Pacific Gas and Electric Company

Application Development Project Complexity and Sizing Worksheet

Legend	
	Enterable/Modifiable
	Overwritten
	Not Updatable
	Default Value

Date Checklist Completed:	6/29/2009
ITWR # (if applicable):	
Proposal Description:	Electric Distribution Operations (Program 13)
Client Portfolio Lead:	
Anticipated Start Date of Project (MM/DD/YYYY):	1/1/2011
Anticipated End Date of Project (MM/DD/YYYY):	12/31/2013

Please provide a response for ALL criterial The responses provided impact the Total Score for the proposed project, which helps determine the Preliminary Project Cost.

#	CRITERIA	RESPONSE	ASSUMPTIONS	SCORE
1	Expected duration of the project (in weeks):	156	(Calculated Based on Anticipated Start/End Dates, above)	6
2	Anticipated ISTS Application Development Labor Days	329	Significant IT participation	3
3	How many 3rd party vendor firms will provide services for this project?	3 or More	DMS, OMS, SCADA	6
4	If the technology is known, has it been successfully implemented before at PG&E?	Yes	Continuation of ED operations	6
5	How well are the Requirements for this proposal known by the Business (have the Requirements been documented)?	Medium	Business Requirements known, but formal requirements have not yet been developed	6
6	Is there a pre-existing PG&E support group to maintain/support the application?	Yes	Addition to current support teams	2
7	What is the level of dependency on other projects (e.g. resources, deliverables, etc)?	Medium	Shared IT resources, Dist Automation	2
8	Will the system exchange or provide data to any entities outside of PG&E (suppliers, customers, regulatory agencies, etc)?	No	No direct data sharing	4
9	What is the level of criticality of the system to the users and PG&E customers?	Business Critical	Reliability	12
10	How many internal PG&E users will be impacted by this project?	101-500	Multiple business units partipating and affected	6
11	What is the anticipated amount of formal training that will be required for PG&E users?	High	New technology and potential changes to business processess	9
12	How many PG&E Lines of Business (LOBs) will be impacted by the project?	1	Electric Distribution Operations	3
			TOTAL SCORE:	65

Additional Notes & Assumptions:

Distribution Outage & Restoration Systems (DORS) are a large part of the overall Electric Distribution Operations program. Twelve of the 17 line items are related directly to DORS. Control center activities.

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Application Development Preliminary Project Costing Checklist

Legend	
	Enterable/Modifiable
	Overwritten
	Not Updatable
	Default Value

Date Checklist Completed:	6/29/2009
ITWR # (if applicable):	0
Proposal Description:	Electric Distribution Operations (Program 13)
Client Portfolio Lead:	0
Anticipated Start Date of Project (MM/DD/YYYY):	1/1/2011
Anticipated End Date of Project (MM/DD/YYYY):	12/31/2013

		Weight
PG&E ISTS Labor Blended Daily Rate per Resource	$941.16	70%
External ISTS Labor Blended Daily Rate per Resource	$1,481.52	30%
COMBINED ISTS BLENDED DAILY RATE PER RESOURCE	$1,103.27	

		Weight
PG&E Business Labor Blended Daily Rate per Resource	$995.28	75%
External Business Labor Blended Daily Rate per Resource	$1,992.69	25%
COMBINED BUSINESS BLENDED DAILY RATE PER RESOURCE	$1,244.63	

APPLICATION DEVELOPMENT LABOR

PRIMARY COST CRITERIA	COMMENTS / ASSUMPTIONS	PRELIMINARY EFFORT (DAYS)			PRELIMINARY COST		
		LOW	MID	HIGH	LOW	MID	HIGH
ISTS APPLICATION DEVELOPMENT							
ISTS Application Development Labor Days (Project Management through Service Introduction/Deployment), Including Middleware, Integration, Configuration, etc.	Heavy IT Participation	246	329	411	$271,818	$362,424	$453,029
	Default Calculated Labor Days:	246	329	411	$271,818	$362,424	$453,029
PG&E BUSINESS	% of App Dev Labor						
PG&E Business Labor	20%	(Default = 20% of App Dev Labor)	49	66	82	$61,329	$81,772	$102,216
TECHNICAL ARCHITECTURE	% of App Dev Labor						
Technical Architecture Labor Days (Analyze/Design/Build/Test) for Development, Execution, and Operations environments necessary to support the Application.	30%	(Default based on Number of Users Impacted)	74	99	123	$81,645	$108,727	$135,909
USER TRAINING & PERFORMANCE SUPPORT	% of App Dev Labor						
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.	30%	(Default based on Anticipated Amount of Formal User Training)	74	99	123	$81,645	$108,727	$135,909
	LABOR DAYS SUBTOTAL:	443	591	739	$496,236	$661,650	$827,063
	Project Complexity and Size Factor:	133	177	222	$148,871	$198,495	$248,119
	TOTAL LABOR DAYS:	577	769	961	$645,109	$860,145	$1,075,181

Application Development Preliminary Project Costing Checklist

| | Default Value |

Date Checklist Completed:	8/28/2009
ITWR # (if applicable):	0
Proposal Description:	Electric Distribution Operations (Program 13)
Client Portfolio Lead:	0

HARDWARE LABOR, MATERIALS, AND OTHER COSTS

PRIMARY COST CRITERIA / INFRASTRUCTURE	COMMENTS / ASSUMPTIONS	PRELIMINARY COST		
		LOW	MID	HIGH
Hardware, Network, etc Costs (includes Labor)	(Default based on User Impact)	$300,000	$450,000	$600,000
System/Data Availability and Recovery	(Default Based on System Criticality and Data Protection/Retention Requirements)	$300,000	$450,000	$600,000
USER TRAINING				
User Training Materials Costs	(Default Based on Anticipated Amount of Formal User Training)	$21,250	$27,625	$34,000
MISCELLANEOUS COSTS				
Miscellaneous/Additional Costs (Licensing, Overheads - Facilities Costs, Telephony, etc)	Enterprise Integration for multiple interfaces, hardware, Telephony	$15,000,000	$17,750,000	$20,500,000
	COST SUBTOTAL:	$15,621,250	$18,677,625	$21,734,000
	Project Complexity and Size Factor:	$4,686,375	$5,603,288	$6,520,200
	TOTAL HARDWARE, MATERIALS, AND OTHER COSTS:	$20,307,625	$24,280,913	$28,254,200

	LOW	MID	HIGH
TOTAL PRELIMINARY PROJECT COST:	$20,953,000	$25,141,000	$29,329,000

Project summary

Project Start Date	Project End Date	work effort in days	duration in days	PM %	PM Days	Plan thru Deploy Days
1/1/2011	12/31/2013	961	1,095	10%	96	865

Stage detail

Stage	Start Date	End Date	Typical Work Allocation Percentage by Stage	% of stage effort (do not change)	Override stage effort (override Col C)	Stage Work Days	% stage duration	Duration in days	Net Work Days
Project Mgmt	1/1/2011	12/31/2013							
Plan	1/1/2011	3/28/2011	1-5%	8%	8%	96	8%	88	782
Analyze	3/29/2011	7/17/2011	5-10%	10%	10%	89	10%	110	79
Design	7/1/2011	2/21/2012	15-35%	20%	20%	173	20%	219	157
Build	2/21/2012	11/4/2013	25-60%	30%	30%	259	30%	329	235
Test	11/4/2013	8/21/2013	10-25%	20%	20%	173	20%	219	158
Deploy	8/21/2013	12/31/2013	3-5%	12%	12%	104	12%	131	95
				100%	100%	960,863	100%	1,095	

FTEs / Roles (resource pools)

Role	resource pool	Plan	Analyze	Design	Build	Test	Deploy
Percentage Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Workday Total		96	89	173	259	173	104
Business Analyst	various	0.5	0.5	-	-	-	-
Project Manager	various	-	-	-	-	-	-
Application Designer	various	-	-	-	-	-	-
Configuration Manager	Env CoE	-	-	-	-	-	-
Programmer	App Services (various)	0.5	-	-	0.5	-	-
Test Lead & Tester	Software QA	0.5	-	-	-	0.5	-
Database Administrator / Data Architect	DBA CoE	-	-	-	-	-	-
Technical Architect	SPRA	-	-	-	-	-	-
Technical Architect	Infrastructure	-	-	-	-	-	-
Technical Architect	App Services (various)	-	-	-	-	-	-
Technical Architect	Env CoE	-	-	-	-	-	-
Technical Operations Support Specialist	Env CoE	-	-	-	-	-	-
Integration Solution Architect & Designer	various	-	-	-	-	-	-
Human Performance Architect / Training Administrator	Business	0.5	0.5	0.5	-	0.5	0.5
Deployment Lead & Specialist / Service Introduction Lead	Deployment CoE	-	-	-	-	-	0.5
Max FTEs (rounded to the nearest .5 fte)		0.5	0.5	0.5	0.5	0.5	0.5