

Utilities Transformation



Meeting the New Energy Challenge

Market Situation

The New Energy Challenge

Business Priorities

SAP Innovations

The utility industry is in the middle of an unprecedented transformation. While dealing with the fallout from a global financial crisis, utilities must meet daunting regulatory, environmental, operational, and technological challenges.

In today's rapidly evolving energy environment, some utilities are choosing to pursue inorganic growth through mergers and acquisitions. Others, however, are taking a more proactive, growth-oriented approach. These companies are building an active energy portfolio by leveraging key resources and core competencies while deemphasizing noncore activities.

For all utilities, operational excellence is an important differentiator. Achieving this ambitious goal depends on optimizing customer-facing or resource-consuming processes without weakening the quality of products and services.

Currently, many leading utilities are investing heavily in innovation and introducing technologies like the smart grid. These front-runners embrace tomorrow's challenges willingly. Whether challenged by regulators or driven by internal goals, they understand that innovation is the key to long-term growth and market leadership.



Smart Energy Innovations

Market Situation

The New Energy Challenge

Business Priorities

SAP Innovations

Balance profits, sustainability, and safety of supply.

Profitability

Enhance profits by increasing customer satisfaction or using energy more efficiently.

Sustainability

Improve sustainability through increased production from renewable energy sources.

Safety of Supply

Supply safety depends, to a large extent, on highly flexible and adaptive power grids.

Best-Run Utilities



Deployment and management of an intelligent energy grid helps utilities achieve an optimized balance between the need for profitability, sustainability, and safety of supply.

Priorities for Best-Run Utilities

Market Situation

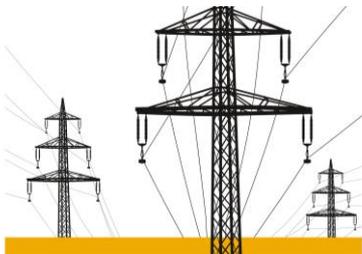
The New Energy Challenge

Business Priorities

SAP Innovations

Best-run utilities are able to meet challenges in power supply and adapt to industry reorganization, regulatory uncertainty, and emerging technologies by achieving the right balance between profitability, sustainability, and safety of energy supply.

- Energy Supply Chain Optimization
- Operational Efficiency for Plants and Grids
- The Intelligent Grid
- Customer Experience
- Human Resources
- Finance
- Procurement
- Information Technology
- Technology and Platform



Understanding the value drivers for each of these priorities is key to becoming a best-run utility company.



SAP Innovations

Market Situation

The New Energy Challenge

Business Priorities

SAP Innovations

Utility companies must deal with major shifts in energy supplies and adapt to industry reorganizations, regulatory change, and new technologies. They must also find ways to optimize processes and operations across technology platforms.

SAP is making significant investments to help utilities meet the challenges around power supplies, industry reorganizations, regulatory uncertainty, and emerging technologies.

Analytics and Big Data

Using breakthrough software such as analytics solutions and the SAP HANA platform, utilities can maximize return on assets. For example, SAP HANA in-memory technology supports the tracking and evaluation of plants and equipment in near-real time to optimize maintenance strategy.

Mobile

SAP mobile apps give employees access to critical information anytime, anywhere, improving productivity and streamlining operations.

Cloud

Cloud-based software from SAP and its partners provides new ways for utilities to run their businesses better and faster. Pay-as-you-go solutions reduce costs and risk while ensuring flexibility, scalability, and integration across end-to-end business processes.



Utilities Value Map

SAP Solutions

Energy Supply Chain Optimization

Operational Efficiency for Plants and Grids

The Intelligent Grid

Customer Experience

Human Resources

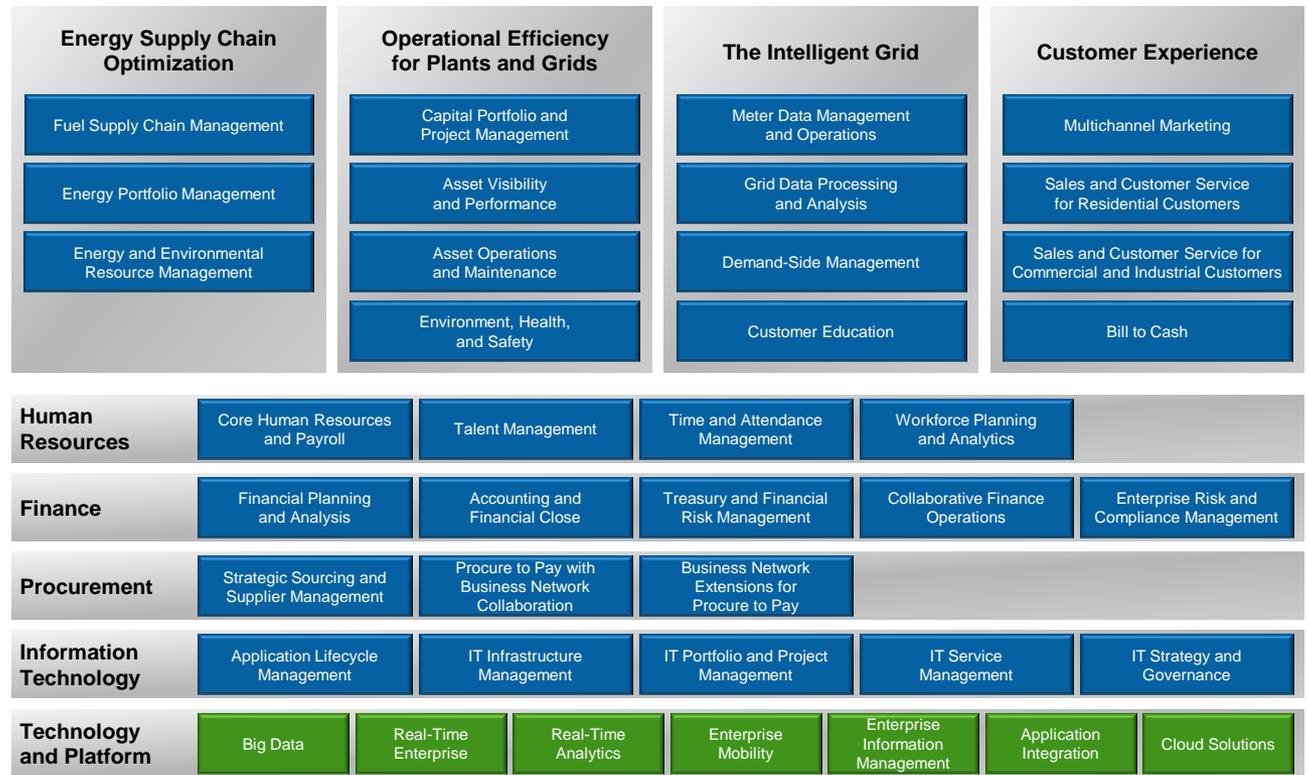
Finance

Procurement

Information Technology

Technology and Platform

Maximize revenues and achieve sustainable growth.



Energy Supply Chain Optimization

SAP Solutions

Energy Supply Chain Optimization

Priorities

SAP Solutions

The energy supply chain spans from fuel procurement to power generation and delivery to consumption by customers. Information drives all these processes. Without integrated systems and processes, the fragmented data provides only a small part of the information needed.



Utility companies today must satisfy demanding customers, fend off aggressive competitors, manage volatile fuel costs, and deliver the “individual energy product” in an efficient manner – every time.

In an era of volatile fuel prices, optimal fuel supply and management is critical for operators of power plants. Profitability is largely dependent on the detailed planning and efficient usage of fuels at the plant and fleet level. Power plant operators must manage the fuel supply chain, from initial planning, scheduling, and operations right through to final settlement, in a consistent manner.

Sales and procurement portfolios also have a big impact on energy management. The sales portfolio holds data on expected demand; the procurement portfolio consists of energy contracts executed to cover that demand. These two portfolios must be balanced. Too much supply results in an expensive excess of energy; insufficient supply triggers risk, since more energy must be purchased at unknown prices. That’s why utilities must invest in risk management solutions.

Best-run companies can optimize their energy spend and reduce emissions by embedding energy data at both the operational and enterprise level. This contributes to operational excellence and, ultimately, sustained profitability and competitiveness.

56%

Of companies take energy and environmental issues into account when doing core business planning

Source: SAP Performance Benchmarking



Energy Supply Chain Optimization

SAP Solutions

Energy Supply Chain Optimization

Priorities

SAP Solutions

30%

Higher average annual savings when organizations operate a single, integrated procurement system.

Source: SAP Performance Benchmarking

Optimize the energy supply chain by integrating processes and information.

Build an end-to-end energy supply chain that enables better visibility and better decisions.

Fuel Supply Chain Management

Orchestrate an end-to-end fuel supply chain process for enhanced visibility and more-informed decision making. The solution automates and integrates core processes, business units, systems, and information.

Energy Portfolio Management

Improve sales support by giving customer-facing employees access to relevant information and tools to match demand and supply of energy.

Energy and Environmental Resource Management

Have a systemized approach for gathering and sharing energy data across the enterprise, which helps lower costs for energy consumption and compliance reporting while also helping to reduce emissions.

Benefits

- Control and reduce fuel costs
- Improve visibility of inventory
- Optimize the energy portfolio
- Reduce energy consumption
- Control emissions and costs



Operational Efficiency for Plants and Grids

SAP Solutions

Operational Efficiency for Plants and Grids

Priorities

SAP Solutions

Sound asset management is a primary concern for all utilities. Faced with aging infrastructures, increased regulation, environmental pressures, and the demand for renewable energy, utilities must manage asset portfolios with great care.



Ensuring a reliable, safe, and profitable energy infrastructure is mission critical for all utility companies. The goal is to optimize asset performance and find the right balance between the use of existing assets and the development of new ones.

Existing resources must be maintained and modernized to meet performance requirements and increasingly stringent environmental regulations. At the same time, new resources must be deployed to extend network capacities, accommodate renewables, and support emerging models for distributed power generation and supply.

As a result, asset management activities are becoming more comprehensive and more standards driven. Many of the publicly available guidelines can help utilities apply best practices to their asset management processes – and support them in their efforts to ensure reliability of operations while optimizing production and overall performance.

61%

Higher return when equipment effectiveness is maximized, breakdown is minimized, and cost is reduced through predictive and preventive analysis

Source: SAP Performance Benchmarking



Operational Efficiency for Plants and Grids

SAP Solutions

Operational Efficiency for Plants and Grids

Priorities

SAP Solutions

11%

Higher asset productivity
when organizations have high
adoption of asset visibility and
performance best practices

Source: SAP Performance
Benchmarking

Achieve superior asset performance.

A single, real-time view of plant and business data enhances the asset lifecycle. Powerful analytics and better visibility help optimize assets and reduce costs.

Capital Portfolio and Project Management

Improve transparency into capital projects to manage risks, activities, budgets, and costs and to reach strategic goals on schedule.

Asset Visibility and Performance

Improve visibility into asset performance and control manufacturing operations by integrating shop-floor systems with core business applications.

Asset Operations and Maintenance

Automate processes for holistic asset and maintenance management. Use 3D visualizations to deliver on-site instructions and train staff more quickly.

Environment, Health, and Safety

Proactively reduce operational risks to continuously improve safety, occupational health, and environmental performance.

Benefits

- Achieve superior asset performance
- Collaborate across the organization
- Improve asset utilization
- Enable fast decisions
- Reduce disruptions



The Intelligent Grid

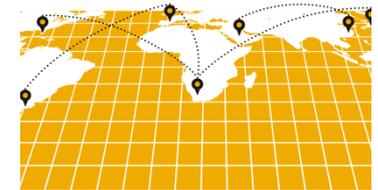
SAP Solutions

The Intelligent Grid Management

Priorities

SAP Solutions

Constrained by finite resources and challenged by climate change, steadily growing demand, and an aging infrastructure, utilities must also respond to tough new energy policies and demand-side activism.



Yesterday's one-way energy management model – from producer to consumer – is rapidly becoming obsolete. Tomorrow's model (the smart grid) is being built to accommodate highly volatile renewable energy sources and decentralized, two-way electrical generation.

Today's rapidly aging infrastructure cannot provide the information, communication, and coordinated activity needed to meet efficiency and sustainability goals.

Our inherited 20th-century electric power systems – strong though they may be – need to become smart enough to turn themselves on and off with dexterity, identify and respond to subtle demand patterns, and import excess power from a wide range of nontraditional sources.

Smart grids will not only deliver benefits to the supply and demand sides of energy markets; they will also help meet climate change and ensure energy security.

The Intelligent Grid

SAP Solutions

The Intelligent Grid Management

Priorities

SAP Solutions

Handle smart grid challenges and opportunities.

The smart grid will deliver benefits to consumers, businesses, and utilities. It will also create substantial economic, geopolitical, and environmental benefits. Here's how emerging technologies will benefit utilities.

Meter Data Management and Operations

Data from smart meters allows precise forecasts of energy consumption and improves energy procurement and generation.

Grid Data Processing and Analysis

Real-time availability of smart grid data, complex event processing, and predictive analysis tools improve business processes, provide a better decision basis, and allow rapid action on or reaction to market changes. Examples include predictive maintenance, load forecasting, outage management, and energy trading.

Demand-Side Management

Integration of demand-side management processes with other business functions boosts the efficiency of demand response and energy management programs.

Customer Education

Interaction with customers and a deeper understanding of their requirements lead to higher acceptance and more benefits from the smart grid.

Benefits

- Optimize smart meter lifecycles
- Provide real-time data and predictions to improve and fasten business decisions
- Motivate customers to optimize energy usage
- Interact with customers to improve the acceptance of the smart grid



Customer Experience

SAP Solutions

Customer Experience

Priorities

SAP Solutions

Today's customers are digitally connected, socially networked, and better informed than ever before. These empowered consumers demand outstanding service and a unique experience whenever they interact with their utility.



11%

Higher first-call resolution where organizations adopt skills-based routing to handle customer interactions

Source: SAP Performance Benchmarking

Twenty-first century utility customers – residential, commercial, and industrial alike – are well informed and tightly linked by social networks. They share their likes, dislikes, and opinions in real-time through mobile devices. They are literally changing the rules of engagement because their attitudes and reactions have a big impact on the companies who seek their loyalty.

Utility companies must focus on how to improve the products and services they offer to these empowered and demanding consumers. In many cases, that means ensuring customers have simple, fast access to reps or information anytime and anywhere from any device. Customer interactions must be personalized and streamlined so that they are relevant and effective. The goal is to provide unique customer experiences by understanding customer needs and meeting them in the shortest possible time.

Customer Experience

SAP Solutions

Customer Experience

Priorities

SAP Solutions

Gain a 360-degree, real-time view of customers to enhance service, marketing, and sales.

Satisfy empowered and connected customers by responding to their requests quickly and efficiently via the channel or device they prefer.

Multichannel Marketing

Use a single platform for all marketing activities; gain real-time insights into customers and markets; build trust and loyalty through relevant, personalized communications.

Sales and Customer Service for Residential Customers

Optimize customer-facing operations with faster responses to customer inquiries on any channel; use targeted offers and contracts to drive customer satisfaction; improve visibility of activities, budgets, and costs for all involved departments.

Sales and Customer Service for Commercial and Industrial Customers

Support all customer-facing and internal activities related to customer activities, billing, accounting, and revenue to achieve scalability, compliance, and performance.

Bill to Cash

Manage billing and invoicing for energy products and services, receivables management and payment handling, and credit risk and collections. Support financial customer service processes and electronic bill presentment and payment.

7%

Higher customer satisfaction where customer profiles, transaction and interaction history, and preferences are available during each customer interaction

Source: SAP Performance Benchmarking

Benefits

- Enhance service, sales, and marketing
- Build customer loyalty and trust
- Engage anytime, anywhere, on any device and channel
- Ensure compliance, performance, and scalability
- Collaborate across the organization



Human Resources

SAP Solutions

Human Resources

Priorities

SAP Solutions

No company builds a competitive advantage without talented, motivated people. Best-run businesses rely on a skilled workforce to align strategy with execution, boost profitability, delight customers, and outpace the competition.



Talented people – no matter how intuitive or intelligent – need the right tools and information to help businesses respond to change and maintain growth targets. Similarly, organizations need robust IT resources to attract, retain, and motivate employees.

Key human resource goals for all companies include moving into new markets with the right local people and local practices, matching

employee skills with business needs, and identifying and retaining key personnel during mergers or acquisitions.

Organizations that are best able to prioritize and leverage the skills of their people typically enjoy a unique advantage in the marketplace.

32%

Less employer turnover for companies that analyze workforce data and optimize workforce strategies

Source: SAP Performance Benchmarking



Human Resources

SAP Solutions

Human Resources

Priorities

SAP Solutions

Enter the new world of work.

Enhance HR processes and services by coupling real-time insight with mobile-device support to increase customer satisfaction and improve business performance.

Core Human
Resources and
Payroll

Consolidate HR and payroll processes on a common platform for better workforce insights and legal compliance.

Talent Management

Improve strategic alignment and increase productivity by attracting, training, and motivating talented people.

Time and Attendance
Management

Streamline time management to enhance effectiveness and improve visibility and control of labor costs.

Workforce Planning
and Analytics

Identify and analyze talent gaps and streamline HR planning for better management of workforce demand and supply.

38%

Lower HR management costs
for companies with a high
degree of internal integration

Source: SAP Performance
Benchmarking

Benefits

- Align people to business strategies
- Support expansion into new markets
- Improve productivity and engagement
- Provide real-time insight into business needs



Finance

SAP Solutions

Finance

Priorities

SAP Solutions

CFOs implement best practices to strike a balance between sound stewardship and value creation while walking the fine line between entrepreneurship and caution. At the same time, they need to view the right information, whether it's the big picture, exacting detail, or somewhere in between.



During one of the most difficult and volatile economies of modern times, financial organizations are struggling to achieve excellence.

On a daily basis, they encounter persistent challenges, such as ongoing market instability, ever-changing regulations, and increasing pressure on margins. Plus, the speed of financial operations is accelerating, requiring access to insight on the go – anytime and anywhere.

Finance executives are tasked with cutting costs and providing insight into the financial impact of decisions. To achieve these goals in this

high-pressure environment, finance organizations must rely on best practices that help them achieve excellence and drive business results.

With the right solutions, finance organizations can excel and become strategic advisors to the entire business. They can help ensure regulatory compliance and effective risk management, outperform financial objectives, create sustainable value, and deliver superior service at reduced cost.

3X

Lower finance cost as a percentage of revenue for top-quartile organizations versus bottom-quartile organizations

Source: SAP Performance Benchmarking



Finance

Excel with best practices that facilitate 360-degree processes.

In the face of sustained market volatility, increasingly complex regulatory requirements, and growing pressure on margins, financial organizations must enable their staff to collaborate more efficiently and use business insight more effectively.

SAP Solutions

Finance

Priorities

SAP Solutions

Financial Planning
and Analysis

Define and execute organizational strategies, manage financial plans and forecasts, and increase profitability.

Accounting and
Financial Close

Deliver a fast, accurate, and compliant close and regulatory disclosures with less cost and effort.

Treasury and Financial
Risk Management

Achieve greater insight and control over complex processes for managing cash, liquidity, and risk.

Collaborative
Finance Operations

Automate transactional processes to improve efficiency, effectiveness, collaboration, and service at lower costs.

Enterprise Risk and
Compliance Management

Protect revenue and optimize financial performance with risk and compliance management.

76%

Higher operating margins where financial systems provide historical and forward-looking views into financial and operational performance

Source: SAP Performance Benchmarking

Benefits

- Provide forward-looking insights
- Deliver accurate financial data
- Enhance efficiency at lower cost
- Help ensure regulatory compliance



Procurement

SAP Solutions

Procurement

Priorities

SAP Solutions

While companies often focus on revenue, procurement savings can increase profits with far higher impact. The key to maximizing procurement's success in this critical role is to deliver consistent quality, savings, and compliance over time. That calls for innovative solutions that boost efficiency and insight.



Procurement leaders set a baseline for success by implementing best practices, excelling in category expertise, and working with key stakeholders on cost-control programs.

While savings is always a priority, new objectives have emerged as well. Procurement must manage supplier risk and performance, improve process efficiency, drive innovation, and ensure sustainability practices.

You need solutions that give you the tools to cut costs as well as add value. These tools need to support processes including spend analysis, sourcing, contract management,

operational procurement, services procurement, supplier information, risk and performance management, and invoice management. At the same time, procurement plays a role in helping finance optimize the company's cash position through discount management programs.

These tools, when connected to and facilitated by an unparalleled collaborative business network, drive real-time insight and efficiency that can only be delivered through the "power of many."

60%

Improvement in annual average savings by leveraging technology for sourcing and procurement processes

Source: SAP Performance Benchmarking



Procurement

SAP Solutions

Procurement

Priorities

SAP Solutions

55%

Less FTEs per billion in spending for companies conducting electronic supplier collaboration on a network

Source: SAP Performance Benchmarking

Drive sustainable savings while supporting innovation.

Ensure best practices within the source-to-pay process in the cloud while leveraging the “power of many” through network collaboration to realize greater efficiency, gain real-time insights, and achieve true procurement excellence.

Strategic Sourcing and Supplier Management

Find new suppliers through the Ariba Network from Ariba, an SAP company, and manage these relationships through supplier management solutions. Identify and act on sourcing opportunities, and create favorable, low-risk supply contracts.

Procure to Pay with Business Network Collaboration

Realize savings with compliant, user-friendly, self-service procurement, services procurement, and plan-driven procurement. Collaborating on the Ariba Network makes catalog management, purchase order collaboration, and invoice-related transactions even more efficient.

Business Network Extensions for Procure to Pay

Leverage the Ariba Network even further to drive advanced invoice automation and exception management. Manage cash by taking advantage of dynamic discounting opportunities.

Benefits

- Optimize spend under management
- Increase average annual savings
- Cut FTE per billion in spend
- Drive innovation with suppliers
- Reduce cost and risk
- Accelerate turnaround



Information Technology

SAP Solutions

Information Technology

Priorities

SAP Solutions

Leading businesses forge strategic partnerships with their IT organizations by sharing and aligning goals. Best-run IT management depends on improving efficiency and responsiveness by running IT like a business.



In today's competitive environment, business leaders are taking a close look at internal costs, including the value of their IT investments. In most cases, IT organizations no longer have sole jurisdiction over which projects will or will not be funded.

The challenge for IT managers is that business leaders believe IT doesn't fully consider business issues and concentrates only on the technical landscape. To become more relevant and more valuable, IT needs to reposition itself to run like a business.

SAP offers an integrated portfolio of solutions that help accomplish this goal. New technologies like mobile, in-memory, and cloud computing generate substantial value for business units.

By leveraging best practice-based SAP solutions, executives, managers, and employees become more productive and more responsive. They also become more aware of how IT organizations provide value to the enterprise.

36%

Higher operating margin at organizations using IT to enable strategic and competitive advantages

Source: SAP Performance Benchmarking



Information Technology

SAP Solutions

Information Technology

Priorities

SAP Solutions

25%

Higher proportion of IT projects generating positive ROI when firms drive joint leadership between business and IT

Source: SAP Performance Benchmarking

Maximize strategic value by running IT like a business.

Increase the efficiency, responsiveness, and value of IT to the business with IT management solutions designed for companies of any size.

Application Lifecycle Management

Leverage application lifecycle management best practices, methods, and services based on the Information Technology Infrastructure Library (ITIL).

IT Infrastructure Management

Monitor all network assets to support integration and enhance application lifecycles.

IT Portfolio and Project Management

Support innovation and cross-enterprise processes across disparate systems.

IT Service Management

Align the IT portfolio and manage projects more efficiently.

IT Strategy and Governance

Synchronize service-desk operations with service-level agreements (SLAs), resolve SLA incidents quickly, and adopt ITIL best practices to meet evolving business goals.

Benefits

- Align IT with business strategy
- Shorten IT delivery and business cycles
- Reduce IT budget
- Reduce cost of upgrades and operations
- Decrease system downtime



Technology and Platform

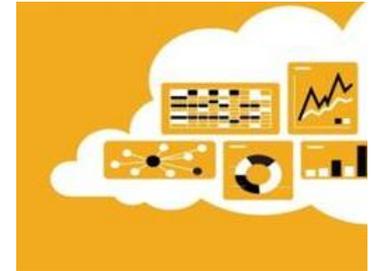
SAP Solutions

Technology and Platform

Priorities

SAP Solutions

Technology solutions can make the difference between surviving and thriving. And businesses know that they need to innovate to drive transformation. Technology and platform solutions from SAP enable quick adoption of cutting-edge technology to run the business better and faster with agility and innovation.



Users expect to run a real-time business with collective insights from real-time analytics for better decision making, prioritization, forecasting and modeling of outcomes, and access to applications from the latest mobile devices. They demand that these capabilities seamlessly integrate with their favorite social platforms, allowing cross-stakeholder collaboration.

At the same time, data volumes are exploding while the window for capitalizing on opportunities is shrinking. Users must be empowered with information from real-time applications available securely on any device. And developers need a platform to innovate faster.

SAP enables the real-time enterprise with an innovative data platform to power a new class of real-time analytics and applications that give businesses a true competitive advantage. Companies can harness the value of Big Data while improving governance with timely, trusted, and consistent information.

Plus, SAP provides a comprehensive set of cloud solutions, including line-of-business applications as well as social and business network collaboration. SAP HANA Cloud Platform enables customers to build new apps or extend and customize existing ones with managed and subscription-based services.

Technology and Platform

SAP Solutions

Technology and Platform

Priorities

SAP Solutions

Drive transformation and help your business thrive with technology.

SAP technology and platform solutions enable the real-time enterprise by unleashing the power of collective insights, empowering developers to innovate, and unwiring the business.

Big Data

Achieve tangible results on every business priority by continually accelerating the processes of acquiring, analyzing, acting on, and applying insights.

Real-Time Enterprise

Power a new class of real-time analytics and applications with an innovative data platform to give businesses a true competitive advantage.

Real-Time Analytics

Unleash collective insight through enterprise business intelligence, agile visualizations, and advanced analytics on any device and platform.

Enterprise Mobility

Deliver a platform for mobile development and security to innovate employee and consumer apps for any mobile device.

Enterprise Information Management

Maximize the business value of data – both structured and unstructured – across the organization.

Application Integration

Integrate application delivery to maximize agility across people, processes, and systems – within and beyond the SAP software landscape.

Cloud Solutions

Extend existing on-premise apps and infrastructure to enable new innovative business processes, gain greater insights, and unlock new business value.

Benefits

- Enable real-time operations
- Lower time to value
- Accelerate innovation
- Turn data into an enterprise asset
- Unwire the business
- Innovate customer engagement



SAP Innovations

SAP Innovations

Applications

The SAP HANA Platform

Mobile

Analytics

Cloud

78%

Of utilities recognize
enterprise mobility as highly
important to their operations

Source: SAP Performance
Benchmarking

Utilities must deal with – and benefit from – a unique combination of ongoing trends and emerging developments. At the same time, they must master the new technologies that enable SAP HANA, real-time analytics, enterprise mobility, and cloud computing.



To succeed in the new energy environment, utilities must give customers, partners, and employees access to the information, solutions, and services they need – anytime, anywhere.

To meet this challenge, they need to collect, store, and analyze mountains of data in real time. From customer histories to compliance reports, from technical and operational data to energy forecasts and smart meter statistics – all will have to be digested quickly, without the lag time typically associated with data management processes. The ability to leverage huge volumes of data across and beyond the utility enables fast analysis of positive and negative trends and better decision making.

Cloud-based applications play an essential role in enabling information-sharing both inside and outside a utility. Low-cost and quick to deploy, pay-as-you-go technology helps organizations of all sizes reduce capital investments and achieve benefits.

Mobile apps can help utilities improve business processes significantly by enabling workers to transfer relevant information to or from any mobile device. The apps can also help field technicians and other staff improve productivity and delight customers.



SAP Business Suite powered by SAP HANA

SAP Innovations

Applications

The SAP HANA Platform

Mobile

Analytics

Cloud

SAP Business Suite software is powered by SAP HANA and enables utility companies to meet significant regulatory, environmental, operational, consumer, and technological challenges.



Energy Supply Chain Optimization

Enable real-time access to high volumes of procurement documents and complete visibility into end-to-end procurement activities.

Operational Efficiency for Plants and Grids

Schedule maintenance more effectively, based on faster response times to operational data. Enable real-time analytics on all data, including machine sensor information. Plan several times a day for increased efficiency of maintenance operations.

The Intelligent Grid

Manage inventory more efficiently with a real-time view of stock and inventory monitoring. Support demand-response programs through fast access to all relevant data.

Customer Experience

Understand buying patterns better with real-time analysis of Big Data. Have complete transparency into the sales pipeline, based on real-time information. Route inbound communications to the best resource.



The SAP HANA Platform

SAP Innovations

Applications

The SAP HANA Platform

Mobile

Analytics

Cloud

68%

Increase in ability to manage Big Data for companies with a well-defined strategy for using high-performance analytics

Source: SAP Performance Benchmarking

Leading utilities must collect, store, and analyze exceptionally high volumes of data from many different sources. With SAP software powered by the SAP HANA platform, best-run companies can leverage Big Data to improve real-time performance across the enterprise and beyond.



With the emergence of smart meters, smart grids, and decentralized energy generation, business processes in the utilities industry are changing rapidly. For all processes, however, the ability to handle Big Data volumes is critically important.

SAP HANA, which enables in-memory processing of huge data streams, is designed to support and enable emerging technologies and applications. It also enhances processes that are currently supported by the SAP for Utilities solution portfolio and partner software. Because of its power and versatility, SAP HANA is well equipped to serve as a single platform for enhancing all SAP software-based processes.

In-memory technology helps utilities improve profitability analysis by incorporating relevant data from internal and external data sources in real time. This results in better decision making for sales, marketing, operations, and other groups.

In-memory technology also allows utilities to glean real-time insights regarding assets. That means maintenance teams can be scheduled and deployed according to current requirements in the shortest possible period of time.



SAP Innovations

Applications

The SAP HANA Platform

Mobile

Analytics

Cloud

40%

Higher employee productivity where mobile access is provided to employees across all levels

Source: SAP Performance Benchmarking

Mobile

Mobile technology gives utility workforces and customers access to enterprise data – anytime, anywhere. On-the-go information enables better decisions, faster responses, and increased customer satisfaction.



Mobile Work Order Management

Install metering equipment, generate notifications and work orders on the spot, and provide reports on job status, progress, and location.

Mobile Inventory Management

Manage parts in warehouses and different locations, and support entire parts lifecycle management.

Mobile Utilities Customer Engagement

Improve mobile account management, bill presentment and payment, and service requests.

Mobile CRM Service Management

Improve field assessments, inspections, audits, and on-premise service calls.

Mobile Rounds Management

Support rounds and perform maintenance, environmental, and health and safety inspections.

Mobile Analytics

Use predictive analysis, and generate and view intelligent analytics on the go.



Analytics

SAP Innovations

Applications

The SAP HANA Platform

Mobile

Analytics

Cloud

27%

Higher operating margin where firms enable a higher percentage of employees to receive analytical data from BI tools

Source: SAP Performance Benchmarking

Visibility into key performance indicators across the utility enterprise enables real-time monitoring as well as root cause analysis, risk mitigation, predictive modeling, and process optimization.



SAP solutions support real-time profitability analysis by enabling utilities to quickly access all relevant data from both internal and external sources. This results in substantially improved decision making for sales, marketing, operations, and other groups.

In-memory technology enables wind turbine maintenance organizations to run ad hoc analysis of large data volumes. This helps them predict, monitor, and optimize performance while evaluating the potential for component breakdowns. Data gathered in this way proves invaluable for new product developers when they design enhanced turbines and other equipment.

In-memory technology also helps utilities process the large volumes of complex data generated by smart meters. Suspicious load patterns and energy balance issues can be identified in real time, as sophisticated search algorithms automatically scan inflowing data streams.

In-memory technology helps utility companies identify and anticipate churn factors (such as consumers who are likely to be shocked by an unusually high bill). This is made possible by sophisticated forecasting and predictive models that run continuously on actual consumption data. Studies have shown that pairing the right product to the right customer and reducing bill shock can help reduce churn.



Cloud

SAP Innovations

Applications

The SAP HANA Platform

Mobile

Analytics

Cloud

85%

Of companies feel that cloud computing will have a major impact on their organizations

Source: SAP Performance Benchmarking

The speed and flexibility offered by cloud computing is creating new opportunities for best-run utility companies. Cloud applications from SAP and the open SAP HANA application cloud allow companies to build differentiating solutions at the point of engagement – establishing nimble global business networks or connecting faster and more directly with customers and utilities.



Cloud solutions and services from SAP help utility companies handle a wide range of mission-critical processes. From interfaces with electric vehicles to connecting with trading partners, the solution portfolio is both comprehensive and focused.

Cloud-based software helps utilities manage regulatory content and legally prescribed emission thresholds across the entire organization. And preconfigured sustainability reports, following Global Reporting Initiative Standards, improve brand value and stakeholder recognition. SAP also provides cloud services for recruitment, compensation management, talent assessment, and performance review.

Solutions from Ariba help utilities connect with trading partners anytime, anywhere, and from any device. The software enables companies to buy and sell products more efficiently, streamline cash management, and connect with the world's largest Web-based trading community. It also helps reduce costs by automating and streamlining source-to-contract processes.

Best-Run Customers

Best-Run Customers

A2Z Group

AES Eletropaulo

Ausgrid

Bursagaz

EKZ

Malakoff

Why SAP?

More than 2,200 utilities in 70 countries run SAP software.

Over 970 utilities use SAP BusinessObjects solutions.

Collectively, more than 660 utilities manage over 3 billion utility bills.

Seventy-eight percent of the top 50 utilities run SAP software (Forbes 2000).



Customer Co-Innovation

Best-Run Customers

A2Z Group

AES Eletropaulo

Ausgrid

Bursagaz

EKZ

Malakoff

Why SAP?

SAP Community Network supports customers, partners, consultants, experts, and SAP employees. Companies use this online hub to find answers to questions and benefit from the expertise of other community members as they develop products.

Advisory Customer Council for Utilities

This group consists of 20 international and market-leading utility companies that work with SAP to define future requirements for the SAP for Utilities solution portfolio.

Co-Innovation Partners

SAP invites successful and innovative companies to participate in its premier customer network. Members come together to collaborate and transform ideas into business improvements.



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Why SAP?

The company's top objectives

- Achieve a higher standard of control in inventory management
- Gain access to more accurate and timely financial and operational reports
- Make better-informed business decisions faster

The resolution

- Implemented an SAP Business All-in-One solution for a single, integrated, scalable, platform-independent solution
- Established a strong, team-based IT support system
- Focused on key areas of need while planning incremental expansion

Key benefits

- Improved project profitability through better supply chain management
- More-accurate expense controls with enhanced item-cost identification
- Higher transaction visibility with the software's document management functionality

3%

Higher profit

15%

Savings on vehicle running costs

25%

More efficient processing of sales tax returns

“Implementing SAP software will transform the group into an efficient, cost-effective, operationally sound organization with clearly defined decision-making mechanisms for future growth.”

Manoj Gupta, Director, A2Z Group





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Why SAP?

The company's top objectives

- Reduce the risk and costs of implementing the SAP Product Lifecycle Management (SAP PLM) application
- Eliminate or optimize interfaces, reducing the total cost of operation

The resolution

- Adopted SAP Safeguarding services to successfully implement SAP PLM
- Gained new skills to automate critical business processes
- Used a technical quality manager to accelerate solving critical problems

Key benefits

- Automation of processes, increasing efficiency and reducing operational costs
- Faster transaction runtime
- Faster extraction time for the SAP NetWeaver Business Warehouse (SAP NetWeaver BW) application
- Faster execution time for processing maintenance modification requests

99.99%

Reduction in transactions

99.8%

Reduction in extraction time for SAP NetWeaver BW

91.95%

Reduction in runtime for maintenance modification requests

“The implementation of SAP PLM is bringing great value to our business with new functionalities for automation processes, which have high visibility and cannot experience any kind of delay.”

Paulo de Tarso, Project Manager, AES Eletropaulo





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Why SAP?

The company's top objectives

- Support increasing scale and complexity of capital expenditure (CAPEX) forecasting
- Respond to regulatory requirements with accurate analysis and reporting
- Improve transparency and standardization of forecasting

The resolution

- SAP Business Planning and Consolidation application, version for the SAP NetWeaver technology platform
- SAP Ramp-Up program that provided access to extensive SAP support resources

Key benefits

- Clearer links between strategic objectives and investment plans
- Improved transparency and credibility of CAPEX forecasts for industry regulator and stakeholders
- Repeatable planning solution with improved scalability, stability, and functionality

“SAP BusinessObjects Planning and Consolidation enables us to better plan our project portfolio on an ongoing basis – offsetting increases in scope and cost for one project by making reductions in others.”

Matt Cooper, Manager, Investment Strategy, Ausgrid Inc.

-80%

CAPEX calculation and modeling error rate (from <5% to <1%)

-60%

Time needed to enter a CAPEX project into the system (from 5 min. to <2 min.)

-90%

Time needed to calculate net present cost per area (from 5 minutes to 30 seconds)



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Why SAP?

The company's top objectives

- Automate and standardize sales, billing, and collections processes
- Improve information security and control as well as budgeting, cost estimating, and pricing accuracy for new installations
- Adapt more easily to changing regulations

The resolution

- Implemented the SAP for Utilities solution portfolio, SAP Customer Relationship Management and Billing for Utilities package
- Minimized customization and leveraged existing functionality that supports industry best practices and compliance with local regulations

Key benefits

- Reduced staff time to perform dunning, collections, receivables, and financial close processes
- Reduced bad debt and days sales outstanding
- Increased adherence to the preventive maintenance schedule by 60%

90%

Less cash desks

40%

Less billing errors

40%

Fewer customer complaints

“By implementing SAP for Utilities solutions, we’ve been able to transform our operations from being device centric to customer centric. This change will support our long-term growth as we uphold the quality of our service.”

Ahmet Hakan Tola, CEO, Bursa Natural Gas Distribution Trading and Construction Co. Inc.





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Why SAP?

The company's top objectives

- Ensure efficient energy utilization
- Create greater transparency of customers' consumption and costs
- Solidify company's position as a technology leader

The resolution

- Integrate all relevant processes supported by SAP for Utilities solutions
- Streamline key core processes

Key benefits

- Opportunity to strengthen competitive position and influence regulatory adjustments based on cutting-edge technology
- Better data basis and more reliable planning for buying and selling electricity
- Reduction in potential error sources through automated meter reading
- Timely billing at shorter intervals

-80%

Time to manage connections for new and departing customers,

-99%

Time for regular meter readings (on-demand readings now performed in 2 minutes)

-99%

Meter reading lead time (from start time to reading entry)

“Our new solution automatically handles standard procedures such as www.sap.com/contactsap registration, cancellation, and move in and out, as well as meter readings. Meters are no longer read on-site, saving around 25,000 work hours a year.”

André Ackermann, Project Lead for Meter Technology, Elektrizitätswerke des Kantons Zürich



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Why SAP?

The company's top objectives

- Increase efficiency by phasing in productive IT systems
- Automate predictive administrative tasks on a single platform
- Unify data processing, communication networks, and workflow systems enterprise-wide

The resolution

- Implemented the SAP ERP application and the Sybase Mobile Workflow application for SAP Business Suite
- Deployed the SAP Invoice Management application by OpenText
- Went live in 8 months

Key benefits

- Improved analyses and detail of capital expenditures and ongoing construction
- Reduced the number of days for month-end closing
- Improved operational visibility and control with streamlined intercompany transactions, audit trails, and security control
- Reduced total cost of ownership by 20% to 30%

>50%

Faster account closing cycle (from 2 weeks to 5 days or less)

30%

Reduction in peer-to-peer cycle time

80%

Faster purchase request

“SAP ERP is helping us expand and transform by adding business intelligence and analytics to critical decision-making processes. We know that it will continue helping us grow well into the future.”

En Bani Zainal Azmian, SVP Corporate Services Division, Malakoff Corporation Berhad



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Why SAP?

Leveraging the latest technology innovations, SAP solutions enable sustainable growth by helping utilities companies safely optimize asset performance, deliver superior customer service, and transition to highly flexible and adaptive power grids.

Integrated, Comprehensive Business Solutions

SAP offers the most comprehensive portfolio of solutions for the utilities industry, enabling companies to focus their key business processes and activities on assets, operations, and customer service while monitoring risk and compliance.

Leveraging Breakthrough Technology

The SAP solution portfolio is comprised of the industry's most innovative technologies. They include the SAP HANA platform, mobile apps, analytics software, and cloud solutions – and enable business process optimization and efficiency at the lowest possible cost.

40 Years of Delivering Value

The world's leading utilities, across every major industry segment worldwide, rely on SAP solutions to drive sustainable growth and profitability and deliver value to customers.



Find Out More About How Your Organization Can Become Best-Run

Benchmark Your Performance

Position your organization for dominance in this new economy with the business performance benchmarking program from SAP – available free to SAP customers and select prospects. The SAP benchmarking program has helped more than 3,000 organizations assess their strengths, uncover areas for improvement, and identify best practices and IT strategies that generate clear, tangible value – not someday, but today.

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