Pacific Gas and Electric Company

Legend
- Enterable/Modifiable
- Overwritten
- Not Updatable
- Default Value

Application Development Project Complexity and Sizing Worksheet

Date Checklist Completed:	6/29/2009
ITWR # (if applicable):	
Proposal Description:	Work Management (Work & Resource Management / T&D Mobile)
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 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):	156	(Calculated Based on Anticipated Start/End Dates above)	6
2	Anticipated ISTS Application Development Labor Days	329	Significant IT efforts required in multiple disciplines	3
3	How many 3rd party vendor firms will provide services for this project?	3 or More	Multi-phased effort with multiple systems affected	6
4	If the technology is known, has it been successfully implemented before at PG&E?	Yes	While some new technologies are being introduced, the majority of the work is with known systems	6
5	How well are the Requirements for this proposal known by the Business (have the Requirements been documented)?	Low	Business Requirements have been identified, but formal requirements have not yet been developed	9
6	Is there a pre-existing PG&E support group to maintain/support the application?	No	Increased use of mobile technology will require new support structures	3
7	What is the level of dependency on other projects (e.g. resources, deliverables, etc)?	High	Coordination with ERP and mobile systems	3
8	Will the system exchange or provide data to any entities outside of PG&E (suppliers, customers, regulatory agencies, etc)?	No	Smart Grid introduces new communications opportunities	4
9	What is the level of criticality of the system to the users and PG&E customers?	Business Critical	Technology for T&D work groups	12
10	How many internal PG&E users will be impacted by this project?	>500	Initial efforts, pilots and complete roll out to all T&D business units	9
11	What is the anticipated amount of formal training that will be required for PG&E users?	High	New technology will require specific training	9
12	How many PG&E Lines of Business (LOBs) will be impacted by the project?	2-3	ET, ED, GT and GD	6
			TOTAL SCORE:	76

Additional Notes & Assumptions:

W&RM - Scheduling - Addition of remaining business units, Reporting, Scheduling - Mobile / Dispatch, Scheduling for Contractors. Work & Resource Management - Click Plan, Analyze & Forecast, Click Schedule Upgrade.

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Application Development Preliminary Project Costing Checklist

Date Checklist Completed:	6/29/2009
ITWR # (if applicable):	0
Proposal Description:	Work Management (Work & Resource Management / T&D Mobile)
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 / ISTS APPLICATION DEVELOPMENT	COMMENTS / ASSUMPTIONS	PRELIMINARY EFFORT (DAYS)			
		LOW	MID	HIGH	LOW
ISTS Application Development Labor Days (Project Management through Service Introduction/Deployment), including Middleware, Integration, Configuration, etc.	(You Must Enter An Assumption)	246	329	411	$271,818
	Default Calculated Labor Days:	246	329	411	$271,818
PG&E BUSINESS	% of App Dev Labor				
PG&E Business Labor	30%	(Default = 20% of App Dev Labor)	74	99	123	$91,994
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.	50%	(Default based on Number of Users Impacted)	123	164	205	$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	$81,545
	LABOR DAYS SUBTOTAL:	517	690	862	$581,266
	Project Complexity and Size Factor:	155	207	259	$174,380
	TOTAL LABOR DAYS:	673	897	1,121	$755,645

Cost Planning CoE
Preliminary Application Development Project Cost Checklist

Application Development Preliminary Project Costing Checklist

Default Value

Date Checklist Completed:	6/20/2008
ITWR # (if applicable):	0
Proposal Description:	Work Management (Work & Resource Management / T&D Mobile)
Client Portfolio Lead:	0

HARDWARE LABOR, MATERIALS, AND OTHER COSTS

PRIMARY COST CRITERIA	COMMENTS / ASSUMPTIONS	PRELIMINARY COST		
INFRASTRUCTURE		LOW	MID	HIGH
Hardware, Network, etc Costs (includes Labor)	(Default based on User Impact)	$800,000	$1,000,000	$1,200,000
System/Data Availability and Recovery	(Default Based on System Criticality and Data Protection/Retention Requirements)	$400,000	$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)	Mobile Technology and Hardware / Scheduling Tool Technology	$40,000,000	$50,000,000	$60,000,000
	COST SUBTOTAL:	$41,221,250	$51,477,625	$61,734,000
	Project Complexity and Size Factor:	$12,366,375	$15,443,288	$18,520,200
	TOTAL HARDWARE, MATERIALS, AND OTHER COSTS:	$53,587,625	$66,920,913	$80,254,200

	LOW	MID	HIGH
TOTAL PRELIMINARY PROJECT COST:	$54,343,000	$67,928,000	$81,514,000

PRELIMINARY COST	
MID	HIGH
$362,424	$453,029
$362,424	$453,029
$122,659	$153,325
$181,212	$226,515
$108,727	$135,909
$775,021	$968,776
$232,508	$290,633
$1,007,527	$1,259,409

Work Management

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	1,121	1,095	10%	112	1,009

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				112			782
Plan	1/1/2011	3/28/2011	1-5%	8%	8%	81	8%	88	62
Analyze	3/29/2011	7/17/2011	5-10%	10%	10%	101	10%	110	79
Design	7/17/2011	2/21/2012	15-35%	20%	20%	202	20%	219	157
Build	2/21/2012	1/14/2013	25-60%	30%	30%	303	30%	329	235
Test	1/14/2013	8/21/2013	10-25%	20%	20%	202	20%	219	158
Deploy	8/21/2013	12/31/2013	3-5%	12%	12%	121	12%	131	95
				100%	100%	1121.01	100%	1,095	

Roles	Workdays	Business Analyst (various)	Project Manager (various)	Application Designer (various)	Configuration Manager (Env CoE)	Programmer (various App Services)	Test Lead & Tester (Software QA)	Database Administrator/Data Architect (DBA CoE)	Technical Architect (SP&A)	Technical Architect (Infrastructure)	Technical Architect (various App Services)	Technical Architect (Env CoE)	Technical Operations Support Specialist (Env CoE)	Integration Solution Architect & Designer (various)	Human Programmer (Business)	Deployment Lead & Specialist (Deployment CoE)	Max FTEs (rounded to the nearest .5)
resource pools: Percentage Total	Workday Total																
	1,121	0.5	-	-	-	-	0.5	0.5	-	0.5	-	-	-	-	0.5	0.5	0.5
100.0%	112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100.0%	81	0.5	-	-	-	-	-	0.5	-	-	-	-	-	-	-		0.5
100.0%	101	0.5	-	-	-	-	-	-	-	-	-	-	-	0.5		0.5
100.0%	202	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5		0.5
100.0%	303	-	-	-	-	0.5	-	-	-	-	-	-	-	-	0.5		0.5
100.0%	202	-	-	-	-	-	0.5	-	-	-	-	-	-	-	0.5		0.5
100.0%	121	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5