Global Metals PLCP

Project Life Cycle Process
for
Excellence in Project Execution and Engineering Quality

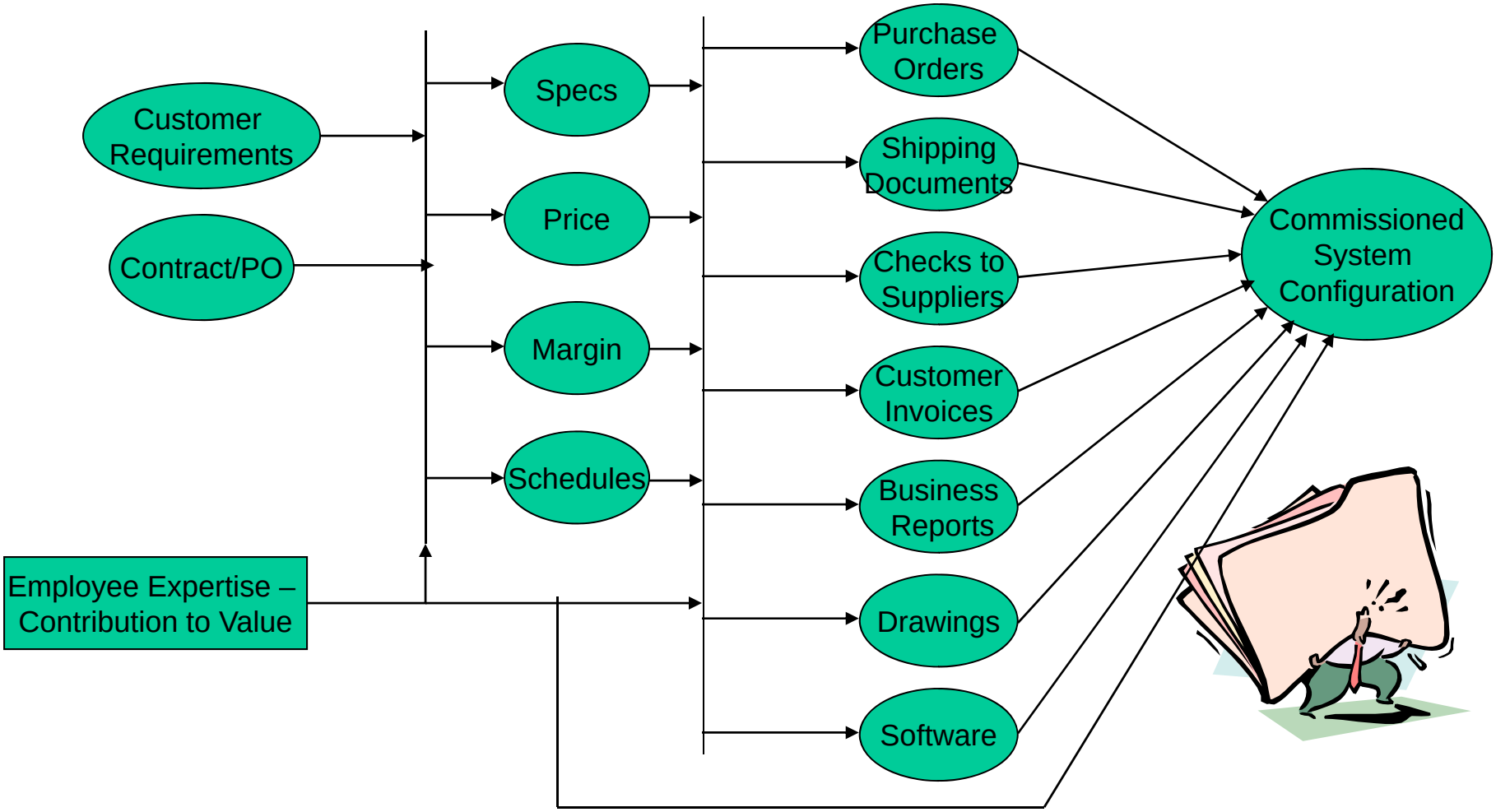
TMEIC Corporation Mission

Deliver Customer Success
..... Every Project
.....Every Time

With Our Commitment

Deliver Business Success
..... Every Project
.....Every Time

Information Handoffs Critical to Project Execution



Requirements for Project Execution Success

- Risk Management – Risk Abatement Plan
- Project Management – PLCP Checkpoints
- Engineering Quality – Design Reviews

Project Risk Assessment & Abatement

- Used for significant project risks to cost, schedule, performance or technical success.
- Risk identification is started during the ITO phase by sales manager listing known risk items.
- Assessment of Customer and Business risk is done in preparation for Project Kickoff
- Risk Abatement Plan is combined with the risk assessment which will eventually be used for determining approval levels.
- Item stays on RAP until project manager is satisfied that the risk is reduced sufficiently.
- Follow up actions can be included on project punch lists once the item is removed from the RAP.

Pre-shipment Certification Risk Assessment

Note: If Customer Risk or Business risk > 6 total OR if more than 1 High level risk item is selected, BU Engineering Leader is required for Pre-Shipment Certification approval

	(x)	High Risk (3)	(x)	Medium Risk (2)	(x)	Low Risk (1)		
Importance to customer	x	Critical to Plant Operation.		Significant Loss of Production possible but not mill shutdown		Nominal Impact, Alternat or backup available		
Customer History		Bad Past Experience with GE, Toshiba or JV		Indifferent or First Time customer	x	Good past relationship		
Customer Importance to Business		Strategic to Market Share	x	Important, Repeat customer, significant to market share		Nominal impact on market share		
Impact on Society		Explosion, Pollution or Utility loss risk	x	Employment risk		Little to none		
Customer Capability		Unable to maintain or repair		Basic Cabability & Service available.	x	Seft Sufficient		
Customer Risk	**3**		**4**		**2**		**9**	**Total Customer Risk**
Size of Order		>= 5% BU Annual Rev Budget ($2.5M)	x	>=1% BU Annual Rev Budget and <5% ($0.5-5M)		<1% ($0.5M) BU Annual REV Budget		
System Maturity		Major NPI or NSI required or significant new application or market	x	Primary system & product design have been used before. New subsystem or component		Uses Stable products & designs		
Level of Revamp	x	Requires shutdown & removal of existing control		Requires shutdown. Switchback or bypass possible		Greenfield or no impact on current operations		
Project Staffing/Schedule		Significant Resource Gap - Requires new personnel	x	Tight Schedule. Inexperienced resource in key positions		Fully staffed with relatively experienced resource		
Equipment Supplier		Major supplier is new or has past history of poor quaility	x	Schedule requires shorter than normal cycle time or project requires unusual process with supplier		Fits normal cycle times with experienced suppliers		
Business Risk	**3**		**8**		**0**		**11**	**Total Business Risk**

Risk Identification and Abatement Plan

Worksheet Version 5.2

Project No. 8112
Prj Name Cosipa No2 HSM
Customer MH & TMEIC / Usiminas-Cosipa
Date Reviewed February 13, 2009

		Total RAP Score				40.00						
Item #	Risk Item	Probability of Occurance	Consequence of Risk			RAP Score	Risk Class	* Risk Type	** Date(s)	Item Owner	*** Resource Owner	Abatement Strategy
	L2 & Models by TMEIC-JP	(3) Probable	(2) Manageable	3	2	6	SW Engr	P,T		Mody, Snyder,Gepitulan	Fisk,Tainer	Tests and documentation necessary to ensure clear communication.
	Coordination between TMGAI and TMEIC commission groups	(3) Probable	(2) Manageable	3	2	6	Startup	P,T		Site Lead	Maia	Clarify with TMEIC. Also have regular meetings at site.
	RX3i Hart protocol	(3) Probable	(2) Manageable	3	2	6	New Prod/Design	T,S		Gepitulan	Tainer	System test
	nV-series Controler	(2) Possible	(2) Manageable	2	2	4	New Prod/Design	T,S		Gepitulan	Tainer	System test
	warranty terms	(2) Possible	(2) Manageable	2	2	4	Other	C		Site Lead, Durmaz	Maia, Fisk	Follow contract terms. Inform Post Sales about special contract terms.
	Performance Guarantees	(3) Probable	(2) Manageable	3	2	6	Other	P,T,C		Gepitulan	Tainer, mody,	Coordination with TMEIC. Draw the line between L1 and Models early in the project. Time and material
	Need to follow MH shipment requirements such as their L/C	(3) Probable	(2) Manageable	3	2	0	Other	S		Mody, Johnson	Fisk, Gagnier	Obtain a copy of L/C if there is one
	TMEIC Supplied Computer Shipment issues	(1) Unlikely	(1)Minimal	1	1	0	Other	S,C		Mody, Johnson	Fisk, Gagnier	Clarify the unknowns DDP, Comp. no cost

Legend:

Probability of Occuring

Definitely	*4*
Probably	*3*
Possibly	*2*
Unlikely	*1*
Never	*0*

Consequence

Severe	*4*
Significant	*3*
Manageable	*2*
Mimimal	*1*
None	*0*

Checkpoints – Project Management Quality

Purpose of checkpoint:

- Assess status of items in the risk abatement plan
- Identify new risk items, abatement plans and owners
- Assess the quality and completeness of the project information
- Identify actions required
- Review status of applicable items on a project punch list

Each checkpoint item is rated as follows:

- **OK**, no concerns
- **Action required**, action items included
- **Risk item** - should be added to risk abatement plan
- **Show-stopper** – indicates that the project (or a portion of a project) should be put on hold
- **Not applicable** to this project

Checkpoint Scorecard to be reviewed in Project Review meeting:

- % Items reviewed - indicates whether checkpoint review has been completed
- No. of risk items – details of risk and required actions, owners and dates are to be included in Risk Abatement Plan
- No. of action items - details of which are to be included in appropriate punch-lists
- No. of show-stoppers – indicates a serious problem exists.

Design Reviews – Engineering Quality

Purpose of Design Review:

- Assess and communicate status and schedule of technical information to begin next phase of engineering
- Identify technical risks, abatement plans and owners
- Assess the completeness and quality of the design of the previous (completed) phase
- Identify actions required & assign to owner

Each checkpoint item is rated as follows: (Same as Checkpoints)

- **OK**, no concerns
- **Action required**, action items included
- **Risk item** - should be added to risk abatement plan
- **Show-stopper** – indicates that the project (or a portion of a project) should be put on hold
- **Not applicable** to this project

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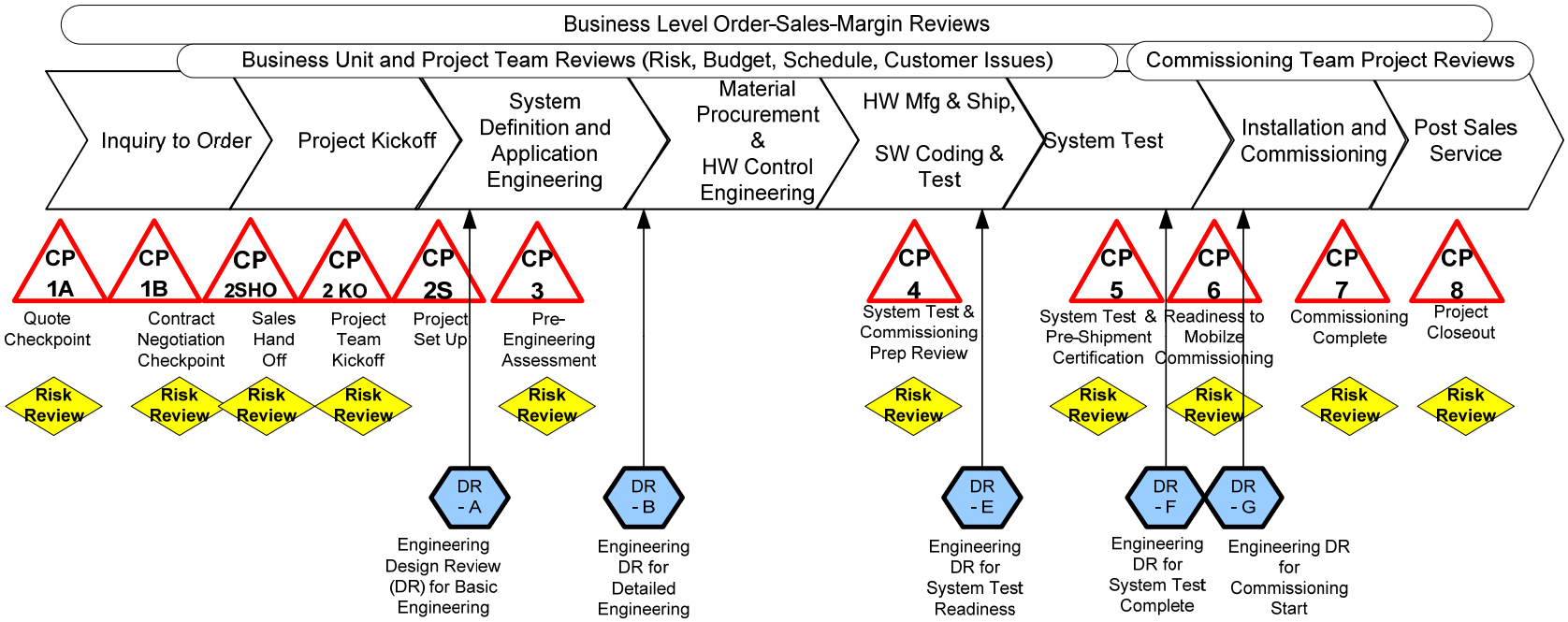
TMEIC PLCP Process For Global Metals



PLCP Goals

- Complement existing good processes
- Capture & enforce best practices where there is a significant variation in quality from job to job
- Provide a means of identifying and assessing risks to the project team and business leadership
- Compliment existing Business Unit review meetings (rather than add another layer of review & meetings)
- Facilitate the assessment of handoffs
- Provide a framework onto which continuous process improvement can be built. – Identify defects-install firewall to prevent recurrence - improve process & tools-monitor process capability & stability
- Apply appropriate level of review and control to all projects and business units

Example of Checkpoint (partial)

TMEIC Corporation
1325 Electric Road, Roanoke, VA 24018

CP3
Pre-Engineering Meeting

PROJECT No.	6718		Worksheet Version	5.2
Description	Dragon Steel HSM		Project Risk Level	HIGH
Customer	TMEIC / Dragon Steel - Taichung		Checkpoint Status	Reviewed
Attendees:			Date Reviewed:	

STATUS (see pick list)	REVIEW POINTS	Due Date	Comments/Action Required	OWNER(S)
100%	Total Reviewed			
3	Action Items			
0	Risk Items			
0	Show Stoppers			
100	GENERAL			
103	OK	Project Scope Review			
104	OK	Project Schedule Review			
106	ACTION	Billing Events based on engineering deliverables defined	6/30/2009		MC
107	OK	Risk Abatement Plan Reviewed	5/6/2009		MC
108	OK	Functional Spec / Definition is documented and agreed to by customer	5/27/2009		MC/GS
109	OK	Any major new piece of vendor equipment		New V-Series	
110	OK	Drawing, Test Report and Witness Test Approvals Defined	6/30/2009		MC
111	OK	Required & Desired Customer Review meetings identified			
112	OK	Customer visits, training, participation scheduled	5/6/2009	Customer on site 6/09	LB/MC
113	OK	Customer visits support planning done	5/22/2009		MC
114	OK	RFQ's received from suppliers are known and available to engineering			
115	NA	Contracted Design / Programming Services Defined			

Current Review Meetings

Project Team Reviews (PM, Engr Team & Team Leads) (Daily – Weekly)

- Contract Deliverable Schedule (Annex of contract)
- PLCP Risk Abatement Plan, Cost, Shipment Status, Punch-list
- PLCP Checkpoint and Design Review Status Reviewed – Use proposed scorecard
- Engineering Design Reviews

BU Project Reviews (PM, Engr Team Leads & Leaders, BU Leaders, PC) (Minimum Monthly)

- Project Milestone & Engineering Schedule Summary
- Customer and Business Issues RAP, Cost, Shipment Status
- PLCP Risk Abatement Plan, Cost, Shipment Status, Punch-list
- PLCP Checkpoint and Design Review Status Reviewed – Use proposed scorecard

BU OSM Reviews (Business, Functional & BU Leaders) (Weekly)

- Significant Risks identified by the PLCP RAP to be included in OSM Risk/Opportunity review

Commissioning Team Reviews (Commissioning & Site Leaders) (Bi-Weekly)

- PLCP Risk Abatement Plan & Checkpoint Status
- Schedule, Cost & Customer Issues

Sr. Mgmt Review of critical projects – approx same as BU Project Review (As needed)

Project Management Summary

TMEIC

EQUIPMENT PROJECT SUMMARY

Tangshan 5m Plate Mill

Project Manager BROWN

Equipment Project 7752
Startup Project 7755
Warranty Project 7754
Business Unit GLOBAL

September 15, 2009

EQUIPMENT	Status
TM-70 Main Drives & Motors -- TMEIC	Engr
TM-10 Auxiliary Drives & Motors - TMIB/Drives	Engr
Auxiliary motors TMGE / storage	Engr
Transformers	Engr
MCC's	Engr
L1 & L2 Computers - TMGE	Engr
nV-Series Controllers - TMGE	Engr
QuickPanels / Senors	Engr
Operator Desks and Stations - TMIB	Engr
Special Cables & Spare Parts	Engr

Status			Sched	Forecast
CMPLT	C	Order Received	4/28/08	4/28/08
CMPLT	-	BDL	3/20/09	3/20/09
-	-	DDL	1/15/10	1/15/10
-	-	FD's & HMI - Prelim	2/1/10	2/1/10
-	-	I/O Schematic Diagrams & Outlines	2/15/10	2/15/10
-	-	Early Window for FOB by Ocean	6/30/10	6/30/10
-	-	AC Drive Schematics (TMIB)	8/1/10	8/1/10
-	-	System Test Begins	10/25/10	10/25/10
-	-	All Equipment FOB by Ocean	11/30/10	11/30/10
-	-	Equipment CIP from Sim Lab	12/31/10	12/31/10
-	-	All Equipment on-site	1/1/11	1/1/11
-	-	Commissioning begins	4/1/11	4/1/11
-	-	Commissioning Acceptance	8/30/11	8/30/11
-	-			

ITEMS OF INTEREST

Project delay negations underway
TMGE requested payment from TMEIC for BDL/DDL work when complete
Motor storage and maintenance for 6 months by GE energy ($44,113.)
Blower replacement motors and installation cost working
New manpower assigned to project (nabu) need to review accuracy of work
Waiting for response from customer on 45% advanced payment (4/29/09) (7/2/09 SMS reminder)
Requesting BDL acceptance will follow requesting additonal payment ($4,2000,000)
Information on intermediate payment not available/ no site chosen for construction
Information from customer expected 1st of September (SMSD)
Project restarted meeting being scheduled

	% Reviewed	Date	Action items	# Risk Items & # Show stoppers
CP2-SH	100%	8/19/08	7	0
CP2-KO	100%	8/19/08	4	0
CP2-PS	100%	8/19/08	4	0
CP3	0%	8/3/09	0	0
DRA-L1	2%	8/3/09	0	0
DRA-L2	0%	8/3/09	0	0
QS-B	0%	9/1/09	0	0
DRB-L1	0%	2/1/10	0	0
DRB-L2	0%	2/1/10	0	0
DRE-L1	51%	10/25/10	0	0
DRE-L2	0%	10/25/10	0	0
CP4	0%	10/25/10	0	0
QS-F	0%	12/1/10	0	0
DRF-L1	13%	12/1/10	0	0
DRF-L2	0%	12/1/10	0	0
CP5	0%	12/1/10	0	0
CP6	0%	4/15/11	0	0
DR-G	0%	4/15/11	0	0
CP7	0%	1/1/12	0	0
CP8	0%	2/1/12	0	0

SOFTWARE & SERVICES	Status
L1 System Functions	Coding
L2 & Model Automation System	Definition
Electrical Contruction Engineering Service	Definition
iFIX	Definition

ISSUES/RISK	Risk Level	HIGH
	RAP Score	
		N/A
TM10 to be replaced with TM10E		8
nV-Series hardware to be used		6
Engineering requirements for shapes sold, not completely understood by engineering. Need more info and commitment		4
Delay with no communication possible cancelation		1
Delay of project payment request responded to by Tangshan		1
Experience of grouping and needs in engineering for this large		8
		N/A
		N/A
		N/A

Variance to As Sold

The cost for project delay estimated cost to TMGE ($217,000) currently seeking larger down payment from customer
PO for motor maintetnance in storage for 6 months ($13,897)

EQUIPMENT Project 7752

	AS SOLD	ACTUAL	FORECAST	
Equip Revenue	$ 17,736,815	$ 17,711,488	$ 17,711,488	
Equipment	$ 8,548,538	$ 4,952,153	$ 8,427,258	
Engineering	$ 2,516,229	$ 457,923	$ 2,534,317	18088.380
Allocations	$ 434,551	$ 1,912	$ 436,463	
Freight	$ 327,905	$ 10,000	$ 327,905	
Risk	$ 1,914,523	$ -	$ 1,914,523	
TAS Subsidy	$ -	$ -	$ -	
Total Equip Cost	$ 13,741,745	$ 5,421,988	$ 13,640,466	
Total Equip CM$	$ 3,995,070		$ 4,071,022	
Total Equip CM%	22.5%		23.0%	
Equip Accrual	$ -	$ -	$ -	

Commissioning Project 7755

	AS SOLD	ACTUAL	FORECAST
Revenue	$ 1,920,000	$ 1,920,000	$ 1,920,000
Cost	$ 1,630,960	$ -	$ 1,630,960
CM$	$ 289,040		$ 289,040
CM%	15.1%		15.1%
Total Order Rev	$ 19,656,815	$ 19,631,488	$ 19,631,488
Total Order Cost	$ 15,372,705	$ 5,421,900	$ 15,271,426
Total Order CM$	$ 4,284,110		$ 4,360,062
Total Order CM%	21.8%		22.2%

Warranty Project 7754

Warranty	$ -	$ -	0.0%

ENGINEERING

UOM Hrs

Description	As Sold Hrs	Current Bud Hrs	Actual Hrs	% Complete	Forecast Hrs
Cust Supp	4800	4800	414	10%	4140
AE	2720	2720	2,579	35%	7369
HW	3040	3040	620	0%	3040
L1 SW	4640	4640	2	0%	4640
HMI	2080	2080	12	0%	2080
L2 SW	3840	3840	312	8%	3900
Models	2240	2240	709	16%	4428
System	3040	3040	744	19%	3913
LEAD ENGR	3360	3360	0	0%	3360
PRJ MGMT	3040	3040	1,205	25%	4820
Total TMGE Engineering	32800	32800	6,596	15.82%	41690

	As Sold $	Current Bud $	Actual Cost $	% Actual to Forecast	Forecast at Complete $
Contract Engr	$ -	$ -	$ 18,088	100.0%	$ 18,088
TMGE Engr	$ -	$ 2,516,229	$ 439,835	17.5%	$ 2,516,229
Total	$ -	$ 2,516,229	$ 457,923	18.1%	$ 2,534,317

Date	Bill Amount	Rev Amount	Billed	Rev'd	Description
10/15/08	3,547,363	0	Y	N	20pc Downpayment
4/30/11	12,393,609	0	N	N	70pc prorata shipment
8/10/11	1,770,516	0	N	N	10pc payment FAC
4/30/11	0	17,711,488	N	N	Revenue Event
1/0/00	0	0	0	0	0
1/0/00	0	0	0	0	0
1/0/00	0	0	0	0	0
1/0/00	0	0	0	0	0
1/0/00	0	0	0	0	0
1/0/00	0	0	0	0	0
1/0/00	0	0	0	0	0

Total	Billed	Un-Billed	Collected	Overdue
17,711,488	3,547,363	14,164,125	3,547,363	0
Forecasted Revenue Date Equipment				4/30/11
Forecasted Revenue Date Commissioning				9/30/12
L/C Received LC134880800522 / LC134880800502				
L/C Expires July 01 2012 /last day of shipment June 30 2011				
L/C Extension				
L/C Requested				

TERMS & PENALTIES

Freight	DDP
Title Txfr:	Refer To Inco Terms
Warranty:	12/52 mths after signed contract
INCO	MUL
Penalty:	EQUIP-DOC-PERFORMANC / See Contract Annex 2

Data updated on: 9/4/09

PLCP for General Industries

- Currently using a small version of PLCP for some GI projects as a test
- Will optimize PLCP to fit GI business processes.
- Investigating the use of SalesForce-dot-com as a tool to help complete CP2 – Sales Handoff at time of order.