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Opening energy access to all


Imagine a platform that handles your end-to-end wheeling needs. From tailored proposals to intricate multilateral transactions. Simple, scalable & efficient.
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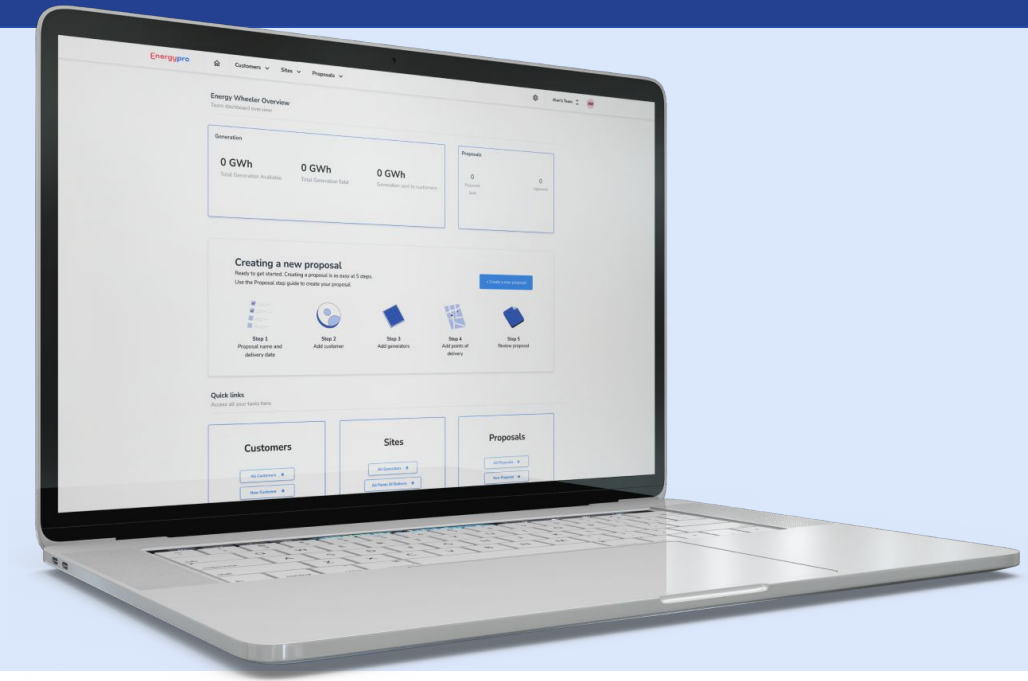
Advanced Energy Management Software

Open Access Energy provides Energypro an end-to-end wheeling platform that facilitates energy sales, automated transactions, and billing.



- **End-to-end wheeling solution**
- **Maximizes Revenue**
- **Automates complex transactions**
- **Expands Market Reach**

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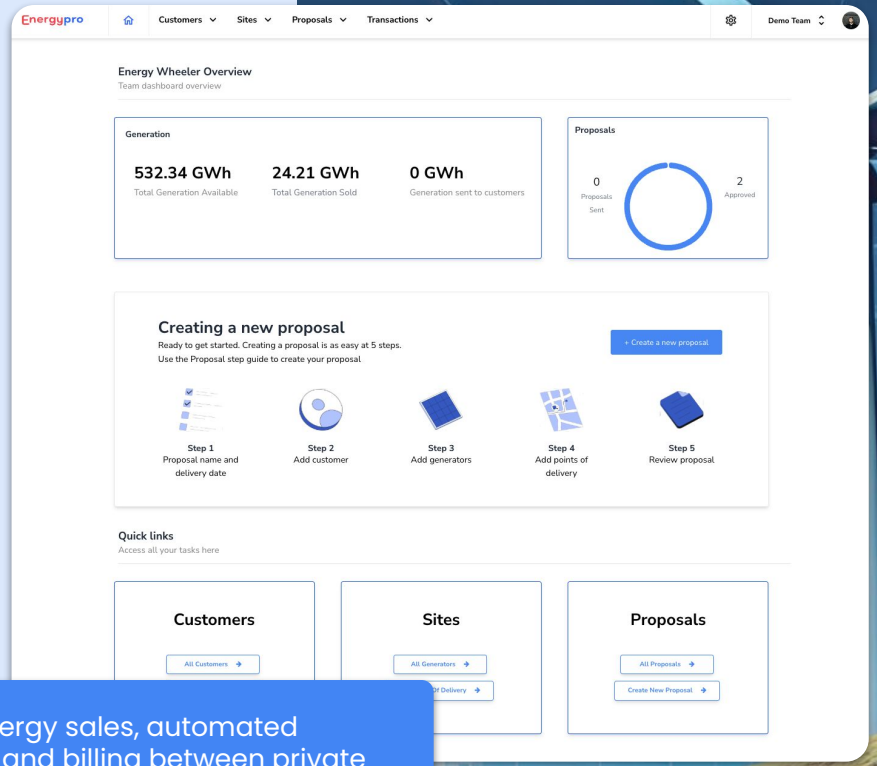
End-to-end platform

- Matches generation and load profiles
- Uses historical data for proposals and Power Purchase Agreements
- Optimises and allocates against delivery accounts
- Calculates accurate bills for generation owners and consumers



Facilitates energy sales, automated transactions, and billing between private producers and consumers

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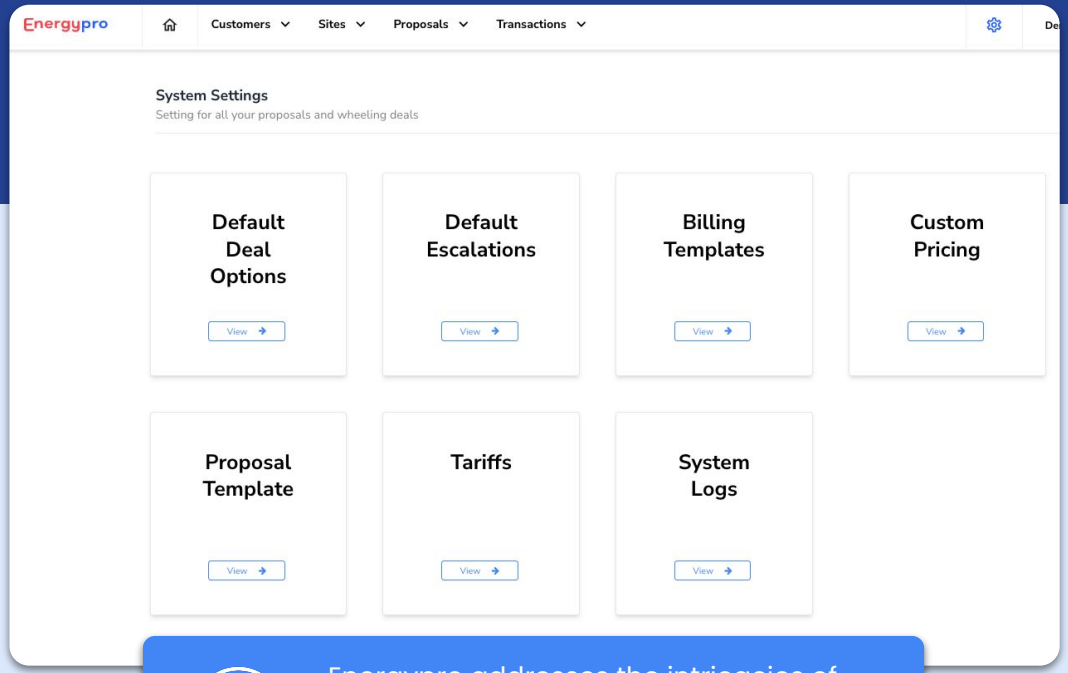
Key Benefits

Automation: Quick, accurate energy proposals and allocation

Accuracy: Advanced algorithms for precise calculations

Scalability: Scales sales with smart meter and tariff integration

Simplicity: Easy transactions with seamless design and automation



Energypro addresses the intricacies of private energy wheeling through the utilisation of cutting-edge technologies.

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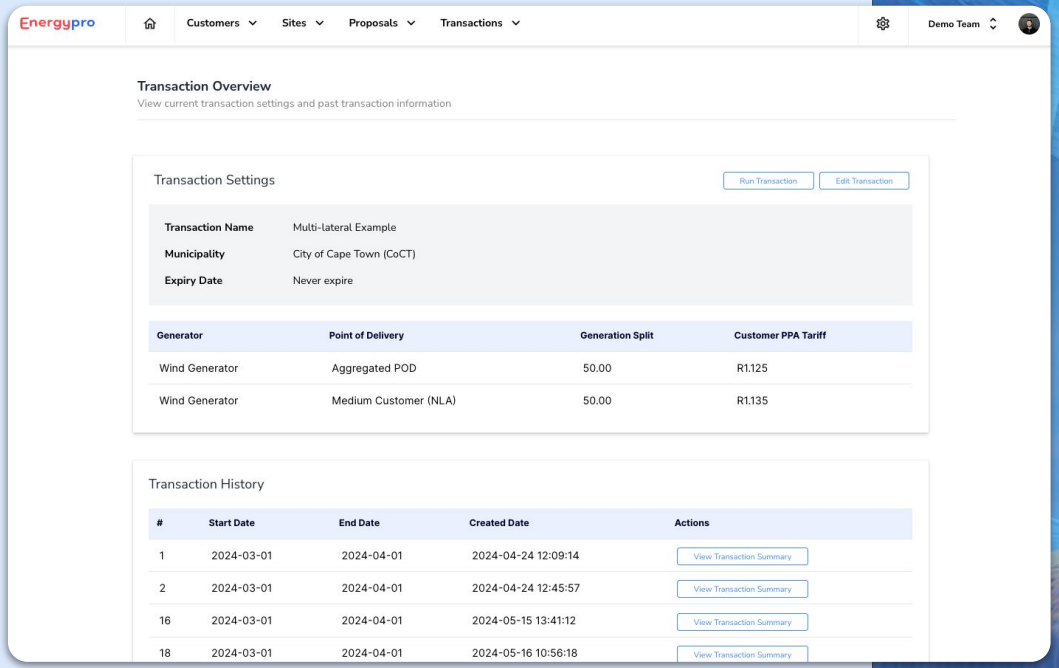
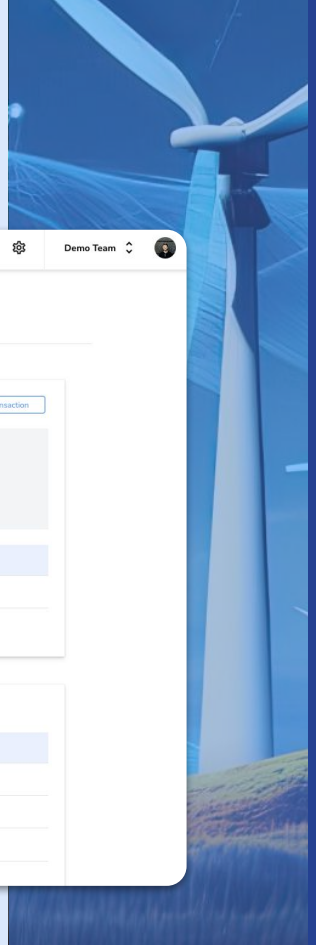
Why Energypro?





Increased Margins: Energy management tools help boost profit margins for IPPs by allowing for dynamic energy allocation that is most profitable.

Facilitating Transactions: OAE's software tools automate the complex process of matching and allocation of electricity production to multiple meter points, based on rules that are dependent on the point of consumption (example 30 min or TOU matching).

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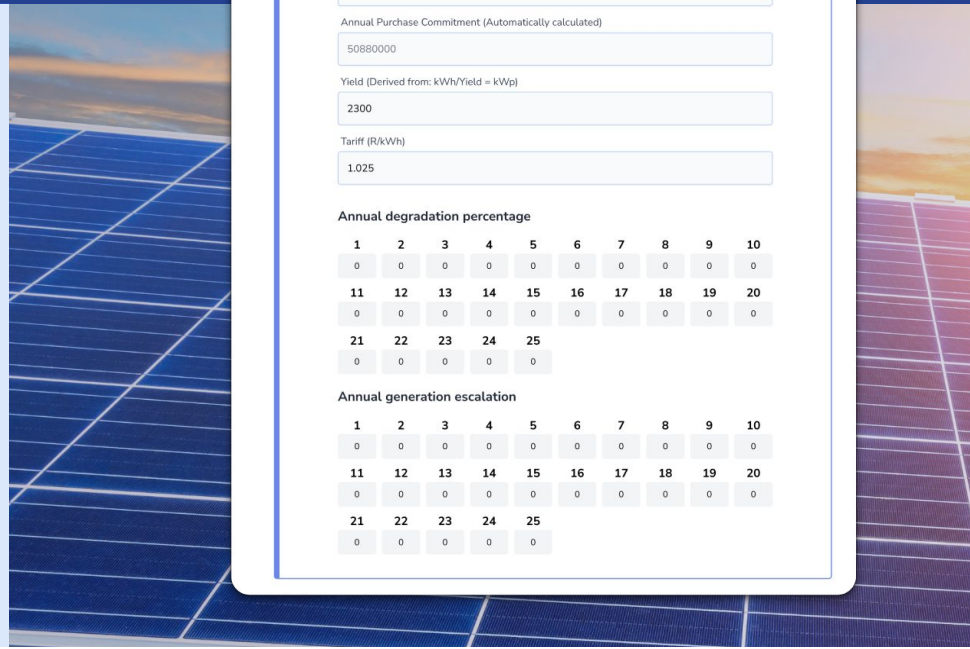
Why Energypro?

Risk Mitigation: The platform enables precise matching of energy supply and demand, helping clients avoid the pitfalls of under or overconsumption.

New Distribution Opportunities: The company opens avenues for energy distribution (specifically municipalities), enhancing the profitability and sustainability of clients' operations.



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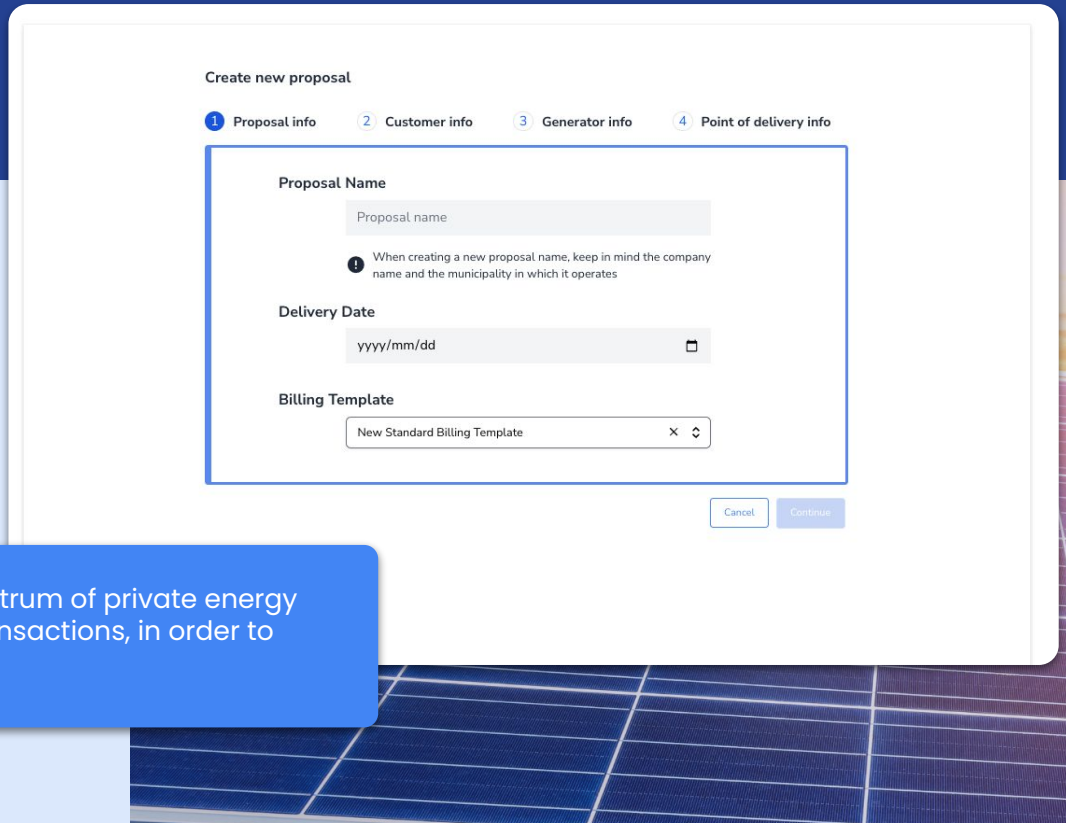
Solutions

Proposal Builder

PPA Management

Transaction Services

Billing and Reconciliation



Each solution examines the entire spectrum of private energy sales, from contract agreements to transactions, in order to facilitate accurate billing preparation

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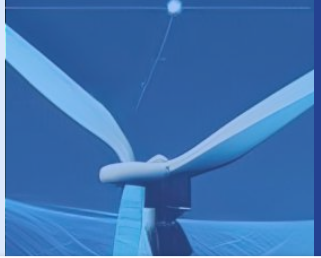
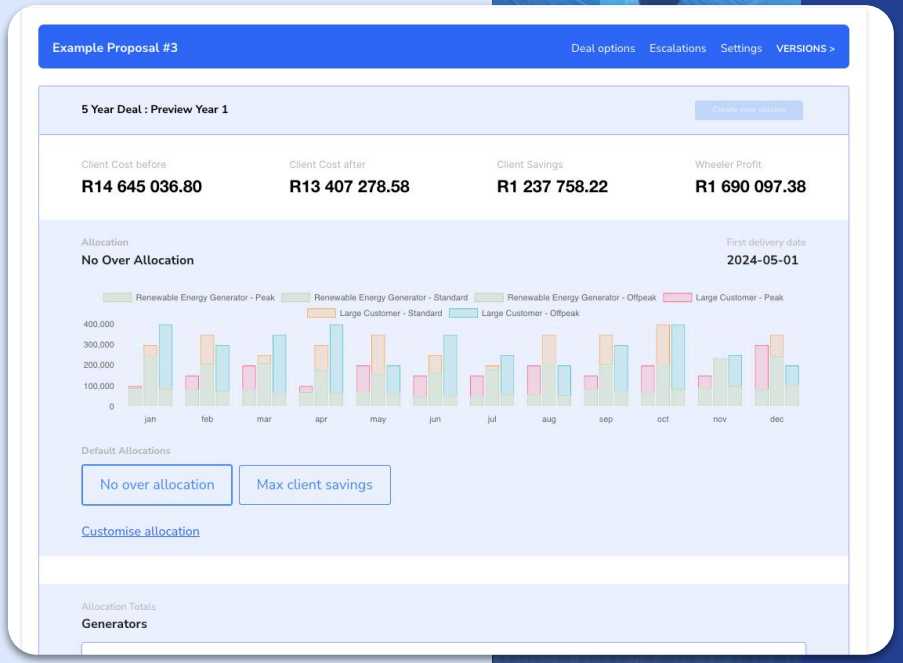
Proposals builder





Scale Proposals

- Manage agreements and accounts efficiently
- Send proposals at scale
- Provide accurate cost projections
- Risk management

Profile Matching

- Match generation and consumption profiles
- Address municipal and delivery site complexities

Scale sales

- Set default deal periods and pricing
- Create proposals quickly

Up-to-Date Tariffs

- Include latest tariffs from Eskom and municipalities
- Ensure accuracy with automatic updates

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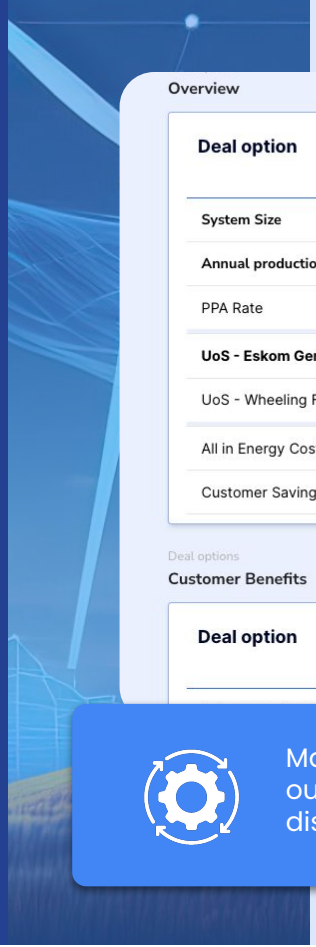
PPA Management

- Establish and execute Power Purchase Agreement (PPA) business rules
- Centralise management of customer PPAs and accounts
- Reconcile and manage customer commitments
- Ensure accurate view of generation capacity by managing committed kWh



Overview

Deal option	5 Year Deal 5 Years	10 Year Deal 10 Years	15 Year Deal 15 Years
System Size	1,884 kWp	1,884 kWp	1,884 kWp
Annual production	4,240,000 kWh	4,240,000 kWh	4,240,000 kWh
PPA Rate	1.200 kWh	1.120 kWh	1.040 kWh
UoS - Eskom Generation Costs	**0.025 kWh**	**0.025 kWh**	**0.025 kWh**
UoS - Wheeling Fees	0.075 kWh	0.075 kWh	0.075 kWh
All in Energy Cost	1.300 kWh	1.220 kWh	1.140 kWh
Customer Savings	0.454 kWh	0.534 kWh	0.614 kWh

Deal options

Customer Benefits

Deal option	5 Year Deal 5 Years	10 Year Deal 10 Years	15 Year Deal 15 Years

Manage your different sales options through our deal options feature, enabling you to display a range of custom offerings.

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PPA Management

- Sync proposals and PPA commitments for accurate allocation and invoicing
- Customise PPA rules to avoid over-allocation and find best deals
- Optimise PPA guarantees and pricing across multiple customers

Before Offset Energy (current cost): Large Customer

	Peak		Standard		Off-Peak		Total	
	kWh	R/kWh	kWh	R/kWh	kWh	R/kWh	kWh	Rands
jan	100 000	1.9602	300 000	1.3492	400 000	0.8559	800000	943 140.00
feb	150 000	1.9602	350 000	1.3492	300 000	0.8559	800000	1 023 020.00
mar	200 000	1.9602	250 000	1.3492	350 000	0.8559	800000	1 028 905.00
apr	100 000	2.1954	300 000	1.5111	400 000	0.9586	800000	1 056 316.80
may	200 000	1.9602	350 000	1.3492	200 000	0.8559	750000	1 035 440.00
jun	150 000	6.0097	250 000	1.8203	350 000	0.9884	750000	1 702 470.00
jul	150 000	6.0097	200 000	1.8203	250 000	0.9884	600000	1 512 615.00
aug	200 000	6.0097	350 000	1.8203	200 000	0.9884	750000	2 036 725.00
sep	150 000	1.9602	350 000	1.3492	300 000	0.8559	800000	1 023 020.00
oct	200 000	1.9602	400 000	1.3492	400 000	0.8559	1000000	1 274 080.00
nov	150 000	1.9602	200 000	1.3492	250 000	0.8559	600000	777 845.00
dec	300 000	1.9602	350 000	1.3492	200 000	0.8559	850000	1 231 460.00
							9 300 000.00	**14 645 036.80**
							Current Total Cost (p/kWh)	1.57

Offset Energy (excl. over-allocation): Large Customer

	Peak	Standard	Off-Peak	Total
	kWh	kWh	kWh	kWh
jan	89 476	244 778	86 596	420 849
feb	80 052	208 041	77 615	365 708
mar	83 418	212 366	63 803	359 587
apr	70 370	177 641	66 744	314 755
may	72 413	159 930	63 617	295 960
jun	48 382	164 471	53 028	265 882
jul	49 816	180 041	61 557	291 414
aug	61 798	203 268	54 990	320 055
sep	84 506	208 118	75 486	368 111
oct	68 918	204 525	85 348	358 791
nov	91 043	200 000	100 643	391 686
dec	83 782	246 458	105 442	435 682
				4 188 479.09

New Cost Structure

Remaining Utility Energy: Large Customer

	Peak		Standard		Off-Peak		Total	
	kWh	R/kWh	kWh	R/kWh	kWh	R/kWh	kWh	Rands
jan	10 523.8	1.9602	55 222.5	1.3492	313 404.4	0.8559	379 150.6	363 377.63
feb	69 948.4	1.9602	141 959.3	1.3492	222 384.7	0.8559	434 292.5	518 983.45
mar	116 581.8	1.9602	37 634.4	1.3492	286 196.5	0.8559	440 412.8	524 255.63
apr	29 630.1	2.1954	122 359.1	1.5111	333 256.1	0.9586	485 245.3	569 409.93
may	127 587.0	1.9602	190 070.3	1.3492	136 383.0	0.8559	454 040.3	623 269.10
jun	101 617.7	6.0097	85 528.6	1.8203	296 972.0	0.9884	484 118.3	1 059 906.84
jul	100 183.7	6.0097	19 959.5	1.8203	188 442.8	0.9884	308 586.0	824 663.16
aug	138 201.8	6.0097	146 732.4	1.8203	145 010.3	0.9884	429 944.5	1 240 976.65
sep	65 493.6	1.9602	141 881.7	1.3492	224 513.9	0.8559	431 889.2	511 968.79
oct	131 082.3	1.9602	195 475.2	1.3492	314 651.8	0.8559	641 209.4	789 993.28
nov	58 957.3	1.9602	0.0	1.3492	149 356.8	0.8559	208 314.1	243 402.54
dec	216 217.9	1.9602	103 541.7	1.3492	94 558.4	0.8559	414 318.0	644 461.28
							5 111 520.9	**7 914 668.28**

New Allocated Energy: Renewable Energy Generator

	Peak		Standard		Off-Peak		Total	
	kWh	R/kWh	kWh	R/kWh	kWh	R/kWh	kWh	Rands
jan	89 476.2	1.3379	244 777.5	1.2622	86 595.6	1.2396	420 849.4	536 001.15
feb	80 051.6	1.3387	208 040.7	1.2635	77 615.3	1.2404	365 707.5	466 287.81
mar	83 418.2	1.3425	212 365.6	1.2663	63 803.5	1.2541	359 587.2	460 923.59
apr	70 369.9	1.3674	177 640.9	1.2785	66 743.9	1.2585	314 754.7	407 339.42
may	72 413.0	1.3517	159 929.7	1.2744	63 617.0	1.2581	295 959.7	381 728.68
jun	48 382.3	1.7387	164 471.4	1.3175	53 028.0	1.2790	265 881.7	368 639.23
jul	49 816.3	1.7378	180 040.5	1.3153	61 557.2	1.2718	291 414.0	401 677.26
aug	61 798.2	1.7244	203 267.6	1.3117	54 989.7	1.2759	320 055.5	443 360.59
sep	84 506.4	1.3404	208 118.3	1.2654	75 486.1	1.2452	368 110.8	470 621.25
oct	68 917.7	1.3505	204 524.8	1.2670	85 348.2	1.2427	358 790.6	458 272.15
nov	91 042.7	1.3359	236 764.4	1.2616	100 643.2	1.2335	428 450.3	544 477.97
dec	83 782.1	1.3400	246 458.3	1.2618	105 441.6	1.2333	435 682.0	553 281.21
							4 225 243.5	**5 492 610.31**
							Cost (p/kWh)	1.30

Review the details for cost structure and energy allocation for every month and time-of-use.

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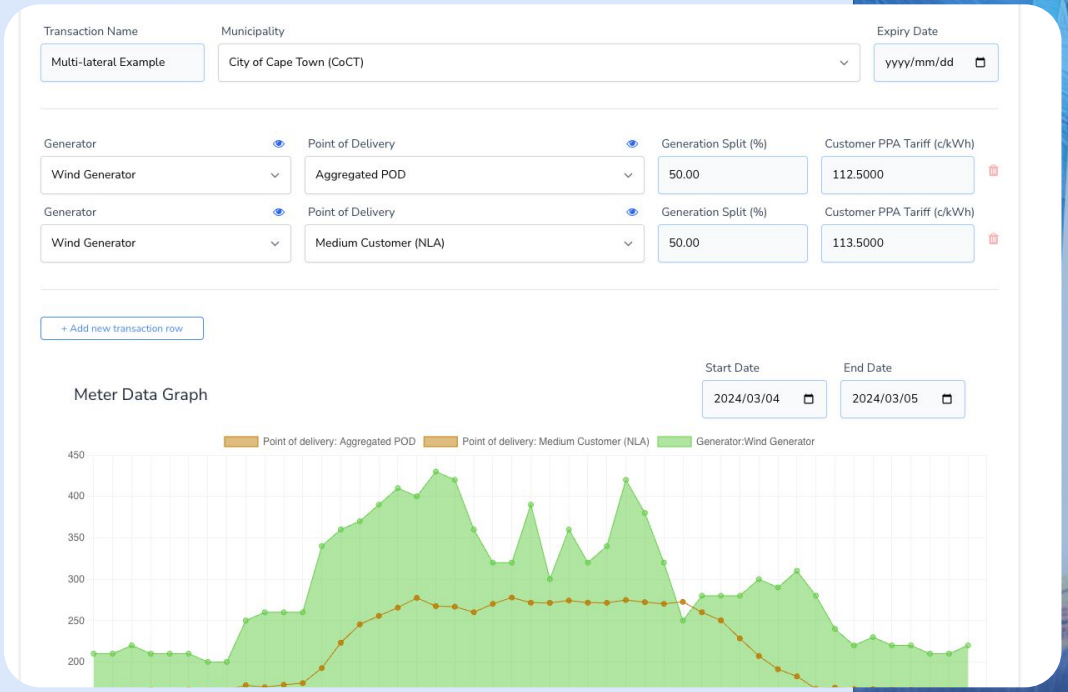
Transaction Services



- Automates complex energy transactions based on PPA
- Ensures pricing accuracy and efficient energy optimisation
- Uses smart meter data for efficient transactions
- Provides real-time PPA analysis and optimisation
- Matches generation and consumption data effectively

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Transaction Services

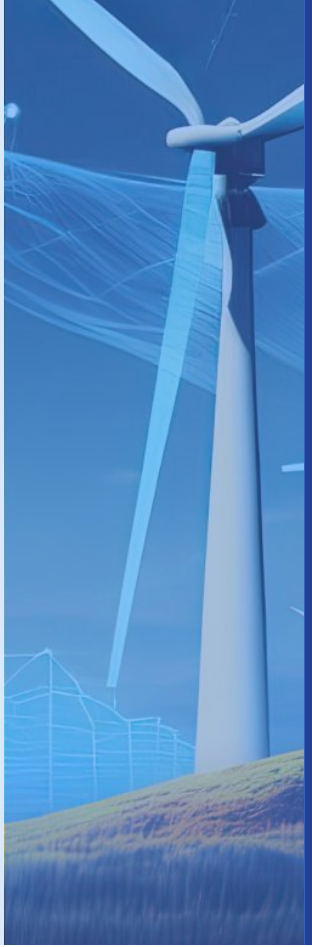
Multi-lateral Example

Transaction Summary from 2024-03-01 to 2024-04-01

Download CSV

Transaction Summary	PEAK (kWh)	STANDARD (kWh)	OFFPEAK (kWh)	Total (kWh)
Generator Allocated Total	**59,575.0 kWh**	**102,015.0 kWh**	**160,130.0 kWh**	**321,720.0 kWh**
Wind Generator (kWh)	59,575.0	102,015.0	160,130.0	321,720.0
Medium Customer (NLA) (kWh)	28,260.0	53,645.0	78,955.0	160,860.0
Medium Customer (NLA) Cost @ 113.5000c	R32,075.10	R60,887.08	R89,613.93	R182,576.10
Open Access Energy - HQ (kWh)	31,315.0	48,370.0	81,175.0	160,860.0
Open Access Energy - HQ Cost @ 112.5000c	R35,229.38	R54,416.25	R91,321.88	R180,967.50
Offtaker Total Usage	**88,267.4 kWh**	**235,326.0 kWh**	**243,695.8 kWh**	**567,289.2 kWh**
Medium Customer (NLA) (kWh)	42,284.4	121,093.8	120,266.4	283,644.6
Open Access Energy - HQ (kWh)	45,983.0	114,232.2	123,429.4	283,644.6
Generator Matched	**58,936.8 kWh**	**101,618.2 kWh**	**154,322.6 kWh**	**314,877.6 kWh**
Wind Generator (kWh)	58,936.8	101,618.2	154,322.6	314,877.6
Medium Customer (NLA) (kWh)	27,941.8	53,439.4	76,057.6	157,438.8
Medium Customer (NLA) Cost @ 113.5000c	R31,713.94	R60,653.72	R86,325.38	R178,693.04
Open Access Energy - HQ (kWh)	30,995.0	48,178.8	78,265.0	157,438.8
Open Access Energy - HQ Cost @ 112.5000c	R34,869.38	R54,201.15	R88,048.13	R177,118.65
Generator Surplus	**638.2 kWh**	**396.8 kWh**	**5,807.4 kWh**	**6,842.4 kWh**
Wind Generator (kWh)	638.2	396.8	5,807.4	6,842.4
Medium Customer (NLA) (kWh)	318.2	205.6	2,897.4	3,421.2
Open Access Energy - HQ (kWh)	320.0	191.2	2,910.0	3,421.2

Invoice: Medium Customer (NLA)	Invoice: Open Access Energy - HQ
Invoice Date: 2024-03-01 to 2024-04-01 Create Invoice	**Invoice Date:** 2024-03-01 to 2024-04-01 Create Invoice



- Offers real-time view of consumption data
- Prevents over-allocation by managing allocations accurately
- Optimises energy fulfillment based on PPA commitments
- Manages risk and optimises margins based on guarantees and firm/non-firm transactions
- Sends energy credit instructions to municipalities or Eskom for cost savings

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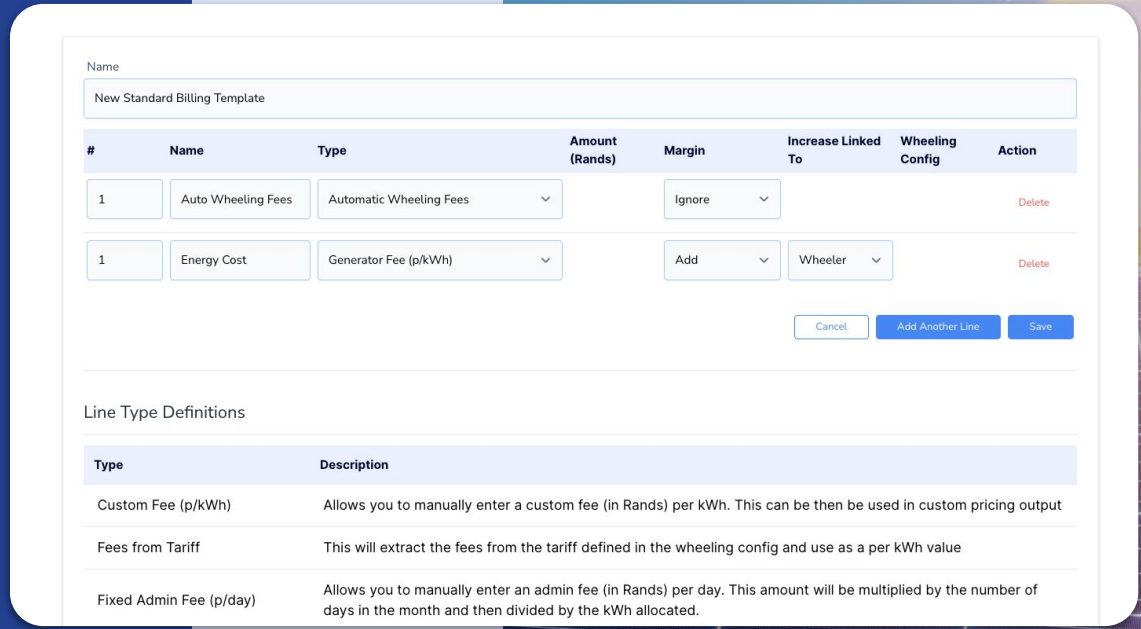
Billing and Reconciliation

- Streamlines revenue collection for private energy producers and consumers
- Automates calculation and invoicing of energy consumption
- Avoids discrepancies or disputes
- Provides detailed energy reports for customers



Name

New Standard Billing Template

#	Name	Type	Amount (Rands)	Margin	Increase Linked To	Wheeling Config	Action
1	Auto Wheeling Fees	Automatic Wheeling Fees		Ignore			Delete
1	Energy Cost	Generator Fee (p/kWh)		Add	Wheeler		Delete

Cancel | Add Another Line | Save

Line Type Definitions

Type	Description
Custom Fee (p/kWh)	Allows you to manually enter a custom fee (in Rands) per kWh. This can be then be used in custom pricing output
Fees from Tariff	This will extract the fees from the tariff defined in the wheeling config and use as a per kWh value
Fixed Admin Fee (p/day)	Allows you to manually enter an admin fee (in Rands) per day. This amount will be multiplied by the number of days in the month and then divided by the kWh allocated.

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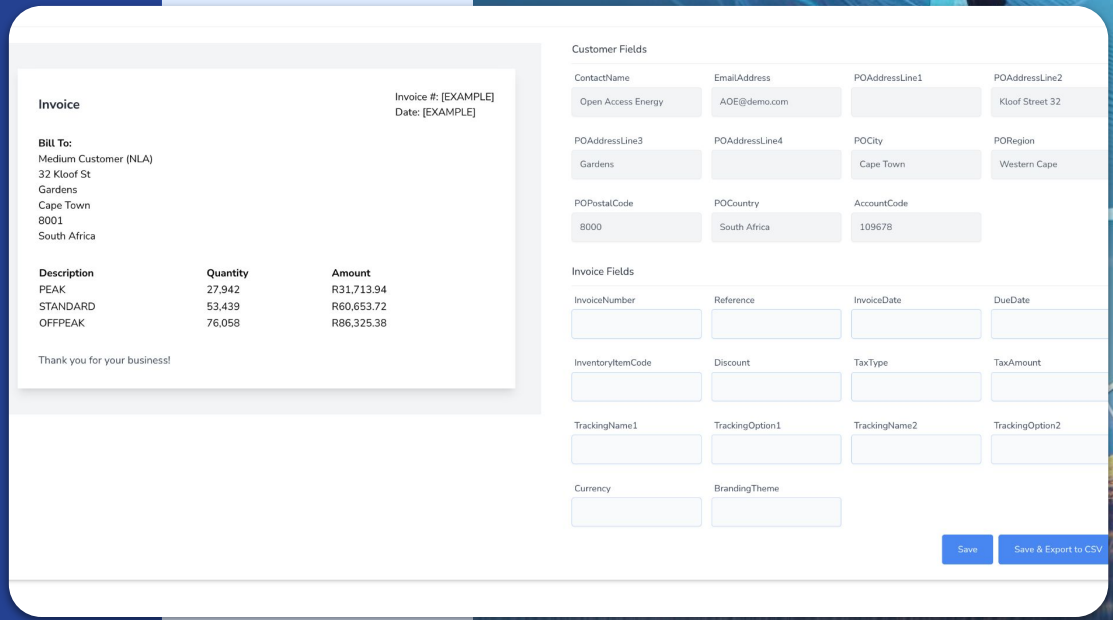
Billing and Reconciliation

- Connects accounts to wheeling transactions for efficient energy allocation
- Identifies and manages generator and off-taker accounts
- Automates matching and allocation of wheeling based on generation and consumption data
- Automatically loads wheeling credits on customer bills based on the wheeling tariff



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APPENDIX:

End-to-End Wheeling Solution for Private Energy Generation

Live

In development

PROPOSALS BUILDER

- Load generator profile
- Load consumer profile
- Build proposals based on tenure or volume discounts
- Create firm and non-firm proposals for
- Single customers
- Multiple customers
- Portfolio customers across multiple municipalities and Eskom

PPA MANAGEMENT

- Convert proposals into PPAs
- Sync original proposals and PPA commitments for accurate allocation and invoicing
- Customise PPA rules with billing template feature
- Reconfigure energy allocation to find the best deal and avoid over allocation
- Handle different minimum guarantees and pricing for multiple customers
- Optimise guarantees at the time of transaction with the system

TRANSACTION SERVICES

- Check meter data
- Dynamic allocations/risk management
- Prevent loss of over-allocated kWh
- Manage allocations accurately
- Avoid under allocation and penalty risks based on PPA guarantees
- Generation matching
- Generation matching
- Credit allocation
- Send energy credit instructions to customer's municipality or Eskom
- Apply energy credits to consumer's account for cost savings
- Optimised energy fulfilment based on PPA commitments
- Handle multiple PPAs with varying minimum guarantees
- Apply customised business rules to optimise profitability

BILLING & RECONCILIATION

- Calculate new bill for consumers after wheeling credit
- Calculate wheeler invoice to consumers based on PPA
- Integrate into wheeler's ERP or financial system

FUTURE VALUE ADDS

- Payment collections
- Off-take of last resort
  Load reduction and curtailment
- Data analytics and reporting
- Optimisation via AI and machine learning


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