COAA Industry Benchmarking

If you are not keeping score you are just practicing
COAA Industry Benchmarking Committee Members

- Don Mousseau, Suncor Energy Inc.
- Steve Revay, Revay and Associates
- Lea Chambers, Golder Associates Ltd.
- Bob Montgomery, Colt Engineering
- Larry Sondrol, Suncor Energy Inc.
- Dave Williams, Bantrel
- Patricia Armitage, Alberta Employment
COAA Industry Benchmarking

Committee Members (con’t)

- Richard Haack  Shell Canada
- Warren Rogers  Flint Energy
- Lubo Iliev    Bantrel
- Greg Taylor  Nexen
- Korey Jackson  Stantec
OBJECTIVES

- Identification of COAA metric requirements
- Development of a custom benchmarking questionnaire, and tailored to the characteristics and environment of the COAA projects
- Establishment of a set of benchmarks for the Alberta projects using this questionnaire
- Documentation of COAA project performance against the Alberta benchmarks
- Identification and documentation of factors and practices impacting project performance
Project Phases

- Phase I: Metric and report definition.
- Phase II: Program data collection instrument and report.
- Phase III: Conduct onsite training and commence data collection.
- Phase IV: Collect and validate data, perform analysis, develop an Alberta data set for benchmarking, and prepare project and company reports.
- Phase V: Prepare Alberta Report documenting performance and quantifying the impacts of local factors on productivity and performance metrics.
COAA Industry Benchmarking

The following companies registered for the training:

- Shell
- Suncor Energy
- Opti Canada Inc.
- Imperial Oil Resources
- Petro-Canada (Oil Sands)
- Flint Energy Services
- Jacobs Canada Inc.
- Bantrel Inc.
- Canadian Natural Resources Ltd.
- Husky Energy
- Nexen
- Enbridge Pipelines
- Tri- Ocean Engineering
- Colt
Benefits of Benchmarking
Using Benchmarking to Improve Project Performance

- Review project drivers early on.
- Identify Best Practices to support goals.
- Initiate questionnaire at project sanction:
  - Enter general info, participant data, budget, target schedule and planned use of practices.
- Enter project closeout data and submit project.
- Use reports as part of project post mortem exercise for continuous improvement.
Monitor Project Performance

- The Confidential Online Key Report:
  - Is a “tool for self analysis”
  - Assesses your performance against the database.
  - Is pre-programmed to compare with similar projects.
  - Can assist you in identifying performance problems.
  - Can help you locate sources of problems.
The Value of Benchmarking

- **Improves** project & company performance when used as an ongoing measure.

- **Establishes** improvement goals based on external/competitive benchmarks.

- **Enables** your company to understand & achieve “best in class” performance.
**Performance Metrics**

- **Cost**
- **Schedule**
- **Safety**
- **Change**
- **Rework**

**Engineering Productivity**
(Design Hours/IFC Quantities)

**Construction Productivity**
(Work-Hours/Installed Quantities)

**Estimating Performance**
(Actual / Estimated Productivity)
(Actual / Estimated Total Installed Unit Cost)
Benchmarking Associate Training
Join Us Now!

COAA Benchmarking Associate Training

Next session: Web-based Training
→ June 20, 2007 @1pm - 5pm Mountain Daylight Savings Time

To register, please send an e-mail to
Deborah DeGezelle [debdeg@mail.utexas.edu]
Online Benchmarking System

Remote Data Entry

COAA Database

Project Reports

Industry Analysis
COAA Industry Benchmarking

- Projects will be Benchmarked twice in the life cycle:
  - At Project Sanction or AFE
  - At Mechanical Completion

- The Questionnaire has been adapted to Alberta Projects to reflect our standards and typical metrics.

- Questionnaires are on web site
The CII Benchmarking & Metrics program is a user-friendly, resource-efficient, statistically credible benchmarking system that provides quantitative data essential for the support of cost/benefit analyses.

Participants input their capital facilities project data into the Benchmarking online system, Project Central, and then assess their projects and company performance in real-time. Once data is entered, project performance is compared against a large sample of projects from some of the industry's most reputable firms.

Potential for improvement and actual cost savings can be quantified supporting further company self-analysis and improvement programs.

How can my company get involved in CII Benchmarking?
# Key Results

**Owner Project Key Report**  
Testco  
COMPANY CONFIDENTIAL  
12-Feb-06

## Project General Information

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Testco</th>
<th>Imperial / Metric</th>
<th>Metric</th>
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<tr>
<td>Project Name</td>
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<td>Heavy Industrial</td>
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<td>Project I.D.</td>
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<td>Overall Project Duration</td>
<td>240 Weeks</td>
<td>Project Driver</td>
<td>Schedule</td>
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<td>Design-Startup Duration</td>
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<td>Product Capacity</td>
<td>50,000 BOE / Day</td>
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<td>Historical Cost Index</td>
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## Key Results

**Testco**

**COMPANY CONFIDENTIAL**

### Actual Construction Productivity

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<th>Metric</th>
<th>Wk-Hrs</th>
<th>Installed Quantity</th>
<th>Unit Rate</th>
<th>Database Mean</th>
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<td>Elevated Slabs/ On Deck (CM)</td>
<td>25,117</td>
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<td>Area Paving (CM)</td>
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<td>0</td>
<td>N/A</td>
<td>DS</td>
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<tr>
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<td>Total Slabs (CM)</td>
<td>25,117</td>
<td>5,791</td>
<td>4.34</td>
<td>6.28</td>
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<td>Total Installed Unit Cost ($/ CM)</td>
<td>520</td>
<td>500</td>
<td>1.04</td>
<td>1.30</td>
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</table>

### Foundations

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Note: The table includes productivity metrics for different construction activities, including slabs and area paving, with actual and estimated costs and unit rates.
Key Milestones

- COAA and the Construction Industry Institute reached agreement to develop a “Made in Alberta” Benchmarking Program

- Government of Alberta agreed to fund 50% of the $300,000 project cost

- Data has been or is being entered on 30 projects

- Training of 16 companies
  - 9 Owners
  - 7 Contractors
  - 69 Individuals
How to Participate?

Contact The Benchmarking Committee

- Steve Revay (Chair) sorevay@revay.com
- Don Mousseau (Chair) dmousseau@suncor.com
Benchmarking Workshops

12:45 – 2:00 Salon 8
2:30 - 4:00 Salon 8

- Larry Sondrol will be discussing the practical aspects of completing the questionnaire including the tools that have been developed to make the process simpler

- Dr. Steve Thomas of CII will be discussing the output from Benchmarking and current trends in benchmarking

Visit our Booth to Learn More!