HARNESS THE FULL POWER OF RENEWABLE ENERGY & DISTRIBUTED ASSETS

Drive Efficiency, Boost Reliability, and Improve Performance Across Your Operations with Honeywell’s Outcome-based Lifecycle Management
The Power Behind Renewable Energy

Honeywell gives businesses the insight and control they need to build faster, better, more profitable operations.

A Changing Climate
Governments across the globe continue to push to meet national and international commitments for renewables generation. At the same time, there is increasing demand for renewables generation to achieve grid parity, with developing technologies expected to produce electricity for the same cost as traditional generation. Subsidies for alternative energy sources are being squeezed and pressure is on renewable energy plants to reduce the Levelized Cost of Electricity (LCOE).

Automation will be key to achieve the reductions in CAPEX and operational efficiencies required to achieve this. Today, just 10% of the industry is automated. By 2022 that’s expected to rise to 80%. But the transition is challenging: 60% of companies require additional work to move from manual to digital processes, and 72% of energy employers say they can’t find the talent they need, creating skills gaps.

Faced with these challenges, the industry needs strong partners with the resources to provide performance and competency guarantees.

Performance You Can Count On
Honeywell’s technology allows energy producers to reduce their LCOE, microgrid owners to optimize their operations, and C&I clients to achieve their corporate sustainability goals. OEMs can also benefit from our programs, which will enable them to provide long-term remote monitoring and operation services to end-users.

Across solar, wind, hydro, geothermal, biomass, marine and energy storage, Honeywell has the solutions to deliver reliable long-term solutions for renewable generation and storage. Secure and compliant, efficient and flexible, we provide real-time visibility and control across assets, operations and enterprises, as well as market leading services.

Efficiency, reliability, safety, flexibility and resilience: We’ll help build a better business to meet the challenges of tomorrow’s energy generation.

The Solutions and Expertise You Need for Success:
- The industry’s most advanced automation and process control for real-time oversight across your operation
- Industry-leading solutions for cybersecurity and data resilience to satisfy regulators and stakeholders for confidence in your operations and data
- A unique lean execution LEAP™ service to reduce risk and accelerate project schedules to get to production quicker
- Market-leading global services and support to keep plants and businesses running efficiently, reliably and safely.

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The Intelligent, Agile Enterprise
Let Honeywell Connected Plant combine your data and turn it into actionable insights.
Automate and Integrate
Honeywell’s solutions connect you and put you in control of your assets and operations, wherever they are. Providing real-time insight and visibility across the enterprise, they help create more agile, effective operations:
• With the flexibility to rapidly take assets online and offline to maintain voltages
• Automating operations and empowering mobile workers to do more with less and address skills gaps
• Cloud-enabled for fast, efficient deployment and connections to remote sites across the enterprise
• Offering complete solutions with expertise in generation and storage, controlled from a single platform.

Centralize, connect and control: Honeywell remote operations is the heart and brain powering control of your assets.

Real-time Visibility and Analytics
Don’t waste time waiting for data. Honeywell makes real-time monitoring a reality, continually updating data and delivering actionable insights, even for the largest sites. Enable operators to simultaneously monitor tens of thousands of assets through a single pane of glass and rapidly drill down to troubleshoot issues or problems—from an enterprise view to a single panel in a few clicks.

A leader in alarm management and analytics, we use the most sophisticated visualizations and exception reporting to create a unique, simple, and powerful user experience. Rapidly identifying underperformance, predicting problems, and preventing errors, our solutions for control and monitoring guide operators, engineers and maintenance to the right answers faster.

Keeping the Lights On: Industry-leading Cybersecurity
Threats to utilities and the smart grid continue to grow. Across the world, half of utility company executives fear a cyber attack will interrupt power supply in their country at any time. Governments everywhere are seeking to ensure safe and continual supply by insisting on the highest standards of cybersecurity.

Honeywell provides the protection and resilience utilities need to comply with the European Union’s NIS Directive, the USA’s NERC/CIP Standards, and similar cybersecurity regulations and requirements across the globe. From perimeter protection to cybersecurity in the Cloud, we keep data, people, plant, and the environment safe from evolving threats.
Bringing It All Together: Putting You in Control

Honeywell’s solutions bring people, process, and assets together to drive efficiencies, boost reliability and improve performance across the operation.

More Control with Proven Technology:
Efficient and reliable control and monitoring starts with the local controls and edge devices. Honeywell Process Solutions is a pioneer in automation, control, instrumentation, and services. Our range of automation products like Experion Process Knowledge System (PKS), ControlEdge PLCs, ControlEdge RTUs, and Experion SCADA are running successfully globally in thousands of large process plants across oil & gas, refining, petrochemical, conventional & renewable power, paper and metals & mining industries increasing safety, reliability and efficiency.

Our cutting-edge technologies enable us to interface with almost all types of PLCs, control systems and devices using a wide range of industry standard communication protocols which offer unique value while dealing with existing sites in brown field projects.

By integrating disparate data across your facility, making the most of your resources and people, and feeding it all into a unified automation system, you can achieve an operation that’s more proactive, efficient and responsive. It’s a coordinated effort of better connecting your assets, optimizing your process, involving your people and increasing your business agility.

Empower Your People with Efficient SCADA Solutions
Powerful and innovative, but simple to use, Experion® SCADA simplifies configuration, operations and maintenance and delivers a scalable, robust control solution for renewables businesses. A real-time database provides data to a wide range of applications and powerful features include system displays, advanced alarm management, extensive history collection and standard system trends. Experion SCADA offers flexibility to use any communication method and any industry standard interface including IEC60870, DNP3 & IEC61850.

An Enterprise-Wide View
Distributed System Architecture (DSA) technology allows multiple SCADA servers to function as one without duplicating data at each level. Seamlessly combining operational data from multiple Experion systems, wherever they’re based, without any additional engineering or configuration is needed. DSA lets you combine multiple on-premises control systems serving large sites with highly efficient Cloud-hosted SCADA for smaller sites not covered by local cybersecurity requirements. It gives on-premises control, and makes all site information available to users through a single interface or pane of glass.

Energy Storage
Honeywell can deliver a complete outcome-based solution that includes both generation and storage. Our Battery Energy Storage Systems store electrical energy for when it’s needed to deliver greater grid stability and meet peak demands without straining the electrical system.

Expanding control, reducing costs and creating new revenue streams for energy producers, storage can deliver lower peak demand charges for behind-the-meter customers; ensure uninterrupted power for critical facilities; ease ramping requirements from traditional generation; and facilitate peak pricing arbitrage.

Tailored to your requirements, solutions are fully independent, but operate together for unlimited scalability and the highest possible reliability.
Harness the Power of the Cloud: Experion Elevate

The most efficient way to deploy and run Experion SCADA.

Honeywell Experion SCADA is now available as a real-time, secure and scalable service through the Cloud, running on Honeywell’s servers. Cut implementation times, eliminate upfront costs, and enjoy continual support with our suite of Cloud-enabled solutions.

A subscription-based service, SCADA in the Cloud brings benefits across the lifecycle:

- Lower infrastructure costs (CAPEX) and rapid project deployment
- Reduced onsite footprint and hardware and software costs
- The latest software and features, with automatic updates and patches
- Remote support to reduce the need for onsite skills and maintenance
- Cyber secure access for all users, wherever they’re based
- Rapid, infinite scalability with Cloud storage and deployment
- Flexible on- and off-premises combinations tailored to your needs
- High availability options
- Predictable costs certainty.
More Insight, More Intelligence: 
Advanced Analytics

Capture, visualize, predict and act to deliver better performance with Honeywell’s Uniformance® Suite for smart operations.

Uniformance software turns your data into intelligence, helping you act to drive better performance across the operation. It captures the real-time process data you need; provides intuitive visualizations to deliver valuable insights in the control room and the field; delivers an analysis of your assets to detect and predict risks and opportunities; and connects process intelligence to critical business decision making, for fast, coordinated action.

A comprehensive suite of solutions provides renewables businesses with the powerful tools they need to optimize their operations.

Key Performance Indicators and Business Intelligence

Manage what you measure with Uniformance Executive. It helps improve performance through robust measurement of key performance indicators across safety, reliability, maintenance, and operations. Users can track business metrics against targets to drive continuous improvement.

Uniformance Executive provides real-time digital intelligence to inform decision making and boost performance:

- Eliminate errors and ensure a single version of the truth, with consistent data across the enterprise
- Access data and KPIs anywhere on any device
- Compare data from multiple sites and plants
- Proactively detect equipment and process issues
- Identify opportunities to improve your business results.

Real-time Equipment Health Monitoring

All your assets, all the time: Uniformance Asset Sentinel continuously monitors equipment and process health to predict and prevent asset failures and poor operational performance. It continuously monitors process performance and equipment health to detect performance issues faster and prioritize actions to increase asset utilization, reduce maintenance costs, increase efficiency and improve safety.

Monitor
- Intuitive displays optimized for user experience and enterprise standardization
- KPI dashboards, with real-time information customizable for every user
- Focus on performance and deviations with drill down capabilities

Control
- Continuous real-time data
- Agile control of operations
- Advanced planning and insights

Analytics
- Real-time views of asset performance and fault models
- Trending, charts, reports and display options
- Alerts for predictive and focused maintenance

Mobility
- Mobile access to enterprise data and alerts
- Knowledge sharing and collaboration among global teams
- Investments in Cloud security and data continuity by Honeywell

Historians: Uniformance PHD and Cloud Historians

Honeywell’s Uniformance PHD consolidates all your data from multiple sources for fast, efficient analysis and long-term storage.

For even greater power and flexibility, users can choose Honeywell’s Uniformance Cloud Historian—bringing together an enterprise historian for real-time visibility and analysis with a data lake. It’s a single source for enterprise trending, visualization, real-time analysis, and business intelligence.

Visualization Tools

Uniformance Insight enables users to visualize and explore information for effective analysis and troubleshooting. Configurable dashboards and intuitive navigation help users get to critical information faster and let them trend, chart, monitor, report and display the way they need, where they need—on any device. They can then quickly share and collaborate across the enterprise.
A Trusted Partner for Project Execution and Services

Honeywell’s unique approach and advanced technology mean better project execution and excellent ongoing support. We help cut costs, lower risks, accelerate schedules and keep you operating at your best.

Consulting and Engineering Services are delivered through our Project Services expert technicians using Six Sigma methodologies and best-in-class tools for superior results. With a global presence, our teams deliver on-time and on-budget to minimize downtime and allow you to focus on manufacturing of quality products.

Lean Execution of Automation Projects

LEAP is a paradigm shift in automation project implementation. Virtualization and Cloud Engineering free projects from sequential project flows. Keeping automation systems off the critical path, it drastically improves the overall schedule and reduces risk. Once the project is implemented, LEAP principles continue to help run the plant more efficiently, use assets more effectively and avoid major capital expansions.

Assurance 360 is Honeywell’s outcome-based service program, delivering economic benefits and certainty in industrial operations. Under Assurance 360, Honeywell provides agreed service levels rather than prescribed quantities of materials and labor; takes a strategic view to minimize the total cost of ownership; guarantees performance levels; and utilizes the automation system to improve business performance.

A Powerful Portfolio

- Projects & Automation Solutions for new and existing plants
- Lifecycle Service Solutions for ongoing maintenance support
- Honeywell Connected Plant—Optimized Software and Outcome-based Solutions
- Honeywell Smart Energy with Connected Utility and Metering Solutions
Why Honeywell?

In Numbers:
- 40 years in automation
- 22,000 engineers worldwide
- 11,000 software developers
- 150 research and engineering facilities
- 40,000+ patents granted or pending

For more information
To learn more about Honeywell’s Renewable Energy Solutions visit www.hwll.co/RenewableEnergy or contact your Honeywell account manager.

Honeywell Process Solutions
1250 West Sam Houston Parkway South
Houston, TX 77042

Honeywell House, Skimped Hill Lane
Bracknell, Berkshire, England RG12 1EB UK

Building #1, 555 Huanke Road
Zhangjiang Hi-Tech Industrial Park
Pudong New Area, Shanghai 201203

www.honeywellprocess.com