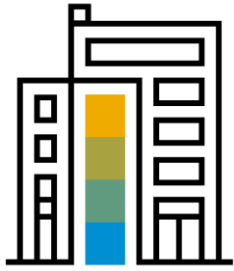


Singapore Power Ltd

Project Open Electricity Market

SAP Best Run Awards for SEA





Company Information

Headquarter	Singapore
Industry	Utilities
Website	https://www.spgroup.com.sg/about-us/corporate-profile

SP Group (SP) is a leading utilities group in Asia Pacific, enabling a low carbon, smart energy future for its customers. It owns and operates electricity and gas transmission and distribution businesses in Singapore and Australia, and sustainable energy solutions in Singapore and China.

As Singapore's national grid operator, about 1.6 million industrial, commercial and residential customers benefit from its world-class transmission, distribution and market support services. These networks are amongst the most reliable and cost-effective world-wide.

Beyond traditional utilities services, SP Group provides a suite of sustainable energy solutions such as cooling and heating systems for business districts and residential townships, electric vehicle fast charging and green digital energy management tools for customers in Singapore and the region.

The Game Changer

Singapore Power Ltd



The implementation of the Open Electricity Market system has enabled consumers to have a choice on their electricity procurement and the competition has helped drive prices down. Consumers also benefit from the availability of smart metering options that provide half-hourly consumption data promoting sustainability innovations. The successful outcome of this challenging undertaking can be attributed to the strong and committed partnership among all the stakeholders, including SAP and Capgemini.

- Jeanne Cheng - OEM Project Sponsor, SP Group (Chief Risk Officer) -

Challenges

Singapore introduced the Open Electricity Market (OEM) in 2001 to foster competition and bring about greater efficiency and innovation. In preparation, SP Group needed to transform its technological landscape to empower consumers to buy electricity at flexible rates and the option to choose the best price plan to meet their needs. Post successful implementation of OEM, there was a need to scale up system capacity to support 1.6 million Advanced Metering Infrastructure (AMI) customers and 2 million AMI devices with enhanced system performance.

Solutions

With SAP and Capgemini, SP Group introduced enhanced SAP for utility solutions and CRM applications to expand service portfolio and enhance customer experiences. SP Group Portal allowed customers to buy and manage power consumption, and switch electricity providers easily. A Business Data Lake solution was implemented to draw data insights from various data sources. Additionally Meter Data Management (MDM) and a Price Comparison Website were implemented to help customers better understand energy retailer options & compare all price plans in the market. The SAP application was upgraded to ECC 6.0 EHP 7, and SAP PO from 7.3 to 7.5 along with DB 19C.

Outcomes

Seamless switching of electricity providers and 20-30% savings on electricity bills for customers who have switched. Greater convenience enables customers to receive a consolidated bill for all utility services with online payment options. Customers can view their electricity consumption trend on a half-hourly basis. Residential customers can enjoy the benefit of solar generating schemes and get energy credits from SP Group. The solutions help achieve the overall vision of the nation: to ensure every household and industry enjoys the full benefits of the OEM.

97%

of customers found it easy to switch to a new retailer

96%

had sufficient time to consider retailer offers or signed up online and were not subject to time pressure.

9 in 10

compared offers across different retailers before choosing one

Partner Information



Capgemini

Implementation Partner



The Open Electricity Market is a step towards offering consumer choice in a market where energy demand is rising. Digitalization of SP Group's operations is instrumental in driving efficiency gains, and Capgemini's key objective was to create a whole new customer experience by offering flexibility and convenience while setting in place resilient and robust processes for the marketplace. We at Capgemini are glad to be partnering with global technology leaders like SAP who share in our business philosophy of putting the customer at the center of our client's transformation agenda.

- Gaurav Modi, Managing Director of Capgemini in Southeast Asia, Hong Kong, and Taiwan -



Business Challenges and Objectives

In the second half of 2018, Singapore finalized its transition to OEM, fully liberalizing the energy market. For the first time, all customers in Singapore could choose the electricity provider that best fits their needs.

However, to ensure that customers could seamlessly switch between providers, Singapore needed the support of SP Group, which is a leading energy utility company in Singapore and the Asia Pacific.

SP Group understood that it would need to adapt its operations to continue providing the best customer experience to its 1.6 million customers in Singapore. In addition, the application should be capable of handling interval consumption and perform market settlement of 1.6 million AMI customers with 2 million devices.

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- Core Customer Management Systems customized to allow customers to easily switch and choose electricity providers based on their consumption needs and preferences
 - Option for retailers to use SP Group's billing services, enabling a single, consolidated billing for all utilities irrespective of electricity provider of choice
 - Hardware and software upgrades to deliver greater efficiency and reliable operations
 - System scalability with high performance to support high customer volumes (1.6 million AMI customers and 2 million AMI devices) with enhanced customer experience



Project / Use Case Details

To support these goals, SP Group and Capgemini identified SP Group's Customer Relationship Management (CRM) and SAP for utilities solutions as the primary targets for transformation. Capgemini enhanced SP Group's SAP ISU and CRM applications and expanded the service portfolio that it could offer to its customers while ensuring minimal disruptions to its services and business operations.

This effort to modernize SP Group's technical platforms made the organization more flexible, introduced extended and improved security controls, and established a cloud-ready, future-proof infrastructure. To help customers understand their options and switch seamlessly between retailers or to return to the regulated tariff, SP Group and Capgemini built a new Price Comparison Website. It provided customers with access to all information relating to energy retailer options, allowing them to view and compare all plans in the market.

To better enhance customer experience, a new interactive SP Utilities Portal was created to allow customers to buy electricity at regulated and non-regulated (spot) prices from SP Group, and view both accounts on a single platform. The portal also provided a simple method for either switching to a new retailer or returning to the regulated tariff. This transformation laid down the foundation for SP Group to embark on other upcoming initiatives such as enhanced mobility solutions, nationwide smart meter rollout, and greener energy solutions.

Capgemini also implemented a Business Data Lake solution to enable SP Group to draw insights from various data sources and provide a single view of its multi-dimensional data models. With the help of analytics tools, the business gained greater insights into its customers' personas. With this new level of analytical support, SP Group is now better equipped to offer best-in-class services while simultaneously helping customers make informed choices in the OEM.



Project / Use Case Details

The OEM began in the Jurong area for consumers of Singapore in April 2018 with a zonal roll-out planned from November 2018 to May 2019. Since 1 May 2019, full contestability has been rolled out making the entire Singapore population eligible for contestability.

The Helios program specified and delivered an environment that was planned for a limited number of contestable consumers, approximately 590,000. With the increasing uptake of contestability and customer transfer, the OEM2 program was launched to deliver increased system capabilities through three major system releases; OEM2A, 2B, and 2C.

In February 2019, OEM2A was completed, delivering increased system capabilities focusing mainly on uplifting volumes for contestability with the Static Residential Load Profiling (SRLP) option. OEM2B was deployed in July 2019 to deliver increased capabilities in terms of the number of C&I contestable consumers, as well as providing a further uplift of residential contestable consumers on the Static Residential Load Profiling (SRLP) and AMI option.

In the first phase of OEM2C regulated tariff, the SAP system was successfully upgraded from SAP ERP 6.0 EHP 0 to SAP ERP 6.0 EHP 7 along with DB 19C that went live in August 2020. DB 19C upgrade was one of the first implementations done in the Asia Pacific region for SP Group. The final phase, OEM2C, focused on increasing support for contestable customers on the AMI metering option to 1.6 million customers and up to 2 million AMI devices with an upgrade to SAP PO and MDM systems.

The program also delivers a broad range of required technical upgrades and updates to Singapore Power's core customer, billing, and deregulated tariff SAP systems to enhance the system performance.



Benefits and Outcomes

Business / Social

1. Customized solution to help customers easily switch and choose electricity providers.
2. An option for a single consolidated bill for all utilities and more pricing options for customers to enjoy greater savings.
3. SP Group is better equipped to offer best-in-class services while simultaneously helping customers make more informed choices in the OEM.
4. The roll-out of OEM triggered a sharper than anticipated decline in electricity prices. Accordingly, MAS revised its 2019 forecast range for MAS Core Inflation to 1–2%, from 1.5–2.5%. The introduction of a new renewable operating model along with OEM increased consumer uptake of renewable schemes by 10 times.

IT

1. Introduced enhanced SAP for utility solutions and CRM applications
2. Implemented Business Data Lake Solutions to draw insights from various data sources
3. Upgraded hardware and application stack to the latest versions
4. Improved performance and achieved a stable environment e.g. 70% reduction in runtime of critical programs for Finance stream. System scaled up to support 1.6 million contestable customers with major hardware uplifts (SAP ISU, SAP PO, and MDMS)
5. Extensive performance testing on 1.6 million data simulating to-be production scenarios
6. All project milestones achieved on time without any exceptions or deviations from project plan
7. 60% reduction in cutover downtime due to staggered deployment approach
8. Over 200 Team members involved (Capgemini and SP Group) during cutover with zero defects. No critical incidents reported post-go-live for OEM2A, B releases.

Human Empowerment

1. Offer flexibility and simplicity to customers
2. A large number of households have switched to plans priced lower than the regulated tariff
3. Greater customer convenience with more efficient and reliable operations
4. Allow customers to adopt greener, sustainable energy practices
5. Greater customer convenience with a single, consolidated bill for all utilities
6. Consumers who have switched benefited with savings in the range of 20-30% on electricity bills
7. The competition has encouraged retailers to provide innovative offerings by partnering with third parties to provide value-added services and products to enrich customer experience
8. Customers can monitor consumption trends on a half-hourly basis and plan for energy savings accordingly

Additional Reference Material

<https://www.capgemini.com/client-story/sp-group-enables-choice-and-flexibility-to-purchase-electricity-in-the-open-electricity-market/>

https://www.ema.gov.sg/cmsmedia/News/Media%20Release/2020/20201126_Media-Release_Positive-Experience-Renewing-Contracts-OEM-CSS-R3.pdf

<https://www.straitstimes.com/singapore/less-than-half-of-singapore-households-have-switched-to-electricity-retailers-said-ema>

<https://www.todayonline.com/singapore/consumers-switching-electricity-providers-give-thumbs-under-new-5-star-rating-system-ema>

<https://www.todayonline.com/singapore/opening-electricity-market-will-dampen-inflation-year-mas>

With the OEM Roll-out the giant retailers acquired significant number of customers from the small retailers shrinking their margins to minimum

<https://www.straitstimes.com/singapore/red-dot-power-exits-electricity-market-in-singapore>

Multiple partnerships between major telecom companies and electricity retailers for aggressive marketing campaigns with competitive offers

<https://www.singtel.com/about-Us/news-releases/singtel-partners-geneco-to-oferelectricity-plans>

Retailers offering attractive offers with variety of discounted price plans and offers like I-pad for first

If you have any enquiries, please email sapbestrunawardssea@in2ideas.com

