

Utilizing SAP WCM in the Emerging Market – Market Overview

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Agenda



- 1. SAP MENA and Market Overview**
2. SAP Customers
3. Scope of WCM and PM in the Region
4. Outlook

Summary of SAP MENA Today



SAP MENA YTD:

- More than 670 companies run SAP software
- Providing more than 15 industry solutions
- Tripled+ local SAP presence (Dec, 2008)

150.000+ users in 10 countries team with us to...

- Integrate their business processes
- Extend their competitive capabilities
- Get a better return on investment at a lower total cost of ownership

Unique partner ecosystem

- More than 50 partners
- 2100+ SAP consultants in MENA
- Overall more than 14,000 SAP consultants available

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Industry Trends and Market Direction



SAP SEME
& MENA
Focus Areas

SAP Offices in the region:
Dubai – headquarter SAP MENA
Dammam – KSA
Riyadh – KSA
Oman
Qatar
Egypt



Utilities Trends and Drivers in the Region

- Developments in both Deregulation and Energy Efficiency cause significant changes to customer sales and service processes and they originate new business processes.
- Energy Efficiency significantly changes business processes and creates new opportunities, automation of which will require new IT standards.
- The vision of Smart Grids will depend on the successful implementation of AMI as an enabler. The success of implementing AMI will hinge on data management and on the architecture of systems interoperability.
- Maximize return on assets for generation plants and transmission lines, risk management, analytics, growth and compliance.

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SAP Customers in MENA Region



Utilities

DEWA
SEC
EWA Bahrain
NOMAC
(GCCIA)

Oil & Gas

Abu Dhabi Gas
Emirates National Borealis
AG Borealis
Ganoub El Wadi
Al Soor Fuel
Petroleum Salalah
Methanol Salalah
Methanol Qatargas
RasGas
Qatar Petroleum
Tasweeq
Oryx GTL

Mill/Chemicals /T&T

Gulf Piping
Dubai Aluminum
ADNH Compass
Emirates Aluminum
Emirates Airlines
Aluminum Bahrain
Alexandria Carbon
Arab Fertilizers
Polypropylene Oman
Qatar Chemical

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Saudi Electric Company (SEC)

Asset management Scope



Generation

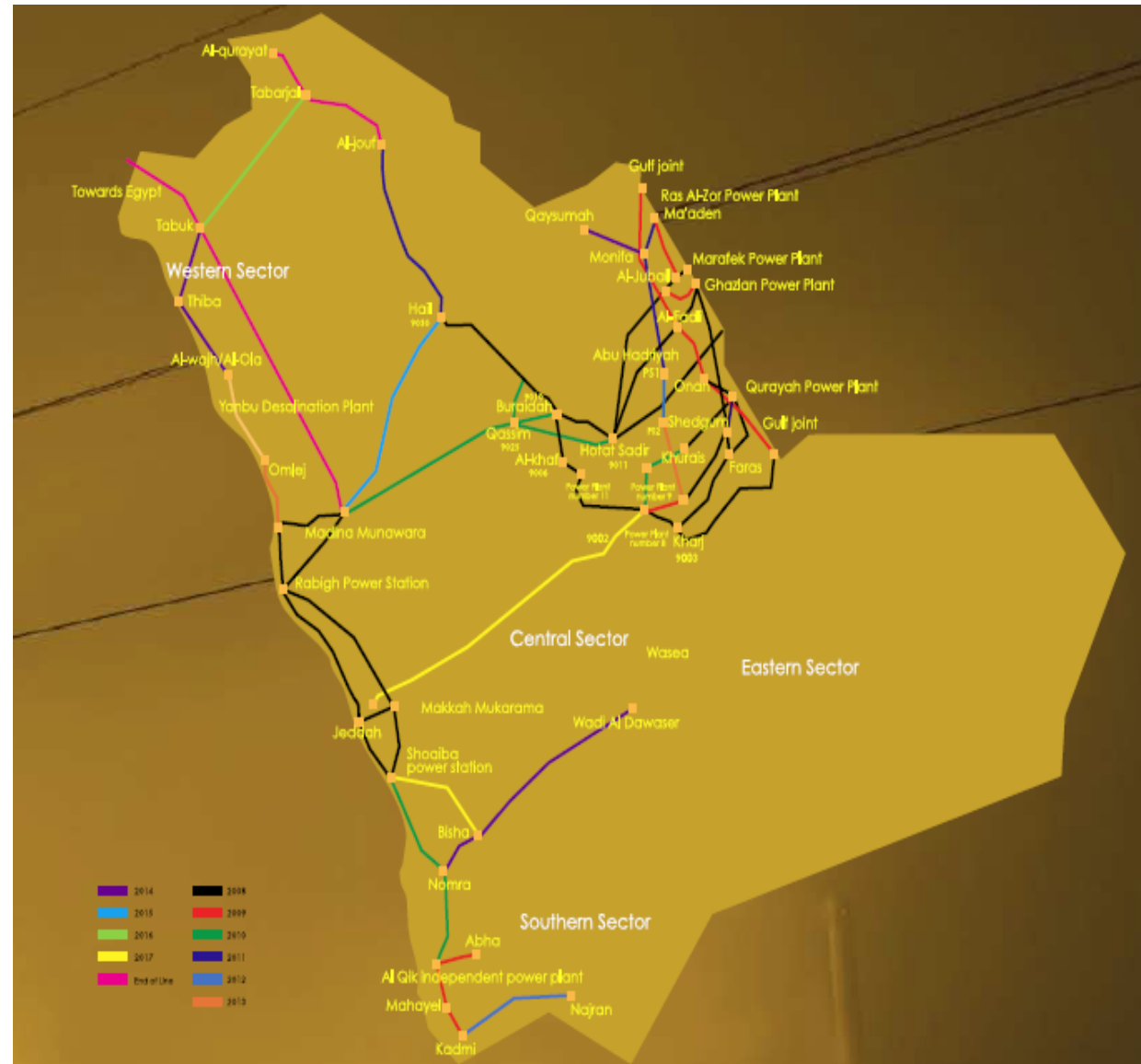
Available generation capacity total of 40,000 MW by the end of 2008

Transmission

Total number of high voltage and extra-high voltage transmission substations reached 586 including 1,690 transformers with total capacity of 153,414 MVA. lengths of power transmission networks is 39,793 km.

Distribution

total distribution networks length reached 345,420 km. The total number to 5,420,810 customers.



Saudi Electric Company

Enterprise Asset management Scope



Business Expectations

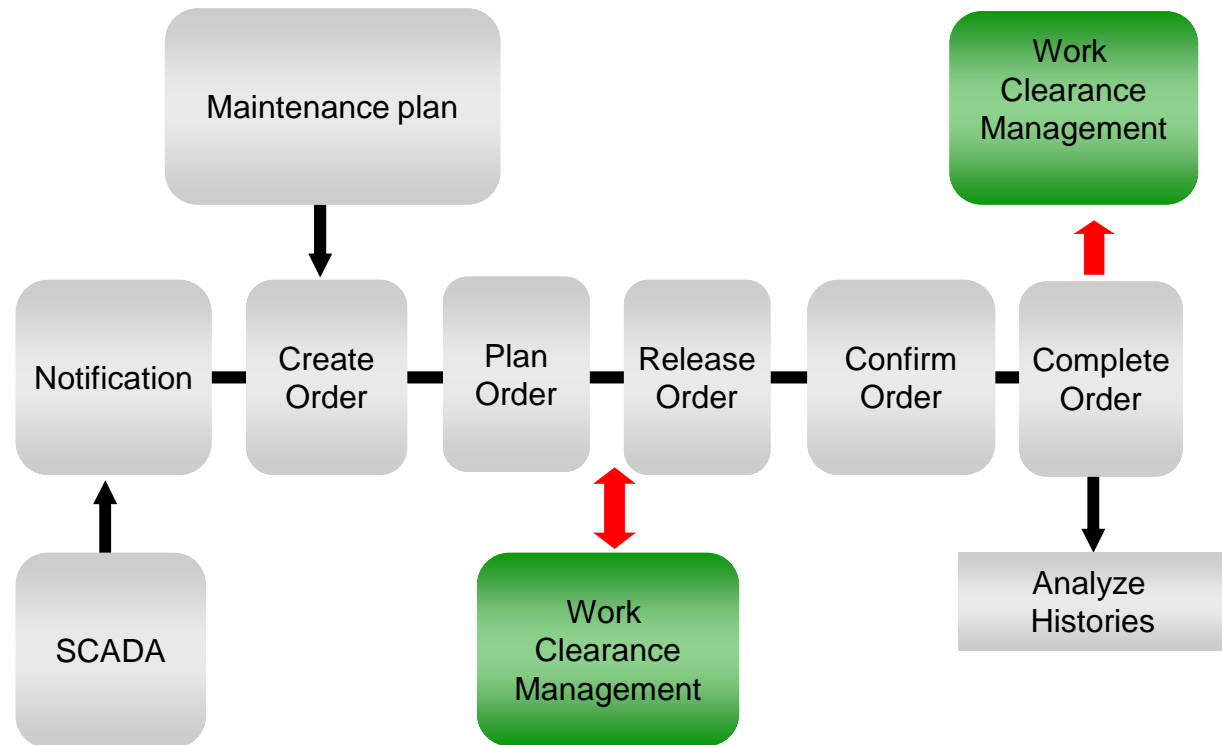
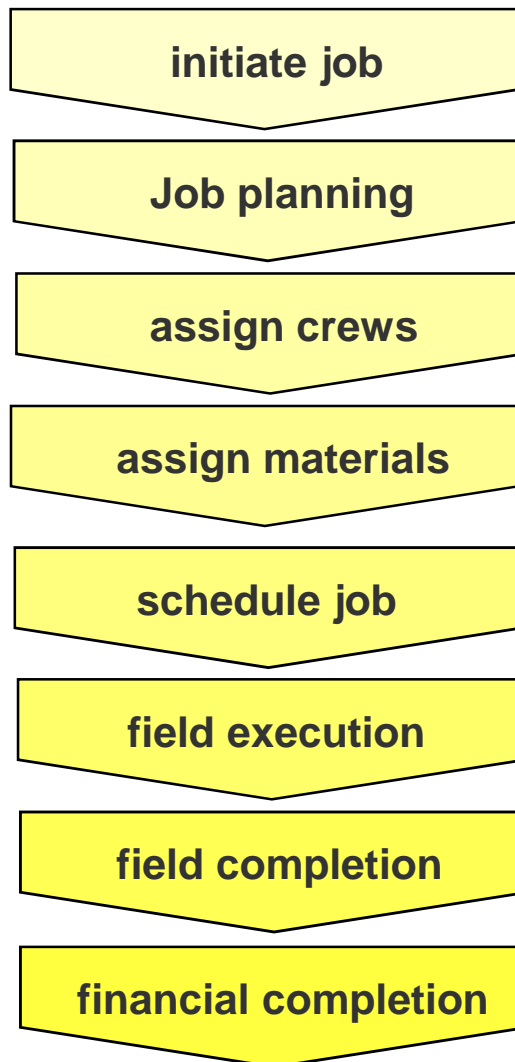
- Provide harmonized, integrated and simplified processes
- Reduce effort and paper work to execute processes
- Establish tighter integration between the applications of all Line of Business
- Provide reliable online reporting capabilities
- Establish Best Practices

IT Enabler

- Develop standard maintenance template for all Generation plants and for HV and LV substations
- Apply SAP standard processes
- Deploy modern Application and Integration Technology (PM, MM, HR, WCM, EHS, KM)
- Provide cross-functional analysis and reporting capabilities
- Deployment of SAP best practices

Saudi Electric Company

Base Design of the Work Order



Gulf Cooperation Council Interlink Authority (GCCIA) – Project Scope



Interconnection Scheme



• Phase I will interconnect the Power Grids of the Kingdom of Bahrain, Kingdom of Saudi Arabia, State of Qatar and the State of Kuwait.

• The interconnection will comprise of:

- 400 kV GIS substation in Al-Zour Kuwait.
- 400 kV Switching station in Al-Fadhili S.A.
- HVDC Bk-Bk Converter station
- 400 kV Switching station in Ghunan S.A.
- 400 kV Switching station in Salwa, S.A.
- 400 kV GIS substation in Al-Jasra, Bahrain.
- 400 kV GIS substation in Doha, Qatar.
- The stations will be connected with a 400 kV double circuit Overhead Line.
- 400 kV Land & Submarine cable between Ghunan and Al-Jasra Bahrain.
- Control Center to be situated in Ghunan, Saudi Arabia.

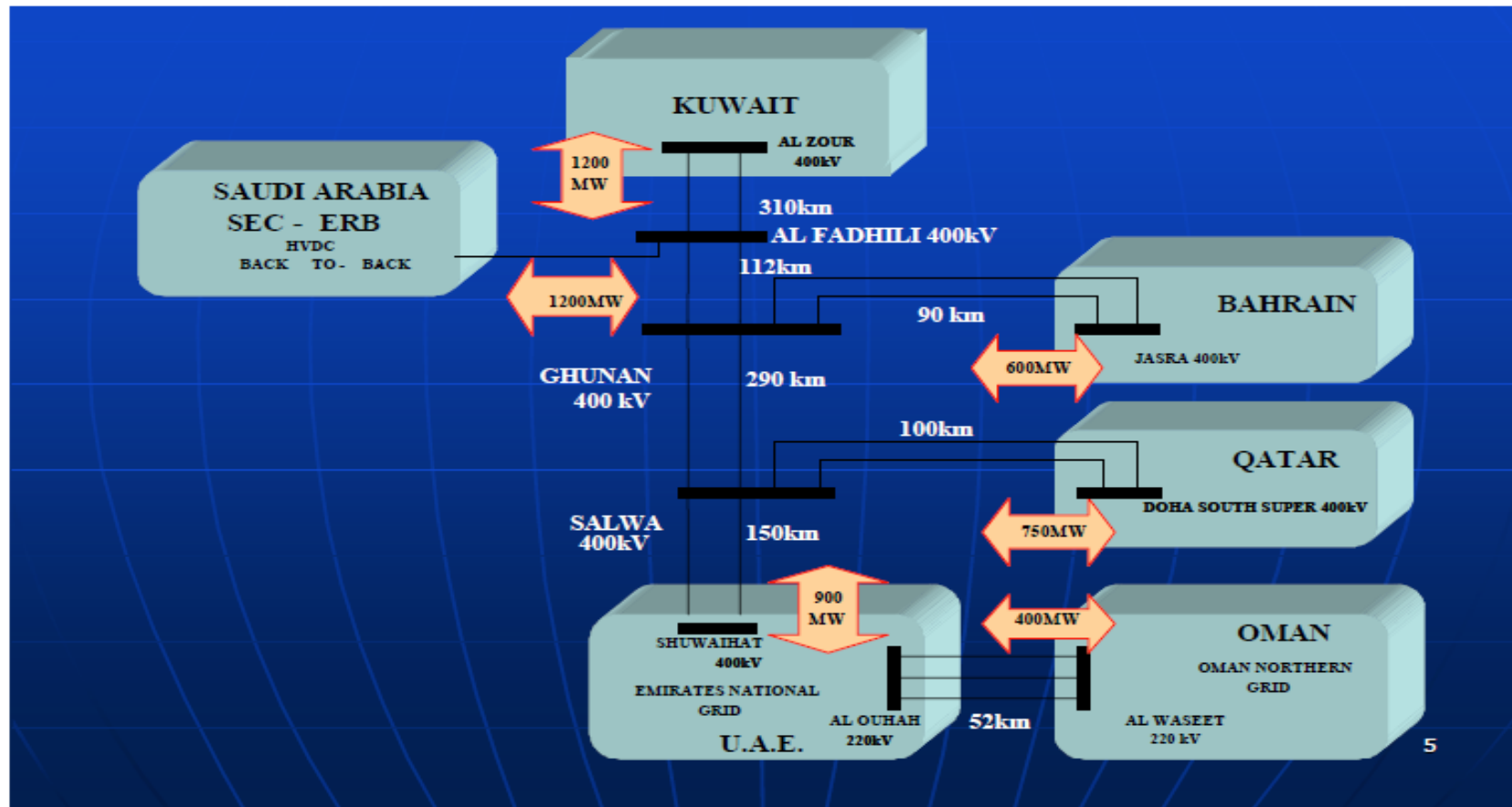
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Source: GCCIA website

GCCIA HV Substation Infrastructure



Single-Line Block Diagram



Source: GCCIA website



A complete ERP including PM + WCM

WCM will be utilized for all HV 9 substation and will be coordinated between 6 countries.

Main control room for operation will be located in Saudi Arabia based on AREVA technology and plan to interface with SAP

Project duration will be about 14 months starting Q1 2010

O&M team from the 6 countries



Company overview

DEWA delivers electricity to about 495,650 customers and water to almost 430,570 customers across the Emirate of Dubai.

Project scope

A complete implementation of SAP ERP system to move one single system for financials and logistics replacing about 56 legacy system including the maintenance system and installing automated lockout and tag-out system

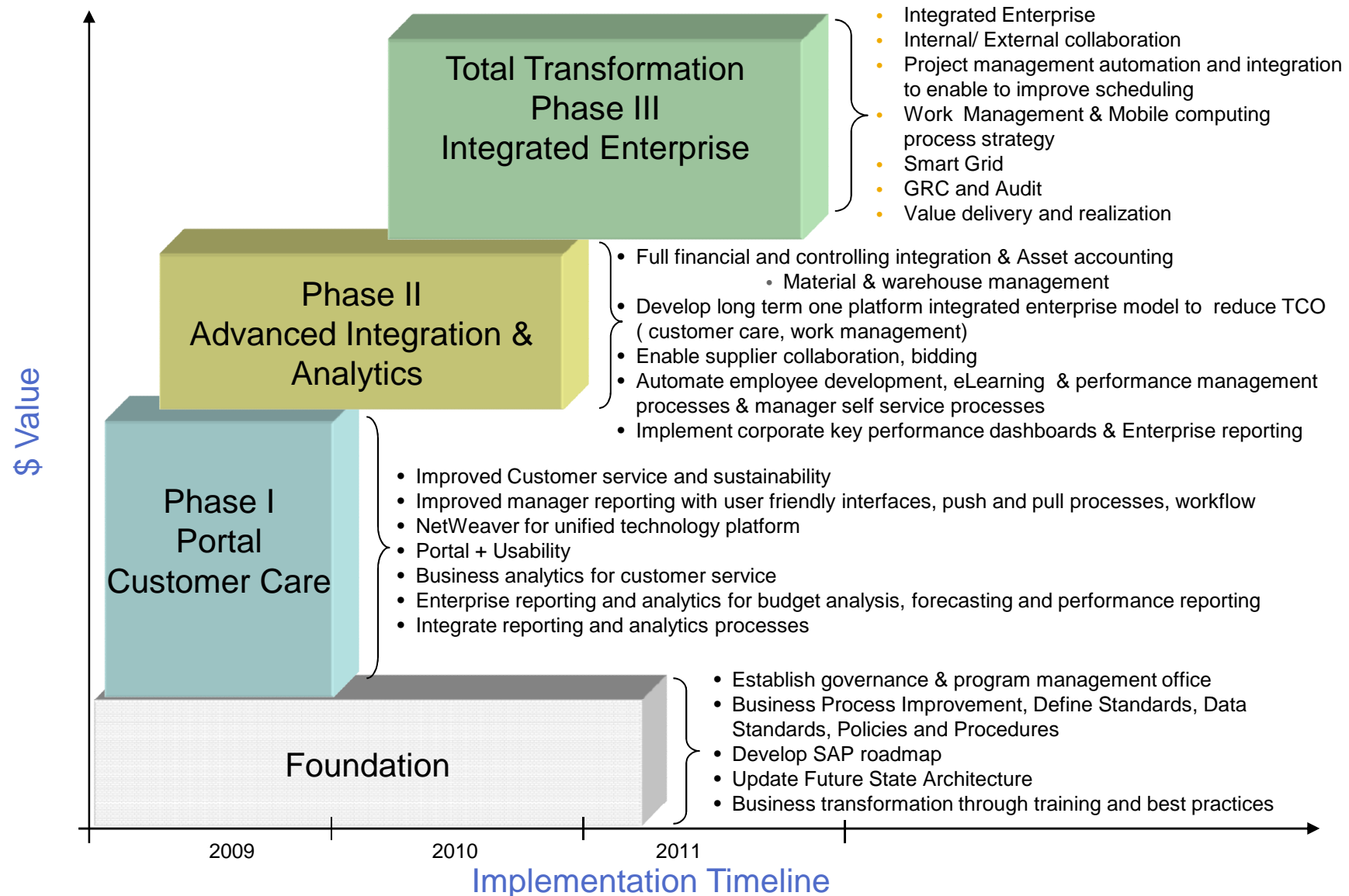
Power & Desalination Plants Installed Capacity For the Year 2008

Stations	MIGD	MW
Jebel Ali Power and Desalination Station "D"	35	1047
Jebel Ali Power and Desalination Station "E"	25	602
Jebel Ali Power and Desalination Station "G"	60	720
Jebel Ali R.O Desalination Plant	25	-
Aweer Power Station "H" - Ph I	-	607
Aweer Power Station "H" - Ph II	-	419
Aweer Power Station "H" - Ph III	-	613*
Jebel Ali Power and Desalination Station "K"	60	857
Jebel Ali Power and Desalination Station "L" - Ph I	70	861
Jebel Ali Power and Desalination Station "L" - Ph II	-	950*
Total	275	6676

Substations / Transmission & Distribution

No. of Substations		2007	2008
400 kV		11	12
132 kV		88	116
33 kV		137	137
6.6 & 11 kV		17,886	20,041
Length of Transmission Lines (KM)			
Overhead Lines		2007	2008
400 kV	KM	636	766
132 kV	KM	518	466
33 kV	KM	113	113
Underground Cables			
132 kV	KM	663	867
33 kV	KM	1,796	1,853
6.6 & 11 kV	KM	14,633	17,943

DEWA Business Roadmap





Company overview

Established in 2005, NOMAC is a joint venture between Sogex Oman Co. LLC and ACWA Power Projects of Saudi Arabia to deliver operation and maintenance services solutions to public and private sector owners of power and desalination plants. Operation and Maintenance of power and desalination plants of a wide range of types including:

- Steam turbine power plants
- Gas turbines simple and combined cycle power plants
- Sea water large capacity desalination plants including MSF and RO technologies
- Diesel engine power plants
- Sewage treatment plants
- Seawater cooling systems
- Potable water transmission system

Project Scope

- Financials and controlling
- Plant maintenance including WCM and RCMO
- Material Management
- Human Resources
- Environmental health and safety
- Business Warehouse and portal
- Processes integration
- Sales and distribution
- Production planning
- Quality management
- Investment management
- Document management system

The project started October 2009 and will be executed in 16 to 18 month in 3 phases

EWA Bahrain Asset management Scope



Company overview

EWA Bahrain is a government unit serving the kingdom of Bahrain. Generation, transmission and distribution of electric power and water, regulates the power sector in Bahrain.

Project timeline and scope

Dec 2009 HCM Live

Jan 2010 Roll out Warehouse /Central Store

Mar 2010 Employee Self Service/Manager Self service

Dec 2010 Account Receivable/ Revenue Accounting

Dec 2010 GRC

Jan 2011 BI/BOBJ

Dec 2011 IS Utility Billing/CRM

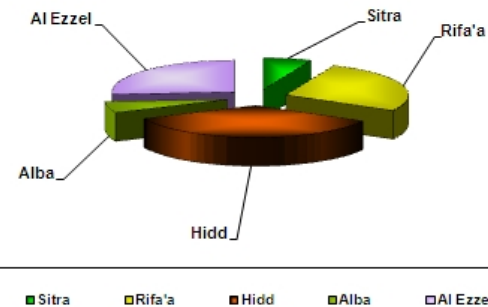
Jan 2012 Project

Dec 2012 EAM including WCM/ currently using CASCA.

System Generation (GW/HRS)
August 2009

SITRA	RIFA'A	HIDD	ALBA	AI EZZEL
96.49	404.10	530.41	85.66	394.92

System Growth (GW/HRS)
August 2009



No. of Transmission Substations

Year	33Kv	66Kv	220Kv
2000	11	50	9
2001	11	50	9
2002	11	57	9
2003	11	63	9
2004	11	64	10
2005	11	66	11
2006	11	68	12
2007	11	70	13
2008	11	80	15

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WCM Related Activities in the Region



Events:

SAP Forum in November 2009

SUG – MENA (SAP User Group – MENA) March 2010, Qatar

Training:

Plan to have a 3 days training in the region early next year

Location: Bahrain or Saudi Arabia

Webcast:

Planning to coordinate with WCM GmbH to conduct a 1 hr webcast in the next 3 months

Roadshow:

Target mega customers (SEC, Sabic, Aramco, Qatar Petroleum...)



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Vielen Dank





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