Investment Summary

Indigenous Woodlot Programme — Zimbabwe Tobacco Industry

MarillionEx transforms Zimbabwe's tobacco industry from compliance burden to sustainable capital asset. Turnkey woodlot design, establishment, and 30-year management delivering verified carbon credits, biochar innovation, premium timber, and Diamond Standard ESG compliance.

11.1%	$21,532	3.7x	Year 6
15-Year IRR	Net/ha at Year 15	Return Multiple	Self-Funding

A merchant with 5,000 ha who commits today is building a 30-year asset that generates an estimated $205M net over the full cycle — from a $28.9M total investment. This is not a cost centre. This is legacy capital.

1. The Investment Thesis

The Zimbabwe firewood ban requires tobacco merchants to establish sustainable fuel sources. Most view this as a compliance cost. MarillionEx transforms it into a pension-grade investment.

Every hectare planted generates five distinct revenue streams over a 30-year cycle — fuel supply, carbon credits, biochar income, premium timber, and ESG compliance. By Year 6, the woodlot's carbon credit income exceeds the annual management fee. The woodlot becomes self-funding — and continues building value towards a Year 15 harvest event worth $21,532 net per hectare.

The 15-year IRR of 11.1% exceeds the 7–9% target return of most institutional pension funds. This is derived entirely from a plantation established to meet a regulatory obligation.

2. Five Revenue Streams

Stream	Description	Activation	Revenue Model
1. Consultancy & ESG Advisory	Environmental audit, ESG retainer, project management	Year 1 onwards	$15-25k audit + $12k/yr retainer + 15% PM fee
2. Woodlot Management	GIS monitoring, fire-guarding, pruning, survival tracking	Year 1-15 per cycle	$400/ha/year — recurring annuity

Stream	Description	Activation	Revenue Model
3. Carbon Credit Brokerage (ARR)	Register and trade Afforestation Removal credits	Year 3 onwards	20% commission on ARR at $37/tCO2
4. Biochar Brokerage (BCR)	Coppice waste to biochar; BCR credits registered and traded	Year 3 onwards	20% commission on BCR at $177/tCO2e
5. Timber Brokerage	Buyer procurement, valuation, harvest management, replanting	Year 15 per cycle	12% on gross timber sale value

Stream 4 — Biochar — is MarillionEx's most distinctive competitive moat. At $177/tonne, BCR credits are the highest-value instrument in the Voluntary Carbon Market (4.78x ARR). BCR generates 61% of total credit commission revenue.

3. The Three-Species Strategy

MarillionEx deploys a scientifically designed mixed plantation — 40% Fever Tree / 30% Albizia / 30% Teak — optimised to deliver compliance fuel, carbon income, and premium timber across a 30-year cycle. Initial planting density: 1,666 stems per hectare (3m x 2m spacing), progressively thinned to ~640 stems/ha by Year 15.

Vachellia xanthophloea — The Fever Tree (40%)

The Coppice and Carbon Engine

- Triple regrowth on coppicing — 5-10 heavy stems per cut within 18 months
- Nitrogen-fixing root system restores tobacco-depleted soils
- Wood density: 532 kg/m3 | Calorific value: 18.4 kJ/g — superior for barn curing
- Carbon sequestration: 5.4 tCO2/ha/year — Gold Standard eligible from Year 3
- Three coppice cycles (Y4, Y8, Y12) supply fuel + biochar feedstock
- Riparian species — regulates water cycle (unlike Eucalyptus which depletes it)
- Year 15 clearfell: 280 stems/ha | 15.4 m3/ha | $380/m3 | $5,852/ha

Albizia antunesiana — The Structural Timber Layer (30%)

The Productive Middle Layer

- Rapid early canopy growth (2-3 m/yr) — suppresses weeds, protects Teak seedlings
- Air-dried density: 640-790 kg/m3 — premium fuel wood for KCC1 and advanced barns
- Selective thinning at Year 8 opens canopy for Teak, generates first timber income
- Excellent nitrogen fixer — complements Fever Tree soil restoration
- Year 15 clearfell: 180 stems/ha | 18.0 m3/ha | $460/m3 | $8,280/ha

Tectona grandis — Teak (30%)

The Pension Asset

- One of the world's most commercially valuable hardwoods
- Market price: $800-$1,200/m3 at 15 years, rising to $2,000-$4,000/m3 at 25+ years
- Global Teak prices have appreciated 6-8% per year for 20 years
- Zimbabwe's climate rated highly suitable (MAT 18-26C, distinct wet/dry seasons)
- Drought-resistant once established — lowest management risk of the three species
- Year 15 clearfell: 180 stems/ha | 17.1 m3/ha | $920/m3 | $15,732/ha
- Teak alone generates 52% of total Year 15 gross timber value

4. Year 15 Harvest Economics (Per Hectare)

Species (Mix)	Stems/ha	Volume/ha	Price/m3	Gross Value/ha
Fever Tree — 40%	280	15.4 m3	$380	$5,852
Albizia — 30%	180	18.0 m3	$460	$8,280
Teak — 30%	180	17.1 m3	$920	$15,732
GROSS TOTAL	**640**	**50.5 m3**	**$590 avg**	**$29,864**
MarillionEx brokerage (12%)				- $3,584
Replanting cost (new cycle)				- $4,748
NET TO MERCHANT/HA				**$21,532**

5. Merchant Scale Returns at Year 15

Scale	Total 15yr Investment	Y15 Gross Timber	MarillionEx 12%	Net to Merchant	Return Multiple
500 ha	$2.9M	$14.9M	$1.8M	$10.8M	3.7x
1,000 ha	$5.8M	$29.9M	$3.6M	$21.5M	3.7x
2,000 ha	$11.6M	$59.7M	$7.2M	$43.1M	3.7x
5,000 ha	**$28.9M**	**$149.3M**	**$17.9M**	**$107.7M**	**3.7x**
10,000 ha	$57.9M	$298.6M	$35.8M	$215.3M	3.7x

6. Carbon Credit Revenue Model

Credit Type	Price (2026)	Commission	Merchant Receives	Yield/ha/yr	Revenue /ha/yr
Carbon Removal (ARR)	$37/tCO2	20% = $7.40/t	80% = $29.60/t	5.4 t/ha/yr	$40/ha/yr
Biochar Removal (BCR)	**$177/tCO2e**	**20% = $35.40/t**	**80% = $141.60/t**	**~2 t/ha/yr**	**$70/ha/yr**
Water Credits	$4/1,000 gal	20%	80%	Site-specific	~$5/ha/yr
Wildlife Credits	Performance	20%	80%	Biodiversity	Variable
TOTAL SUITE		**20% blended**	**80% blended**	**Combined**	**~$115/ha/yr**

ARR vs BCR Comparison

Factor	ARR Carbon	BCR Biochar
Market price	**$37/tCO2**	**$177/tCO2e (4.78x)**

Factor	ARR Carbon	BCR Biochar
Commission/ha/yr	$39.96	$70.80 (1.77x more)
Carbon permanence	Decades (reversible)	100-1,000 yrs IRREVERSIBLE
Nullification risk	Medium (fire/mortality)	Near-zero (soil lock-up)
Greenwashing risk	Medium	ZERO — physical permanence
% of credit revenue	**39%**	**61% (dominant stream)**

7. Credit Revenue at Scale

Hectares	ARR Revenue/yr (Merchant 80%)	BCR Revenue/yr (Merchant 80%)	Total Credit Income/yr	MarillionEx Commission/yr
2,000 ha	$319,680	$566,400	$886,080	$221,520
5,000 ha	$799,200	$1,416,000	$2,215,200	$553,800
10,000 ha	$1,598,400	$2,832,000	$4,430,400	$1,107,600
30,000 ha	**$4,795,200**	**$8,496,000**	**$13,291,200**	**$3,322,800**
80,000 ha	$12,787,200	$22,656,000	$35,443,200	$8,860,800

At 30,000 ha under management: BCR Biochar alone generates $2.1M/yr in MarillionEx commission and $8.5M/yr in merchant credit income — 61% of the entire credit commission stream.

8. The Biochar Soil Loop

MarillionEx's Unique Innovation — No Other Consultancy Operates This System

Step	Process	Output
1. Coppice	Fever Tree pruning waste harvested at Years 4, 8, and 12	Raw biomass
2. Process	Biomass processed at mobile kilns into high-permanence biochar	Biochar product
3. Register	BCR credits registered at $177/tonne CO2e	MarillionEx earns 20% commission
4. Distribute	Biochar distributed FREE to 130,000 smallholder growers	Zero cost to growers
5. Remediate	Biochar remediates tobacco-depleted soils; improves leaf quality	Higher leaf grade
6. Revenue	Better leaf = better prices for merchant procurement	Improved margins
7. Repeat	Three coppice cycles ensure continuous production over 12 years	Perpetual system

9. The 30-Year Perpetual Cycle

The plantation does not end at Year 15 — it restarts. Replanting is funded from harvest proceeds, creating a perpetual, self-renewing income engine.

Phase	Years	What Happens	Merchant Position
Establishment	Y0	Plant 1,666 stems/ha (40% FT / 30% Alb / 30% Teak)	- $4,749 (capex)
Early Growth	Y1-Y3	GIS management; ESG baseline	- $400/yr (mgmt fee)
Carbon Income	Y3+	ARR + BCR credits commence	- $240/yr net
Coppice 1	Y4	Fever Tree coppice — fuel + biochar	+ $250/yr net
Self-Funding	Y6	Credit income > management fee	+ positive
Thinning	Y8	Albizia thin + FT Coppice 2	+ $250/yr + timber
Teak Thinning	Y10	Teak selective thinning	+ $250/yr + Teak
Final Coppice	Y12	FT Coppice 3 — last fuel cycle	+ $250/yr net
Pre-Harvest	Y14	Timber valuation; buyer contracts	+ $250/yr
HARVEST	**Y15**	**Clearfell all species**	**+ $21,532/ha NET**
Replanting	Y16	Replanting from Y15 proceeds	$0 net cost
Cycle 2	Y16-30	Same structure; Teak dominant	+ $250-400/yr
Harvest 2	Y30	Second clearfell	+ $29,000-40,000/ha

10. 30-Year Return Summary (Per Hectare)

Period	Merchant Investment	Merchant Returns	Net
Cycle 1 (Y0-Y15)	$5,788	$24,532	+ $18,744
Cycle 2 (Y16-Y30)	$4,748 (replanting)	~$27,000 est.	+ ~$22,252
Total 30 Years	**$10,536**	**~$51,532 est.**	**+ ~$41,000/ha**
30-Year IRR			**11.6%**

MarillionEx 10-Year Financial Summary

Metric	Year 1	Year 3	Year 5	Year 10	Year 15+
Ha Under Mgmt	2,000	12,000	30,000	80,000	80,000+
Merchant Clients	3	8	12	22	22+
Total Revenue	**$2.6M**	**$9.5M**	**$22.8M**	**$62.4M**	**$62.4M + timber**
EBITDA	**$0.7M**	**$4.5M**	**$12.5M**	**$38.2M**	**$38.2M+**
EBITDA Margin	28%	48%	55%	61%	61%+
Timber Brokerage	—	—	—	—	$35.8M/yr (Y20)
Merchant IRR	—	—	—	—	11.1%

11. Why Indigenous — Not Eucalyptus

Factor	Eucalyptus (Gum)	MarillionEx Indigenous
Water impact	Depletes water table	Fever Tree regulates water
Soil impact	Acidifies soil; no N-fixation	Both species fix nitrogen
Fire risk	Highly flammable	Low flammability; managed
Coppicing	Limited; replanting needed	5-10 stems per coppice cut
Carbon credits	Limited eligibility	Gold Standard: ARR + BCR
Biodiversity	Monoculture suppression	Mixed species; wildlife habitat
Timber at Y15	$200-350/m3 (commodity)	$380-920/m3 (premium)
Community	None	Free biochar to 130,000 farmers

Ready to build your timber asset? Contact MarillionEx to request a full investment pack, site-specific feasibility analysis, and merchant onboarding timeline.

Contact

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