HCLTech

Supercharging the Energy & Utilities Transition

UVISION™ Framework for Energy & Utility Industry

Energy & Utility industry at a crossroads

The Energy & Utilities (E&U) industry is at a critical crossroads as it faces multiple disruptions across the societal, environmental and technological paradigm. E&U businesses today face challenges on every front - from aging infrastructure costs to securing critical assets and from innovating renewable technologies to enhancing customer experience.
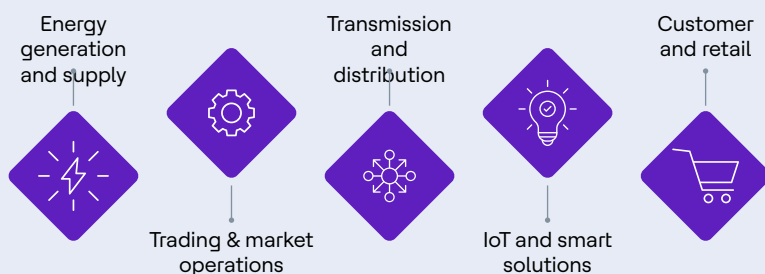
In response to these challenges, E&U businesses are accelerating their IT spend on a global scale. Gartner reports that the industry is projected to increase their IT investments by 9% from 2021 to 2022, with more than $219 billion in spend. This trend is expected to continue onwards at a CAGR of 10% by 2026, underscoring the critical industry-wide adoption of digital transformation.

Driving energy transitions and digital transformation

The scale and scope of IT spend being undertaken by the E&U industry is not only aimed at overcoming the legacy obstacles of the past but also leaping forward into the future. Contending with these changes has led to a fundamental transition within the E&U industry as it moves to entirely new operating models. The foundation of this change lies in how the industry is undergoing a transformation to the energy transition model.

This encompasses all key aspects of the value chain that include:

Energy generation and supply

Trading & market operations

Transmission and distribution

IoT and smart solutions

Customer and retail

The key drivers for this shift can be found in the following areas:

01 Advancement of clean energy, water and sustainable living goal

02 Renewable's integration, grid resiliency and transportation electrification

03 Consumers to Prosumers transition

04 Rapid rise and necessity of digital E&U enterprises

To thrive under these conditions, E&U businesses must seize all available opportunities to supercharge progress as they accelerate their energy transition and digital business transformation.

Dimensions of business transformation

The E&U industry is on a countdown to reinvention due to irreversible change in their business and operational ecosystem. Concurrently, the rapidly maturing state of emerging technologies is also driving sector convergence and transforming business and operating models across three key areas:

Connectivity

The fusion of data, technology platforms and physical devices is unlocking new approaches to business models. The rapid proliferation of the Internet of things (IoT) has already enabled usage-based revenue models, while blockchain innovations offers new opportunities that may help the industry adopt decentralized business models for greater efficiency and agility.

Automation

The continually improvements in artificial intelligence and robotics are leading to the mass automation of core operations. Combined with next generation developments in human-machine interface such as metaverse and augmented reality, businesses are entering a new era of customer and business operations. And as automation becomes more prevalent, companies will face ever greater impact on how services are delivered, and costs are incurred.

Cognitive Computing

The rise of artificial intelligence is delivering daily breakthroughs and driving the next wave of automation with cognitive computing. This is already evident in the use of chatbots that streamline customer experiences to advanced analytics, but has the potential to go much farther, much faster. This includes the rise of visual intelligence-capable, autonomous decision making, and value chain optimization based on machine/deep learning.

The UVISION™ Framework: Supercharging the Energy and Utility Transition

HCLTech helps global E&U businesses with its decades of cross-industry expertise and in-depth business transformation experience. All these capabilities converge within the HCLTech UVISION™ Framework that empowers E&U companies to seamless adapt to the dynamic market landscape by leveraging next generation technology solutions.

The HCLTech UVISION™ framework is designed to help the E&U industry achieve unprecedented levels of digital adoption so that businesses can acquire new operational efficiencies by leveraging data-driven insights through a systems-thinking approach.

HCLTech's approach helps organizations acquire the benefits of systems-thinking to drive innovation, pursue profitability and become future-ready with new capabilities such as:

- Connected customers
- Enhanced monitoring
- Remotely controlled assets and systems
- Effective operations and maintenance
- Connected, skilled and mobile workforce
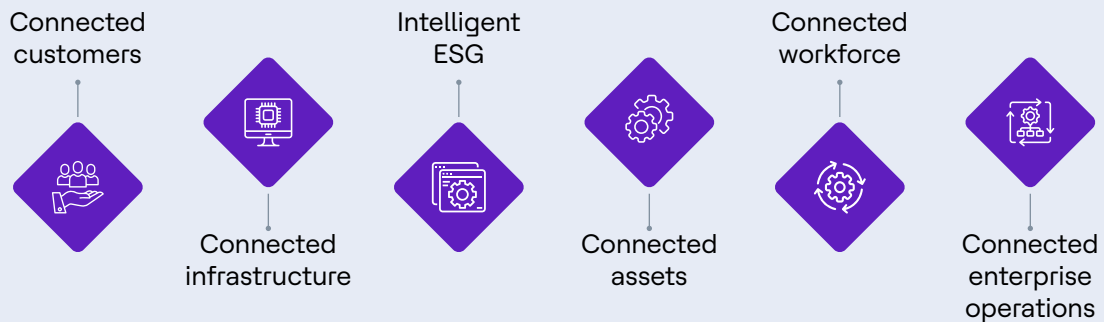- Manage risks and resilience
- Digital Foundation

UVISION™ Nucleus

HCLTech UVISION™ Nucleus is the hub of supercharging progress for the energy and utility industry. It is designed to empower E&U businesses by being an end-to-end partner for their energy transition and digital transformation journey. It allows businesses to achieve unprecedented levels of digital enhancements for greater scalability, agility, product innovation, and efficient automation.

UVISION™ Nucleus maps across the enterprise value chain to help businesses optimize, innovate, and transform for a digital future. This includes:

Connected customers

Connected infrastructure

Intelligent ESG

Connected assets

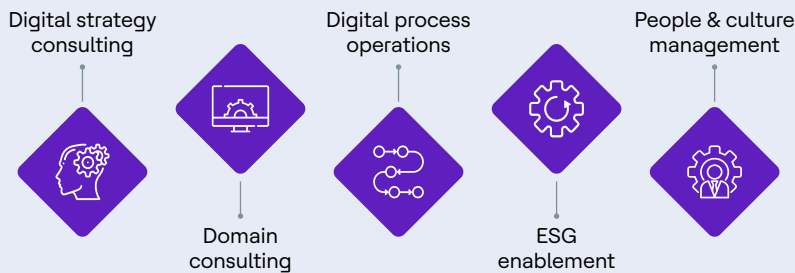Connected workforce

Connected enterprise operations

With a data and insights-based approach, helps businesses accelerate their business-aligned digital goals through the adoption of next generation technologies. HCLTech provides customers simplified access to automation, visual intelligence, intelligent IoT, digital colleague services, IT/OT integration and resilient cybersecurity and compliance solutions, to help them become a future-ready enterprise in the emerging market landscape.

UVISION™ for Business

HCLTech empowers its customers as they adapt to the new business paradigm with customized business transformation roadmaps and consulting. As partner, HCLTech provides its customers the experience, expertise, frameworks, technologies, and operating models necessary to help unleash their growth potential.
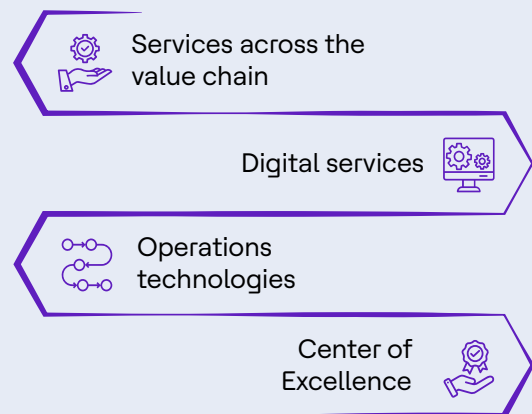
UVISION™ provides businesses with a multi-dimensional approach to digital transformation, which includes:

Digital strategy consulting

Digital process operations

People & culture management

Domain consulting

ESG enablement

UVISION™ for Engineering

The rapid technological shift within the industry has led to the emergence of new energy value chains and digital-first practices. HCLTech helps customers achieve business excellence in these areas by supercharging their engineering and innovation capabilities by leveraging its expertise in IoT, automation, and Industry 4.0 approaches. HCLTech UVISION™ ensures that E&U businesses achieve next generation engineering capabilities that are not only efficient and intelligent but also designed for scale and agility.

UVISION™ ensures the systematic and precise implementation of end-to-end engineering transformations from the ground-up, which covers:

Services across the value chain

Digital services

Operations technologies

Center of Excellence

UVISION™ for Operations

HCLTech works with customer teams to help them leverage the best of IoT, automation, and processes to enhance their enterprise operations. With HCLTech UVISION™, E&U enterprises can modernize their business with continuous improvements, predictive analytics and cognitive intelligence solution that enhance customer experience, optimize spend and ensure higher resilience and efficiency.

UVISION™ integrates E&U business operations with end-to-end Industry 4.0 capabilities that allow for a data and insights driven process, which includes:

System integration platforms

Smart IoT across the value chain

User-centric dashboard controls

Applications and analytics
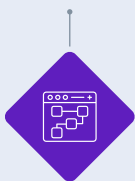
Integrated communications networks

UVISION™ for Digital

As a digital-first service provider, HCLTech understands the critical need for E&U businesses to be at the cutting edge of digital. HCLTech UVISION™ for Digital helps customers leverage next-gen digital consulting across their business ecosystem – from transformation road mapping and implementation to security and compliance.

UVISION™ for digital truly brings E&U enterprises into the 21st century by helping them leverage current and emerging digital capabilities for key business imperatives, such as:

Digital transformation strategy and planning

IO/OT design and implementation

Accelerating data-to-value cycle

Resilient digital security and compliance

Environmental sustainability innovation

Experience Across E&U Industry

Service Area	Client
Uvision for Business	• Helped a leading North American Natural Gas Provider with their mission of transforming their HR Organization and support Organizational Change Management process by designing a new HR model • Migrated diversified business and infrastructure services (over 60 in number) out of the existing data centers (DCs) into the AWS cloud platform for a major European gas distribiution company • Enhanced customer satisfaction and improved process efficiency in customer care and metering process by enabling customer care and metering in one solution, running on one database, accessed through one screen— to deliver connected operations and more valuable connections with the customers for a leading utility provider in USA • Create a new product ecosystem that makes sustainable living more accessible and profitable and reach out to customers in an effort to increase options for flexible load and make grid-enabled technologies accessible and cheap for a leading utility provider in USA
Uvision for Digital	• Delivered digital transformation for a leading electic utility in Europe to resolve the challenges faced in leveraging legacy system and manage slow business processes by executing an automated continuous delivery environment • Enabled Machine/AI managed system thinking and to built Next Gen platform focusing on end to end joined up of systems, data, assets to achieve the business and IT outcomes/KPI for a major UK based water and waste water company • Optimized software configuration in SAP to enable Automated Meter Reading for a North American water utility to to enhance customer service, improve operational efficiency, and gain business process efficiencies • Implemented Contract Lease Management (CLM) module in SAP and automated the compliance adherence in areas of billing, leasing, renting vendor negotiation management for a leading utility based out of USA
Uvision for Operations	• Implemented the ASM 2.0 framework for an energy company based in Scotland to manage client's aging IT infrastructure technologies and increase operational efficiencies • Optimized IT infrastructure estate operating model and Go to market timelines for critical intiatives for a leading electric utility based out of USA • Maximized efficiencies in the customer experience management process and achieve higher MTTR (Mean Time to Resolution) and reduce delay in Field Service for a leading American electric utility • Modernized the IT landscape by provided a complete migration factory covering all infrastructure services related to building platform and migrating applications & implemented new tools to manage platform and delivery DR/BCP recovery services including automated build of all virtual servers for a leading North American energy company
Uvision for Engineering	• Implemented digital twin solution to reduce wind turbine drive train failures as the failure rate of drive trains in the field was more than anticipated which resulted in increasing down time for a leading Danish manufactutrer of wind turbines • Replaced legacy data center distribution design and deployed the industry-leading Software-Defined Networking (SDN) solution to facilitate application agility and data center automation for a leading electric company in USA • Upgraded advanced meter reading (AMR) technology to Advanced Metering Infrastructure (AMI) communication modules, leveraging an existing Landys+Gyr AMI system and communication network for a leading electric, water & gas utility company based out of North America
Uvision for Nucleus	• Helped a leading North American energy retailer in managing detoriating CSAT due to poor operations visibility in legacy system architecture and front & back office operations • Modernized the customer information system (CIS) through best practice customer data architecture for centralization and fast tracking new regulatory requirements implementation via a common platform for a leading US based utility • Created a dynamic intelligent data platform SIWA (Simplified Water Analytics Platform) to get 360 degree view of data collatedfrom data streams generated from asset management systems, smart meters, SCADA, IoT networks, ERP, Bureau of Meteorology, and customer information system to derive business relevant insights and intelligent decision making through IT-OT convergence for a leading Australian Water utility. • Helped a UK based water utility to expand its capabilities in the water utility market by providing a managed services solution that included physical metering and network assets, operating systems and actual smart meter data delivered to utilities in a standardized format

HCLTech | Supercharging Progress™

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HCLTech is a global technology company, home to 222,000+ people across 60 countries, delivering industry-leading capabilities centered around digital, engineering and cloud, powered by a broad portfolio of technology services and products. We work with clients across all major verticals, providing industry solutions for Financial Services, Manufacturing, Life Sciences and Healthcare, Technology and Services, Telecom and Media, Retail and CPG, and Public Services. Consolidated revenues as of 12 months ending December 2022 totaled $12.3 billion. To learn how we can supercharge progress for you, visit hcltech.com.