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Optimization of Procurement and Sales Documentation Processes at Micro Energy Holdings Sdn Bhd

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ABSTRACT

This technical report details an operational study conducted within the Procurement Department at Micro Energy Holdings (M) Sdn Bhd, a company specializing in solar energy solutions. The study focuses on evaluating and executing core procurement and sales documentation processes, specifically the generation of Purchase Orders (PO), Delivery Orders (DO), Quotations, and Proforma Invoices. The workflow involved translating client requirements and supplier quotations into legally binding purchase agreements to secure solar components such as panels, inverters, and AC/DC breakers. Furthermore, the study highlights the transition from manual document creation to the utilization of Autocount software for generating delivery orders, which significantly expedited the logistics coordination for solar system installations. Additionally, structured methodologies for pricing research were applied to establish quotations with a 20% to 50% markup margin. The findings demonstrate that systematic documentation and software integration minimize human error, prevent unauthorized corporate spending, and enhance professional communication between suppliers and clients. Overall, efficient procurement management directly impacts organizational profitability and operational smoothness in the renewable energy sector.

Keywords: Autocount software, Delivery Order, Procurement, Proforma Invoice, Purchase Order.

INTRODUCTION

Micro Energy Holdings (M) Sdn Bhd is a private Malaysian company established in 2011, specializing in the supply and development of solar energy. Dedicated to utilizing clean, renewable energy sources to reduce carbon emissions, the company provides standalone, hybrid, and grid-connected solar power systems for commercial, residential, and industrial sectors. As an all-in-one provider for solar power development, investment, and Engineering Procurement Construction (EPC), Micro Energy collaborates with top technology partners such as Fronius, Huawei, and JA Solar.

The Procurement Department at Micro Energy is responsible for purchasing goods and services essential for the organization's solar systems. Procurement professionals must find reliable suppliers offering competitive prices and high-quality materials. The core tasks executed within this department include preparing and issuing Purchase Orders (PO), Delivery Orders (DO), Quotations, and Proforma Invoices. Managing these documents requires strong analytical skills, strategic thinking, and effective communication to satisfy business needs while navigating market conditions and supplier capabilities. This study details the implementation of these procurement and sales workflows to optimize operational efficiency.

THE PROPOSED METHOD

Purchase Order (PO) Execution

A Purchase Order is a formal, legally binding document issued to a supplier containing specific quantities, prices, and payment terms. The process begins with a purchase requisition based on client needs, such as supplying and installing solar systems at residential sites (See Figure 1). Based on the supplier's quotation, a PO is drafted, approved by management, and transmitted to the supplier via email or messenger applications to formalize the agreement (See Figure 2).

Figure 1

Quotation by Tokugawa Energy for a residential client in Perak.

TOKUGAWA ENERGY

Tokugawa Energy Sdn Bhd
Blok A-11, Depan Pasar Besar Wakaf Bharu
16250, Wakaf Bharu Kelantan.
M: +6013 668 7533 E: tokugawaenergy@gmail.com

QUOTATION

QUOTE #	DATE
1119	7/6/2024
CUSTOMER ID	VALID UNTIL
1	7/7/2024

Attn to :
Mr Raj
Micro Energy Holdings (M) Sdn Bhd
Unit 19-01/19-03, Level 19, Menara K1
1 Lorong 3/137c, off, Jln Klang Lama,
58000 Kuala Lumpur
M: +6017 378 5894, E: kjdran75@gmail.com

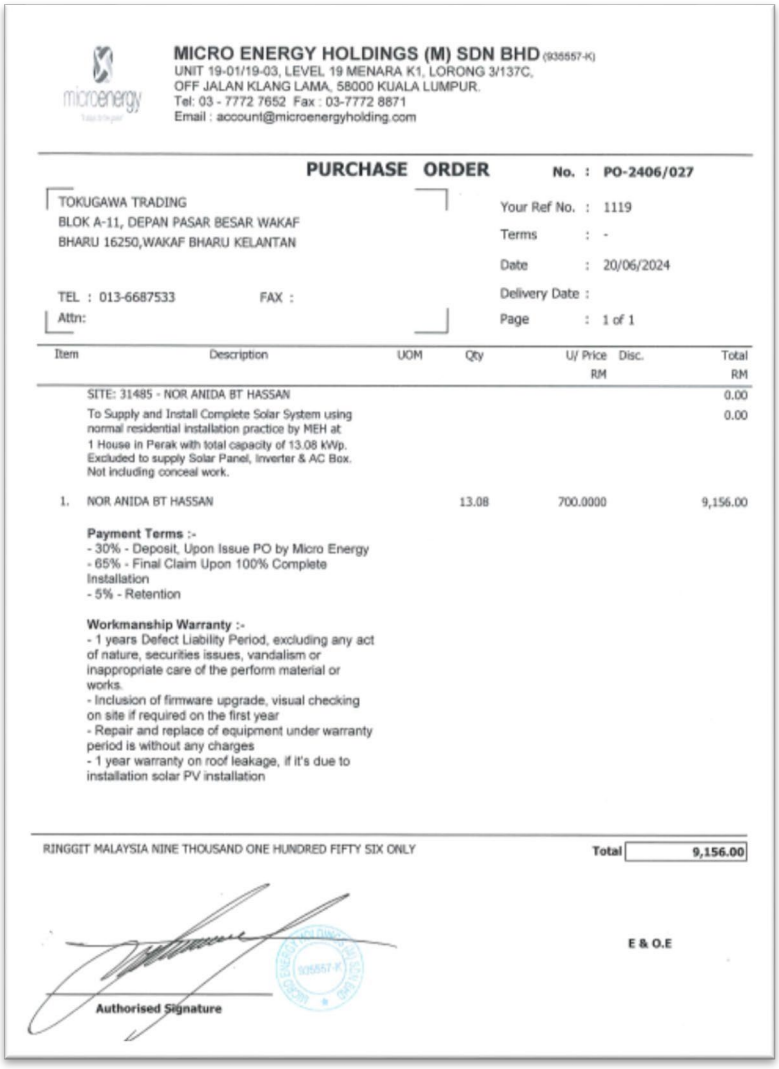
Prepared By: Tengku Muhammad Hasif

DESCRIPTION OF WORK
To Supply and Install Complete Solar System using normal residential installation practice by MEH at 1 House in Perak with total capacity of 13.08 kWp.
Excluded to supply **Solar Panel, Inverter & AC Box.** Not including conceal work.

ITEMIZED COSTS		CAPACITY (kWp)	UNIT PRICE per kWp	AMOUNT
1 NOR ANIDA BT HASSAN	(TANJUNG PIANDANG, PERAK)	13.08	700.00	9,156.00
Total Capacity (kWp)		13.08	-	9,156.00
		OTHER		-
		TOTAL QUOTE	RM	9,156.00

Figure 2

Purchase Order by Micro Energy



MICRO ENERGY HOLDINGS (M) SDN BHD (936557-K)
UNIT 19-01/19-03, LEVEL 19 MENARA K1, LORONG 3/137C,
OFF JALAN KLANG LAMA, 58000 KUALA LUMPUR.
Tel: 03 - 7772 7652 Fax : 03-7772 8871
Email : account@microenergyholding.com

PURCHASE ORDER No. : PO-2406/027

TOKUGAWA TRADING
BLOK A-11, DEPAN PASAR BESAR WAKAF
BHARU 16250,WAKAF BHARU KELANTAN

TEL : 013-6687533 FAX :
Attn:

Your Ref No. : 1119
Terms : -
Date : 20/06/2024
Delivery Date :
Page : 1 of 1

Item	Description	UOM	Qty	U/ Price RM	Disc.	Total RM
	SITE: 31485 - NOR ANIDA BT HASSAN					0.00
	To Supply and Install Complete Solar System using normal residential installation practice by MEH at 1 House in Perak with total capacity of 13.08 kWp. Excluded to supply Solar Panel, Inverter & AC Box. Not including conceal work.					0.00
1.	NOR ANIDA BT HASSAN		13.08	700.0000		9,156.00

Payment Terms :-
- 30% - Deposit, Upon Issue PO by Micro Energy
- 65% - Final Claim Upon 100% Complete Installation
- 5% - Retention

Workmanship Warranty :-
- 1 years Defect Liability Period, excluding any act of nature, securities issues, vandalism or inappropriate care of the perform material or works.
- Inclusion of firmware upgrade, visual checking on site if required on the first year
- Repair and replace of equipment under warranty period is without any charges
- 1 year warranty on roof leakage, if it's due to installation solar PV installation

RINGGIT MALAYSIA NINE THOUSAND ONE HUNDRED FIFTY SIX ONLY **Total 9,156.00**

E & O.E

Authorised Signature

Delivery Order (DO) Management

A Delivery Order authorizes the transportation of goods to the purchaser. To accelerate this process, the Autocount software is utilized rather than manually drafting the document in Microsoft Excel or Word. Details from the PO are verified, and the software automatically generates the DO (See Figure 3). Subsequently, the procurement team coordinates with the logistics team to arrange transportation, updating delivery tracking and completion statuses via a WhatsApp group to maintain real-time communication.

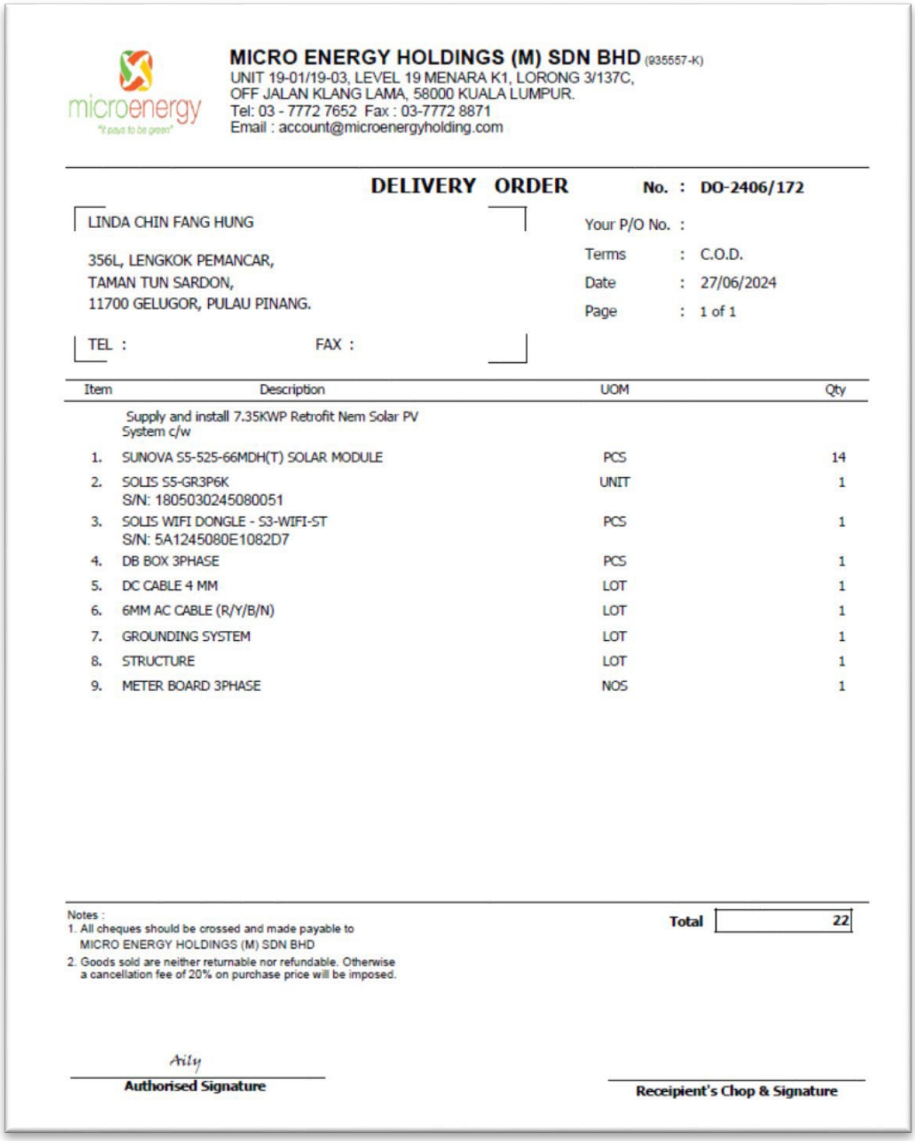
Quotation and Proforma Invoice Generation

The preparation of quotations requires an initial assessment of the client's specifications, followed by meticulous cost and pricing research. Prices for materials and labor are established with a 20% to 50% markup above the purchase cost to ensure organizational profitability (See Figure 4). Concurrently, a

Proforma Invoice is prepared and sent alongside the quotation to request initial payments before the delivery of items commences (See Figure 5).

Figure 3

Delivery Order for Linda Chin Fan Hung's house



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Tel: 03 - 7772 7652 Fax : 03-7772 8871
Email : account@microenergyholding.com

DELIVERY ORDER **No. : DO-2406/172**

LINDA CHIN FANG HUNG

356L, LENGKOK PEMANCAR,
TAMAN TUN SARDON,
11700 GELUGOR, PULAU PINANG.

TEL : FAX :

Your P/O No. :
Terms : C.O.D.
Date : 27/06/2024
Page : 1 of 1

Item	Description	UOM	Qty
	Supply and install 7.35KWP Retrofit Nem Solar PV System c/w		
1.	SUNOVA S5-525-66MDH(T) SOLAR MODULE	PCS	14
2.	SOLIS S5-GR3P6K S/N: 1805030245080051	UNIT	1
3.	SOLIS WIFI DONGLE - S3-WIFI-ST S/N: 5A1245080E1082D7	PCS	1
4.	DB BOX 3PHASE	PCS	1
5.	DC CABLE 4 MM	LOT	1
6.	6MM AC CABLE (R/Y/B/N)	LOT	1
7.	GROUNDING SYSTEM	LOT	1
8.	STRUCTURE	LOT	1
9.	METER BOARD 3PHASE	NOS	1

Notes :
1. All cheques should be crossed and made payable to MICRO ENERGY HOLDINGS (M) SDN BHD
2. Goods sold are neither returnable nor refundable. Otherwise a cancellation fee of 20% on purchase price will be imposed.

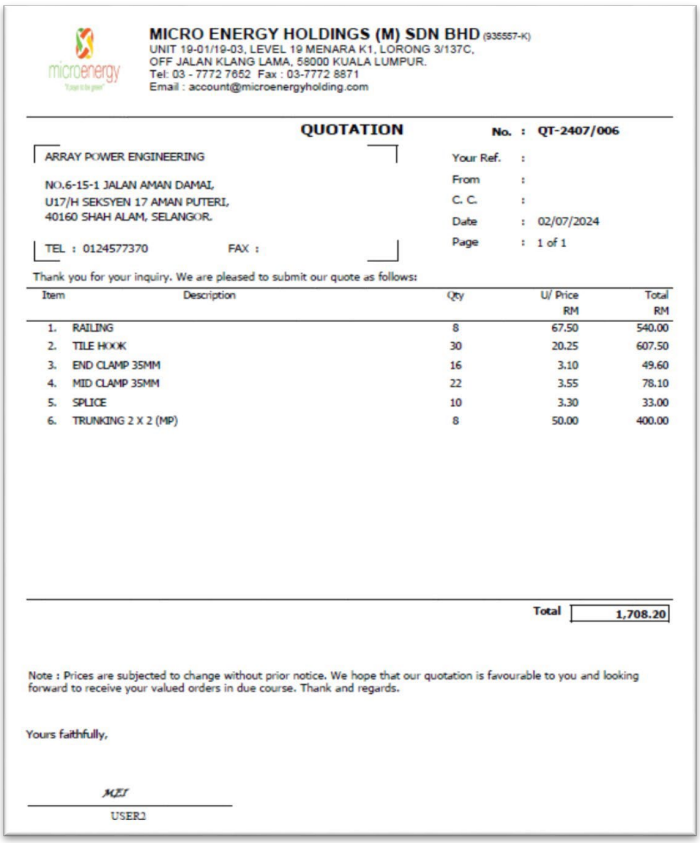
Total 22

Aily
Authorised Signature

Receipient's Chop & Signature

Figure 4

Quotation for Array Power Engineering



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OFF JALAN KLANG LAMA, 58000 KUALA LUMPUR.
Tel: 03 - 7772 7652 Fax : 03-7772 8871
Email : account@microenergyholding.com

QUOTATION No. : QT-2407/006

ARRAY POWER ENGINEERING
NO.6-15-1 JALAN AMAN DAMAI,
U17/H SEKSYEN 17 AMAN PUTERI,
40160 SHAH ALAM, SELANGOR.
TEL : 0124577370 FAX :

Your Ref. :
From :
C. C. :
Date : 02/07/2024
Page : 1 of 1

Thank you for your inquiry. We are pleased to submit our quote as follows:

Item	Description	Qty	U/ Price RM	Total RM
1.	RAILING	8	67.50	540.00
2.	TILE HOOK	30	20.25	607.50
3.	END CLAMP 35MM	16	3.10	49.60
4.	MID CLAMP 35MM	22	3.55	78.10
5.	SPLICE	10	3.30	33.00
6.	TRUNKING 2 X 2 (MP)	8	50.00	400.00

Total 1,708.20

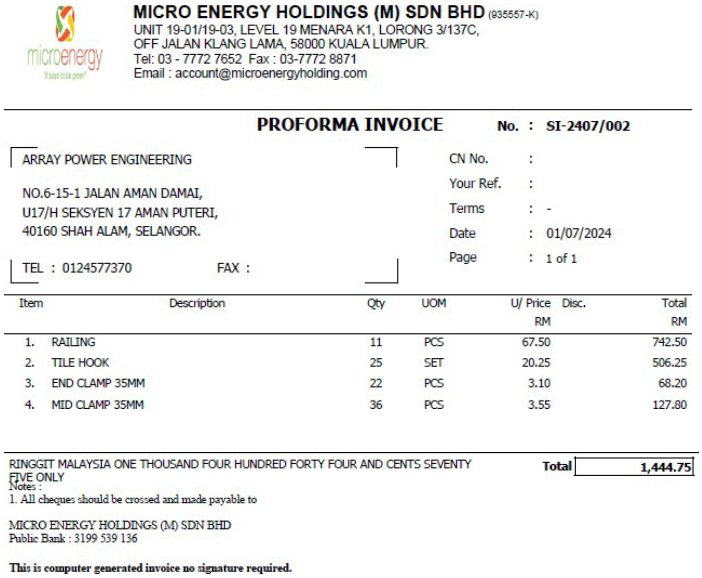
Note : Prices are subjected to change without prior notice. We hope that our quotation is favourable to you and looking forward to receive your valued orders in due course. Thank and regards.

Yours faithfully,

USER2

Figure 5

Proforma Invoice for Array Power Engineering



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OFF JALAN KLANG LAMA, 58000 KUALA LUMPUR.
Tel: 03 - 7772 7652 Fax : 03-7772 8871
Email : account@microenergyholding.com

PROFORMA INVOICE No. : SI-2407/002

ARRAY POWER ENGINEERING
NO.6-15-1 JALAN AMAN DAMAI,
U17/H SEKSYEN 17 AMAN PUTERI,
40160 SHAH ALAM, SELANGOR.
TEL : 0124577370 FAX :

CN No. :
Your Ref. :
Terms : -
Date : 01/07/2024
Page : 1 of 1

Item	Description	Qty	UOM	U/ Price RM	Disc.	Total RM
1.	RAILING	11	PCS	67.50		742.50
2.	TILE HOOK	25	SET	20.25		506.25
3.	END CLAMP 35MM	22	PCS	3.10		68.20
4.	MID CLAMP 35MM	36	PCS	3.55		127.80

RINGGIT MALAYSIA ONE THOUSAND FOUR HUNDRED FORTY FOUR AND CENTS SEVENTY FIVE ONLY
Total 1,444.75

Notes :
1. All cheques should be crossed and made payable to

MICRO ENERGY HOLDINGS (M) SDN BHD
Public Bank : 3199 539 136

This is computer generated invoice no signature required.

EVALUATION AND RESULTS

Financial Control and Error Mitigation

The systematic implementation of Purchase Orders effectively minimized the risk of errors in the ordering and delivery process. By mandating management approval before issuing a PO, the company maintained strict financial control, managed its budgets efficiently, and prevented unauthorized or unnecessary corporate spending. Both the buyer and the supplier benefited from clear, documented transaction terms, which eliminated misunderstandings.

Logistical Efficiency through Software Integration

Transitioning to the Autocount software for Delivery Orders produced faster and more accurate documentation compared to manual methods. Providing clear and detailed DOs ensured that the logistics team supplied the exact materials required for solar installations, facilitating a smooth transportation workflow. Furthermore, utilizing active communication channels (like WhatsApp) allowed the team to quickly resolve any logistical issues that arose during transit.

Enhanced Client Relations and Decision-Making

Providing well-structured and detailed Quotations and Proforma Invoices significantly enhanced the company's professional image, showcasing reliability and thoroughness to prospective buyers. The clarity of these documents helped clients make informed purchasing decisions by allowing them to easily evaluate prices and the value offered. Accuracy at this stage proved crucial in preventing downstream disputes regarding costs, taxes, or shipping fees.

CONCLUSION

The analytical and administrative tasks performed within the Procurement Department at Micro Energy Holdings demonstrated the critical nature of meticulous documentation in the renewable energy sector. By executing precise Purchase Orders, Delivery Orders, Quotations, and Proforma Invoices, the department ensured smooth operational workflows, maintained strong financial controls, and fostered positive relationships with both suppliers and clients. The integration of the Autocount software highlighted the importance of technological tools in reducing manual workloads and mitigating human errors. Moving forward, it is recommended that the organization implements advanced software with real-time data tracking capabilities to dynamically monitor inventory levels, supplier performance, and client demand. Additionally, establishing stronger communication frameworks between the sales and procurement teams will better align supply with market demand, ultimately reducing overstock and driving strategic business growth.

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Conflict of Interest
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