Pacific Gas and Electric Company

Application Development Project Complexity and Sizing Worksheet

Legend	
	Enterable/Modifiable
	Overwritten
	Not Updatable
	Default Value

Date Checklist Completed:	3/1/2009
ITWR # (if applicable):	
Proposal Description:	Planning, Analytics, and Data Integrity
Client Portfolio Lead:	Brent Altman
Anticipated Start Date of Project (MM/DD/YYYY):	1/1/2010
Anticipated End Date of Project (MM/DD/YYYY):	12/31/2013

Please provide a response for ALL criteria! 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):	209	(Calculated Based on Anticipated Start/End Dates, above)	6
2	Anticipated ISTS Application Development Labor Days			FALSE
3	How many 3rd party vendor firms will provide services for this project?	0	(Please Enter An Assumption)	2
4	If the technology is known, has it been successfully implemented before at PG&E?	Yes	(Please Enter An Assumption)	6
5	How well are the Requirements for this proposal known by the Business (have the Requirements been documented)?	Medium	(Please Enter An Assumption)	6
6	Is there a pre-existing PG&E support group to maintain/support the application?	Yes	(Please Enter An Assumption)	2
7	What is the level of dependency on other projects (e.g. resources, deliverables, etc)?	Medium	(Please Enter An Assumption)	2
8	Will the system exchange or provide data to any entities outside of PG&E (suppliers, customers, regulatory agencies, etc)?	No	(Please Enter An Assumption)	4
9	What is the level of criticality of the system to the users and PG&E customers?	Business Important	(Please Enter An Assumption)	9
10	How many internal PG&E users will be impacted by this project?	101-500	(Please Enter An Assumption)	6
11	What is the anticipated amount of formal training that will be required for PG&E users?	Medium	(Please Enter An Assumption)	6
12	How many PG&E Lines of Business (LOBs) will be impacted by the project?	4 or More	(Please Enter An Assumption)	9
			TOTAL SCORE:	58

Cell: B18
Comment: Duration is calculated based on the above start and end project dates.

Cell: B19
Comment: High level estimate of application development labor days (project management through service introduction/deployment) including middleware, integration, configuration, etc.

Cell: B20
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: B21
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: C21
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: B22
Comment: Does the Business fully understand their needs in completing the project? Have their needs been agreed to and documented?

Cell: C22
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: B23
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: C23
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: B24
Comment: Are any of the proposed project's resources, deliverables, processes, or technology dependent on any other project or initiative?

Cell: C24
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: B25
Comment: Is data being passed through the PG&E firewall? May impact project risk and complexity.

Cell: C25
Comment: No = No data will be passed through the PG&E firewall

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

Cell: B26
Comment: A measure of the criticality of the system to users and PG&E customers

Cell: C26
Comment: Business Critical: requires the highest possible availability; outage/failure recovery time is minutes or hours (e.g., SCADA systems)

Business Important: requires high availability; outage/failure recovery time is less than 24 hours

Business Standard: default category, most systems will fit this category; does not require high availability; outage/failure recovery time is less than 2 days

Business Historical; does not require high availability; outage/failure recovery time is 2-5 days (e.g., storage systems)

Cell: B27
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: B28
Comment: A measure of the total effort required to formally train all users, considering that multiple users may be trained concurrently (e.g., classroom)

Cell: C28
Comment: Low = <7 Hours of Deliverable Content
Medium = 8-14 Hours of Deliverable Content
High = >14 Hours of Deliverable Content

Cell: B29
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

Legend
Enterable/Modifiable
Overwritten
Not Updatable
Default Value

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ITWR # (if applicable):	0
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		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

			PRELIMINARY EFFORT (DAYS)			PRELIMINARY COST		
PRIMARY COST CRITERIA	COMMENTS / ASSUMPTIONS		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.	(You Must Enter An Assumption)		400	700	1,000	$441,307	$772,288	$1,103,268
		Default Calculated Labor Days:	0	0	0	$441,307	$772,288	$1,103,268
PG&E BUSINESS	% of App Dev Labor							
PG&E Business Labor	20%	(Default = 20% of App Dev Labor)	80	140	200	$99,571	$174,249	$248,927
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.	20%	(Default based on Number of Users Impacted)	80	140	200	$88,261	$154,458	$220,654
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.	20%	(Default based on Anticipated Amount of Formal User Training)	80	140	200	$88,261	$154,458	$220,654
		LABOR DAYS SUBTOTAL:	640	1,120	1,600	$717,401	$1,255,451	$1,793,502
		Project Complexity and Size Factor:	128	224	320	$143,480	$251,090	$358,700
		TOTAL LABOR DAYS:	768	1,344	1,920	$860,881	$1,506,541	$2,152,202

Application Development Preliminary Project Costing Checklist

Default Value

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HARDWARE LABOR, MATERIALS, AND OTHER COSTS

PRIMARY COST CRITERIA	COMMENTS / ASSUMPTIONS	PRELIMINARY COST LOW	MID	HIGH
INFRASTRUCTURE				
Hardware, Network, etc Costs (includes Labor)	(Default based on User Impact)	$600,000	$1,000,000	$1,400,000
System/Data Availability and Recovery	(Default Based on System Criticality and Data Protection/Retention Requirements)	$450,000	$750,000	$1,050,000
USER TRAINING				
User Training Materials Costs	(Default Based on Anticipated Amount of Formal User Training)	$14,875	$21,250	$27,625
MISCELLANEOUS COSTS				
Miscellaneous/Additional Costs (Licensing, Overheads - Facilities Costs, Telephony, etc)	(You Must Enter An Assumption)	$0	$0	$0
	COST SUBTOTAL:	$1,064,875	$1,771,250	$2,477,625
	Project Complexity and Size Factor:	$212,975	$354,250	$495,525
	TOTAL HARDWARE, MATERIALS, AND OTHER COSTS:	$1,277,850	$2,125,500	$2,973,150

	LOW	MID	HIGH
TOTAL PRELIMINARY PROJECT COST:	$2,139,000	$3,632,000	$5,125,000

Project Start Date	Project End Date	work effort in days	duration in days	PM %	PM Days	Plan thru Deploy Days
1/1/2010	12/31/2013	1,920	1,460	10%	192	1,728

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	1/1/2010	12/31/2013				192			1,043
Plan	1/1/2010	4/27/2010	1-5%	8%	8%	138	8%	117	83
Analyze	4/27/2010	9/20/2010	5-10%	10%	10%	173	10%	146	105
Design	9/20/2010	7/9/2011	15-35%	20%	20%	346	20%	292	210
Build	7/9/2011	9/19/2012	25-60%	30%	30%	518	30%	438	313
Test	9/19/2012	7/8/2013	10-25%	20%	20%	346	20%	292	209
Deploy	7/8/2013	12/31/2013	3-5%	12%	12%	207	12%	175	127
				100%	**100%**	**1920**	**100%**	**1,460**	

	Roles	**Workday**	**FTE's**															
resource pools:			various	various	various	Env CoE	various App Services	Software QA	DBA CoE	SP&A	Infrastru cture	various App Services	Env CoE	Env CoE	various	Business	Deployment CoE	
	Percentage Total	Workday Total	Business Analyst	Project Manager	Application Designer	Configuration Manager	Programmer	Test Lead & Tester	Database Administrator/ Data Architect	Technical Architect	Technical Architect	Technical Architect	Technical Architect	Technical Operations Support Specialist	Integration Solution Architect & Designer	Human Performance Architect Training Administrator	Deployment Lead & Specialist Service Introduction Lead	Max FTE's (rounded to the nearest .5 fte)
		1,920	1.0	-	0.5	-	0.5	1.0	-	0.5	-	-	-	-	-	0.5	1.0	
	100.0%	192	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	100.0%	138	1.0	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	1.0
	100.0%	173	0.5	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-	0.5
	100.0%	346	-	-	0.5	-	-	-	-	-	-	-	-	-	-	0.5	-	0.5
	100.0%	518	-	-	-	-	0.5	-	-	-	-	-	-	-	-	0.5	-	0.5
	100.0%	346	-	-	-	-	-	1.0	-	-	-	-	-	-	-	0.5	-	1.0
	100.0%	207	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0	1.0