


Project Complexity and Sizing

	A	B	C	D	I	K	N	O	P
1									
2		<b>Pacific Gas and Electric Company</b>							
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4									
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6		<b>Application Development Project Complexity and Sizing Worksheet</b>							
7									
8									
9		Date Checklist Completed:	3/1/2009						
10		ITWR # (If applicable):							
11		Proposal Description:	Learning Management						
12		Client Portfolio Lead:	Brent Altman						
13		Anticipated Start Date of Project (MM/DD/YYYY):	1/1/2009						
14		Anticipated End Date of Project (MM/DD/YYYY):	12/31/2010						
15									
16	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.								
17	<b>#</b>	<b>CRITERIA</b>	<b>RESPONSE</b>	<b>ASSUMPTIONS</b>	<b>SCORE</b>				
18	1	Expected duration of the project (in weeks):	104	(Calculated Based on Anticipated Start/End Dates, above)	4				
19	2	Anticipated ISTS Application Development Labor Days			FALSE				
20	3	How many 3rd party vendor firms will provide services for this project?	1-2	(Please Enter An Assumption)	4				
21	4	If the technology is known, has it been successfully implemented before at PG&E?	Yes	(Please Enter An Assumption)	6				
22	5	How well are the Requirements for this proposal known by the Business (have the Requirements been documented)?	High	(Please Enter An Assumption)	3				
23	6	Is there a pre-existing PG&E support group to maintain/support the application?	Yes	(Please Enter An Assumption)	2				
24	7	What is the level of dependency on other projects (e.g. resources, deliverables, etc)?	Low	(Please Enter An Assumption)	1				
25	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				
26	9	What is the level of criticality of the system to the users and PG&E customers?	Business important	(Please Enter An Assumption)	9				
27	10	How many internal PG&E users will be impacted by this project?	>500	(Please Enter An Assumption)	9				
28	11	What is the anticipated amount of formal training that will be required for PG&E users?	Medium	(Please Enter An Assumption)	6				
29	12	How many PG&E Lines of Business (LOBs) will be impacted by the project?	4 or More	(Please Enter An Assumption)	9				
30					<b>TOTAL SCORE:</b>	<b>57</b>			

## Project Complexity and Sizing

**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.

**Project Complexity and Sizing**

**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



Legend	
	Enterable/Modifiable
	Overwritten
	Not Updatable
	Default Value

**Application Development Preliminary Project Costing Checklist**

Date Checklist Completed:	3/1/2009
ITWR # (if applicable):	0
Proposal Description:	Learning Management
Client Portfolio Lead:	Brent Altman
Anticipated Start Date of Project (MM/DD/YYYY):	1/1/2009
Anticipated End Date of Project (MM/DD/YYYY):	12/31/2010

		Weight
PG&E ISTS Labor Blended Daily Rate per Resource	\$941.16	70%
External ISTS Labor Blended Daily Rate per Resource	\$1,481.62	30%
<b>COMBINED ISTS BLENDED DAILY RATE PER RESOURCE</b>	<b>\$1,103.27</b>	
		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%
<b>COMBINED BUSINESS BLENDED DAILY RATE PER RESOURCE</b>	<b>\$1,244.63</b>	

**APPLICATION DEVELOPMENT LABOR**

PRIMARY COST CRITERIA	COMMENTS / ASSUMPTIONS	PRELIMINARY EFFORT (DAYS)			PRELIMINARY COST		
		LOW	MID	HIGH	LOW	MID	HIGH
<b>ISTS APPLICATION DEVELOPMENT</b>							
ISTS Application Development Labor Days (Project Management through Service Introduction/Deployment), including Middleware, Integration, Configuration, etc.	(You Must Enter An Assumption)	1,200	1,500	1,800	\$1,323,922	\$1,654,902	\$1,985,882
	Default Calculated Labor Days:	0	0	0	\$1,323,922	\$1,654,902	\$1,985,882
<b>PG&amp;E BUSINESS</b>							
PG&E Business Labor	20% of App Dev Labor (Default = 20% of App Dev Labor)	240	300	360	\$298,712	\$373,390	\$448,068
<b>TECHNICAL ARCHITECTURE</b>							
Technical Architecture Labor Days (Analyze/Design/Build/Test) for Development, Execution, and Operations environments necessary to support the Application.	30% of App Dev Labor (Default based on Number of Users Impacted)	360	450	540	\$397,176	\$496,471	\$595,785
<b>USER TRAINING &amp; PERFORMANCE SUPPORT</b>							
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% of App Dev Labor (Default based on Anticipated Amount of Formal User Training)	240	300	360	\$264,784	\$330,980	\$397,176
<b>LABOR DAYS SUBTOTAL:</b>		2,040	2,550	3,060	\$2,284,594	\$2,855,743	\$3,426,891
Project Complexity and Size Factor:		408	510	612	\$456,919	\$571,149	\$685,378
<b>TOTAL LABOR DAYS:</b>		<b>2,448</b>	<b>3,060</b>	<b>3,672</b>	<b>\$2,741,513</b>	<b>\$3,426,891</b>	<b>\$4,112,270</b>

**Application Development Preliminary Project Costing Checklist**

Default Value

Date Checklist Completed:	3/1/2009
ITWR # (if applicable):	0
Proposal Description:	Learning Management
Client Portfolio Lead:	Brent Altman

**HARDWARE LABOR, MATERIALS, AND OTHER COSTS**

PRIMARY COST CRITERIA	COMMENTS / ASSUMPTIONS	PRELIMINARY COST		
		LOW	MID	HIGH
<b>INFRASTRUCTURE</b>				
Hardware, Network, etc Costs (includes Labor)	(Default based on User Impact)	\$800,000	\$1,050,000	\$1,300,000
System/Data Availability and Recovery	(Default Based on System Criticality and Data Protection/Retention Requirements)	\$600,000	\$787,500	\$975,000
<b>USER TRAINING</b>				
User Training Materials Costs	(Default Based on Anticipated Amount of Fomal User Training)	\$300,000	\$600,000	\$900,000
<b>MISCELLANEOUS COSTS</b>				
Miscellaneous/Additional Costs (Licensing, Overheads - Facilities Costs, Telephony, etc)	Temporary Training Equipment Lease	\$50,000	\$250,000	\$450,000
<b>COST SUBTOTAL:</b>		<b>\$1,750,000</b>	<b>\$2,687,500</b>	<b>\$3,625,000</b>
Project Complexity and Size Factor:		\$350,000	\$537,500	\$725,000
<b>TOTAL HARDWARE, MATERIALS, AND OTHER COSTS:</b>		<b>\$2,100,000</b>	<b>\$3,225,000</b>	<b>\$4,350,000</b>

<b>TOTAL PRELIMINARY PROJECT COST:</b>	<b>LOW</b>	<b>MID</b>	<b>HIGH</b>
	<b>\$4,842,000</b>	<b>\$6,652,000</b>	<b>\$8,462,000</b>

Project Start Date	Project End Date	work effort in days	duration in days	PM %	PM Days	Plan thru Deploy Days
1/1/2009	12/31/2010	3,672	729	10%	367	3,305

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	1/1/2009	12/31/2010				367			522
Plan	1/1/2009	2/28/2009	1-5%	8%	8%	264	8%	58	42
Analyze	2/28/2009	5/12/2009	5-10%	10%	10%	330	10%	73	52
Design	5/12/2009	10/5/2009	15-35%	20%	20%	661	20%	146	105
Build	10/5/2009	5/11/2010	25-60%	30%	30%	991	30%	219	157
Test	5/11/2010	10/4/2010	10-25%	20%	20%	661	20%	146	105
Deploy	10/4/2010	12/31/2010	3-5%	12%	12%	397	12%	87	65
				100%	100%	3672	100%	729	

Roles	resource pools:	Percentage Total	Workday Total
		100.0%	3672
		100.0%	264
		100.0%	330
		100.0%	661
		100.0%	991
		100.0%	661
		100.0%	397

		<b>FTEs</b>														
	various	various	various	Env CoE	various	Software QA	DBA CoE	SP&A	Infrastructure	various	Env CoE	Env CoE	various	Business	Deployment CoE	
	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 FTEs (rounded to the nearest .5 fte)
	3.0	0.5	1.0	-	2.0	3.0	0.5	1.5	1.0	1.0	0.5	0.5	-	2.0	3.5	0.5
	3.0	0.5	1.0	-	2.0	3.0	0.5	1.5	1.0	1.0	0.5	0.5	-	2.0	3.5	3.0
	1.5	-	0.5	-	0.5	0.5	-	-	1.0	1.0	0.5	-	-	2.0	-	2.0
	1.0	-	0.5	-	2.0	1.0	0.5	-	0.5	0.5	-	-	-	2.0	-	2.0
	-	-	0.5	-	0.5	3.0	0.5	-	0.5	0.5	-	-	-	1.5	-	3.0
	-	-	0.5	-	-	-	0.5	-	-	0.5	-	0.5	-	0.5	3.5	3.5