Saudi Electricity Company Successfully Rolls out SAP Plant Maintenance Solution

“This project was one of the toughest this department has ever undertaken. Our profound belief and complete trust in the team never wavered. Their contributions have borne fruit, as this success demonstrates.”

Abdulaziz Al-Mulhim, Saudi Electricity Company, Nebras Program Executive Director

Saudi Electricity Company (SEC) was formed by the merger of all companies providing electricity in the Kingdom of Saudi Arabia. As a result, they had various outdated legacy systems which they wanted to replace with an advanced and unified technology solution, to ensure smooth functioning of all their plants. SEC partnered with Tata Consultancy Services (TCS) to roll out SAP’s plant maintenance solution. Using our extensive experience in SAP and proven implementation methodologies, we successfully helped roll out the solution across 18 plants, clean four million master data records, and conduct bilingual training for 2,000 users. With this, SEC has achieved significant cost savings and increased its operational efficiencies.
About the Client
Saudi Electricity Company (SEC) provides safe and reliable electric services to customers in the Kingdom of Saudi Arabia. Its core businesses include generation, transmission and distribution of electrical power. The company was formed through a merger of all Saudi electricity companies in the Central, Eastern, Western and Southern regions into a single joint stock company. SEC is the largest utility company by market value in the Arabian Gulf.

Business Challenge
SEC was using mainframe based outdated legacy systems for their plant maintenance. Deciding to move from their outdated and disparate solution to a unified state-of-the-art technology, they identified SAP as the single plant maintenance solution for the enterprise. Our client also felt the need to integrate its plant maintenance processes with other enterprise resource planning (ERP) functions and processes such as finance, human resources (HR) and purchasing, among others. These business needs compelled our client to roll out the SAP plant maintenance solution across its 18 plants and set a critical milestone to achieve ‘go live’ within 16 weeks. Some of the challenges faced to accomplish this task included:

- Moving away from obsolete legacy solutions to a state-of-the art ERP solution
- Streamlining plant maintenance operations
- Fully integrating the plant maintenance operations with the SAP ERP system
- Migration and cleansing of legacy data into a SAP-compliant format

TCS’ Solution
SEC selected TCS’ consulting services for our extensive experience in SAP implementation. We collaborated with the SEC’s business team and ERP division – Nebras, to achieve the goal.

We used Agile Project Management Methodology and Accelerated SAP (ASAP) concepts along with the TCS-architected Integrated Quality Management System (iQMS) to ensure that quality standards were met. A strong operational governance structure was developed in alignment with SEC’s requirements to ensure maximum issue resolution at operational level in quick time.

The project was executed on three levels: Rollout, Data Migration, and Training. The Agile SCRUM framework was used to orchestrate task dependencies across levels to complete the project on time.

Roll out
This involved three key phases:

- Project Preparation: We initiated the rollout process after in-depth preparation in collaboration with SEC’s project management office. A detailed plan was prepared to define the vital program elements and the exact scope of the project
- Business Blueprint: We finalized and documented the business processes to be rolled out across SEC’s 18 generation plants
- Realization and Testing: The objectives during this phase were the final implementation in the system, an overall test, and the release of the system for production operation (go-live). This phase also involved configuration of the system, unit testing, regression testing, and system integration testing. We implemented business and process requirements based on the Business Blueprint phase.

Data migration
We successfully cleansed and migrated over four million records to a SAP-compliant format from the legacy systems. These records were the final result of cleansing and migrating more than 1,000 legacy data files. To enable data migration, we implemented business rules and used tools to convert the data from legacy systems to the format required for SAP.

Training
We trained over 2,000 end-users on SAP plant maintenance across SEC generation plants. Our experts grouped users according to their training needs and segregated the training sessions into pre-go-live and post-go-live sessions. A bilingual training program (in Arabic and English) was conducted simultaneously across five locations in Saudi Arabia, with a faculty of 25 consultants.

We enabled SEC to make a seamless transition from a pre-production environment to live production operations. During the initial critical period of production operations, we closely assisted them and provided them with support for 90 days.
Experience certainty

True certainty of success comes from working with a partner you trust to provide the insight, support and expertise that will propel your business forward. Experiencing certainty with TCS means you can count on results, partnership and leadership.

Results

The use of ASAP methodology helped SEC to successfully implement the SAP plant maintenance solution within the strict timeline of 16 weeks with seamless integration, quality deliverables and comprehensive end-user training. This approach has helped reduce costs, enabled more efficient use of resources, and has permitted the reuse of new systems for subsequent projects.

The implementation methodology enabled SEC to:
- Address standardization requirements successfully
- Manage master data and business processes efficiently
- Ensure enterprise-wide reporting, while retaining the existing information structures
- Save implementation and maintenance costs
- Enhance overall implementation quality

SEC has been able to reduce the business risk involved in the implementation and has integrated plant maintenance processes with other ERP functions.

They are now able to improve their operational efficiencies and accelerate processes. The company also achieved sustainable cost savings through the consolidation of systems. The existing processes and solutions have been refined making them reusable for future projects, while the newly acquired capabilities have enabled SEC to enhance transparency and quality across operations. The efficient and timely implementation of the SAP solution has strengthened plant maintenance at SEC and provided the company with the agility required for business needs in future.
About TCS Global Consulting Practice

TCS’ Global Consulting Practice (GCP) is a key component in how TCS delivers additional value to clients. Using our collective industry insight, technology expertise, and consulting know-how, we partner with enterprises worldwide, to deliver integrated end-to-end IT enabled business transformation services. By tapping our worldwide pool of resources - onsite, offshore and near-shore, our high caliber consultants leverage solution accelerators and practice capabilities, balanced with our knowledge of local market demands, to enable enterprises to effectively meet their business goals.

GCP spearheads TCS’ consulting capacity with consultants located in North America, United Kingdom, Europe, Asia Pacific, India, Ibero-America and Australia.

Contact

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About Tata Consultancy Services (TCS)

Tata Consultancy Services is an IT services, consulting and business solutions organization that delivers real results to global business, ensuring a level of certainty no other firm can match. TCS offers a consulting-led, integrated portfolio of IT and IT-enabled infrastructure, engineering and assurance services. This is delivered through its unique Global Network Delivery Model™, recognized as the benchmark of excellence in software development. A part of the Tata Group, India’s largest industrial conglomerate, TCS has a global footprint and is listed on the National Stock Exchange and Bombay Stock Exchange in India.

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