

Price-To-Win (PTW) A Cost Estimator's Perspective

Bob Hunt/Tom Sanders/Jon Kilgore
May 2013

Dulos, Inc.
Exceptional Service



PTW and CAIV

- Price-To-Win in the commercial sector is very similar to Cost As an Independent Variable (Design-to-Cost) in the Government sector
- From a commercial perspective it is:
Not $\text{Cost} + \text{Fee} = \text{Price}$
But Rather $\text{PTW} - \text{Fee} = \text{Price}$
- The bad news is, this concept is sometimes ignored in both sectors

Dulos, Inc.
Exceptional Service

Integrity – Innovation – Excellence - Civility



What is Price To Win

- Price To Win is a **strategic assessment** of what price will **win** the bid based on an assessment of the competition, the contract environment (LPTA, Best Value, Technical Excellence (sections L&M from the RFP), and probable Government funding
- Price To Win is not a life cycle cost estimate – although some RFPs require a maintenance cost estimate be included
- Price To Win is not a proposal pricing exercise – not an engineering build up estimate

Dulos, Inc.
Exceptional Service

Integrity – Innovation – Excellence - Civility



What is Price-To Win

- A structured and ethical, model-based approach
- PTW analysts integrated with the proposal team to form a multi-functional approach to assess critical, qualitative, and best value questions to arrive at anticipated bid prices and strategies of major competitors
- Data is collected from publicly available sources including:
 - Solicitation documentation
 - Federal budget information
 - Articles/press releases
 - User requirements
 - FOIA debriefing material
- These data determine a general price differential among competitors
- Information is exchanged between the proposal team's technical, management, cost, and contracting members
- Build a model to address each customer requirement and quantify this requirement in terms of value (cost and schedule) to the customer

Dulos, Inc.
Exceptional Service

Integrity – Innovation – Excellence - Civility



PTW is a Part of Proposing to Win

- Take nothing for granted
- Have a plan and follow it
 - Respond to the RFP – use an evaluation matrix (sections L, M, SPW (PWS), Specifications) (sell them what they want to buy)
 - Identify themes (including “ghosts”)
 - Substantiate all claims
- Do a Price-To-Win analysis before you start (ideally done before the RFP)
- Build in quality at the start
- Establish a firm schedule

Dulos, Inc.
Exceptional Service

Integrity – Innovation – Excellence - Civility



Four Steps of a PTW Analysis

Four steps underlying the strategy are:

1. Know what the Government Client wants (as defined in the RFP)
2. Know what the Government Client can afford to/is willing to pay
3. Know what the competition will likely bid
4. Assess your clients bid – Review the estimate, perform an independent estimate, review the BOEs, or all of the above

Dulos, Inc.
Exceptional Service

Integrity – Innovation – Excellence - Civility



Balance Wants and Costs

- A subtle and particularly troublesome problem, especially in high technology projects, is lack of balance between the customer's perceived value of (i.e., importance of, desire for) design features and the cost of these features.
- This problem is quite common. It can result in a risky, volatile project that has a high probability of failure; often defined by cost growth rather than program cancellation

Dulos, Inc.
Exceptional Service

Integrity – Innovation – Excellence - Civility



PTW Includes

- An analysis of the requirement as defined in the RFP
- An assessment of what the purchasing agent/Government agency is willing to pay,
- An assessment of who the competitors are and what they are likely to bid/"invest" to win, and
- An independent assessment of the clients internal proposal in the form of a red team of the estimate, a truly independent estimate, or estimating support and BOE assessments

Dulos, Inc.
Exceptional Service

Integrity – Innovation – Excellence - Civility



Key Points about PTW Analyses

- All data sources are unclassified – no industrial espionage is involved
 - No access to “special” data
 - Honor NDAs
 - All OCI provisions apply
- The best source of current financial data is often from one of the federal marketing sources – Input, Fed Sources, FedBizOps, ... (Independent Gov Cost Estimators seldom go here) - these data come from Freedom of Information Act (FOIA) requests)
- Attending the relevant NDIA events is a great place to gather open source intelligence.
- Open source PM/PEO briefings also hold a wealth of useful data
- An assessment of RDT&E (PEs) and Procurement (SSN) accounts bound the problem

Dulos, Inc.

Exceptional Service

Integrity – Innovation – Excellence - Civility



Labor Rate Assessment from INPUT

	Labor Category Title	Contract	Most Likely	Contract	Most Likely	Contract	Most Likely	Contract	Most Likely	Contract	Most Likely	Contract	Most Likely	Average
	System Engineer	AIR FORCE NETWORK CENTRIC SOLUTIONS	\$152.54	GSA SCHEDULE 70 - IT EQUIPMENT, SOFTWARE AND SERVICE	\$120.02	GSA SCHEDULE 70 - IT EQUIPMENT, SOFTWARE AND SERVICE	\$130.42	GSA SCHEDULE 70 - IT EQUIPMENT, SOFTWARE AND SERVICE	\$169.78	DODIIS INTEGRATION AND ENGINEERING SUPPORT CONTRACT III	\$135.29	LOGISTICS WORLD WIDE	\$106.31	\$135.72
	Technician	ENGINEERING TECHNICAL SERVICES SUPPORT	\$33.60	ENGINEERING TECHNICAL SERVICES SUPPORT	\$55.36	EQUIPMENT, SOFTWARE AND SERVICE	\$56.67	MILLENNIA	\$61.00	ACQUISITION AND SUPPORT FOR WORLD WIDE ENDUSER REQUIREMENTS	\$60.72	GSA SCHEDULE 871 - PROFESSIONAL ENGINEERING SERVICE	\$35.34	\$50.45

Labor rate data needed to be normalized just like other cost data needed to

Dulos, Inc.
Exceptional Service

Integrity – Innovation – Excellence - Civility



A High Risk/High Reward Environment

Some Personal Examples

- Heavy Assault Bridge – got too close to the customer's internal estimate and was sent home
- Digital Radio – thrown out of the room because I said they were bidding more than the client could afford
- Military Air Cushion Vehicle Engines – showed the competitor approach had a lower O&S tail – told I was “wrong”

More success than failures, but the failures were painful - even if I was right (Kind of like being a Government Independent Cost Estimator)

Dulos, Inc.
Exceptional Service

Integrity – Innovation – Excellence - Civility



What the Government Wants is not what they always ask for

- You might be shocked how often the bidder did not read the requirement as defined in the RFP but instead bid what they thought the client wanted or what they thought was “a great idea”
- Map directly to sections L&M of the RFP
- Get close to your customer/requirement early enough to help shape the requirements and stay close prior to the “Black Out Period”
- Create a weighted list of customer wants, and update it as necessary; be sure everyone on the project team has a copy
- Conduct and document trade studies

Dulos, Inc.
Exceptional Service

Integrity – Innovation – Excellence - Civility



What the Government Will Pay

- You can seldom find a clean budget line to map to the requirement
- However an assessment of the appropriate PE and SSN (RDT&E and PROC) accounts give a clear upper limit – good PTW analysts have been following the appropriate budget lines and understand the trends prior to an RFP
- Be sure that the principal wants of the customer (as defined in the RFP) and the corresponding costs are not grossly out of balance – that is sometimes the case – be prepared to walk away or take a risk
- If your customer is making or tending toward any mistakes, politely educate him

Dulos, Inc.
Exceptional Service

Integrity – Innovation – Excellence - Civility



What the competition will likely bid (1)

Key issues associated with Competitor bids:

- Production location is a key to the labor rates
- Identify Cost Drivers based on the likely technical approach
(the first two can generally be accomplished with parametric modeling)
- Assessment of recent losses
- How well established is the requirement – can the competition consciously underbid the requirement and get well on the change order process
- How hungry is the competition – is a “Buy In”/Investment likely, is it a “Must Win”

(the last three items are more macro-economic assessments determined by reading trade journals and business articles)

Dulos, Inc.

Exceptional Service

Integrity – Innovation – Excellence - Civility



What the competition will likely bid (2)

Some Specific Questions

- Do they already have a market presence?
 - If so what are the contracts? Can we FOIA (Freedom of Information Act) them to discern what the customer is accustomed to paying, and potentially what they can afford?
- Is there an incumbent?
 - How well are they performing? (Contractor Performance Assessment Report (CPAR) score)
- Collect bidder information from Industry Days
 - Who is serious about bidding
 - Who is likely to be a prime or subcontractor

Dulos, Inc.
Exceptional Service

Integrity – Innovation – Excellence - Civility



What the competition will likely bid (3)

Use Market Intel Services

- Analysis and recommendations on client's overall cost structure
- Analysis and recommendations on client's bid-specific cost structures
- Analysis of client's historical cost proposals
- Competitors' historical cost proposals, rate structures, and pricing strategies, with analysis
- Likely bidders, likely teams, historical costing
- Preliminary pricing strategies and recommendations for clients (bid-specific or general)

Dulos, Inc.
Exceptional Service

Integrity – Innovation – Excellence - Civility



Assess your client's bid (1)

A truly independent cost assessment (using little or no customer input) is best when the client already has a well established estimate (or management was concerned about the validity of their internal estimate) and wanted an outside sanity check

This is not dissimilar from an ICE, but the estimate is totally based on the RFP and it requires Technical and Cost expertise

It is really easy to be very far from the customer's estimate on the first pass – ground rules and inclusion/exclusion rules are critical (example of AF Physical Security PTW)

Dulos, Inc.
Exceptional Service

Integrity – Innovation – Excellence - Civility



Assess your clients bid (2)

A complete review of the clients estimate including basis of estimate (BOE) forms is often what is required.

- Do the math (yes do the math)
- Use known CERs, estimating relationships, and factors
- Review BOEs - how you say things in the BOE is often as important as what you say in the BOE – avoid “engineering judgment”
- Many commercial clients tend to use an engineering build up process – use of parametric models is of great value here
- Identify areas of risk and areas of Government concern

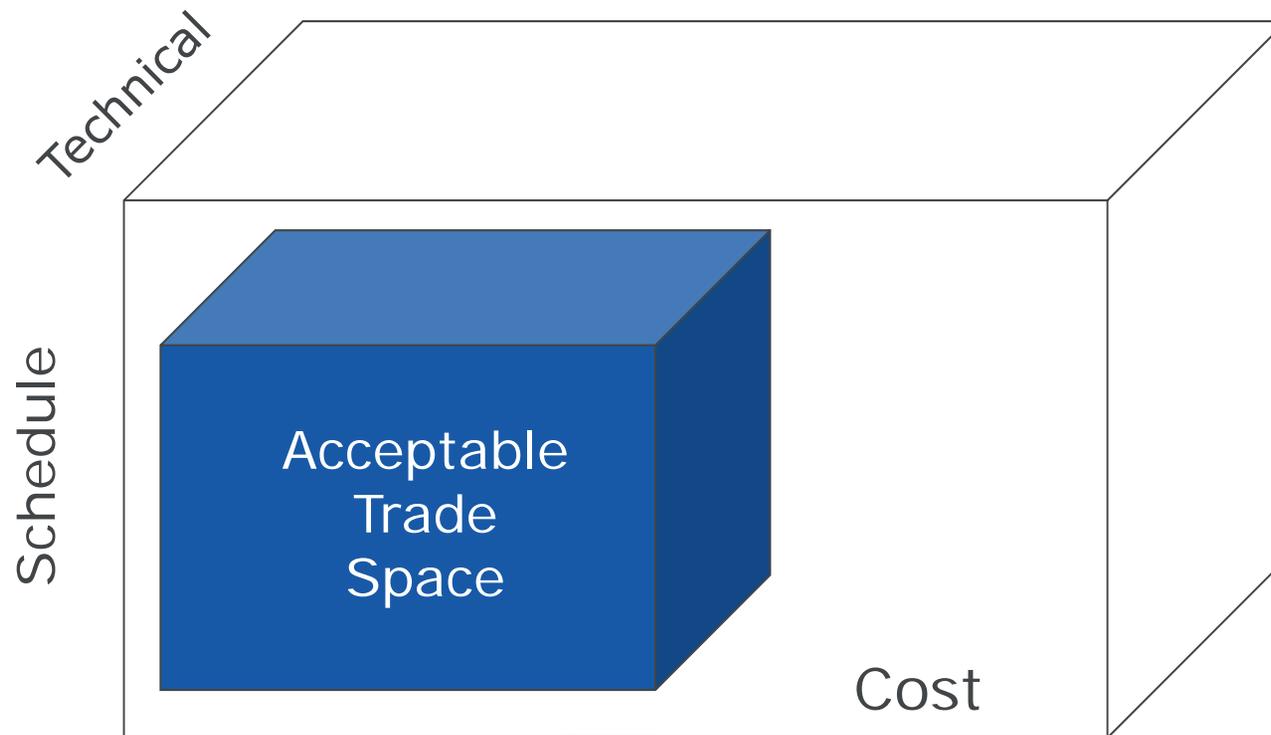
Dulos, Inc.
Exceptional Service

Integrity – Innovation – Excellence - Civility



Model Driven Trade Analyses

A suite of proven, accepted, automated models that integrates for Cost, Schedule as it accomplishes design trade (technical) is critical to the analyses



Dulos, Inc.
Exceptional Service



SEER Model Analysis

- An integrated cost assessment to accomplish trade-off (areas of risk, areas of Government concern, and basis of estimate (BOE) are identified and corrected)
- An independent cost assessment (using little or no customer data) - best when the client already has a well established estimate (or management is concerned about the validity of the internal estimate) and wants an outside sanity check
- After bid assessment - done after contract award to identify potential cost risk areas in a successful bid

Dulos, Inc.
Exceptional Service

Integrity – Innovation – Excellence - Civility



PTW Example

Radar Tower	Our Price	Competitor Price
Tower Hardware	\$960	\$832
Location and Design	\$5,850	\$3,900
Tower Erection	\$8,400	\$5,600
Control Station	\$120	\$165
Communications	\$130	\$240
System Dev	\$4,800	\$5,400
Software Dev	\$160	\$171
Other (PM/SE, ...)	\$10,567	\$8,992
Profit	\$6,197	\$3,795
Total	\$37,184	\$29,095

What do you do? How would you reduce your cost?

Dulos, Inc.
Exceptional Service

Integrity – Innovation – Excellence - Civility



A Practical PTW Example: Ship to Shore Connector (SSC) Program

Competing Engines



Input--	General Electric - GE38B	Rolls Royce Marine - MT7	Vericor Power Systems- TF60B
<i>Weight</i>	1104 lbs	971 lbs	1565 lbs
<i>Platform</i>	Air	Air	Marine
<i>Design Type *</i>	<i>Mod Average</i>	<i>Mod Minor</i>	<i>Mod Average</i>
<i>Production (prior units)</i>	323	552	32 /168 /168 **
<i>Development Experience</i>	<i>Hi-</i>	<i>Hi-</i>	<i>Hi</i>
<i>Requirement Volatility</i>	<i>Nom-</i>	<i>Low+</i>	<i>Low</i>
<i>System Eng Experience</i>	<i>Nom -</i>	<i>Nom -</i>	<i>Nom</i>

Dulos, Inc.
Exceptional Service

Integrity – Innovation – Excellence - Civility



Engine Parametric Analysis

Engine Material Composition used for all engines

- MATERIAL COMPOSITION			
Percent Aluminum/Malleable Metal	1.00%	2.00%	4.00%
Percent Steel Alloy	37.00%	50.00%	67.00%
Percent Commrc'l Available Exotic	20.00%	28.00%	33.00%
Percent Other Exotic	0.01%	0.01%	0.01%
Percent Composite	10.00%	16.00%	20.00%
Percent Polymer	0.01%	0.01%	0.01%
Percent Ceramic	2.00%	4.00%	6.00%

- Complexity of all engines set on industry averages (typically middle to higher end of scale)
- LRIP and FRP production environment efficiency rated the same
- SEER for Hardware Analysis

Dulos, Inc.
Exceptional Service

Integrity – Innovation – Excellence - Civility



Top Level Cost Comparison

Estimate	GE38B	MT7	TF60B
NRE	\$ 71.2 Mil	\$53.4 Mil	\$78.6 Mil
<i>APUC (at LRIP)</i>	\$ 3.7 Mil	\$2.8 Mil	\$2.6 Mil
<i>APUC (at FRP)</i>	\$ 3.3 Mil	\$ 2.7 Mil	\$ 2.4 Mil

Note :

- APUC = Average Production Unit Price (per piece cost)
- LRIP = Low rate initial production
- FRP = Full rate production
- NRE includes Systems Engineering and ILS effort
- Key driver of LRIP/FRP diff is learning
- SEER for Hardware cost estimates

Dulos, Inc.

Exceptional Service

Integrity – Innovation – Excellence - Civility



Price To Win Summary

- Obtaining an independent assessment of the bid price increases your chances of winning
- There is a set of best practices that is increasingly used to develop a PTW strategy
- Business intelligence is critical to characterize the competition
- The strategy focuses on cost estimate drivers and sensitivity analyses
- Professional Cost Analysis is critical in both the private and Government business sectors

Dulos, Inc.
Exceptional Service

Integrity – Innovation – Excellence - Civility



For More Information

Please contact:

- Bob Hunt
 - Email: BobHunt@DulosInc.com
 - Phone: 703.201.0651
- Jon Kilgore
 - Email: jkilgore@Galorath.com
 - Phone: 757.262.7462
- Tom Sanders
 - Email: thomas.sanders@kalmancoinc.com
 - Phone: 850.685.0767

Dulos, Inc.
Exceptional Service

Integrity – Innovation – Excellence - Civility

