

Supplier Scorecards



Clipper Windpower Supplier Scorecard

INTRODUCTION

The supplier scorecard is the means by which Supplier transactional performance is captured, measured & then communicated.

The scorecard measures metrics associated with Quality, Delivery, CAPA responsiveness and Cost of Non-Quality. Overall Quality performance is captured using a 'Balanced Quality Score' which represents the overall performance trend across a number of defined quality measures.

The balance score is measured as a % and is color coded for ease of visibility:

Green	>95%
Yellow	>65%
Orange	> or = 33%
Red	< or = 32%

- Clipper expects all suppliers to actively work through the colors achieving a consistent Green (>95%) performance.
- Clipper acknowledges the differing complexity of product supplied. In order to make comparable performance analysis each supplier is categorized with a complexity level of super, high, medium or low. Each of the complexity categories has an associated performance threshold table, this performance table enables the generation of the Balanced Quality Score.
- The threshold tables define the required performance against each individual measure.
- The next sections detail each measure including weighting, period and calculation.
- When opening the scorecard please ensure you click on the security message 'Options' and 'Enable this content' to switch on all macros.

NB. Scorecards will only be generated for suppliers of Direct Materials. Direct is defined as a part that goes into the Clipper wind turbine only. Only NCM's that are designated as Vendor Liable will affect the scorecard.

Clipper Windpower Supplier Scorecard

Supplier Name

COMPLEXITY

MEDIUM

APRIL 2009

DATA PERIOD

MARCH 2009

Quality

Balanced Quality Score

87%

Qa. Delivered Quality Defects (%)	Qb. Delivered Deviations (%)	Qc. Delivered Quality (Count)	Qd. Delivered Deviations (Count)	Qe. Field Customer Complaints (Count)
12 month Last month	12 month Last month	12 month Last month	12 month Last month	12 month Last month
0.27% 2.84%	0.03% 0.00%	14 1	1 0	0 0

Quick Links

Quality

[Qa, Qc & Qe Charts](#)

[Qb & Qd Charts](#)

[Quality Data](#)

[Balanced Score](#)

[Threshold Table](#)

[CAPA Charts](#)

Delivery

Delivery

Da. PO Lines delivered on promise date (%)	Db. Arrears (Count & Days)
12 month Last month	# of parts Avg days open
34.00% 0.00%	4 131

CAPA Closure Cycle Time

CAPA

CAPA a. (Count)	CAPA b. (Days)
Raised 12 month Closed 12 month	Avg. Closure Avg Open
0 0	N/A N/A

Delivery

[Da & Db Charts](#)

[Delivery Data](#)

Cost of Non-Quality

Cost of Non-Quality (CONQ)

Ca. CONQ (\$)	Cb. CONQ (\$)	
12 Month	This Month	Proposed Next
\$7,200	\$0	\$500

MESSAGES

WELCOME TO THE NEW CLIPPER WINDPOWER SUPPLIER SCORECARD.
ANY QUESTIONS PERTAINING TO THIS SCORECARD SHOULD BE DIRECTED TO THE CLIPPER SUPPLY CHAIN LEADER IN THE FIRST INSTANCE.

CONQ

[Cost of Non-Quality](#)

Clipper Windpower Supplier Scorecard

QUALITY METRICS

The supplier scorecard has within it 5 individual Quality metrics and an overall Balanced Quality Score.

The 5 Quality Metrics all have a weighting to denote the severity of the NCM relative to where in the overall supply process it was identified. This weighting is used to generate the BQS.

Deviations (Qb & Qd) carry a weighting of 1 as this is the least severe. All deviations are in fact non-conformances declared upfront by the supplier.

Escapes (Qc) carry a weighting of 2 as this is undeclared non-conformance shipped by the vendor and identified by Clipper personnel and is therefore more severe than a declared deviation given the extra work involved and the extra delay incurred.

Escapes into the field (Qe & Qa) carry a weighting of 3 as this is undeclared non-conformance shipped by the vendor and identified at the Customer site and so has more severe consequences; the amount of extra work involved, the extra delay incurred and also the close out loop activity and perception with the final customer.

The data capture for these 5 metrics is 'Last Month' and 'Last 12 months'

These 5 metrics are defined further on the next two pages.

Clipper Windpower Supplier Scorecard

QA. DELIVERED QUALITY DEFECTS %

Weighting: 3

This is a measure of the combined number of out of specification parts as defined by the NCM over the number of parts delivered in a given time period, expressed as a % of deliveries.

It includes NCM's written as a result of a defective part being offered to the SQE for final acceptance, a defective part being found within Cedar Rapids and defective parts found at the customer site.

$$\frac{\text{\# Out of specification parts}}{\text{\# Parts received}} \times 100\%$$

QB. DELIVERED DEVIATIONS %

Weighting: 1

This is a measure of the number of parts declared upon a deviation as defined by the NCM over the number of parts delivered in a given time period, expressed as a % of deliveries.

$$\frac{\text{Deviation parts}}{\text{\# Parts received}} \times 100\%$$

Clipper Windpower Supplier Scorecard

QC. DELIVERED QUALITY (COUNT)

This is a measure of the number of Escape occurrences (NCM's raised) expressed as a count of NCM's.

Weighting: 2

It includes NCM's written as a result of a defective part being offered to the SQE for final acceptance or a defective part being found within Cedar Rapids.

QD. DELIVERED DEVIATIONS (COUNT)

Weighting: 1

This is a measure of the number of Deviation occurrences (NCM's raised) expressed as a count of NCM's.

QE. DELIVERED QUALITY (COUNT)

This is a measure of the number of Escape occurrences to the Customer site (NCM's raised) expressed as a count of NCM's.

Weighting: 3

Includes all complaints made by field customers on supplier provided material.

Clipper Windpower Supplier Scorecard

BALANCED QUALITY SCORE

The BQS is used to summarize the 5 Quality metrics and therefore provide with ease a means of comparing and contrasting suppliers within a given commodity grouping.

The generation of the BQS as already mentioned requires a weighting for each of the quality metrics. It also requires each supplied product to have a defined Manufacturing Complexity.

Manufacturing Complexity considers: -

HOW COMPLEX IS THE PART TO MAKE (MATERIALS, FORMING/CUTTING PROCESSES, SPECIAL PROCESSES SUCH AS HEAT TREATMENT/NDT/CHROMATING & TOLERANCE).

Manufacturing Complexity does not consider: -

THE IMPACT OF A PRODUCT FAILURE, THE COST OF THE PRODUCT OR THE CURRENT SUPPLIER, AS IT IS SOLELY INTENDED AS A YARDSTICK FOR SUPPLIER PERFORMANCE RELATIVE TO THEIR CHOSEN FIELD OF EXPERTISE.

Please note that although the 5 individual Quality metrics capture the previous 12 months performance, the BQS is calculated using the past 6 months of data in conjunction with the Complexity threshold table (overleaf).

Using 6 months is simply due to data discrimination concerns and is the same for each supplier.

Clipper Windpower Supplier Scorecard

BALANCED QUALITY SCORE

Complexity Threshold Table example for Super High Complexity

SUPER HIGH COMPLEXITY										
METRIC	WEIGHT	UNIT	1		33		66		100	
Qa.	3	%	2.0001%		1.0001%	2.0000%	0.8001%	1.0000%	0.0000%	0.8000%
Qb.	1	%	2.0001%		1.5001%	2.0000%	0.8001%	1.5000%	0.0000%	0.8000%
Qc.	2	COUNT	10		6	9	5	5	0	4
Qd.	1	COUNT	21		11	20	4	10	0	3
Qe.	3	COUNT	10		2	9	1	0	0	0

In this example the supplier scores the following in each of the 5 individual quality metrics.

Qa. 2.52% Qb. 1.89% Qc. 13 NCM's Qd. 2 NCM's Qe. 0 NCM's

For each of those scores find where relative to each metric in the table the score sits (Qa = 2.52% sits under a score of 1, Qb = 1.89% sits under a score of 33, Qc = 13 sits under a score of 1 and so on)

Using this logic the BQS in this example would be :-

Qa. Weighting of 3 x Score of 1 = 3

Qb. Weighting of 1 x Score of 33 = 33

Qc. Weighting of 2 x Score of 1 = 2

Qd. Weighting of 1 x Score of 100 = 100

Qe. Weighting of 3 x Score of 100 = 300

Total up the 5 scores and divide by the maximum possible score of 1000, therefore **BQS** = 438/1000 = **44%**

Clipper Windpower Supplier Scorecard

BALANCED QUALITY SCORE

Complexity Threshold Tables for all complexities.

LOW COMPLEXITY										
METRIC	WEIGHT	UNIT	1		33		66		100	
Qa.	3	%	0.6001%		0.4001%	0.6000%	0.2001%	0.4000%	0.0000%	0.2000%
Qb.	1	%	0.3501%		0.2001%	0.3500%	0.0001%	0.2000%	0.0000%	0.0000%
Qc.	2	COUNT	4		3	3	2	2	0	1
Qd.	1	COUNT	3		2	2	1	1	0	0
Qe.	3	COUNT	3		2	2	1	0	0	0

MEDIUM COMPLEXITY										
METRIC	WEIGHT	UNIT	1		33		66		100	
Qa.	3	%	0.8001%		0.6001%	0.8000%	0.4001%	0.6000%	0.0000%	0.4000%
Qb.	1	%	0.4501%		0.3001%	0.4500%	0.1001%	0.3000%	0.0000%	0.1000%
Qc.	2	COUNT	5		4	4	3	3	0	2
Qd.	1	COUNT	5		3	4	2	2	0	1
Qe.	3	COUNT	3		2	2	1	0	0	0

HIGH COMPLEXITY										
METRIC	WEIGHT	UNIT	1		33		66		100	
Qa.	3	%	1.0001%		0.8001%	1.0000%	0.6001%	0.8000%	0.0000%	0.6000%
Qb.	1	%	0.5501%		0.4001%	0.5500%	0.2001%	0.4000%	0.0000%	0.2000%
Qc.	2	COUNT	6		5	5	4	4	0	3
Qd.	1	COUNT	6		4	5	3	3	0	2
Qe.	3	COUNT	4		2	3	1	0	0	0

SUPER HIGH COMPLEXITY										
METRIC	WEIGHT	UNIT	1		33		66		100	
Qa.	3	%	2.0001%		1.0001%	2.0000%	0.8001%	1.0000%	0.0000%	0.8000%
Qb.	1	%	2.0001%		1.5001%	2.0000%	0.8001%	1.5000%	0.0000%	0.8000%
Qc.	2	COUNT	10		6	9	5	5	0	4
Qd.	1	COUNT	21		11	20	4	10	0	3
Qe.	3	COUNT	10		2	9	1	0	0	0

Clipper Windpower Supplier Scorecard

COST OF NON-QUALITY

This metric measures the \$ impact (using conservative numbers) associated with the processing of non-conformance from the supply chain.

Whereas at present this is purely a metric on the scorecard, Clipper does intend (at a point yet to be determined) to recover monies associated with supplier non-conformance in order to encourage suppliers to review their quality performance and drive the eradication of Quality non-compliance, through effective root cause analysis.

Clipper will give all affected suppliers 1 clear month notice post the decision to implement before monies are recovered. Charges will not be retrospectively applied.

The charges listed below include but are not limited to: Direct costs (e.g. inspection, sorting & rework, system/documentation processing fees).

Measure Calculation

(Deviations x standard charge) + (Escapes into Cedar Rapids x standard charge) + (Escapes into the Field x standard charge)

Table of charges: (In USD)

Deviations:	\$200
Escapes into Cedar Rapids:	\$500
Escapes into the Field :	\$1000

NB. The application of the Cost of Non-Quality Process by Clipper shall be in addition to and cumulative with any other rights and remedies which Clipper may have against the supplier either by contract or under applicable law.

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DELIVERY METRICS

The scorecard has within it two delivery metrics. These measures are as follows.

Da. % of PO Lines delivered on promise date

This is a measure taking from all recorded deliveries in the given time period, the % of PO lines delivered on time. On time defined as the PO line being received + or – 5 calendar days from Promise Date.

Db. Arrears

This is a measure of the Number of parts past due and the average number of days past due for all arrears.

Both of the above metrics are generated using data captured in the last Month and previous 12 months

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CAPA METRICS

CAPAA. CAPA's Raised and Closed

This is a measure of CAPA's raised and closed in the period expressed as a count of CAPA's.

CAPAb. Average Closure and average open (days)

This is a measure of the average number of days open (if any CAPA's Open), and Average number of days to closure (if any CAPA's have been Closed).

Both of the above metrics are generated using data captured in the last Month and previous 12 months*

NB. Previous 12 months*

In the event a CAPA remains open for more than 12 months it will be carried over into the first month of the 12 in the metric until it is closed.

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FURTHER INFORMATION & QUESTIONS

Supplier Development Leaders (SDL)

Responsible for scorecard implementation activity within those suppliers agreed by the Supplier Management Team. Ensure you involve the SCL and SQE in the roll out session with the supplier.

Suppliers

Once the scorecard is operational, please direct any questions regarding the scorecard to your Clipper Supply Chain Leader.

Supply Chain Leaders (SCL)

Please direct supplier questions on Quality metrics & data to the appropriate SQE assigned to the given supplier. Please work with the supplier to understand and resolve Delivery data issues.

Supplier Quality Engineers (SQE)

Manage quality data related issues directly with the supplier, copy the SCL on all communications.

SCL & SQE

In the event NCM liabilities/quantities are changed as a result of discussions between yourselves and suppliers please communicate these changes to Jason Bickley and the respective SDL to ensure it is captured within the scorecard for the next month.