOUNTING METRIC	CATEGORY	CODE	DISCLOSURE OR LOCATION
LIFE CYCLE IMPACTS OF BUILDINGS & INFRASTRUCTURE			
Number of commissioned projects certified to a third-party multi-attribute sustainability standard and active projects seeking such certification	Quantitative	IF-EN-410A.1	Not disclosed. Quanta is reviewing the feasibility of capturing and reporting such data for future disclosure. Quanta does not determine if the work it performs will be certified to a third-party multi-attribute sustainability standard and may not be aware if a client or project owner is seeking such certification.
Discussion of the process to incorporate operational-phase energy and water efficiency considerations into project planning and design	Discussion & Analysis	IF-EN-410A.2	Reducing Our Impact: Our Carbon Footprint, p. 86 Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting, p. 100
CLIMATE IMPACTS OF BUSINESS MIX			
Amount of backlog for hydrocarbon-related projects and renewable energy projects	Quantitative	IF-EN-410B.1	Amount of backlog for hydrocarbon-related projects at 12/31/22: 26% of total backlog (\$24.09 billion) Amount of backlog for renewable energy projects at 12/31/22: 20% of total backlog (\$24.09 billion)
Amount of backlog cancellations associated with hydrocarbon-related projects	Quantitative	IF-EN-410B.2	None or not material
Amount of backlog for non-energy projects associated with climate change mitigation	Quantitative	IF-EN-410B.3	Quanta performs a significant amount of services associated with system modernization, electrical grid hardening, and renewable energy facilitation, as well as various other electrification initiatives that have a favorable impact on climate change mitigation. Amount of backlog for Electric Power Infrastructure Solutions projects at 12/31/22: 54% of total backlog (\$24.09 billion)
BUSINESS ETHICS			
Number of active projects and backlog in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	Quantitative	IF-EN-510A.1	Active projects: 0 Backlog: \$0
Total amount of monetary losses as a result of legal proceedings associated with charges of bribery or corruption and anti-competitive practices	Quantitative	IF-EN-510A.2	Bribery or corruption losses: \$0 Anti-competitive practices losses: \$0
Description of policies and practices for prevention of bribery or corruption and anti-competitive behavior in the project bidding processes	Discussion & Analysis	IF-EN-510A.3	Ethics & Integrity: Ensuring Responsible Governance, p. 114
ACTIVITY METRICS			
Number of active projects	Quantitative	IF-EN-000.A	34,291
Number of commissioned projects	Quantitative	IF-EN-000.B	15,838
Total backlog	Quantitative	IF-EN-000.C	\$24.09 billion

GRI STANDARDS CONTENT INDEX

We report against the Global Reporting Initiative (GRI) Standards, the most widely used framework for reporting on environmental, social, and governance (ESG) issues. The report has been prepared with references to 2021, 2018, and 2016 GRI Standards (GRI 1: Foundation 2021).

DISCLOSURE

LOCATION

GRI 2: GENERAL DISCLOSURES 2021

DISCLOSURE	LOCATION
2-1 Organizational details	Quanta Services, Inc., a Delaware corporation 2022 Annual Report on Form 10-K Cover Page
2-2 Entities included in the organization's sustainability reporting	2022 Annual Report on Form 10-K Part IV, Item 15, Exhibits and Financial Statement Schedules, Exhibit 21.1, Subsidiaries
2-3 Reporting period, frequency, and contact point	Fiscal Year 2022; annual; Grant Forman, gforman@quantaservices.com
2-4 Restatements of information	2019 to 2021 fleet energy consumption was restated to reflect more accurate fuel conversion factors from the Department of Energy's Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation (GREET) model. 2019 to 2021 Scope 2 emissions were restated to reflect more accurate regional eGrid factors.
2-5 External assurance	Quanta does not have external assurance of its ESG metrics.
2-6 Activities, value chain, and other business relationships	2022 Annual Report on Form 10-K Part I, Item 1, Business
2-7 Employees	2022 Annual Report on Form 10-K Part I, Item 1, Business
2-8 Workers who are not employees	2022 Annual Report on Form 10-K Part I, Item 1, Business
2-9 Governance structure and composition	Board of Directors Committees of the Board of Directors Corporate Governance Guidelines 2023 Proxy Statement Corporate Governance
2-10 Nomination and selection of the highest governance body	2023 Proxy Statement Quanta Board of Directors
2-11 Chair of the highest governance body	Board of Directors 2023 Proxy Statement Quanta Board of Directors
2-12 Role of the highest governance body in overseeing the management of impacts	2023 Proxy Statement Corporate Governance The Board's Role in Risk Oversight
2-13 Delegation of responsibility for managing impacts	Board of Directors Governance and Nominating Committee Charter 2023 Proxy Statement Corporate Governance Committees of the Board
2-14 Role of the highest governance body in sustainability reporting	Board of Directors Governance and Nominating Committee Charter 2023 Proxy Statement Corporate Governance Committees of the Board

DISCLOSURE

LOCATION

GRI 2: GENERAL DISCLOSURES 2021, CONTINUED

2-15	Conflicts of interest	Code of Conduct 2023 Proxy Statement Certain Transactions Review of Related Party Transactions 2023 Proxy Statement Corporate Governance Board Independence
2-16	Communication of critical concerns	Board of Directors Audit Committee Charter Code of Conduct Corporate Governance Guidelines
2-17	Collective knowledge of the highest governance body	2023 Proxy Statement Quanta Board of Directors
2-18	Evaluation of the performance of the highest governance body	2022 Proxy Statement Corporate Governance Board and Committee Evaluations
2-19	Remuneration policies	2022 Proxy Statement Compensation Discussion & Analysis
2-20	Process to determine remuneration	2022 Proxy Statement Compensation Discussion & Analysis
2-21	Annual total compensation ratio	2022 Proxy Statement Executive Compensation Chief Executive Officer Pay Ratio
2-22	Statement on sustainable development strategy	Building Momentum: Our Sustainability Strategy, p. 14 Appendix, SDG Index, p. 148
2-23	Policy commitments	Code of Conduct
2-24	Embedding policy commitments	Code of Conduct
2-25	Processes to remediate negative impacts	Quanta does not report a process to remediate negative impacts.
2-26	Mechanisms for seeking advice and raising concerns	Code of Conduct
2-27	Compliance with laws and regulations	Code of Conduct
2-28	Membership associations	American Clean Power Association American Council on Renewable Energy American Gas Association Americans for a Clean Energy Grid Edison Electric Institute Greater Houston Partnership National Electrical Contractors Association Solar Energy Industries Association U.S. Business Roundtable
2-29	Approach to stakeholder engagement	2023 Proxy Statement Corporate Governance Engagement and Communications with the Board
2-30	Collective bargaining agreements	2022 Annual Report on Form 10-K Part I, Item 1, Business 2022 Annual Report on Form 10-K Part II, Item 8, Financial Statements and Supplementary Data

DISCLOSURE

LOCATION

GRI 3: MATERIAL TOPICS 2021

3-1	Process to determine material topics	2021 Sustainability Report Materiality, p. 16
3-2	List of material topics	2021 Sustainability Report Materiality, p. 16
3-3	Management of material topics	2021 Sustainability Report Materiality, p. 16

GRI 201: ECONOMIC PERFORMANCE 2016

201-1	Direct economic value generated and distributed	2022 Annual Report on Form 10-K Part I, Item 1, Business
201-2	Financial implications and other risks and opportunities due to climate change	2022 Annual Report on Form 10-K Part I, Item 1, Business 2022 Annual Report on Form 10-K Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations
201-3	Defined benefit plan obligations and other retirement plans	2022 Annual Report on Form 10-K Part I, Item 1A, Risk Factors 2022 Annual Report on Form 10-K Part II, Item 8, Financial Statements and Supplementary Data
201-4	Financial assistance received from government	Quanta does not receive financial assistance from government.

GRI 202: MARKET PRESENCE 2016

202-1	Ratios of standard entry-level wage by gender compared to local minimum wage	Quanta does not report ratios of standard entry-level wage by gender compared to local minimum wage.
202-2	Proportion of senior management hired from the local community	Quanta does not report proportion of senior management hired from the local community.

GRI 203: INDIRECT ECONOMIC IMPACTS 2016

203-1	Infrastructure investments and services supported	2022 Annual Report on Form 10-K Part I, Item 1, Business
203-2	Significant indirect economic impacts	Making an Impact: How Quanta Creates Value for Society, p. 8 Building Momentum: Our Sustainability Strategy, p. 14 How Quanta's Role in the North American Energy Transition Is Gaining Momentum, p. 18 Responding to Increasing Extreme Weather & Climate Disasters, p. 28 Collaborating With Industry to Deliver the Hydrogen Economy, p. 94

GRI 204: PROCUREMENT PRACTICES 2016

204-1	Proportion of spending on local suppliers	Quanta does not report proportion of spending on local suppliers.
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GRI 205: ANTI-CORRUPTION 2016

205-1	Operations assessed for risks related to corruption	Ethics & Integrity: Ensuring Responsible Governance, p. 114
205-2	Communication and training about anti-corruption policies and procedures	Ethics & Integrity: Ensuring Responsible Governance, p. 114
205-3	Confirmed incidents of corruption and actions taken	Quanta investigates all allegations of fraud, corruption, and any substantiated allegations that result in appropriate discipline and remedial action.

DISCLOSURE	LOCATION
GRI 206: ANTI-COMPETITIVE BEHAVIOR 2016	
206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Quanta is not aware of any anti-competitive legal actions in which it has been identified as a participant in 2022.
GRI 207: TAX 2019	
207-1 Approach to tax	2022 Annual Report on Form 10-K Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations
207-2 Tax governance, control, and risk management	2023 Proxy Statement Corporate Governance The Board's Role in Risk Oversight
207-3 Stakeholder engagement and management of concerns related to tax	2023 Proxy Statement Corporate Governance Engagement and Communications with the Board
207-4 Country-by-country reporting	2022 Annual Report on Form 10-K Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations
GRI 301: MATERIALS 2016	
301-1 Materials used by weight or volume	Because Quanta performs specialty contractor work for customers, we do not report materials used by weight or volume.
301-2 Recycled input materials used	Because Quanta performs specialty contractor work for customers, we do not report recycled input materials used.
301-3 Reclaimed products and their packaging materials	Because Quanta performs specialty contractor work for customers, we do not report reclaimed products and their packaging materials.
GRI 302: ENERGY 2016	
302-1 Energy consumption within the organization	Reducing Our Impact: Our Carbon Footprint, p. 86 Appendix, Sustainability Data Metrics, p. 126
302-2 Energy consumption outside of the organization	Quanta does not report on energy consumption outside of the organization.
302-3 Energy intensity	Reducing Our Impact: Our Carbon Footprint, p. 86 Appendix, Sustainability Data Metrics, p. 126
302-4 Reduction of energy consumption	Reducing Our Impact: Our Carbon Footprint, p. 86 Appendix, Sustainability Data Metrics, p. 126
302-5 Reductions in energy requirements of products and services	Reducing Our Impact: Our Carbon Footprint, p. 86 Appendix, Sustainability Data Metrics, p. 126
GRI 303: WATER & EFFLUENTS 2018	
303-1 Interactions with water as a shared resource	Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting, p. 100
303-2 Management of water discharge-related impacts	Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting, p. 100

DISCLOSURE

LOCATION

GRI 303: WATER & EFFLUENTS 2018, CONTINUED

303-3	Water withdrawal	Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting, p. 100 Appendix, Sustainability Data Metrics, p. 126
303-4	Water discharge	Quanta does not report water discharge.
303-5	Water consumption	Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting, p. 100 Appendix, Sustainability Data Metrics, p. 126

GRI 304: BIODIVERSITY 2016

304-1	Operational sites owned, leased, managed in, or adjacent to protected areas and areas of high biodiversity value outside protected areas	Quanta does not report operational sites owned, leased, managed in, or adjacent to protected areas and areas of high biodiversity value outside protected areas.
304-2	Significant impacts of activities, products, and services on biodiversity	Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting, p. 100 Appendix, Sustainability Data Metrics, p. 126
304-3	Habitats protected or restored	Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting, p. 100 Appendix, Sustainability Data Metrics, p. 126
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Quanta does quantify IUCN Red List species and national conservation list species with habitats in areas affected by operations.

GRI 305: EMISSIONS 2016

305-1	Direct (Scope 1) greenhouse gas (GHG) emissions	Reducing Our Impact: Our Carbon Footprint, p. 86 Appendix, Sustainability Data Metrics, p. 126
305-2	Energy indirect (Scope 2) GHG emissions	Reducing Our Impact: Our Carbon Footprint, p. 86 Appendix, Sustainability Data Metrics, p. 126
305-3	Other indirect (Scope 3) GHG emissions	Appendix, Sustainability Data Metrics, p. 126
305-4	GHG emissions intensity	Reducing Our Impact: Our Carbon Footprint, p. 86 Appendix, Sustainability Data Metrics, p. 126
305-5	Reduction of GHG emissions	Reducing Our Impact: Our Carbon Footprint, p. 86 Appendix, Sustainability Data Metrics, p. 126
305-6	Emissions of ozone-depleting substances (ODS)	Quanta does not report emissions of ODS.
305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Appendix, Sustainability Data Metrics, p. 126

DISCLOSURE

LOCATION

GRI 306: WASTE 2020

<p>306-1 Waste generation and significant waste-related impacts</p>	<p>Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting, p. 100</p> <p>Appendix, Sustainability Data Metrics, p. 126</p>
<p>306-2 Management of significant waste-related impacts</p>	<p>Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting, p. 100</p> <p>Appendix, Sustainability Data Metrics, p. 126</p>
<p>306-3 Waste generated</p>	<p>Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting, p. 100</p> <p>Appendix, Sustainability Data Metrics, p. 126</p>
<p>306-4 Waste diverted from disposal</p>	<p>Quanta does not yet report waste diverted from disposal.</p>
<p>306-5 Waste directed to disposal</p>	<p>Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting, p. 100</p> <p>Appendix, Sustainability Data Metrics, p. 126</p>

GRI 308: SUPPLIER ENVIRONMENTAL ASSESSMENT 2016

<p>308-1 New suppliers that were screened using environmental criteria</p>	<p>Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting, p. 100</p>
<p>308-2 Negative environmental impacts in the supply chain and actions taken</p>	<p>Quanta does not report on negative environmental impacts in the supply chain and actions taken.</p>

GRI 401: EMPLOYMENT 2016

<p>401-1 New employee hires and employee turnover</p>	<p>Quanta does not report on new employee hires and employee turnover.</p>
<p>401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees</p>	<p>Careers Pay & Benefits</p>
<p>401-3 Parental leave</p>	<p>Quanta does not report parental leave data.</p>

GRI 402: LABOR & MANAGEMENT RELATIONS 2016

<p>402-1 Minimum notice periods regarding operational changes</p>	<p>Quanta does not report minimum notice periods regarding operational changes.</p>
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GRI 403: OCCUPATIONAL HEALTH & SAFETY 2018

<p>403-1 Occupational health and safety management system</p>	<p>Protecting Our Employees: A Culture of Safety, p. 38</p> <p>Elevating Safety & Productivity: Training & Education, p. 46</p> <p>Appendix, Sustainability Data Metrics, p. 126</p> <p>Appendix, SASB Index, p. 132</p>
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DISCLOSURE

LOCATION

**GRI 403: OCCUPATIONAL HEALTH
& SAFETY 2018, CONTINUED**

403-2 Hazard identification, risk assessment, and incident investigation	Protecting Our Employees: A Culture of Safety, p. 38 Elevating Safety & Productivity: Training & Education, p. 46 Appendix, Sustainability Data Metrics, p. 126 Appendix, SASB Index, p. 132
403-3 Occupational health services	Protecting Our Employees: A Culture of Safety, p. 38 Elevating Safety & Productivity: Training & Education, p. 46 Appendix, Sustainability Data Metrics, p. 126 Appendix, SASB Index, p. 132
403-4 Worker participation, consultation, and communication on occupational health and safety	Protecting Our Employees: A Culture of Safety, p. 38 Elevating Safety & Productivity: Training & Education, p. 46 Appendix, Sustainability Data Metrics, p. 126 Appendix, SASB Index, p. 132
403-5 Worker training on occupational health and safety	2022 Annual Report on Form 10-K Part I, Item 1, Business Protecting Our Employees: A Culture of Safety, p. 38 Elevating Safety & Productivity: Training & Education, p. 46 Appendix, Sustainability Data Metrics, p. 126 Appendix, SASB Index, p. 132
403-6 Promotion of worker health	2022 Annual Report on Form 10-K Part I, Item 1, Business Protecting Our Employees: A Culture of Safety, p. 38 Elevating Safety & Productivity: Training & Education, p. 46 Serving & Strengthening Our Communities & Employees, p. 74 Appendix, Sustainability Data Metrics, p. 126 Appendix, SASB Index, p. 132
403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Protecting Our Employees: A Culture of Safety, p. 38 Elevating Safety & Productivity: Training & Education, p. 46 Serving & Strengthening Our Communities & Employees, p. 74 Appendix, Sustainability Data Metrics, p. 126 Appendix, SASB Index, p. 132

DISCLOSURE

LOCATION

GRI 403: OCCUPATIONAL HEALTH & SAFETY 2018, CONTINUED

<p>403-8 Workers covered by an occupational health and safety management system</p>	<p>Protecting Our Employees: A Culture of Safety, p. 38</p> <p>Elevating Safety & Productivity: Training & Education, p. 46</p> <p>Serving & Strengthening Our Communities & Employees, p. 74</p> <p>Appendix, Sustainability Data Metrics, p. 126</p> <p>Appendix, SASB Index, p. 132</p>
<p>403-9 Work-related injuries</p>	<p>Protecting Our Employees: A Culture of Safety, p. 38</p> <p>Elevating Safety & Productivity: Training & Education, p. 46</p> <p>Serving & Strengthening Our Communities & Employees, p. 74</p> <p>Appendix, Sustainability Data Metrics, p. 126</p> <p>Appendix, SASB Index, p. 132</p>
<p>403-10 Work-related ill health</p>	<p>Protecting Our Employees: A Culture of Safety, p. 38</p> <p>Elevating Safety & Productivity: Training & Education, p. 46</p> <p>Serving & Strengthening Our Communities & Employees, p. 74</p> <p>Appendix, Sustainability Data Metrics, p. 126</p> <p>Appendix, SASB Index, p. 132</p>

GRI 404: TRAINING & EDUCATION 2016

<p>404-1 Average hours of training per year per employee</p>	<p>Elevating Safety & Productivity: Training & Education, p. 46</p> <p>Appendix, Sustainability Data Metrics, p. 126</p>
<p>404-2 Programs for upgrading employee skills and transition assistance programs</p>	<p>2022 Annual Report on Form 10-K Part I, Item 1, Business</p>
<p>404-3 Percentage of employees receiving regular performance and career development reviews</p>	<p>Quanta does not report percentage of employees receiving regular performance and career development reviews.</p>

GRI 405: DIVERSITY & EQUAL OPPORTUNITY 2016

<p>405-1 Diversity of governance bodies and employees</p>	<p>Driving Organizational Impact: Diversity & Inclusion, p. 66</p> <p>Ethics & Integrity: Ensuring Responsible Governance, p. 114</p> <p>Appendix, Sustainability Data Metrics, p. 126</p>
<p>405-2 Ratio of basic salary and remuneration of women to men</p>	<p>Quanta does not report ratio of basic salary and remuneration of women to men.</p>

DISCLOSURE	LOCATION
GRI 406: NON-DISCRIMINATION 2016	
406-1 Incidents of discrimination and corrective actions taken	Quanta does not report incidents of discrimination and corrective actions taken.
GRI 407: FREEDOM OF ASSOCIATION & COLLECTIVE BARGAINING 2016	
407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Ethics & Integrity: Ensuring Responsible Governance, p. 114
GRI 408: CHILD LABOR 2016	
408-1 Operations and suppliers at significant risk for incidents of child labor	Ethics & Integrity: Ensuring Responsible Governance, p. 114
GRI 409: FORCED OR COMPULSORY LABOR 2016	
409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	Ethics & Integrity: Ensuring Responsible Governance, p. 114
GRI 410: SECURITY PRACTICES 2016	
410-1 Security personnel trained in human rights policies or procedures	Quanta does not have security personnel trained in human rights policies or procedures.
GRI 411: RIGHTS OF INDIGENOUS PEOPLES 2016	
411-1 Incidents of violations involving rights of Indigenous peoples	Quanta is not aware of any incidents of violations involving rights of Indigenous peoples.
GRI 413: LOCAL COMMUNITIES 2016	
413-1 Operations with local community engagement, impact assessments, and development programs	<p>Making an Impact: How Quanta Creates Value for Society, p. 8</p> <p>Driving Organizational Impact: Diversity & Inclusion, p. 66</p> <p>Serving & Strengthening Our Communities & Employees, p. 74</p>
413-2 Operations with significant actual and potential negative impacts on local communities	Quanta is not aware of operations with significant actual and potential negative impacts on local communities.
GRI 414: SUPPLIER SOCIAL ASSESSMENT 2016	
414-1 New suppliers that were screened using social criteria	<p>Making an Impact: How Quanta Creates Value for Society, p. 8</p> <p>Driving Organizational Impact: Diversity & Inclusion, p. 66</p>
414-2 Negative social impacts in the supply chain and actions taken	Quanta is not aware of negative social impacts in the supply chain.
GRI 415: PUBLIC POLICY 2016	
415-1 Political contributions	<u>Political Activity</u>

DISCLOSURE**LOCATION****GRI 416: CUSTOMER HEALTH & SAFETY 2016**

416-1 Assessment of the health and safety impacts of product and service categories	Protecting Our Employees: A Culture of Safety, p. 38 Elevating Safety & Productivity: Training & Education, p. 46 Appendix, Sustainability Data Metrics, p. 126 Appendix, SASB Index, p. 132
416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	Protecting Our Employees: A Culture of Safety, p. 38 Elevating Safety & Productivity: Training & Education, p. 46 Appendix, Sustainability Data Metrics, p. 126 Appendix, SASB Index, p. 132

GRI 417: MARKETING & LABELING 2016

417-1 Requirements for product and service information and labeling	Quanta has no requirements for product and service information and labeling.
417-2 Incidents of non-compliance concerning product and service information and labeling	Quanta is not aware of any incidents of non-compliance concerning product and service information and labeling.
417-3 Incidents of non-compliance concerning marketing communications	Quanta is not aware of any incidents of non-compliance concerning marketing communications.

GRI 418: CUSTOMER PRIVACY 2016

418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Quanta is not aware of any substantiated complaints concerning breaches of customer privacy and losses of customer data.
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TCFD INDEX

Quanta’s reporting on climate-related risks and opportunities is guided by the Task Force on Climate-related Financial Disclosures (TCFD). The TCFD recommends disclosures for corporate reporting, categorized by Governance, Strategy, Risk Management, and Metrics and Targets. This index references Quanta’s reporting against the voluntary guidelines of the TCFD. We aim to update our analysis annually.

FOCUS AREA	DISCLOSURE	QUANTA'S RESPONSE
GOVERNANCE	Disclose the organization's governance around climate-related risks and opportunities.	<p>Ethics & Integrity: Ensuring Responsible Governance, p. 114</p> <p>2023 Proxy Statement Corporate Governance The Board's Role in Risk Oversight</p>
	Describe management's role in assessing and managing climate-related risks and opportunities.	<p>Building Momentum: Our Sustainability Strategy, p. 14</p> <p>Ethics & Integrity: Ensuring Responsible Governance, p. 114</p> <p>2023 Proxy Statement Corporate Governance The Board's Role in Risk Oversight</p>
STRATEGY	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	<p>2022 Annual Report on Form 10-K Part I, Item 1, Business, & Item 1A, Risk Factors</p> <p>Quanta Services CDP Climate Response 2023</p> <p>Physical Risks: Changes in climate have caused and are expected to continue to cause, among other things, increasing temperatures, rising sea levels, and changes to patterns and intensity of wildfires, hurricanes, floods, winter storms, other severe weather-related events, and natural disasters. Our operating results can be significantly influenced by both the climates in which we operate and by individual severe weather events, which have impacted and could continue to impact our operating results significantly. A greater amount of rainfall, snow, ice, or other less accommodating weather conditions, as well as an increase in severe weather events and natural disasters, reduces our productivity and causes delays and cancellations of our ongoing projects. For example, hurricanes and tropical storms in the U.S. Gulf Coast region have impacted our ability to perform industrial services operations during certain periods.</p> <p>Physical risks associated with climate change have also increased hazards associated with certain of our operations, which in turn has increased the potential for liability and increased the costs associated with such operations. For example, severe drought and high wind speeds in the western United States, Australia, and other locations have significantly increased the risk of wildfires. This may expose us and other contractors to an increased risk of liability in connection with our operations in those locations, as these events can be started by the failure of electrical power and other infrastructure on which we have performed services. Given the potentially significant liabilities associated with these events, to the extent we are deemed liable for a wildfire event, it could have a material adverse impact on our business. Furthermore, these climate conditions have also resulted in increased costs for wildfire-related third-party insurance and reduced the amount insurance carriers are willing to make available to us under such policies.</p>

FOCUS AREA	DISCLOSURE	QUANTA'S RESPONSE
STRATEGY, CONTINUED		<p>Physical Opportunities: An increase in certain of these physical events, such as hurricanes, tropical storms, wildfires, hurricanes, floods, winter storms, other severe weather-related events, and natural disasters, creates opportunities for us to perform a greater amount of emergency restoration services and can increase customer spending on modernization, grid hardening, and other infrastructure improvements, such as fire hardening programs in California and the western United States and storm hardening in coastal regions. For example, in 2021 and 2022, strong hurricanes and other severe weather events resulted in emergency restoration services revenues at or near record levels of emergency restoration services revenues for us. Additionally, changes in climate could result in more accommodating weather patterns for greater periods of time in certain areas, which may enable us to increase our productivity in those areas.</p> <p>Transition Risks: The increasing focus on climate change has also impacted markets within our Underground Utility and Infrastructure Solutions segment. Certain services within this segment have experienced challenges and could continue to experience challenges related to a transition toward a carbon-neutral economy. For example, concerns about the impact of certain large pipeline projects on the environment, among other things, have contributed to significant delays and cancellations of certain projects in recent years, and as a result, we have decreased our focus on these service offerings. Furthermore, a longer-term decline in demand for fossil fuels or refined products as a result of climate change concerns and regulation could further negatively impact these projects or negatively impact demand for our midstream and industrial services operations.</p> <p>Transition Opportunities: Climate change has also caused, and is expected to continue to cause, changes in the markets in which we operate. For example, in support of the transition to a carbon-neutral economy, utility customers are transitioning toward more sustainable sources of power generation, such as renewables like wind and solar coupled with battery storage technology, and are replacing aging, less efficient electric power infrastructure. Concerns regarding climate change are also leading to the increased electrification of consumer goods, such as electric vehicles, which is expected to provide continued additional demand for new and expanded electric power infrastructure and the re-engineering of existing electric power infrastructure. These market dynamics and technological advances provide significant opportunities for us, including increased demand for our renewable energy infrastructure services, which we have significantly expanded through our acquisition of Blattner, as well as our portfolio of electric power infrastructure services.</p> <p>Regulatory & Compliance Cost Risk: New legislation or regulation related to climate change could increase our costs. Most significantly, we maintain a large fleet of vehicles and a significant amount of construction machinery. Our fleet costs could significantly increase as a result of regulations related to vehicle emissions and requirements related to transitioning to electric fleet vehicles.</p>

FOCUS AREA

DISCLOSURE

QUANTA'S RESPONSE

STRATEGY, CONTINUED

Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.

Making an Impact: How Quanta Creates Value for Society, p. 8
 Building Momentum: Our Sustainability Strategy, p. 14
 How Quanta's Role in the North American Energy Transition Is Gaining Momentum, p. 18
 Responding to Increasing Extreme Weather & Climate Disasters, p. 28
 Reducing Our Impact: Our Carbon Footprint, p. 86
 Collaborating With Industry to Deliver the Hydrogen Economy, p. 94
 Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting, p. 100
[2023 Proxy Statement | Corporate Governance | The Board's Role in Risk Oversight](#)

[Quanta Services CDP Climate Response 2023](#)

Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

[Quanta Services CDP Climate Response 2023](#)

RISK MANAGEMENT

Disclose how the organization identifies, assesses, and manages climate-related risks.

Describe the organization's processes for identifying and assessing climate-related risks.

Ethics & Integrity: Ensuring Responsible Governance, p. 114
[2023 Proxy Statement | Corporate Governance | The Board's Role in Risk Oversight](#)
[Quanta Services CDP Climate Response 2023](#)

Describe the organization's processes for managing climate-related risks.

Ethics & Integrity: Ensuring Responsible Governance, p. 114
[2023 Proxy Statement | Corporate Governance | The Board's Role in Risk Oversight](#)
[Quanta Services CDP Climate Response 2023](#)

Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.

Ethics & Integrity: Ensuring Responsible Governance, p. 114
[2023 Proxy Statement | Corporate Governance | The Board's Role in Risk Oversight](#)
[Quanta Services CDP Climate Response 2023](#)

FOCUS AREA

DISCLOSURE

QUANTA'S RESPONSE

METRICS & TARGETS

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities.

Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.

Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.

Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

Reducing Our Impact: Our Carbon Footprint, p. 86

[Quanta Services CDP Climate Response 2023](#)

Reducing Our Impact: Our Carbon Footprint, p. 86



[Quanta Services CDP Climate Response 2023](#)




	UNITS	2019	2020	2021	2022
Scope 1 Emissions	Metric tons CO ₂ e	656,248	576,626	653,947	836,724
Scope 2 Emissions (Location-Based)	Metric tons CO ₂ e	9,429	8,776	8,812	13,276
Scope 2 Emissions (Market-Based)	Metric tons CO ₂ e	9,428	8,767	8,797	12,685
Scope 3 Emissions	Metric tons CO ₂ e	—	—	—	74,744

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SDG INDEX

We understand the significance of the United Nations 2030 Agenda for Sustainable Development and the call-to-action presented by the UN Sustainable Development Goals (SDGs). These goals urge governments, businesses, and civil society organizations to address the critical challenges facing our world today. We recognize the pivotal role that these goals play in promoting fair, inclusive, and sustainable development. We take pride in outlining our contributions to each SDG and welcome our customers, suppliers, and stakeholders to join us in our commitment to advancing the shared blueprint for peace and prosperity for people and the planet, now and into the future.

GOAL	DESCRIPTION	INFORMATION ON HOW WE ARE CONTRIBUTING
<p>NO POVERTY</p> 	<p>End poverty in all its forms everywhere.</p>	<ul style="list-style-type: none"> Making an Impact: How Quanta Creates Value for Society, p. 8 Building Momentum: Our Sustainability Strategy, p. 14 How Quanta’s Role in the North American Energy Transition Is Gaining Momentum, p. 18 Responding to Increasing Extreme Weather & Climate Disasters, p. 28 LUMA: Improving Lives Through Action, p. 58 Driving Organizational Impact: Diversity & Inclusion, p. 66 Serving & Strengthening Our Communities & Employees, p. 74 Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting, p. 100
<p>ZERO HUNGER</p> 	<p>End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.</p>	<ul style="list-style-type: none"> Making an Impact: How Quanta Creates Value for Society, p. 8 Building Momentum: Our Sustainability Strategy, p. 14 LUMA: Improving Lives Through Action, p. 58 Driving Organizational Impact: Diversity & Inclusion, p. 66 Serving & Strengthening Our Communities & Employees, p. 74 Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting, p. 100

GOAL	DESCRIPTION	INFORMATION ON HOW WE ARE CONTRIBUTING
<p>3 GOOD HEALTH AND WELL-BEING</p> 	<p>Ensure healthy lives and promote well-being for all at all ages.</p>	<p>Making an Impact: How Quanta Creates Value for Society, p. 8</p> <p>Building Momentum: Our Sustainability Strategy, p. 14</p> <p>How Quanta's Role in the North American Energy Transition Is Gaining Momentum, p. 18</p> <p>Responding to Increasing Extreme Weather & Climate Disasters, p. 28</p> <p>Protecting Our Employees: A Culture of Safety, p. 38</p> <p>Elevating Safety & Productivity: Training & Education, p. 46</p> <p>LUMA: Improving Lives Through Action, p. 58</p> <p>Driving Organizational Impact: Diversity & Inclusion, p. 66</p> <p>Serving & Strengthening Our Communities & Employees, p. 74</p> <p>Ethics & Integrity: Ensuring Responsible Governance, p. 114</p>
<p>4 QUALITY EDUCATION</p> 	<p>Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.</p>	<p>Making an Impact: How Quanta Creates Value for Society, p. 8</p> <p>Building Momentum: Our Sustainability Strategy, p. 14</p> <p>Elevating Safety & Productivity: Training & Education, p. 46</p> <p>LUMA: Improving Lives Through Action, p. 58</p> <p>Driving Organizational Impact: Diversity & Inclusion, p. 66</p> <p>Serving & Strengthening Our Communities & Employees, p. 74</p>
<p>5 GENDER EQUALITY</p> 	<p>Achieve gender equality and empower all women and girls.</p>	<p>Making an Impact: How Quanta Creates Value for Society, p. 8</p> <p>Our Sustainable Culture of Innovation, p. 12</p> <p>Building Momentum: Our Sustainability Strategy, p. 14</p> <p>Elevating Safety & Productivity: Training & Education, p. 46</p> <p>LUMA: Improving Lives Through Action, p. 58</p> <p>Driving Organizational Impact: Diversity & Inclusion, p. 66</p> <p>Serving & Strengthening Our Communities & Employees, p. 74</p> <p>Reducing Our Impact: Our Carbon Footprint, p. 86</p> <p>Collaborating With Industry to Deliver the Hydrogen Economy, p. 94</p>

GOAL

DESCRIPTION

INFORMATION ON HOW WE ARE CONTRIBUTING

CLEAN WATER & SANITATION

6 CLEAN WATER AND SANITATION



Ensure availability and sustainable management of water and sanitation for all.

Making an Impact: How Quanta Creates Value for Society, p. 8

Building Momentum: Our Sustainability Strategy, p. 14

Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting, p. 100

AFFORDABLE & CLEAN ENERGY

7 AFFORDABLE AND CLEAN ENERGY



Ensure access to affordable, reliable, sustainable, and modern energy for all.

Making an Impact: How Quanta Creates Value for Society, p. 8

Our Sustainable Culture of Innovation, p. 12

Building Momentum: Our Sustainability Strategy, p. 14

How Quanta's Role in the North American Energy Transition Is Gaining Momentum, p. 18

LUMA: Improving Lives Through Action, p. 58

Reducing Our Impact: Our Carbon Footprint, p. 86

Collaborating With Industry to Deliver the Hydrogen Economy, p. 94

Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting, p. 100

DECENT WORK & ECONOMIC GROWTH

8 DECENT WORK AND ECONOMIC GROWTH



Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all.

Making an Impact: How Quanta Creates Value for Society, p. 8

Our Sustainable Culture of Innovation, p. 12

Building Momentum: Our Sustainability Strategy, p. 14

How Quanta's Role in the North American Energy Transition Is Gaining Momentum, p. 18

Protecting Our Employees: A Culture of Safety, p. 38

Elevating Safety & Productivity: Training & Education, p. 46




LUMA: Improving Lives Through Action, p. 58

Driving Organizational Impact: Diversity & Inclusion, p. 66

Serving & Strengthening Our Communities & Employees, p. 74

Collaborating With Industry to Deliver the Hydrogen Economy, p. 94

Ethics & Integrity: Ensuring Responsible Governance, p. 114

GOAL	DESCRIPTION	INFORMATION ON HOW WE ARE CONTRIBUTING
INDUSTRY, INNOVATION & INFRASTRUCTURE		
	<p>Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.</p>	<p>Making an Impact: How Quanta Creates Value for Society, p. 8</p> <p>Our Sustainable Culture of Innovation, p. 12</p> <p>Building Momentum: Our Sustainability Strategy, p. 14</p> <p>How Quanta’s Role in the North American Energy Transition Is Gaining Momentum, p. 18</p> <p>Responding to Increasing Extreme Weather & Climate Disasters, p. 28</p> <p>LUMA: Improving Lives Through Action, p. 58</p> <p>Reducing Our Impact: Our Carbon Footprint, p. 86</p> <p>Collaborating With Industry to Deliver the Hydrogen Economy, p. 94</p> <p>Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting, p. 100</p>
REDUCED INEQUALITIES		
	<p>Reduce inequality within and among countries.</p>	<p>Making an Impact: How Quanta Creates Value for Society, p. 8</p> <p>Building Momentum: Our Sustainability Strategy, p. 14</p> <p>Protecting Our Employees: A Culture of Safety, p. 38</p> <p>Elevating Safety & Productivity: Training & Education, p. 46</p> <p>LUMA: Improving Lives Through Action, p. 58</p> <p>Driving Organizational Impact: Diversity & Inclusion, p. 66</p> <p>Serving & Strengthening Our Communities & Employees, p. 74</p> <p>Ethics & Integrity: Ensuring Responsible Governance, p. 114</p>
SUSTAINABLE CITIES & COMMUNITIES		
	<p>Make cities and human settlements inclusive, safe, resilient, and sustainable.</p>	<p>Making an Impact: How Quanta Creates Value for Society, p. 8</p> <p>Our Sustainable Culture of Innovation, p. 12</p> <p>Building Momentum: Our Sustainability Strategy, p. 14</p> <p>How Quanta’s Role in the North American Energy Transition Is Gaining Momentum, p. 18</p> <p>Responding to Increasing Extreme Weather & Climate Disasters, p. 28</p> <p>LUMA: Improving Lives Through Action, p. 58</p> <p>Driving Organizational Impact: Diversity & Inclusion, p. 66</p> <p>Serving & Strengthening Our Communities & Employees, p. 74</p>

GOAL

DESCRIPTION

INFORMATION ON HOW WE ARE CONTRIBUTING

RESPONSIBLE CONSUMPTION & PRODUCTION



Ensure sustainable consumption and production patterns.

Making an Impact: How Quanta Creates Value for Society, p. 8

Our Sustainable Culture of Innovation, p. 12

Building Momentum: Our Sustainability Strategy, p. 14

How Quanta's Role in the North American Energy Transition Is Gaining Momentum, p. 18

Reducing Our Impact: Our Carbon Footprint, p. 86

Collaborating With Industry to Deliver the Hydrogen Economy, p. 94

Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting, p. 100

CLIMATE ACTION



Take urgent action to combat climate change and its impacts.

Making an Impact: How Quanta Creates Value for Society, p. 8

Our Sustainable Culture of Innovation, p. 12

Building Momentum: Our Sustainability Strategy, p. 14

How Quanta's Role in the North American Energy Transition Is Gaining Momentum, p. 18

Responding to Increasing Extreme Weather & Climate Disasters, p. 28

LUMA: Improving Lives Through Action, p. 58

Reducing Our Impact: Our Carbon Footprint, p. 86

Collaborating With Industry to Deliver the Hydrogen Economy, p. 94

LIFE BELOW WATER



Conserve and sustainably use the oceans, seas, and marine resources for sustainable development.

Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting, p. 100



LIFE ON LAND



Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss.

LUMA: Improving Lives Through Action, p. 58

Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting, p. 100

GOAL	DESCRIPTION	INFORMATION ON HOW WE ARE CONTRIBUTING
PEACE, JUSTICE & STRONG INSTITUTIONS		
	<p>Promote just, peaceful, and inclusive societies.</p>	<p>Ethics & Integrity: Ensuring Responsible Governance, p. 114</p>
PARTNERSHIPS FOR THE GOALS		
	<p>Strengthen the means of implementation and revitalize the global partnership for sustainable development.</p>	<p>Making an Impact: How Quanta Creates Value for Society, p. 8</p> <p>Building Momentum: Our Sustainability Strategy, p. 14</p> <p>How Quanta's Role in the North American Energy Transition Is Gaining Momentum, p. 18</p> <p>Responding to Increasing Extreme Weather & Climate Disasters, p. 28</p> <p>LUMA: Improving Lives Through Action, p. 58</p> <p>Driving Organizational Impact: Diversity & Inclusion, p. 66</p> <p>Serving & Strengthening Our Communities & Employees, p. 74</p> <p>Reducing Our Impact: Our Carbon Footprint, p. 86</p> <p>Collaborating With Industry to Deliver the Hydrogen Economy, p. 94</p> <p>Biodiversity, Environmental & Circular Economy Management: Restoring & Protecting, p. 100</p>

