Pacific Gas and Electric Company®

Application Development Project Complexity and Sizing Worksheet

Date Checklist Completed:	6/29/2009
ITWR # (if applicable):	
Proposal Description:	Smart Grid Infrastructure
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

Legend: Enterable/Modifiable; Overwritten; Not Updatable; Default Value

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	500	Significant IT efforts	3
3	How many 3rd party vendor firms will provide services for this project?	3 or More	Mult-phased effort	6
4	If the technology is known, has it been successfully implemented before at PG&E?	No	Smart Grid introduces new technologies	9
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	New technology will require new support structures	3
7	What is the level of dependency on other projects (e.g. resources, deliverables, etc)?	High	Coordinatation with ERP, SAP and CC&B	3
8	Will the system exchange or provide data to any entities outside of PG&E (suppliers, customers, regulatory agencies, etc)?	Yes	Smart Grid introduces new communications opportunities	6
9	What is the level of criticality of the system to the users and PG&E customers?	Business Important	Emerging technology	9
10	How many internal PG&E users will be impacted by this project?	101-500	Initial efforts, pilots etc.	6
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	6
			TOTAL SCORE:	75

Additional Notes & Assumptions:

Utilize advanced "business process management" technologies to automate core SmartGrid processes. Data retrieval and delivery to applications and Data Storage Devices

Pacific Gas and Electric Company

Application Development Preliminary Project Costing Checklist

Legend
Enterable/Modifiable
Overwritten
Not Updatable
Default Value

Date Checklist Completed:	8/29/2009
ITWR # (if applicable):	0
Proposal Description:	Smart Grid Infrastructure
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	$996.28	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) LOW	MID	HIGH	PRELIMINARY COST 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)		375	500	625	$413,728	$551,634	$689,543
		Default Calculated Labor Days:	375	500	625	$413,728	$551,634	$689,543
PG&E BUSINESS	% of App Dev Labor							
PG&E Business Labor	20%	(Default = 20% of App Dev Labor)	75	100	125	$93,347	$124,463	$155,579
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)	188	250	313	$206,863	$275,817	$344,771
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)	113	150	188	$124,118	$166,490	$208,863
		LABOR DAYS SUBTOTAL:	750	1,000	1,250	$838,053	$1,117,404	$1,396,756
		Project Complexity and Size Factor:	225	300	375	$251,416	$335,221	$419,027
		TOTAL LABOR DAYS:	975	1,300	1,625	$1,089,469	$1,452,625	$1,815,782

Cost Planning CoE
Preliminary Application Development Project Cost Checklist

Application Development Preliminary Project Costing Checklist

Default Value

Date Checklist Completed:	5/29/2009
ITWR # (if applicable):	0
Proposal Description:	Smart Grid Infrastructure
Client Portfolio Lead:	0

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)	$300,000	$450,000	$600,000
System/Data Availability and Recovery	(Default Based on System Criticality and Data Protection/Retention Requirements)	$225,000	$337,500	$450,000
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)	Smart Grid Technology	$45,000,000	$50,000,000	$55,000,000
	COST SUBTOTAL:	$45,546,250	$50,815,125	$56,084,000
	Project Complexity and Size Factor:	$13,663,875	$15,244,538	$16,825,200
	TOTAL HARDWARE, MATERIALS, AND OTHER COSTS:	$59,210,125	$66,059,663	$72,909,200

TOTAL PRELIMINARY PROJECT COST:	LOW	MID	HIGH
	$60,300,000	$67,512,000	$74,725,000