Pacific Gas and Electric Company

Application Development Project Complexity and Sizing Worksheet

Proposal Description:	Modernize Warehouse Management Solution	
IT Business Partner:	James Kim	
Date:	9/4/2008	

A response must be selected or entered for ALL criteria! The responses provided affect the total score for the proposed project, which determines the preliminary project cost.

#	CRITERIA	RESPONSE	ASSUMPTIONS	SCORE
1	What is the expected impact to the IT Infrastructure?	Enhancements	New SAP Sub Module	6
2	What is the expected duration of the project, in months?	12	Based on original PDM model	4
3	What is the expected average IT project team size?	14	2 IT, 1 PM, 1 BA, 2 Business, 1 Warehouse EMP, 1 RML EMP, 2 Outside Consulting	6
4	How many 3rd party vendor firms will provide services for this project?	0-1	SAP consultation	2
5	If the technology is known, has it been successfully implemented before at PG&E?	Yes	Implemented as Nexis	6
6	How well are the Requirements for this proposal known by the Business (have the Requirements been documented)?	Medium	Review/with some documentation from BT	6
7	Is there a pre-existing PG&E support group to maintain/support the application?	Yes	WMS 1 FTE Support	2
8	What is the level of dependency on other projects (e.g. resources, deliverables, etc)?	Medium	MRP, SAP MM and SAP PM	2
9	Will the system exchange or provide data to any entities outside of PG&E (suppliers, customers, regulatory agencies, etc)?	Yes	Bar Coding or Serial Number Interface	6
10	How many internal PG&E users will be impacted by this project?	150-1000	Approximately 200 FTE in warehouse	6
11	How many internal PG&E users will require formal training?	150-1000	All Warehouse and Mgrs	2
12	How many PG&E Lines of Business (LOBs) will be impacted by the project?	2-3	Utility Operation, Generation	6
			TOTAL SCORE:	54

The Project Complexity and Size Factor cannot be changed and is 10%, 20%, or 30% based on the Total Score from the Project Complexity and Sizing Worksheet. These percentages are added to the Preliminary Labor and Cost figures to account for potential unknowns and higher project complexity.

TOTAL SCORE	Project Complexity Factor
33 - 49	10%
50 - 63	20%
64 - 81	30%

Project Complexity and Sizing

Cell: B14
Comment: A measure of the expected impact on the existing PG&E IT Infrastructure

Cell: D14
Comment: None = Existing Infrastructure will not need to be modified. Assumes existing capacity can be utilized.

Enhancements = Additional capacity required on existing standard Infrastructure, such as additional servers, storage, etc.

New Infrastructure = New non-standard Infrastructure will need to be deployed and utilized.

Cell: B15
Comment: The expected duration of the project, between 1 and 36 months

Cell: B16
Comment: The AVERAGE number of total IT resources (Employees and Contractors) between 1 and 50 working on the project at any given time

Cell: B17
Comment: This indicates the number of 3rd-party vendor firms, NOT individual contributors and is intended to reflect potential additional project management effort to manage external vendors

Cell: B18
Comment: Has the technology to be implemented during the project been previously implemented at PG&E? How familiar are the project resources with the technology?

Cell: D18
Comment: Yes = The technology has been successfully implemented before at PG&E. Resources are very familiar with the technology.

No = The technology has not been attempted or implemented successfully previously. Resources have little or no familiarity with the technology.

Cell: B19
Comment: Does the Business fully understand their needs in completing the project? Have their needs been agreed to and documented?

Cell: D19
Comment: Low = The Business has no knowledge of the Requirements for the proposal; no Requirements have been discussed or documented.

Medium = The Business has minimal knowledge of the Requirements for the proposal; some of the Requirements have been discussed and documented.

High = The Business has a good understanding of the Requirements for the proposal; many of the Requirements have been discussed and documented.

Cell: B20
Comment: Can the proposed project/application be maintained and supported by an existing PG&E support group (Help Desk, Operations Group, System Administrators, etc)?

Cell: D20
Comment: Yes = The project/application can be maintained and supported by an existing PG&E support group

No = The project/application cannot be maintained and supported by an existing PG&E support group

Cell: B21
Comment: Are any of the proposed project's resources, deliverables, processes, or technology dependent on any other project or initiative?

Cell: D21
Comment: Low = The proposed project has little or no dependency on other projects or initiatives

Medium = The proposed project has some dependency on other projects or initiatives

High = The proposed project is highly dependent on other projects or initiatives

Cell: B22
Comment: Is data being passed through the PG&E firewall? May impact project risk and complexity.

Cell: D22
Comment: No = No data will be passed through the PG&E firewall

Yes = Data will be passed through the PG&E firewall

Cell: B23
Comment: Measures the degree of change/impact to the organization. Higher numbers imply greater need for change management, training, and number of new/modified business processes.

Cell: B24
Comment: A measure of Training effort in terms of training preparation and delivery

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Project Complexity and Sizing

Cell: B25
Comment: The PG&E Lines of Business are:

Energy Delivery
Engineering & Operations
Customer Care
Generation
Energy Procurement
Finance
HR
Risk & Audit
Shared Services

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Application Development Preliminary Project Costing Checklist

PROPOSAL DESCRIPTION:	Modernize Warehouse Management Solution	
IT Business Partner:	James Kim	
DATE:	9/4/2008	

		Weight
PG&E ISTS Labor Blended Daily Rate per Resource	$947.60	70%
External ISTS Labor Blended Daily Rate per Resource	$1,266.59	30%
COMBINED ISTS BLENDED DAILY RATE PER RESOURCE	$1,043.30	

		Weight
PG&E Business Labor Blended Daily Rate per Resource	$957.00	75%
External Business Labor Blended Daily Rate per Resource	$1,916.00	25%
COMBINED BUSINESS BLENDED DAILY RATE PER RESOURCE	$1,196.75	

LABOR

PRIMARY COST CRITERIA	COMMENTS / ASSUMPTIONS	PRELIMINARY LABOR ESTIMATE (DAYS)		PRELIMINARY COST ESTIMATE	
		LOW	HIGH	LOW	HIGH
ISTS APPLICATION DEVELOPMENT					
ISTS Application Development Labor Days (Project Management through Service Introduction/Deployment), including Middleware, Integration, Configuration, etc.	SAP configuration and development	2,520	4,200	$2,629,108	$4,381,847
Default Calculated Labor Days:		2,520	4,200	$2,629,108	$4,381,847
PG&E BUSINESS					
PG&E Business Labor	20% of Application Development Labor	504	840	$603,162	$1,005,270
TECHNICAL ARCHITECTURE					
Technical Architecture Labor Days (Analyze/Design/Build/Test) for Development, Execution, and Operations environments necessary to support the Application.	13% of Application Development Labor	328	546	$341,784	$569,640
USER TRAINING & PERFORMANCE SUPPORT					
User Training and Performance Support Labor Days (Analyze/Design/Build/Test) for the effort to create Training Material and Communications Plan to support the Application rollout.	15% of Application Development Labor	378	630	$394,366	$657,277
LABOR DAYS SUBTOTAL:		3,730	6,216	$3,968,421	$6,614,035
Project Complexity and Size Factor:		746	1,243	$396,842	$661,403
TOTAL LABOR DAYS:		4,476	7,459	$4,365,263	$7,275,438

Application Development Preliminary Project Costing Checklist

PROPOSAL DESCRIPTION:	Modernize Warehouse Management Solution
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HARDWARE, MATERIALS, AND OTHER COSTS

PRIMARY COST CRITERIA		COMMENTS / ASSUMPTIONS	PRELIMINARY COST ESTIMATE	
			LOW	HIGH
LICENSING				
Vendor Software Licensing Costs		Already Included in SAP Contract	$0	$0
Operating System, Application Server(s), and Database Licensing Costs		Already Included in SAP Contract	$0	$0
Security/Monitoring Licensing Costs		(You Must Enter An Assumption)	$0	$0
INFRASTRUCTURE				
Hardware, Network, etc Costs		Hardware in the WMS environment, PC, user interface hardware	$350,000	$700,000
USER TRAINING				
User Training Materials Costs		Training of employees in the existing 7 WMS facilities	$250,000	$350,000
MISCELLANEOUS COSTS				
Miscellaneous/Additional Costs (Overheads - Facilities Costs, Telephony, etc)		(You Must Enter An Assumption)		
		COST SUBTOTAL:	$600,000	$1,050,000
		Project Complexity and Size Factor:	$120,000	$210,000
		TOTAL HARDWARE, MATERIALS, AND OTHER COSTS:	$720,000	$1,260,000

	LOW	HIGH
Total Preliminary Project Cost [EXCLUDING O&M]:	$5,085,263	$8,535,438

OPERATE & MAINTENANCE

O&M Labor Factor:	15%
Default O&M Labor Factor:	15%

PRIMARY COST CRITERIA		COMMENTS / ASSUMPTIONS	PRELIMINARY O&M LABOR ESTIMATE (DAYS)		PRELIMINARY O&M COST ESTIMATE	
					LOW	HIGH
Annual Operate & Maintenance Labor		FTEs in system configuration, report development, and error resolution	671	1,119	$636,150	$1,060,251
Annual Licensing and Hardware & Materials O&M Cost (Default = 20% of Total Licensing and Hardware & Materials)		(You Must Enter An Assumption)	N/A	N/A	$144,000	$252,000
				TOTAL ANNUAL O&M COST:	$780,150	$1,312,251

TOTAL PRELIMINARY PROJECT COST (INCLUDING ONE YEAR OF O&M):

LOW	HIGH
$5,865,413	$9,847,689

Project Complexity and Sizing

Application Development Project Complexity and Sizing Descriptions			
		POSSIBLE RESPONSES	
#	Criteria	1	2	3
1	What is the expected impact to the IT Infrastructure?	None	Enhancements	New Infrastructure
	Rich N - criteria to determine complexity, enhancement vs new Infra?	Existing Infrastructure will not be modified. Assumes existing capacity can be utilized.	Additional capacity required on existing Infrastructure, such as additional servers, storage, etc. - standard supported Infra	New Infrastructure, not currently supported
2	What is the expected duration of the project, in months?	1-9 Months	10-17 Months	18+ Months
		--	--	--
3	What is the expected average ISTS Application Development project team size (both PG&E employess and contractors)?	1-10 People	11-20 People	21+ People
	Average number of resources working on the project at any given time - not total team size	--	--	--
4	How many 3rd party vendor firms will provide services for this project?	0-1	2	3 or More
	Not individual resources, only vendor firms; potential additional project management effort to manage external vendors	--	--	--
5	If the technology is known, has it been successfully implemented before at PG&E?		Yes	No
	Has the technology to be implemented during the project been previously implemented at PG&E? How familiar are the project resources with the technology?		The technology has been successfully implemented before at PG&E. Resources are very familiar with the technology.	The technology has not been attempted or implemented successfully previously. Resources have little or no familiarity with the technology.
6	How well are the Requirements for this proposal known by the Business (have the Requirements been documented)?	High	Medium	Low
	Does the Business fully understand their needs in completing the project? Have their needs been agreed to and documented? Has the Business prioritized the project and their needs? Does the Business understand what is needed in order to complete the project?	The Business has a good understanding of the Requirements for the proposal; many of the Requirements have been discussed and documented.	The Business has minimal knowledge of the Requirements for the proposal; some of the Requirements have been discussed and documented.	The Business has no knowledge of the Requirements for the proposal; no Requirements have been discussed or documented.
7	Is there a pre-existing PG&E support group to maintain/support the application?		Yes	No
	Can the proposed project/application be maintained and supported by an existing PG&E support group (Help Desk, Operations Group, System Administrators, etc)?		The project/application can be maintained and supported by an existing PG&E support group	The project/application cannot be maintained and supported by an existing PG&E support group
8	What is the level of dependency on other projects (e.g. resources, deliverables, etc)?	Low	Medium	High
	Is the proposed project dependent on any other projects or initiatives? Are any of the proposed project's resources, deliverables, processes, or technology dependent on any other project or initiative?	The proposed project has little or no dependency on other projects or initiatives	The proposed project has some dependency on other projects or initiatives	The proposed project is highly dependent on other projects or initiatives

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Project Complexity and Sizing

#	Criteria		1	2	3
9	Will the system exchange or provide data to any entities outside of PG&E (suppliers, customers, regulatory agencies, etc)?			No	Yes
	Is data being passed through the PG&E firewall? May impact project risk and complexity.			No data will be passed through the PG&E firewall	Data will be passed through the PG&E firewall
10	How many internal PG&E users will be impacted by this project?		<150	150-1000	1001 or More
	Measures the degree of change/impact to the organization. Higher numbers imply greater need for change management, training, and number of new/modified business processes.		--	--	--
11	How many internal PG&E users will require formal training?		<150	150-1000	1001 or More
	A measure of Training effort in terms of training preparation and delivery.		--	--	--
12	How many PG&E Lines of Business (LOBs) will be impacted by the project (Customer Care, Energy Delivery, ISTS, Generation, Shared Services)?		1	2-3	4 or More

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