



Global Business Services

External Review of Nodal Program PMO Control System

Executive Discussion

Electric Reliability Council of Texas,
Inc. (ERCOT)
Board of Directors Meeting
January 16, 2007

Agenda

Background

Approach

Findings

Recommendations

Background

- IBM Global Business Services is engaged to perform reviews of the Nodal Program Management Office Control System (PMOCS)
- The PMOCS is a process designed to support the PMO in managing and controlling program:
 - ▶ Costs (approved budget)
 - ▶ Scope (approved boundaries and definitions)
 - ▶ Schedule (approved completion timeline)
 - ▶ Results (approved requirements)
- The external review process commenced in September 2006 and will continue to program completion in 2009 with semi-annual progress checks
- Reviews of the PMOCS are in two phases:
 - ▶ An initial review of the PMOCS design (completed in October 2006)
 - ▶ Periodic progress reviews of PMOCS performance (first progress review completed December 28, 2006)

Background

- A PMOCS consists of three interrelated components:
 - Control Environment
 - Control Activities
 - Control Quality Reviews
- The External Reviews being conducted by IBM focus on the Control Activities
- The Control Activities reviews included:
 - **In the initial review:**
 - Evaluation of design completeness for program of this size and complexity
 - Identification of strengths and weaknesses
 - Provision of recommendations for improvement
 - **In the subsequent progress review:**
 - Assessment of the current state of the PMOCS structure
 - Evaluation of program controls performance
 - Provision of recommendations for improvement

Initial Assessment ¹: Nodal Program Control Design compared to Best Practice Control Activities

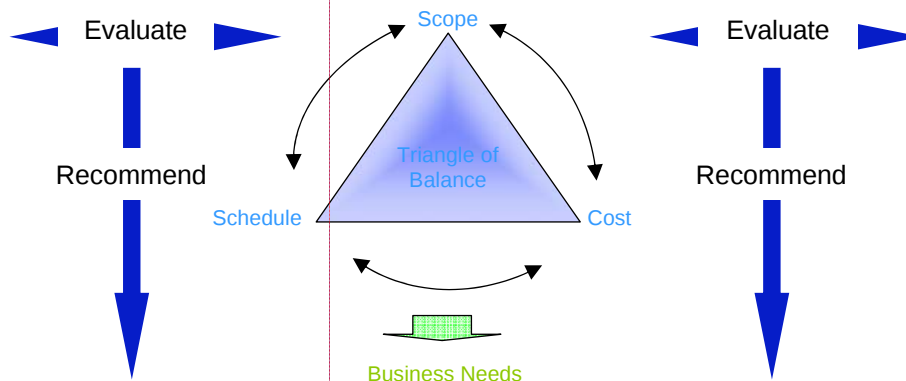
1 PMOCS Best Practices

Control Areas
Program/Project Definition
Sponsor Agreement Management
Change Management
Risk Management
Issue Management
Communications Management
Work Plan Management
Technical Environment Management
Deliverables Management
Organization Management
Tracking and Control
Quality Management
Human Resources Management
Supplier Management

Observations,
Ratings, Strengths
and Weaknesses,
Recommended
Improvements

Control Dimension	Best Practices / Standard	Rating	Comments
Program Initiation	Define program objectives, scope, approach, stakeholders, roles and responsibilities, and risks	0	Unchanged from previous assessment
Program Management	Provides initial approval of program, plan, milestones, handling of program, links to deliverables and change management	0	Unchanged from previous assessment
Change Management	Documented process that addresses Change Control to manage and approve all requirements, resources, etc. as PMO and project level	0	A specific formalization process is being defined to reflect the current state of the project. The project is currently making changes to Protocols. The project is currently using change management certification. There are numerous protocols used and the projects are not all using the same version. The design of the project should lock on a single protocol and use change control to evaluate the impact of subsequent protocols. The implementation of these may have adverse effects on the execution and project

Nodal Program Control Structure



Assessment of action on previous recommendations

Recommendation 4: Provide Consistent Work Plan Structures with More Tracking Information

Description: Operating Procedures 2.4.3 Section 4 describes general content of work plans - the Work Plan Template. The template includes a table for tracking progress. Considerable latitude is allowed to the individual project manager as to how to apply these basic standards. Consequently, in a comparison of plans, we found that the alignment with deliverables, the level of detail, inclusion of start and end dates, and the use of milestones for a project or project level work. We reviewed the standards for work plans to be expanded to require:

- That milestones be included in the work plan and that deliverables in a metrics based estimate, actual and baseline start and end dates be reported so that the baseline early start can be identified estimate early by deliverables
- Resource assignments

Impact: Analysis at a program level becomes more difficult due to the inconsistencies at the project level. The lack of consistency in the work plan makes it difficult to compare work plans and support decision making. Absence of processes to produce comparable work plans increases the level of effort necessary to support the development of work management analysis.

Risk: Medium

Timing: Immediate (No later than February 1, 2007)

Action Plan:

- Complete list of deliverables to determine a common level of measurement.
- Amend requirements of Operating Procedure 2.4.3 to include additional requirements for work plans
- Communicate change in requirements to team.
- Consider inclusion in RUP for reference.
- Apply standards in the current version of Microsoft Project
- Apply standards in PMO to confirm application of standards.

Assessment: Jerry Sullivan

Nodal Program Control Operations

Task ID	Task Name	Task Description	Start	End	Duration	Predecessors	Resources
0	Task 0	Task 0 Description	00/00/00	00/00/00	00:00:00		
1	Task 1	Task 1 Description	00/00/00	00/00/00	00:00:00		
2	Task 2	Task 2 Description	00/00/00	00/00/00	00:00:00		
3	Task 3	Task 3 Description	00/00/00	00/00/00	00:00:00		
4	Task 4	Task 4 Description	00/00/00	00/00/00	00:00:00		
5	Task 5	Task 5 Description	00/00/00	00/00/00	00:00:00		
6	Task 6	Task 6 Description	00/00/00	00/00/00	00:00:00		
7	Task 7	Task 7 Description	00/00/00	00/00/00	00:00:00		
8	Task 8	Task 8 Description	00/00/00	00/00/00	00:00:00		
9	Task 9	Task 9 Description	00/00/00	00/00/00	00:00:00		
10	Task 10	Task 10 Description	00/00/00	00/00/00	00:00:00		
11	Task 11	Task 11 Description	00/00/00	00/00/00	00:00:00		
12	Task 12	Task 12 Description	00/00/00	00/00/00	00:00:00		
13	Task 13	Task 13 Description	00/00/00	00/00/00	00:00:00		
14	Task 14	Task 14 Description	00/00/00	00/00/00	00:00:00		
15	Task 15	Task 15 Description	00/00/00	00/00/00	00:00:00		
16	Task 16	Task 16 Description	00/00/00	00/00/00	00:00:00		
17	Task 17	Task 17 Description	00/00/00	00/00/00	00:00:00		
18	Task 18	Task 18 Description	00/00/00	00/00/00	00:00:00		
19	Task 19	Task 19 Description	00/00/00	00/00/00	00:00:00		
20	Task 20	Task 20 Description	00/00/00	00/00/00	00:00:00		
21	Task 21	Task 21 Description	00/00/00	00/00/00	00:00:00		
22	Task 22	Task 22 Description	00/00/00	00/00/00	00:00:00		
23	Task 23	Task 23 Description	00/00/00	00/00/00	00:00:00		
24	Task 24	Task 24 Description	00/00/00	00/00/00	00:00:00		
25	Task 25	Task 25 Description	00/00/00	00/00/00	00:00:00		
26	Task 26	Task 26 Description	00/00/00	00/00/00	00:00:00		
27	Task 27	Task 27 Description	00/00/00	00/00/00	00:00:00		
28	Task 28	Task 28 Description	00/00/00	00/00/00	00:00:00		
29	Task 29	Task 29 Description	00/00/00	00/00/00	00:00:00		
30	Task 30	Task 30 Description	00/00/00	00/00/00	00:00:00		
31	Task 31	Task 31 Description	00/00/00	00/00/00	00:00:00		
32	Task 32	Task 32 Description	00/00/00	00/00/00	00:00:00		
33	Task 33	Task 33 Description	00/00/00	00/00/00	00:00:00		
34	Task 34	Task 34 Description	00/00/00	00/00/00	00:00:00		
35	Task 35	Task 35 Description	00/00/00	00/00/00	00:00:00		
36	Task 36	Task 36 Description	00/00/00	00/00/00	00:00:00		
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38	Task 38	Task 38 Description	00/00/00	00/00/00	00:00:00		
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68	Task 68	Task 68 Description	00/00/00	00/00/00	00:00:00		
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81	Task 81	Task 81 Description	00/00/00	00/00/00	00:00:00		
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91	Task 91	Task 91 Description	00/00/00	00/00/00	00:00:00		
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93	Task 93	Task 93 Description	00/00/00	00/00/00	00:00:00		
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98	Task 98	Task 98 Description	00/00/00	00/00/00	00:00:00		
99	Task 99	Task 99 Description	00/00/00	00/00/00	00:00:00		

Testing of Nodal
Program controls,
Interviews and, meeting
participation

Observations, Ratings and Recommended Actions

Findings – Control System Structure

Operational Condition of Nodal
Program Control System:

Partially in development

Ratings Scale:

- o Meets Best Practices Standard
- > Exceeds Best Practices Standard
- < Less than Best Practices Standard

Structure Ratings Table

Control Dimension	Description	Rating	Comments
Program/Project Definition	Program objectives, scope, costs and risks.	o	Unchanged from previous assessment
Sponsor Agreement Management	Process that provides approval and engagement	o	Unchanged from previous assessment
Change Management	Process that addresses Change Control	o	Prioritization process in development
Human Resource Management	Process for hiring, firing, on-boarding, training, etc.	Not Evaluated	n/a
Supplier Management	Process provides key terms for suppliers' contracts	Not Evaluated	n/a
Risk Management	Process for consolidated risk management plan	<	A single data base and improved definitions needed
Issue Management	Process for managing program issues	<	Lack of integration limits visibility
Communications Management	Process for program communications	o	Unchanged from previous assessment
Work Plan Management	Process for project and program management schedules	<	More information needed in the plans; metrics model needed
Technical Environment Management	Process for tools for the program including technical environments	>	Configuration management in development
Deliverables Management	Process for acceptance criteria, approval, and checkpoints for program deliverables.	o	Effective process put in place includes enhancements to original design
Organization Management	Process for appropriate PMO guidance, structure & resourcing	<	Enhance PMO to reflect current lifecycle stage of program.
Tracking and Control	Documented for tools, reports, methods to track program (includes cost planning)	>	Unchanged from the previous assessment
Quality Management	Documented for quality control of PMOCS.	o	Unchanged from the previous assessment

Findings – Control System Performance

Operational Condition of Nodal
Program Control System:

Partially Effective

Ratings Scale:

- o Meets performance expectations
- > Exceeds performance expectations
- < Less than performance expectations

Performance Ratings Table

Control Dimension	Rating	Comments
Program/Project Definition	o	Operating as designed
Sponsor Agreement Management	<	Not yet fully engaged - IT and Business
Change Management	<	Completion of impact assessment assessment
Human Resource Management	Not Evaluated	n/a
Supplier Management	Not Evaluated	n/a
Risk Management	<	Not up to date
Issue Management	<	Not up to date
Communications Management	<	More cross project and program integration communications
Work Plan Management	<	Consistency of application
Technical Environment Management	>	Configuration management process being developed
Deliverables Management	o	Operating as designed
Organization Management	o	New Program director; org under review
Tracking and Control	<	Cost contingency is low, regular forecasting required.
Quality Management	o	Operating as designed

Recommendations

Recommendation	Impact	Risk	Action	Timing
Modify role of PMO	Greater guidance improves performance; structure to support.	High	Enhance PMO structure and guidance based on Program stage	1 st Quarter
Update estimate and contingency	Improved accuracy and understanding of estimate drivers	High	Develop metrics for each project; consider higher contingency	1 st Quarter
Engage internal stakeholders in Nodal Program	More effective design and easier transition process	High	Actively engage IT and Business Owners	1 st Quarter
Modify tools for Issue and Risk Management	Increased visibility of common trends	Medium-High	Single Database; improved reporting	1 st Quarter
Improve content and consistency of work plans	Improved understanding of progress	Medium-High	Additional data required; adhere to policy	1 st Quarter
More timely completion of impact analysis in Change Requests	Delays decision making	Medium	Clear backlog in preparation for next program phase	1 st Quarter