Opening energy access to all

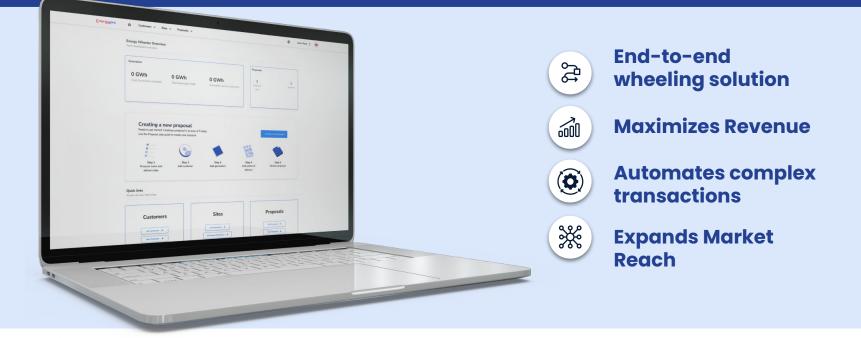


Imagine a platform that handles your end-to-end wheeling needs. From tailored proposals to intricate multilateral transactions. Simple, scalable & efficient.



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 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

	Energy Wheeler Overview Team dashboard overview Generation 532.34 GWh Total Generation Available Total Generation Creating a new proposal is a	Sold Generation sent to customer	rs Proposals O Proposals Sett	2 Agrowed
	532.34 GWh Total Generation Available Total Generation	Sold Generation sent to customer	rs D Proposala	
	Total Generation Available Total Generation	Sold Generation sent to customer	rs Proposals	
	Ready to get started. Creating a proposal is a	al		
	Use the Proposal step guide to create your pro		+ Create a new proposa	1
			1	
	Step 1 Step 2 Proposal name and Add custor delivery date		Step 4 Step 5 Add points of Review propos delivery	al
	Quick links Access all your tasks here			
	Customers	Sites	Proposals	
	All Customers 🔶	All Generators 🔶	All Proposate 🔶	
tes energy sale	s, automated			
tions, and billin ers and consun	ng between privo mers	ite		The second protection



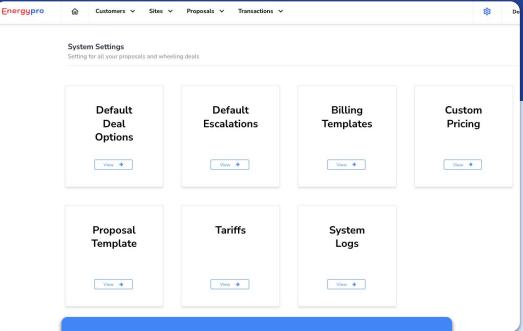
Key Benefits

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.





Wł	ny I	Ene	ergyp	oro?						
Energypro	命 Cust	tomers ∽ S	ites 🗸 Proposals 🗸 🗌	Transactions 🗸			鐐	Demo Team	0	
	Transaction View current tr		is and past transaction informatio	on						
	Transacti	ion Settings				Run Transaction	Transaction			
	Transact	ion Name	Multi-lateral Example							
	Municipa Expiry D		City of Cape Town (CoCT) Never expire							
	Generator Wind Gen	perator	Point of Delivery Aggregated POD		Generation Split	Customer PPA Tariff				
	Wind Gen		Medium Customer (NI	.A)	50.00	R1.135				
	Transactio	on History								
	#	Start Date	End Date	Created Date		Actions				
	1	2024-03-01	2024-04-01	2024-04-24 12:09	:14	View Transaction Summary				and the
	2	2024-03-01	2024-04-01	2024-04-24 12:45	:57	View Transaction Summary				-
	16	2024-03-01	2024-04-01	2024-05-15 13:41:	12	View Transaction Summary				45 010
	18	2024-03-01	2024-04-01	2024-05-16 10:56	:18	View Transaction Summary				

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).



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.

Site Nar	ne								
Solar F	arm Gene	erator							
Energy	Type (eg. 1	wind, sola	r)						
Solar									~
Commis	sion Date								
2024/	02/01								
Annual	Purchase	Commitm	ent (Auto	matically	alculated)			
50880	000								
Yield (D	erived fro	m: kWh/Y	ield = kW	nl					
2300									
Tariff (R	/kW/b)								
1.025	(K (Y II)								
1.025									
Annua	l degra	dation	percent	age					
1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0
11	12	13	14	15	16	17	18	19	20
0	0	0	0	0	0	0	0	0	0
21	22	23	24	25					
0	0	0	0	0					
Annua	l gener	ation es	calatio	n					
1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0
11	12	13	14	15	16	17	18	19	20
0	0	0	0	0	0	0	0	0	0
21	22	23	24	25					

Generator Details





Solutions

Proposal Builder PPA Management Transaction Services Billing and Reconciliation

Create new proposal

Proposa	l Name			
	Proposal name			
		v proposal name, keep in mind pality in which it operates	the company	
Delivery	Date			
	yyyy/mm/dd			
Billing T	emplate	emplate	× ¢	
			Ca	ncel Contr
rgy				



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





Proposals builder

5 Year Deal : Preview Year 1			
Client Cost before	Client Cost after	Client Savings	Wheeler Profit
R14 645 036.80	R13 407 278.58	R1 237 758.22	R1 690 097.38
Allocation			First delivery dat
No Over Allocation			2024-05-01
300,000 200,000 0 jan feb	mar apr may jun	jul aug sop	oct nov dec
Default Allocations No over allocation	Max client savings		
Customise allocation			

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



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

Deal option	5 Year Deal	10 Year Deal	15 Year Deal
	5 Years	10 Years	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 ®
options			
tomer Benefits			
Deal option	5 Year Deal	10 Year Deal	15 Year Deal
	5 Years	10 Years	15 Years



Overview

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





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

Energypro

Before Offset Energy (current cost): Large Customer

	Pe	ak	Stand	lard	Off-P	eak	Tota	al
	kWh	R/kWh	kWh	R/kWh	kWh	R/kWh	kWh	Rand
jan	100 000	1.9602 🍞	300 000	1.3492 🕐	400 000	0.8559 (2)	800000	943 140.00
feb	150 000	1.9602 🕐	350 000	1.3492 🕐	300 000	0.8559 ③	800000	1 023 020.00
mar	200 000	1.9602 🕐	250 000	1.3492 🕐	350 000	0.8559 (1)	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	1702 470.00
jul	150 000	6.0097 🕐	200 000	1.8203 🕐	250 000	0.9884 (1)	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 (2)	1000000	1 274 080.00
nov	150 000	1.9602 🕐	200 000	1.3492 🕐	250 000	0.8559 (1)	600000	777 845.00
dec	300 000	1.9602 🍞	350 000	1.3492 🕐	200 000	0.8559 (2)	850000	1 231 460.00
							9 300 000.00	14 645 036.80
						Current To	tal Cost (p/kWh)	1.53

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

	Pea	k	Standa	ard	Off-Pe	eak	Tot	tal
	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

	Pea	k	Standa	ard	Off-Pe	ak	Tot	al
	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 (2)	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 0 4 2.7	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.



Transaction Services

Insaction Name Munic	ipality					Expiry Date	
lulti-lateral Example City	of Cape T	own (CoCT)			~	yyyy/mm/dd	
nerator	۲	Point of Delivery	 Gen 	eration Split (%)	Custo	omer PPA Tariff (c/kWh)
Vind Generator	~	Aggregated POD	~ 50	.00	112	.5000	Û
nerator	۲	Point of Delivery	💿 Gen	eration Split (%)	Custo	omer PPA Tariff (c/kWh	1)
Vind Generator	~	Medium Customer (NLA)	~ 50	.00	113	.5000	Û
+ Add new transaction row				Start Date 2024/03/04		nd Date 2024/03/05	
	Point of c	ellvery: Aggregated POD	omer (NLA)				
Meter Data Graph	Point of c	elivery: Aggregated POD Point of delivery: Medium Cust	omer (NLA)	2024/03/04			
Meter Data Graph	Point of c	elivery: Aggregated POD Point of delivery: Medium Cust	omer (NLA)	2024/03/04			
Meter Data Graph	Point of c	elivery: Aggregated POD Point of delivery: Medium Cust	omer (NLA)	2024/03/04			
Meter Data Graph	Point of c	ellvery: Aggregated POD Point of delivery: Medium Cust	omer (NLA)	2024/03/04			



- 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



Transaction Services

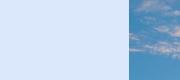
lti-lateral Example				
ransaction Summary from 2024-0	03-01 to 2024-04-01			Download CSV
Transaction Summary	PEAK (kWh)	STANDARD (kWh)	OFFPEAK (kWh)	Total (kWh
Generator Allocated Total	59,575.0 kWh	102,015.0 kWh	160,130.0 kWh	321,720.0 kWh
Wind Generator (kWh)	59,575.0	102,015.0	160,130.0	321,720.
Medium Customer (NLA) (kWh)	28,260.0	53,645.0	78,955.0	160,860.
Medium Customer (NLA) Cost @ 113.5000c	R32,075.10	R60,887.08	R89,613.93	R182,576.1
Open Access Energy - HQ (kWh)	31,315.0	48,370.0	81,175.0	160,860.
Open Access Energy - HQ Cost @ 112.5000c	R35,229.38	R54,416.25	R91,321.88	R180,967.5
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.
Open Access Energy - HQ (kWh)	45,983.0	114,232.2	123,429.4	283,644.
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.
Medium Customer (NLA) (kWh)	27,941.8	53,439.4	76,057.6	157,438.
Medium Customer (NLA) Cost @ 113.5000c	R31,713.94	R60,653.72	R86,325.38	R178,693.0
Open Access Energy - HQ (kWh)	30,995.0	48,178.8	78,265.0	157,438.
Open Access Energy - HQ Cost @ 112.5000c	R34,869.38	R54,201.15	R88,048.13	R177,118.6
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.
Medium Customer (NLA) (kWh)	318.2	205.6	2,897.4	3,421
Open Access Energy - HQ (kWh)	320.0	191.2	2,910.0	3,421
Invoice: Medium Customer (NLA)	Invoice: Open Access Energy - HQ			
Invoice Date: 2024-03-01 to 2024-04-01	Invoice Date: 2024-03-01 to 2024-04-01			

- 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



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



(\$)

New St	andard Billing Template							
	Name	Туре	Amount (Rands)	Margin	Increase Linked To	Wheeling Config	Action	
1	Auto Wheeling Fees	Automatic Wheeling Fees ~		lgnore ~			Delete	
1	Energy Cost	Generator Fee (p/kWh) V		Add ~	Wheeler 🗸		Delete	
					Cancel	Add Another Line	Save	
ne Iy Type	pe Definitions	Description						
Custo	m Fee (p/kWh)	Allows you to manually enter a custo	om fee (in Ra	nds) per kWh. This ca	an be then be use	d in custom pri	cing outpu	
Fees from Tariff		This will extract the fees from the tariff defined in the wheeling config and use as a per kWh value						
				nds) per day. This am				





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



Invoice

Bill To:

South Africa

Description PEAK STANDARD

Medium Customer (NLA) 32 Kloof St Gardens Cape Town 8001

Thank you for your busine



			Customer Fields			
			ContactName	EmailAddress	POAddressLine1	POAddressLine2
	Invoice #: [EXAMPLE] Date: [EXAMPLE]	1	Open Access Energy	AOE@demo.com		Kloof Street 32
			POAddressLine3	POAddressLine4	POCity	PORegion
			Gardens		Cape Town	Western Cape
			POPostalCode	POCountry	AccountCode	
			8000	South Africa	109678	
Quantity	Amount		Invoice Fields			
27,942 53,439	R31,713.94 R60,653.72		InvoiceNumber	Reference	InvoiceDate	DueDate
76,058	R86,325.38					
			InventoryItemCode	Discount	ТахТуре	TaxAmount
			TrackingName1	TrackingOption1	TrackingName2	TrackingOption2
			Currency	BrandingTheme		
						Save Save & Export to C





APPENDIX:

In development

Live

End-to-End Wheeling Solution for Private Energy Generation

PROPOSALS BUILDER	PPA MANAGEMENT	TRANSACTION SERVICES	BILLING & RECONCILIATION	
Load generator profile	Convert proposals into PPAs	Check meter data	Calculate new bill for consumers after wheeling credit	
Loud generator prome	convert proposais into 11 As	Dynamic allocations/risk management		
Load consumer profile	Sync original proposals and PPA commitments for accurate allocation and invoicing	Prevent loss of over-allocated kWh		
		Manage allocations accurately	Calculate wheeler invoice to consumers based on PPA	
Build proposals based on tenure or volume		Avoid under allocation and penalty risks based on PPA guarantees	Integrate into wheeler's ERP or	
discounts	Customise PPA rules with	Generation matching	financial system	
	billing template feature	Generation matching		
Create firm and	Reconfigure energy allocation to find the best deal and avoid over allocation	Credit allocation	FUTURE VALUE ADDS	
non-firm proposals for		Send energy credit instructions to customer's municipality or Eskom	Payment collections	
Single customers Multiple customers	Handle different minimum guarantees and pricing for multiple customers	Apply energy credits to consumer's account for cost savings	Off-take of last resort Load reduction and	
Portfolio customers		Optimised energy fulfilment based on PPA commitments	curtailment	
across multiple municipalities and	Optimise guarantees at the time of transaction with the system	Handle multiple PPAs with varying minimum guarantees	Data analytics and reporting	
Eskom		Apply customised business rules to optimise profitability	Optimisation via AI and machine learning	

Opening energy access to all

Open Access Team | hello@openaccess.energy

