

A Made-in-Canada Logistics Breakthrough for Heavy Bitumen

Heat-free.
Diluent-free.
CO₂e-free.
Export-ready.
Indigenous aligned.

The Problem: Canada's Competitiveness Is a Logistics Problem

Canada does not lack production. It lacks a globally competitive delivery model.

Today's heavy-bitumen logistics rely on:

- Diluent, consuming 30-40%+ of each barrel as thinning agents and inflating costs
- Continuous heating, creating persistent energy demand and emissions across storage and transport.
- Long overland routes, limiting access to non-U.S. refiners and reducing Canada's flexibility in global markets.

Even with new pipelines, these fundamentals don't change: pipelines move liquid, and the product still requires heat and/or diluent, plus ongoing constraints on market diversification.

The Solution: Move Heavy Bitumen the Way Nature Intended—Solid

RBITT enables a new pathway: transition heavy bitumen into a stable solid form that can be stored and shipped without heating or diluent, then re-liquefied on-site only when needed.

This approach:

- Eliminates heating energy required for storage and transport
- Eliminates diluent and the "lost capacity" it creates
- Enables bulk rail and marine transport, expanding market access beyond traditional routes
- Enables Zero cost, CO₂e-free inventory
- Improves safety and handling by moving a stable solid rather than a hot hazardous liquid



RBITT is an Alberta-based indigenous-aligned company with a patented solution that transitions bitumen into a stable, buoyant solid for storage and transport without diluent or continuous heating, enabling bulk rail and marine shipping.

Why It Matters to Canada, Humankind (and Why Now)

Emissions reduction through logistics reform

RBITT targets a major inefficiency: the constant heat and handling required to move heavy bitumen.

Market access and price resilience

By enabling CO₂e-free, heat-free, diluent-free logistics compatible with global shipping pathways, Canada increases resilience and diversification potential for heavy bitumen supply.

A domestic industrial buildup

The commercial model scales via licensed technology and transition facilities, supporting Canadian fabrication, construction, and long-term operational jobs.

Indigenous-led economic participation

Indigenous-rooted leadership and financing pathways create a credible structure for shared-benefit infrastructure development.

De-Risk First Adoption and Enable Scale

RBITT's start strategy validates the operating data needed for global licensing while de-risking first adoption through targeted support.

We're seeking an early partner to back the first installation and start-up, proving a modern heavy-bitumen transition and logistics model that eliminates heat requirements and diluent dependence. The outcome is a scalable pathway to lower-cost, more flexible supply.

What Success Looks Like

- A proven, Canadian first-of-kind transition facility demonstrating stability, emissions reduction, and re-liquefaction performance
- A scalable licensing pathway for global refiners
- Expanded export readiness and market access for Canadian heavy bitumen
- A new Canadian industrial category: CO₂e-free, solid-state, heavy-bitumen logistics



JOURNEY 'At a Glance'



DECARBONIZING GLOBAL BITUMEN FOR LIFE



Engineering the CO₂-Free Future

We deliver CO₂-free heavy bitumen transport – at less than 50% the cost of conventional methods – meeting the critical infrastructure needs of the entire world.



Backed by iPhilergos
Global Fund



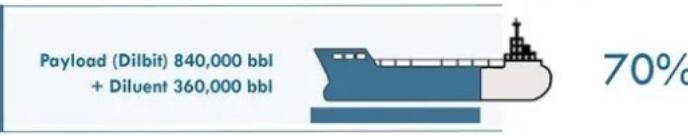
Serving Indigenous World
and global infrastructure



Scalable, proven,
and ready for deployment

'DISRUPTIVE GLOBAL PARADIGM'

Marine Transport



Bulk vs. Container

Transporting goods in bulk is generally more efficient than using containers, resulting in the lowest possible transport expenses. As the container size diminishes, the costs associated with freight tend to rise. This unique model allows RBITTT™ to employ the largest and most efficient bulk carriers effectively.

Surface Transport



Payload Impact

Several factors can reduce payload when transporting liquid and semi-solid bitumen, leading to higher transportation costs. Key contributors to this reduction include:

- The volume of diluent that decreases payload capacity
- The weight of the container impacting payload
- Equipment for temperature control that lowers payload capacity

'DISRUPTIVE GLOBAL PARADIGM'

ATHABASCA API<10 FEEDSTOCK IS TECHNICALLY RATED GLOBALWIDE AS 'ONE OF TOP QUALITY BITUMEN' FOR LONG-LIFE ROAD APPLICATION.

RBITT SOLUTION PARADIGM:

- ELIMINATES 100% OF NON-ESSENTIAL LIQUIDS (DILUENT) STORAGE & TRANSFER NEEDS
- ELIMINATES 100% OF NON-ESSENTIAL HEATING STORAGE & TRANSFER NEEDS
- RESULTS IN BUOYANT, NON-HAZERDOUS, NON-LIQUID, LOWEST COST BASE HEAVY BITUMEN TRANSFER GLOBALLY
- RESULTS IN BUOYANT, NON-HAZERDOUS, NON-LIQUID, ZERO-COST INVENTORY, LOWEST COST BASE, REFINED PMA GLOBALLY

RBITT GLOBAL TRANSITION:

- INFRASTRUCTURE & MANUFACTURING CAPEX [@<\$3.00/BOE] IS 'COST NEUTRAL'
- INFRASTRUCTURE & MANUFACTURING CAPEX CONTRIBUTES >\$14B/yr TO COUNTRY GDP

RBITT TRANSPORTATION INFRASTRUCTURE:

- EXPANDED & EFFICIENCY OF ATLANTIC (YYQ) & PACIFIC (PVR, YVR) BASIN EXPORT TERMINALS
- ACHIEVE NEW COST-EFFECTIVE MARKETS IN ATLANTIC BASIN (EU,AF,SA)
- ACHIEVE NEW COST-EFFECTIVE MARKETS FOR BITUMEN, GRAINS, POTASH, MINERALS, etc.
- MAJORITY IS BROWNFIELD INFRASTRUCTURE

RBITT STORAGE & TRANSFER JOURNEY IS ENGINEERED CO₂Øe:

- ANNUALLY ELIMINATE GIGATONS OF CO₂e
- START REVENUE IN SERVICE (ISD) <3 yr.,
- SATISFY GLOBAL HEAVY BITUMEN DEMAND [2030], ~6MM BOE/DAY



'A PIECE OF THE ROAD TO BECOMING AN ENERGY SUPERPOWER'

'DISRUPTIVE GLOBAL PARADIGM'

ENERGY SUPERPOWER 'NORTH STAR'

'AT A GLANCE'

GLOBAL MARKET 'REALITY'

* SURFACE FREIGHT COSTS 20x > MARINE FREIGHT

FOUR (4) REGIONS GLOBALLY WITH THE LARGEST HEAVY BITUMEN RESERVES
 PRE-REFINERY (2030 DEMAND): SOLID BITUMEN, API<10 FEEDSTOCK >12MM BPD
 POST-REFINERY (2030 DEMAND): SOLID BITUMEN, REFINED PMB
 HEAVY BITUMEN IS SOLID IN ORIGIN STATE & IN FINAL STATE

* ~6MM BPD

SURFACE DISTANCE 'MATTERS'

VENEZUELA	Ø km
MIDDLE EAST	1,000 km
CDN-[PAC]	1,000 km
CDN-[ART]	1,000 km
CDN-[USGC]	4,000 km
CDN-[ATLAN]	5,000 km
RUSSIA	5,000 km

RBITT SOLUTION 'DISRUPTIVE GLOBAL PARADIGM'

* ELIMINATE LIQUID TRANSFER & STORAGE OF HEAVY BITUMEN API<10

RBITT STANDARD: PURE ZERO™ - CO₂Øe
 PRE-REFINERY: (Ø LIQUID & Ø HEAT)
 POST-REFINERY:
 HAZARDOUS & LIQUID MARINE OR LAND DAMAGE
 GLOBAL PLASTIC WASTEPILE

ELIMINATE ----->
 ELIMINATE ----->
 ELIMINATE ----->
 ELIMINATE ----->

COST \$	HEATING MMBTU	DILUENT bbls	POLY waste	t. CO ₂ e tons
>50%	100%	100%	>2MM t.	>1.6Bt.
>50%	100%	n/a	>117MMt.	>3.5Bt.
100%				
100%				

'WHY IT MATTERS'

* LOWEST COST 'REFINED BITUMEN' PROVIDER [GLOBALLY]

COST NEUTRAL TRANSITION & NO SUBSIDIES
 ISD <486# DAYS & COMPLETE ISD <1826# DAYS
 * Ø LIQUIDS HEAVY BITUMEN ON WATERS OR LANDS

* IP PROTECTED, NO GLOBAL MARKET COMPETITION

FULLY BUOYANT
 NO HAZARDOUS SPILLS/FIRE
 PURE ZERO™ - CO₂Øe JOURNEY & GIGATONS OF CARBON CREDIT (CCR)

INFRASTRUCTURE 'IMPLEMENTATION'

* EXPANDED MARKET NEW ATLANTIC BASIN MARKET

EXPANDED BROWNFIELD SURFACE RAIL INFRASTRUCTURE
 TRANSITION INFRASTRUCTURE
 LOGISTICS MARINE INFRASTRUCTURE
 LOGISTICS DISTRIBUTION INFRASTRUCTURE

STAKEHOLDER 'ALIGNMENT'

* INDIGENOUS OWNERSHIP OF STRATEGIC ASSETS

SMALLEST ENVIRONMENT FOOTPRINT: SEF = Ø
 EXCEEDS GLOBAL (PARIS) CLIMATE CHANGE TARGETS

INFRASTRUCTURE CONTRIBUTION TO COUNTRY GDP	> \$ 14B /yr. : \$38MM/day
EXPORT CONTRIBUTION TO COUNTRY GDP	> \$100B /yr. : \$274MM/day

'DISRUPTIVE GLOBAL PARADIGM'

1-PRE-REFINERY: [source - API<10, 20% yield]	[UoM]	[Quant]	[Cost]	[\$/bbl/day]		[\$/bbl/day]	/RTM(F)/[375]/Yr
				/year	UNIT	/day	\$/bbl
1.1 ELIMINATE: DILUENT: ship [40% (O & I)]	BPY	1,752,000,000	-\$10.24	-\$49,152,000		-\$8.19	-\$47,841,280
1.2 ELIMINATE: DILUENT: produce [40%]	BPY	876,000,000	-\$34.00	-\$81,600,000		-\$13.60	-\$79,424,000
1.3 ELIMINATE: DILUENT: disposal [40%]	BPY	876,000,000	-\$39.00	-\$93,600,000		-\$15.60	-\$91,104,000
1.4 ELIMINATE: HEATING: continuous [alt]	MMBTU	2,757,210,000	-\$14.67	-\$110,817,180		-\$18.47	-\$107,862,055
1.5 ADD ON: CREDIT: CO ₂ e [CCR]	TPY	1,652,000,000	\$21.00	\$95,046,575		\$15.84	\$92,512,000
1.6 ADD ON: REV: L.IP#1-#6 - LOA.fee	BPY	2,190,000,000	\$5.12	\$30,720,000		\$5.12	\$29,900,800
1.7 ADD ON: REV: L.IP#7-#8 - LOA.fee	BPY	2,190,000,000	\$9.80	\$58,800,000		\$9.80	\$57,232,000
1.8-SUBTOTAL: REVENUE: [1.5 TO 1.7]					\$30.76		\$179,644,800
2-POST-REFINERY: [6MM BPD]							
2.1 ELIMINATE: HEATING: continuous	MMBTU	2,757,210,000	-\$14.67	-\$110,817,180		-\$18.47	-\$107,862,055
2.2 ADD ON: CREDIT: PolyDisposal: [10%.wt]	TPY	39,818,182	\$72.00	\$7,854,545		\$1.31	\$7,645,091
2.3 ADD ON: CREDIT: CCR: CO ₂ e:	TPY	3,556,000,000	\$21.00	\$204,591,781		\$34.10	\$199,136,000
2.4 ADD ON: REV: L.IP#1-#6 - LOA.fee	BPY	2,190,000,000	\$5.12	\$30,720,000		\$5.12	\$29,900,800
2.5 ADD ON: REV: L.IP#7-#8 - LOA.fee	BPY	2,190,000,000	\$9.80	\$58,800,000		\$9.80	\$57,232,000
2.6-SUBTOTAL: REVENUE: [2.2 TO 2.5]					\$50.33		\$293,913,891

'DISRUPTIVE GLOBAL PARADIGM'

ELIMINATE

 $\text{CO}_2\text{e} > 900\text{MM t/yr}$ 

APPRECIATE

Inventory



Carbon Credit

GREEN EARTH

Waste Poly (CO_2e)* >119MM t/yr*

BLUE SKIES

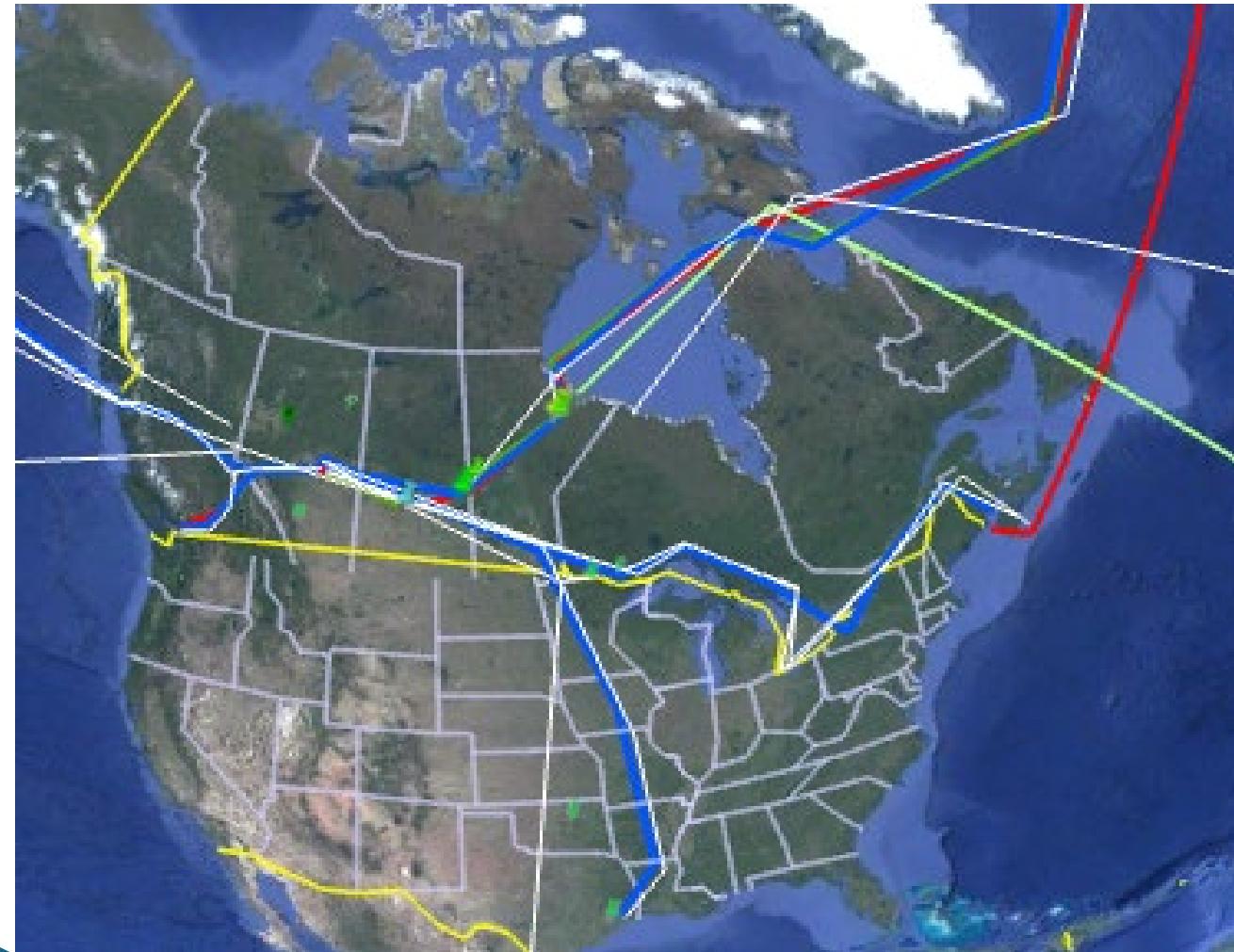
- Eliminate CO_2e at annual rate > than 60% of total global transportation sector CO_2e .
- Eliminate CO_2e at annual rate > equivalent of all 286MM vehicles off USA roads.
- Heavy Bitumen (API<10) feedstock to all Global Markets, @ $\text{CO}_2\text{Øe}$ & ØLT

Pacific Basin

Vancouver 1,000 km
PVR [Rupert] 1,200 km
PVG [CHN] 9,000 km
BOM [IND] 16,000 km

Surface Freight is
[20x per \$ t-km] x
Marine Freight

20k t-km **existing** market



20k t-km **new** markets

Atlantic Basin

Churchill 1,000 km
Quebec City 4,000 km
St. John 4,600 km
USGC 4,200 km
RTM [EU] 5,900 km
NGA [AFR] 11,000 km

[A] - GLOBAL BITUMEN LANDSCAPE & SCOPE**[DEMAND], BRIDGING PLANET GLOBE (BPG*)**

- Modern **global** transportation surface infrastructure cornerstone is a Bitumen (PMB*) foundation and BPG defines the **Task**.
- Demand is universal, certain, growing in sync with population hub growth.
- BPG enables the ØLT* movement of >30MM BPD*, API<10* Bitumen feedstock

[MARKET], CUSTOMER

- Global customer (end-user) distances **exceed 20k km** (t-km*) from source(s).

[SOURCE], FEEDSTOCK

- AB Oil Sands (**AOS***) is one of two (2) global sites having significant concentration of accessable highest yield & natural heavy bitumen.
- Natural bitumen feedstock genesis in situ is **solid** and,
- Refined bitumen (PMB) in situ (ie road) remains **solid** for Life.

[COST], FACTORS DRIVING BITUMEN COSTS

- The single largest factor, '**Climate Control Cost**' (24x7), directly affecting the second largest, '**Transfer Cost**' (t-km).
- Most challenging, each cost factor(s) is greater than bitumen product cost

[TASK], SINGLE FOCUS

- Reduce TIME*, '**Bridging Planet Globe**' (WIT*).
- Shortest Schedule, '**Execution Excellence**' (WIT).

[B]- ØLT earns SOCIAL LICENSE**ELIMINATE BITUMEN LIQUID TRANSFER**

- Pre-Refinery Feedstock (diluent)
- Post-Refinery Product (PMB)

MAXIMIZE PAYLOAD (RETURN)

- Individual Container (MAX)
- Surface: Bulk Unit Train (UT*)
- Marine: Bulk Carrier (VLBC*)

MINIMIZE FOOTPRINT (SEF*)

- Eliminate diluent liquid (WIT) for life
- Eliminate PMB liquid storage (WIT) for life
- Eliminate global waste poly (Wp*) for life
- Minimize t-km (Costs)
- Minimize Critical Path (TIME)

SATISFIES 'all STAKEHOLDERS...all the TIME'

- Maximize Indigenous equity & participation
- Eliminates >60% CO₂e* of global transportation sector annually
- Achieved SEF = Ø**

HIGHLIGHTS:

- The global surface transportation requires 30MM BPD of Heavy Bitumen Feedstock (20% yield) to be refined to 6MM BPD of road asphalt/bitumen & waterproofing.
- Major global source (1 of 2), **Athabasca Bitumen, API<10** is a solid at source and remains a solid in final road/roof application for life.
- To reach global customers requires the Feedstock movement (transport) of:
 - **20,000~ km x 30MM BPD** (ie 5.5 bbls/ton) = **109B** t-km/day
 - Surface Transport is **20x** more cost than Marine Transport
 - The shortest distance to tidal water(s) is cost critical determining factor
 - Pacific Basin: Vancouver BC Area
 - Atlantic Basin: Churchill MB Area
- **The current practice of temporarily adding diluent transforming Heavy Bitumen into liquid state for transfer only is cost prohibitive and combined with adding significant damaging environmental risks during the resultant liquids transfer journey.**
 - The magnitude of **nonessential liquids transport** (only) is [40% OB + 40% IB]: **86B** t-km/day, plus supply & disposal of liquid diluents is significant (i.e. >70% cost or ~\$1.04B/day).

HIGHLIGHTS:

- Project Breakdown
 - Pre-Refinery RTF packaging facilities (at Athabasca extraction sites)
 - Post-Refinery RTM packaging facilities (at global individual refinery sites)
 - Clean Energy Existing Pump Storage Infrastructure (multiple sites BC, ON, PQ)
- Design Criteria
 - Maximize CO₂Øe Operations & Journey
 - Target **SEF = Ø**
- Commercial Feasibility
 - Entire Transition is Cost Neutral
 - **Government(s) subsidy is not required**
 - Stage 1 ISD is <3yrs
- Indigenous Participation
 - Major Equity & Operations Partners in:
 - Optimized Export Surface Transport Corridors to Pacific & Atlantic Basin(s)
 - Optimized Export Terminals
 - Clean Energy Facilities
- Global IP Protection
 - USPTO & WIPO Pre-Refinery & Post-Refinery Journey Family of Patents Protection has been received & registered in over 100 jurisdictions

BENEFITS:

- Elimination of liquid transport [ØLT] of Heavy Bitumen API<10 catapults Canada energy resource to highest value globally.
- The RBITT journey elimination of massive amounts of CO₂e will surpass Canada total CO₂e targets
- The RBITT proprietary methods of elimination of the global waste pile of plastic for life in road (without burning) will directly benefit all stakeholders globally.
- Optimized export surface Transport Corridors to closest Pacific & Atlantic Basin(s) will also be available to growing exports of grain, potash, minerals and other resources.
- Commercial Feasibility
 - **Entire Transition is Cost Neutral** & Negative.
 - Government(s) subsidies during implementation and operations **not required**.
 - In Service (ISD) Export Capacity of 300k BPD achieved <3yrs.
 - In Service (ISD) Export Capacity of 6MM BPD achieved <5yrs, fully scalable.
 - Improvements are on 'Brownfield Sites" and entire project Smallest Environment Footprint (**SEF=Ø**).

CHALLENGES:

- Government expedite access & permits of export corridors infrastructure optimization, improvements and indigenous equity participation in new clean energy storage facilities.
- Government advance Indigenous equity participation and operations of optimized SPV ports and clean energy storage facilities.

'DISRUPTIVE GLOBAL PARADIGM'

Backed by decades of engineering, proven field performance, and a globally issued family of patents,

The epicenter of the ECONOMICS OF COST is the global elimination of diluent or heating when moving heavy bitumen.

At 30MM BPD feedstock, the metric of diluent transport elimination is:
~86B t-km/day.

The value of Athabasca Heavy Bitumen increased by: **>\$1B/day**

"That is one small step for Bitumen Transfer, and one giant leap in the Climate Change Race ('CCR')"

This paradigm shift, slashing CO₂e achieves the smallest environmental footprint (SEF) of Ø, maximizing carbon credit (CCR) accumulation — an unprecedented convergence of **Planet, Performance, and Profit**.

"We aren't just moving bitumen — we're moving the entire industry forward CO₂Øe"

'DISRUPTIVE GLOBAL PARADIGM'

Cross-Sector Benefits

Heavy Bitumen Producers & Refiners

- Drastically reduced feedstock, transfer & inventory costs
- Expanded access to global markets experiencing exponential growth.

Logistics & Ports:

- Optimizes shortest existing rail to marine corridors
- Shared infrastructure with rare earths, potash, forestry, grain, etc.

Construction & Asphalt Industries:

- Reliable, consistent input supply
- Enhanced performance and extended service life.

Governments & Regulators:

- Buoyant, unsinkable, non-flammable, Ø cleanup-risk
- Circular economy contributor via permanent waste polymer disposal

Investors & Infrastructure Funds:

- High-return, ESG-aligned investment
- Participation in exponentially growing CCR accumulation.

Global Licensing Opportunity

- R Transition Module (RTM) facility, cost neutral, in-service date (ISD) of less than 15 months
- Target full global deployment by 2035, a capacity of 6MM (BPD) of CO₂Øe PMB.

A Gigaton-Scale Emissions Reduction, Built for Today, Ready for Tomorrow

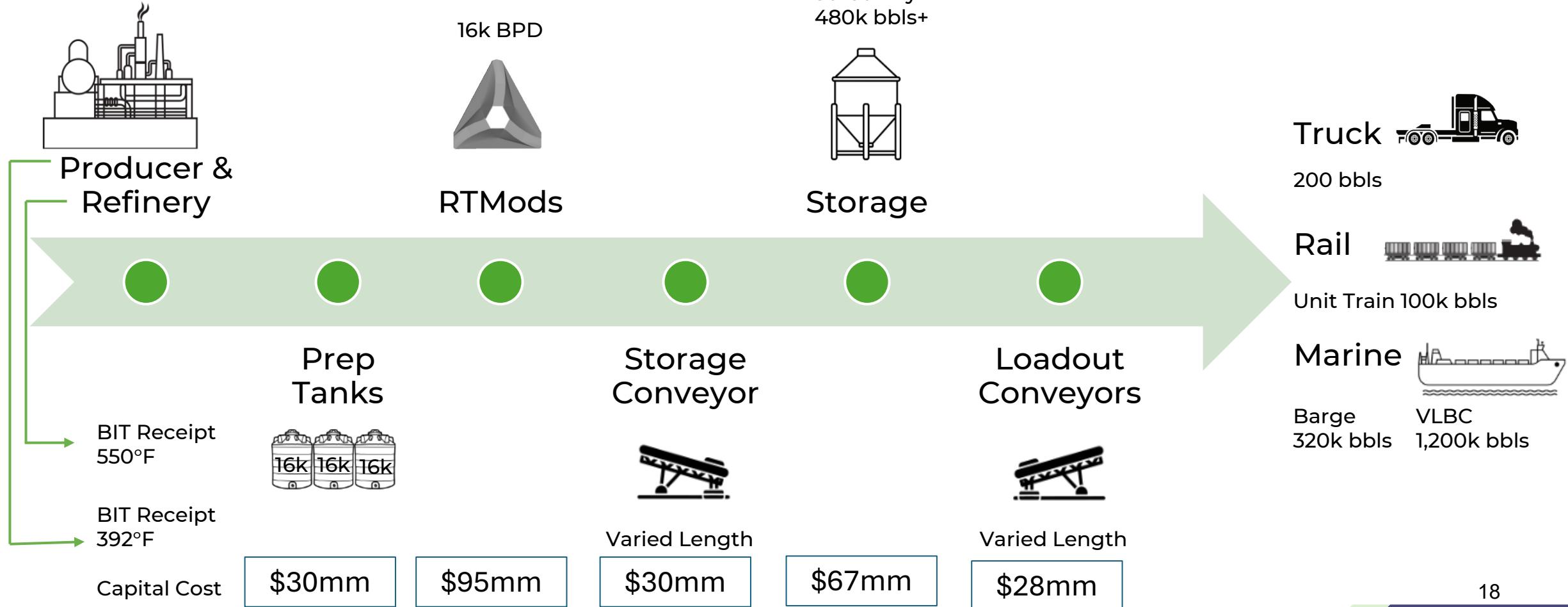
Beyond Net-Zero. it's Pure Zero™

NET ZERO: means cleaning up the mess you made.

PURE ZERO™ means you never made the mess in the first place.

**"Before this decade is out, Athabasca Heavy will be
catapulted to Heavy Bitumen Global Energy Superpower."**

BU#1 Post-Refinery Product
BU#2 Pre-Refinery Feedstock



'DISRUPTIVE GLOBAL PARADIGM'

Liquid Bitumen**BOE**

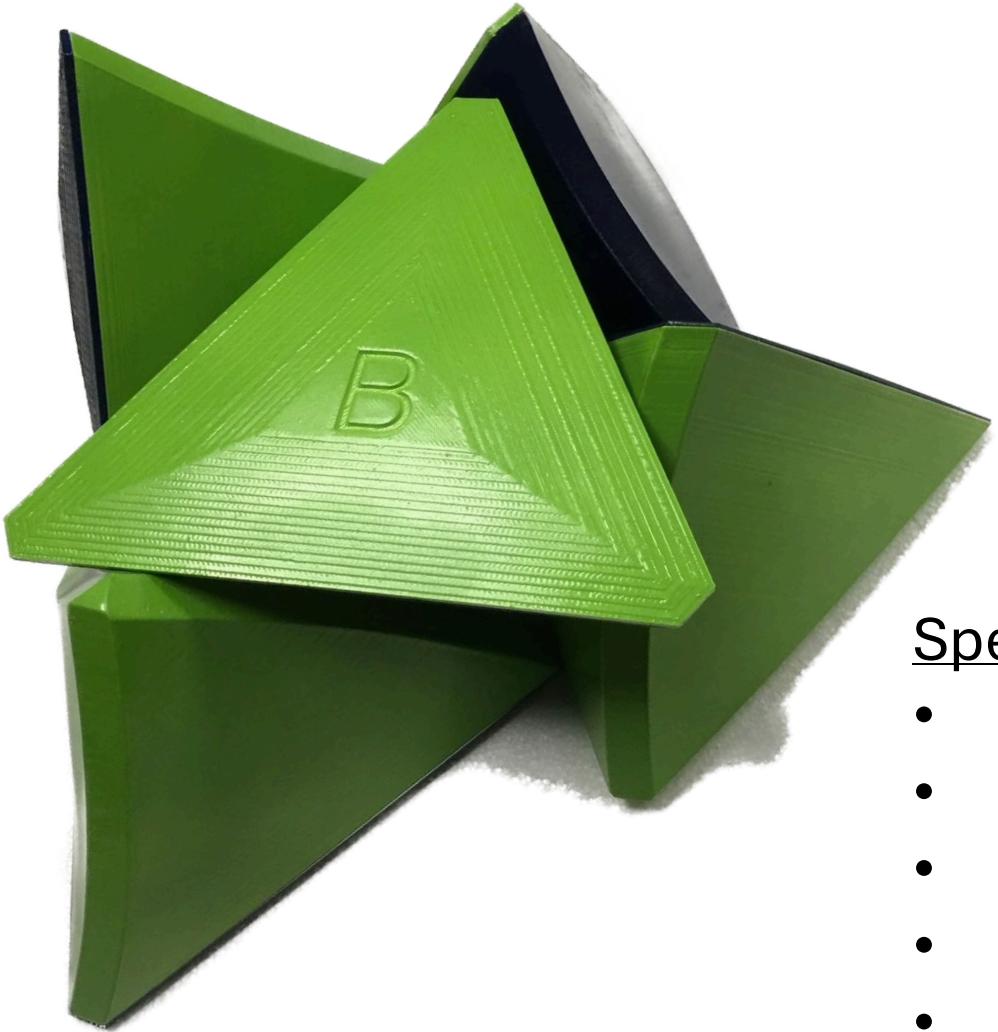
1# x 363 lb
Wt. 363 lb
Wt. 165 kg

Solid Bitumen**BOE**

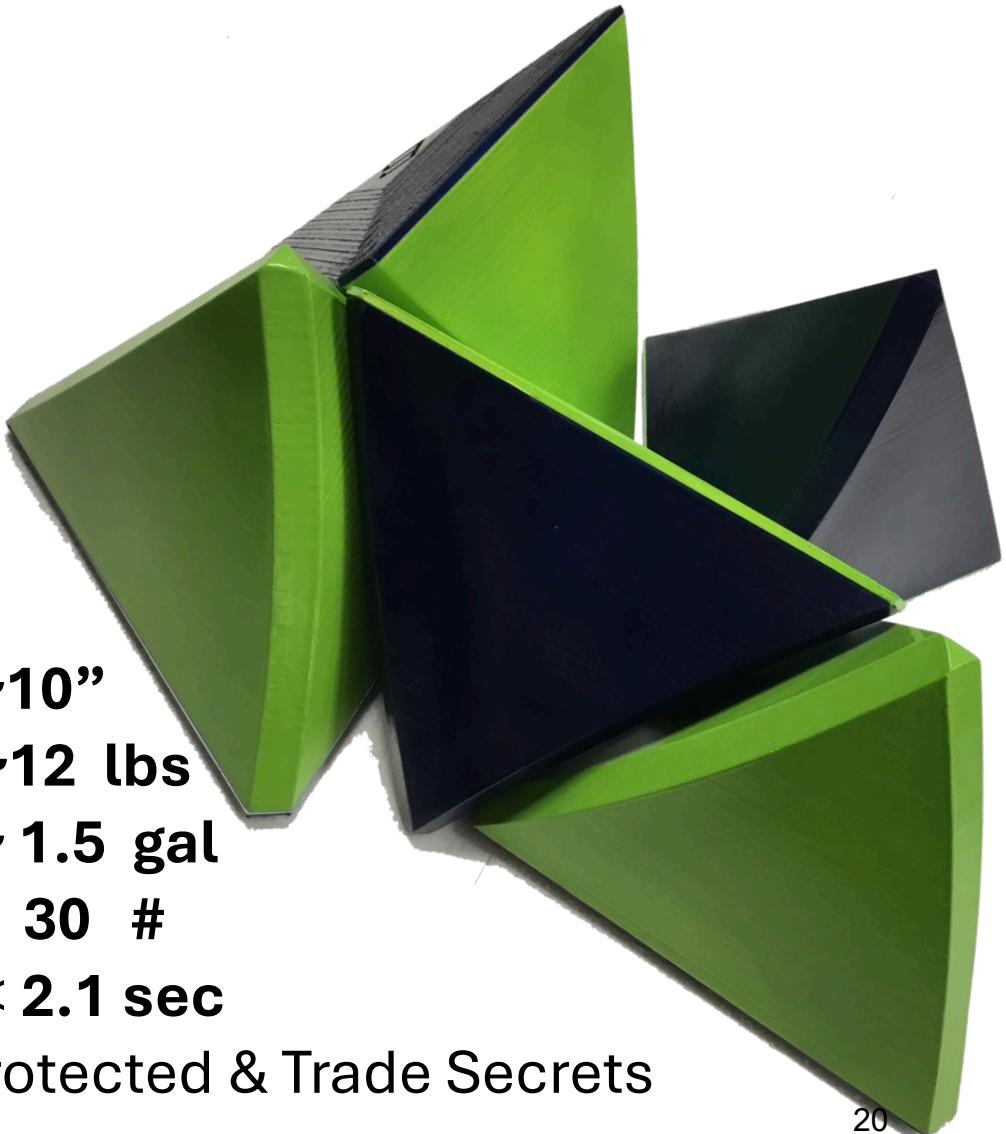
30# x12 lb
Wt. 363 lb
Wt. 165 kg

RBITT Clean Journey**Differentiators**

- **Unsinkable & Buoyant, Ø Flame, Ø Spill Risk**
- **Eliminate:**
 - Effects on Marine Life & Ecosystem
 - Use & Need of Diluent Liquid
 - Continuous Heating
 - Multi-Billion CO₂e Emissions
- **Secure No Damage Cleanup**
- **Global Waste Poly eliminated in Better Road**
- **Payload Transfer Boosted by Over 30%**
- **Cost Benefits of Bitumen ØLT**

'DISRUPTIVE GLOBAL PARADIGM'**Specifications:**

- height = **~10"**
- wt. = **~12 lbs**
- vol. = **~ 1.5 gal**
- #/BOE = **30 #**
- cast/fill rate = **< 2.1 sec**



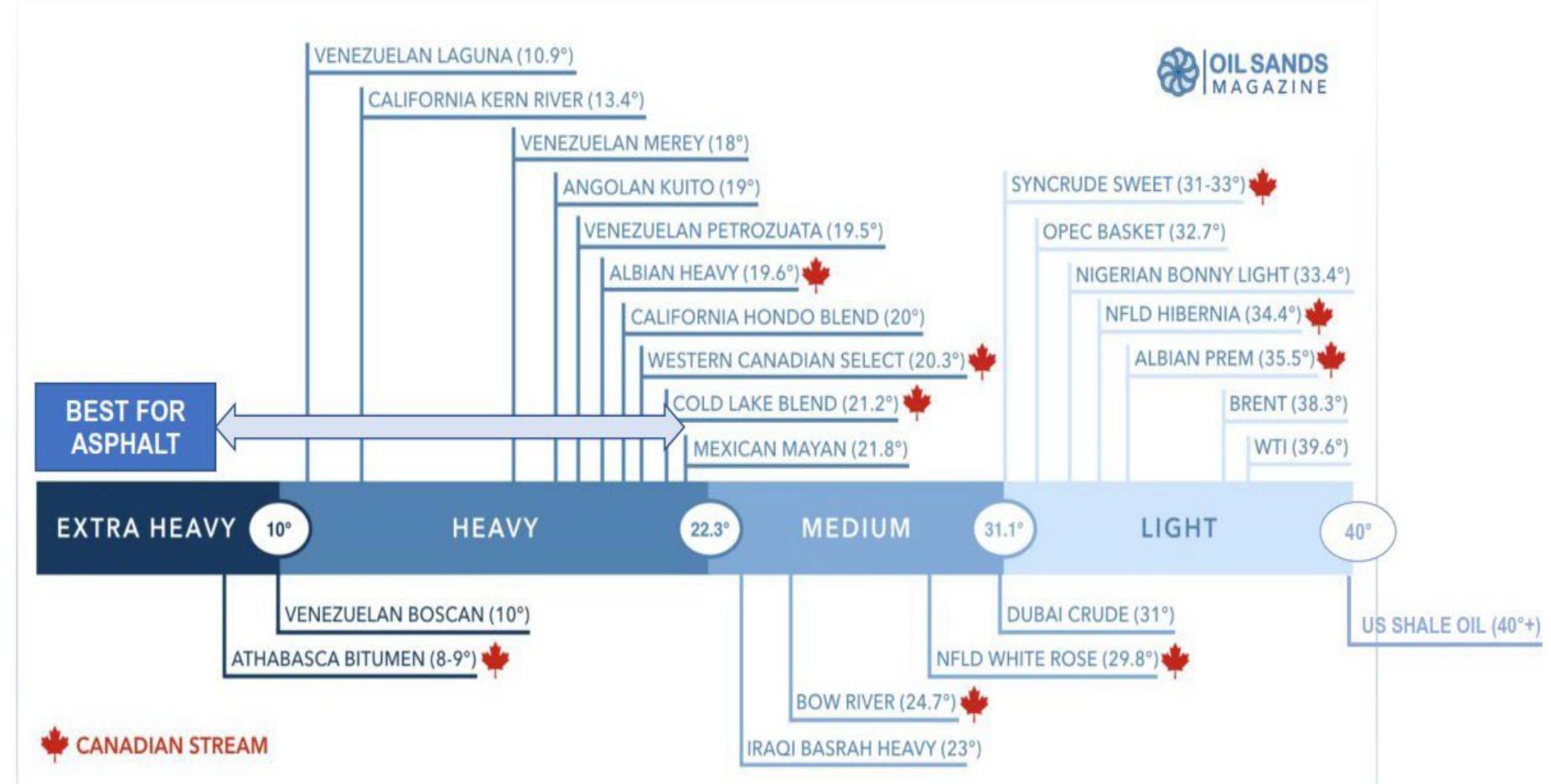
Buoyancy & Spec Details are Confidential, IP Protected & Trade Secrets

'DISRUPTIVE GLOBAL PARADIGM'

Best Product

**Alberta bitumen**
makes quality
asphalt binder

- Consistent quality in the market
- Alberta has API<10 significant heavy bitumen feedstock
- Laboratory validated



'DISRUPTIVE GLOBAL PARADIGM'

Property	Athabasca Bitumen	Orinoco Extra-Heavy Oil
API Gravity (°API)	8-10	8-9
Sulfur Content (%)	4-5	3-4
Metals (Ni + V ppm)	200-300	300-500
Asphaltene Content (%)	15-20	18-22
Viscosity (cP at 25°C)	10,000-1,000,000	100,000-1,000,000
Diluent Requirement	High (30-40%)	High (25-35%)
Processing Path	Mining/In-situ → Upgrading → Refining	Diluent blending → Upgrading → Refining
Asphalt Yield Potential (%)	10-15	12-18

A	PRODUCER			SHIPPER		EX-PORT	
Source	RTF						
FEEDSTOCK	PGF	INVENTORY		TRANSFER	INVENTORY	EX-PORT	TRANSFER
API<10	#LIP#1	ØLT \$		#LIP#2	ØLT \$	#LIP#3	ØLT \$
A1							
PRE-REFINERY	IM-PORTER		Distributor		REFINER		
IM-PORT	TRANSFER	INVENTORY	RTF	(PGF)	(PGF)	REFINED	
#LIP#4	ØLT \$	ØLT \$	#LIP#5	ØLT \$	#LIP#6	BITUMEN	
B		REFINER			DISTRIBUTOR		
POST-REFINERY	REFINED	RTM					
		PGF	INVENTORY	TRANSFER	INVENTORY	(PGF)	PLACEMENT
		#LIP#7	ØLT \$	ØLT \$	ØLT \$	#LIP#8	#Aggs #PMA #MIX InSitu ROAD

'DISRUPTIVE GLOBAL PARADIGM'

L.IP#1 PRODUCER 16k BOE	L.IP#1 PRODUCER 16k BOE [x 10]							L.IP#0 SYST.WIDE
L.IP#2 SHIPPER 16k BOE	L.IP#2 SHIPPER [PAC] 16k BOE [x 5]						L.IP#2 SHIPPER [ATL] 16k BOE [x 5]	
L.IP#3 EX-PORT 16k BOE	L.IP#3 EX-PORT [PAC] 16k BOE [x 5]						L.IP#3 EX-PORT [ATL] 16k BOE [x 5]	
L.IP#4 IM-PORT 16k BOE	L.IP#4 IM-PORT 16k BOE [x 5]						L.IP#4 IM-PORT 16k BOE [x 5]	
L.IP#5 DST.GR 16k BOE	L.IP#5 DST.GR 16k BOE [x 5]						L.IP#5 DST.GR 16k 16k BOE [x 5]	
L.IP#6 PRE-RTF 16k BOE	L.IP#6 PRE-RTF 16k BOE [x 2]	L.IP#6 PRE-RTF 16k BOE [x 2]	L.IP#6 PRE-RTF 16k BOE [x 1]	L.IP#6 PRE-RTF 16k BOE [x 1]	L.IP#6 PRE-RTF 16k BOE [x 2]	L.IP#6 PRE-RTF 16k BOE [x 2]	L.IP#6 PRE-RTF 16k BOE [x 2]	
L.IP#7 POST-RTM 16k BOE	L.IP#7 POST-RTM 16k BOE [x 5]						L.IP#7 POST-RTM 16k BOE [x 5]	
L.IP#8 DSTR.L 16k BOE		L.IP#8 DSTR.L 4k BOE [x 3]	L.IP#8 DSTR.L 4k BOE [x 2]	L.IP#8 DSTR.L 4k BOE [x 1]	L.IP#8 DSTR.L 4k BOE [x 1]	L.IP#8 DSTR.L 4k BOE [x 1]	L.IP#8 DSTR.L 16k BOE [x 3]	

'DISRUPTIVE GLOBAL PARADIGM'

[A] - PRE-REFINERY, RTF [API<10] Feedstock

Metric [2035]	375	‡	#	RTM
Capacity	80,000	BPD	RTF-Feedstock	[~20% Yield]
Capacity	14,545	TPD	RTF-NBIT	[~20% Yield]
Eliminate	28,000	bbls	Diluent S&I	/day
Eliminate	3,150	‡ ton	[CO ₂ e]/bbl	Diluent S&I /day CCr.
Eliminate	1,455	ton	Waste Dispose (Wp)	/day
Eliminate	4,364	‡ ton	[CO ₂ e] /ton (Wp)	/day CCr.
Metric	3.0	ton	Wp·[CO ₂ e] / ton	(no-burn)
Eliminate	3,054	‡ ton	[CO ₂ e] [3x2]unit train	/day CCr.
Eliminate	1,495	‡ ton	[CO ₂ e] [19X2] marine	/day CCr.
Eligible CCredits / Yr.	1,652,180,846	‡ ton	[CO ₂ e] /ton x 365.25 x 375	RTMs
ECCr./RTM/ Yr.	4,405,816	‡ ton	[CO ₂ e]	
ECCr. / bbl. / Yr.	0.15	‡ ton	[CO ₂ e]	
ECCr. / share/Yr.	89	‡ ton	[CO ₂ e]	

[B] - POST-REFINERY, RTM [PMB]

Metric [2035]	375	‡	#	RTM·[Global @ 2035 #]
Capacity	16,000	BPD	RTM·[BPD]	
Capacity	2,909	TPD	RTM·[TPD]	
Eliminate	152.5	MMBTU	[htg]/ton PMA	[25] day
Eliminate	8.9	‡ ton	[CO ₂ e]/ton PMA	[25] day CCr.
Metric	291	ton	Waste Dispose (Wp)	/day
Eliminate	873	‡ ton	[CO ₂ e] /ton (Wp)	/day CCr.
Metric	3.0	ton	Wp·[CO ₂ e] /ton (no-burn)	
Eligible CCredits / Yr.	3,556,206,818	‡ ton	[CO ₂ e] /ton x 365.25 x 375	RTMs
ECCr./RTM/ Yr.	9,483,218	‡ ton	[CO ₂ e]	
ECCr. / bbl. / Yr.	1.62	‡ ton	[CO ₂ e]	
ECCr. / share/Yr.	192	‡ ton	[CO ₂ e]	

CCR EARNINGS SENSITIVITY ANALYSIS

The earnings forecasts are based on time sensitive forecasts of Eligible Carbon Credits ('CCR')

The currency of CCR is variable and mainly market driven.

The quantity is calculated and inelastic.

Calculated:

PERIOD		[Voluntary]		[Mandatory]
		LOW	HIGH	HIGH
Analysis Period:	2030	\$25	\$35	\$210
	2040	\$35	\$45	\$240

Forecast Used

RTM/yr: CCR earned 9.5MM ton CO₂e

RTF/yr: CCR earned 4.4MM ton CO₂e

Combined: 13.9MM ton CO₂e

\$21

'DISRUPTIVE GLOBAL PARADIGM'

RBITT™ At A Glance

1,000

USE & EARNINGS FLOW

Funds	Use of Funds			
SYSTEMWIDE: EQUITY				
\$16,000	\$6,000	[1] - RTM#1 Mob. WA#1-5:	4.0%	
	\$7,709	[2] - EPCM Services: 365 days	3.1%	
	\$876	[3] - Controls: 365 days		
	\$876	[4] - Procurement: 365 days		
	\$539	[5] - Legal Docs. & Placement: 365 days	3.0%	
\$16,000	\$16,000	RTM#2 implement costs for 365 days	6.4%	
\$16,000	\$16,000	RTM#3 implement costs for 365 days	6.4%	
\$16,000	\$16,000	RTM#4 implement costs for 365 days	6.4%	
\$186,000	\$186,000	Export Terminal (BET) Land 2,880A		
\$250,000 Start Funds				
RTM #1: LoA [License]				
\$16,000	\$16,000	LoA [License]		
\$16,000 License Setup Cost				
RTM #1: DEBT				
\$150,000	\$150,000	CAPEX Direct Costs		
\$59,191	\$59,191	CAPEX Indirect Costs		
\$40,809	\$40,809	CAPEX Class 3 FEED +30% Risk		
\$250,000 CAPEX Debt Total				
RTM #1: EARNINGS				
\$292,000	\$292,000	EARNINGS /Year		

The Performance Summary

		Value Monitor		
		Shares Q/S	Earnings/RTM/YR	18,518,750 x\$1
		Earnings/RTM/Q	\$292,000,000 x\$1	\$73,000,000 x\$1
RTM	RTM	[A] RTM	[B] RTM	[A+B] RTM
#	In Service [ISD]	Earnings [EPS]	Supplementary Eligible CCR [EPS]	Combined Earnings [EPS]
1	Q8-26	\$16	\$53	\$68
75	Q12-27	\$1,183	\$3,949	\$5,132
150	Q16-28	\$2,365	\$7,898	\$10,264
225	Q20-29	\$3,548	\$11,848	\$15,395
300	Q24-30	\$4,730	\$15,797	\$20,527
375	Q28-31	\$5,913	\$19,746	\$25,659

'DISRUPTIVE GLOBAL PARADIGM'

COMMERCIAL SOLUTION

Project Purpose:
DECARBONIZATION OF PRE & POST REFINERY BITUMEN FOR LIFE**Implementor:**
Philergos Global Corporation ("PGC")
a Delaware Corp**Qualifications:**
In excess of 30 years proven execution excellence in global award winning mega infrastructure projects delivery**Project Demand Reach:**
Global-Wide: CO₂e Surface Transportation Infrastructure**Project Definition:**
Maximize Transportation Payload
Minimize Inventory Storage Cost**Project Success Rate:**
Eliminate CO₂e [for Life]: >900MM ton Global CO₂el/yr
Equivalent rate [off USA roads] all 286MM+ vehicles/yr. (5.06t/veh./yr.)
Eliminate [for Life]: >119MM ton Global Waste Plastic/yr
Equivalent rate of Global Waste Pile (Wp) Disposal at >200MM ton/year
Eliminate [for Life]: Habit of Heavy Crude Dilbit Pipeline Transport
Earn [for Life]: Increase Returns & Credits associated with eliminations
Certainty [for Life]: Execution Risk Events Fully Funded in CAPEX
Commercial [for Life]: Optimum End User Costs**Project Objective:**
Earliest Implementation [ISD Optimum Costs & Maximum Returns**Project Implementation Status:**
Issued Global IP Patent(s) | Receipt: July 02nd 2024
Source initial start capital: WIP
Source Start Funds: Commerce: Q2-25
Source initial client(s) (RTI) | Commerce: Q4-25

INVESTMENT OPPORTUNITY

Project Purpose:
DECARBONIZATION OF PRE & POST REFINERY BITUMEN FOR LIFE**Implementor:**
Philergos Global Corporation ("PGC")
a Delaware Corp**Valuation:**

- Venture Capital Method:**
[Year five (5) Income less invest money (\$)]

Total Equity Investment [PGC]

\$540.18	[Fully Diluted:]
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Forecast

18,518,750	\$10.0 B
------------	----------

Net Income:

2025	\$0.0 B
2026	\$0.8 B
2027	\$7.8 B
2028	\$20.8 B

2029 · Yr.#5

- [+] Forecast Income [yr 1 to 5]
- [+] Forecast Income [yr 11]

EPS

\$0.0 B	\$0.8 B
\$0.8 B	\$7.8 B
\$7.8 B	\$20.8 B

Valuation:

- [+] Yr.#5 Income
- [+] Equity Invest
- Pre-Money [Income \$ - Equity \$]

Forecast

\$3,508	\$65.0 B
\$4,754	\$88.0 B

Investment Required:**Current Capital Required:**

2,903,254 #	\$1,378	[A] % Equity (VCM.calc.)
-------------	---------	--------------------------

4,000,000 #	\$1,000	[B] % Equity (actual)
-------------	---------	-----------------------

38%	[(B)-(A)]/(1-B)]	Price Discount:
-----	------------------	-----------------

EPS

\$0.0 B	\$0.8 B
\$0.8 B	\$7.8 B
\$7.8 B	\$20.8 B

WHY RBITT?

'DISRUPTIVE GLOBAL PARADIGM'

Deal Certainty:

- [ØLT] paradigm savings surpass the total cost of transfer.
- [Ø*] production risk and PMB [Ø] inventory costs.
- CO₂Øe transfer, along with delivery and transfer.
- Global IP protection through an issued family of patents.

Reasons to Invest [now]:

- Global IP exclusive bitumen transfer: Ø Market Risk.
- Strong, predictable returns: Ø Price Risk.
- Early adopter discount & Ø Completion Risk.
- CAPEX Contingency is fully pre-funded
- Facilitates the initiation of RTMods #1 global franchise.

Use of Funds:

- CAPEX 'direct costs to achieve ISO Certification & begin the fabrication of the first (1) RTMods components.



TIME

- Earliest Start Possible [NTP] <1 year
 - All transition is on 'Brownfield Sites'
 - Environment Assessment in place
- Earliest in Service [ISD] <3 year vs. status-quo >9+ year
 - Modular design 80% built offsite
 - Scalable & identical global wide
 - Shortest Schedule = Lowest Cost

EFFICENCY

- Move Heavy Bitumen in native solid state
- Eliminate need of Diluent for transfer
- Eliminate need of Heating for storage & transfer
- Eliminate Poly Waste, circular economy

VALUE

- Transition is cost neutral & No Government Subsidy requ.
- Post Refinery Bitumen Zero Inventory Cost Base
- Reduce Heavy Bitumen Global Cost Base >50%

SUSTAINABILITY

- Pure Zero, CO₂Øe Engineering Standard for complete transition & transfer activities
- Zero Marine or Terrestrial Environmental Spills Damages, Unsinkable, No flame, No slicks
- Eliminate annually more than 5.6B t CO₂e

PERFORMANCE

- Inclusive of extensive Indigenous ownership and operations of shipping and all export terminals
- Exclusive Global IP Market Position
- Multi B\$\$ Domestic Procurement for mega tonnes of Steel & aluminum fabricated material handling systems and aluminum rail rolling stock
- Immediate cost-effective marine access to Atlantic basin (Churchill) & new markets of EU & AF & SA continent(s).

TRL* Level 9

The process of injection molding for plastic containers used for liquid oil and bitumen is a well-established and sophisticated method. Its widespread adoption in the oil and gas sector stems from its reliability, cost-effectiveness, and capacity to create high-quality, durable containers.

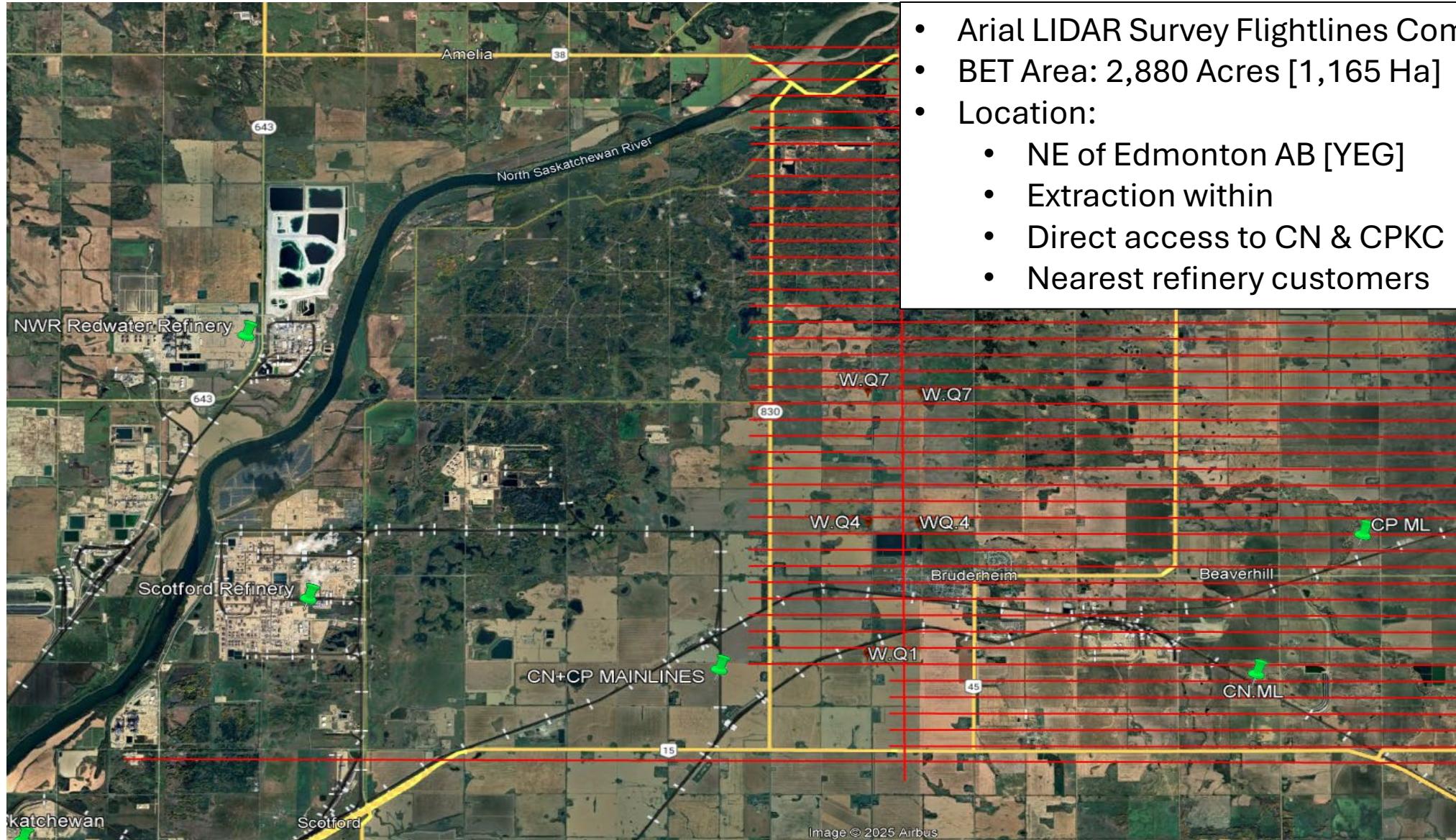
Due to its extensive application and proven success, it is designated as **TRL 9 (Technology Readiness Level 9)**, meaning the technology is fully functional and has been effectively utilized in real-world contexts. [ref. CoPilot](#)

CLASS 3 COST ESTIMATE COMPLETED

According to the American Society of Civil Engineers (ASCE)*, a Class 3 Cost Estimate is typically used during the Front-End Engineering Design (FEED*) phase of a project. Key points include:

- 1. Purpose:** Class 3 estimates are intended for securing **full project funding (FID) requests** and establishing the initial budget and schedule controls.
- 2. Accuracy Range:** The expected accuracy for a Class 3 estimate is generally between -10% to +30%. [ref. CoPilot](#)
- 3. Preparation Cost:** The cost to produce a Class 3 estimate usually ranges from 0.1% to 0.5% of the total project cost, with the current RBITT investment, including global patent protection efforts, being under **\$60MM** (~0.1% of CAPEX).
- 4. Procurement Ready:** This indicates the initial steps towards the refinery RTM/F Franchise award.

'DISRUPTIVE GLOBAL PARADIGM'



- Aerial LIDAR Survey Flightlines Completed (in RED)
- BET Area: 2,880 Acres [1,165 Ha]
- Location:
 - NE of Edmonton AB [YEG] 50km
 - Extraction within 450km
 - Direct access to CN & CPKC NA RAIL NET
 - Nearest refinery customers 9km

'DISRUPTIVE GLOBAL PARADIGM'

VAR - BASEMETHOD - NFR
RTM-O-RTM

Cost Breakdown Structure (CBS) Register

CBS Position Code	Description	Forecast (T/O) Quantity	Unit of Measure	Unit Cost	Total Cost (Forecast)
	[RBITTT [L.IP#1-#8] 16k BPD Ea. (20 Yr)]	116,880,000.0	BOE	\$2.14	\$250,000,000
1	[RBITTT [L.IP#1-#8] 16k BPD Ea. (20 Yr)]	116,880,000.0	BOE	\$2.14	\$250,000,000
1.1	[RBITTT [L.IP#1-#8] 16k BPD Ea. (20 Yr)]	21,250,909.0	ton	\$11.76	\$250,000,000
1.1.1	[RBITTT] [CAPEX Costs]	16.0	Mo.	\$15,625,000.00	\$250,000,000
1.1.1.1	[RBITTT] Direct Cost	116,880,000.0	BOE	\$1.28	\$150,000,000
1.1.1.1.1	[RBITTT [L.IP#1-#8] 16k BPD Ea. (20 Yr) - CAPEX]	16.0	Mo.	\$9,375,000.00	\$150,000,000
1.1.1.1.1.1	[EPCM] Direct	16.0	Mo.	\$6,216,138.13	\$99,458,210
1.1.1.1.1.1.1	WA#0 - [L.IP#1-#8] Receipt Bitumen	16,000.0	BOE/day	\$52.88	\$846,047
1.1.1.1.1.1.2	WA#1 - [L.IP#1-#8] Blending Station	48,000.0	BOE	\$229.75	\$11,028,049
1.1.1.1.1.1.3	WA#2 - [L.IP#1-#8] Transition Facility	20,000.0	SF	\$208.78	\$4,175,584
1.1.1.1.1.1.4	WA#3 - [L.IP#1-#8] Transition Station	16,000.0	BOE/day	\$2,123.10	\$33,969,536
1.1.1.1.1.1.5	WA#4 - [L.IP#1-#8] Transfer Station	16,000.0	BOE/day	\$750.19	\$12,002,965
1.1.1.1.1.1.6	WA#5 - [L.IP#1-#8] Storage Station	480,000.0	BOE	\$54.98	\$26,389,042
1.1.1.1.1.1.7	WA#6 - [L.IP#1-#8] Loadout Station	16,000.0	BOE/day	\$690.44	\$11,046,987
1.1.1.1.1.2	[EPCM] Indirect	16.0	Mo.	\$3,158,861.88	\$50,541,790
1.1.1.1.1.2.1	[RBITTT] [EPCM] Contract	16.0	Mo.	\$383,700.00	\$6,139,200
1.1.1.1.1.2.2	[RBITTT] #1 License Setup Cost	1.0	LS	\$16,000,000.00	\$16,000,000
1.1.1.1.1.2.3	[RBITTT] Schedule Contingency	16.0	Mo.	\$1,775,161.88	\$28,402,590
1.1.1.2	[RBITTT] Indirect Cost	16.0	Mo.	\$6,250,000.00	\$100,000,000
1.1.1.2.1	[RBITTT] Indirect Cost	16.0	Mo.	\$6,250,000.00	\$100,000,000
1.1.1.2.1.1	ESG	16.0	Mo.	\$1,215,121.88	\$19,441,950
1.1.1.2.1.2	[RBITTT Execute Level Team [ELT]]	16.0	Mo.	\$2,102,587.50	\$33,641,400
1.1.1.2.1.3	[RBITTT] GR#1 - Region Staff	16.0	Mo.	\$381,750.00	\$6,108,000
1.1.1.2.1.4	FEED CL 3 Cost Estimate @ +27% Risk of Direct Costs	1.0	LS	\$40,808,650.00	\$40,808,650

'DISRUPTIVE GLOBAL PARADIGM'**Transition Overview**

Objective: Transition the existing global heavy bitumen feedstock and refined product journey to Ø liquids, Ø heat & Øe using a turnkey, cost-neutral transition strategy.

Business: The complete Journey is delineated into individual licensed stages, L.IP#1 thru L.IP#8.

License Model & Participation**Participation Level:**

- ▶ License L.IP#1-#8 Start Cost: ea. \$16 MM USD
- ▶ Early Adopter Equity Participation

Licensee Payment Schedule:

▶ Multi-year:	Fixed Offtake:	(LoA)	20 Yr
▶ Monthly:	PolyGridFriction:	(PGF)	flow-thru
▶ Monthly:	PolyGridSupply:	(PGS)	flow-thru

Licensee Financial Guarantees: Standard secured assurances or guarantees by acceptable global financial institutions.

Memorandum of Understanding (MoU)
Definitive Agreement (LoA)

To Follow
To Follow

'DISRUPTIVE GLOBAL PARADIGM'**Key Features*****Turnkey Solution:***

- ▶ 'All-In' turnkey transition solution from producer or refinery hot-pipe transfer (HPAT) to the reliquefied asphalt bitumen aggregate mixing stage.
- ▶ All transition assets inside the gate owned by producer or refiner.
- ▶ All offsite transport, storage and reliquification assets owned or operated by mid-stream distributors or contractor(s).

Cost-Neutral Transaction:

- ▶ Financial model designed to ensure no additional cost burden on the licensee.
- ▶ Elimination of extensive continuous heating requirements offsets transition costs.
- ▶ Elimination of carbon pricing (tax) system exposure for export market and offsets transition costs.
- ▶ Integration of advanced technologies to ensure seamless transition and operation.

'DISRUPTIVE GLOBAL PARADIGM'**Key Features Cont.*****CO₂Øe Emission-Free Bitumen/Asphalt Transport & Storage:***

- ▶ Elimination of the extensive heating currently required for storage and transport of bitumen @ 150°C.
- ▶ Adoption of renewable energy sources and energy-efficient processes.
- ▶ RBITT Pure-Zero is Refinery Net-Negative
- ▶ Leading refinery industry global climate change initiative

CO₂Øe Diluent-Free Heavy Bitumen Feedstock Transport & Storage:

- ▶ Advanced transport and storage solutions eliminating the need for diluents.
- ▶ Elimination of the need for adding diluents [>30% by volume] to transport heavy bitumen.
- ▶ Enhanced safety (non-flammable & float) and fully environmental compliant.
- ▶ RBITT diluent-free payload is >30% more efficient transport.
- ▶ Adoption of renewable energy sources and energy-efficient processes.

CO₂Øe Emission-Free Global Transport Logistics:

- ▶ Adoption of renewable energy sources and energy-efficient processes.
- ▶ Advanced transport and storage solutions eliminating the need for diluents.
- ▶ Robust coordination network ensuring efficient and reliable global transport.
- ▶ Real-time tracking and monitoring systems for optimal planning management.

'DISRUPTIVE GLOBAL PARADIGM'**Scope of Transition (Work)**

Assessment: Within ninety (90 days) from MoU funding, initial evaluation of each RTMods refinery existing setup for RTM integration.

Design: Custom design of the CO₂Øe emissions-free RTM system tailored to the refinery's needs and RTMs full capacities.

Assets Implementation: Full EPC installation, contracts, and integration of the new systems:

- ▶ Post-Refinery PMB Transition, Storage & Loadout
- ▶ Road Bulk Transport
- ▶ Rail Bulk Transport
- ▶ Marine Bulk Transport
- ▶ Marine Port, Bulk Storage & Transfer Facilities
- ▶ Reliquification Facilities
- ▶ Marine Port Storage & Transfer Docks

Fabrication: Maximize offsite manufacturing, testing, modularization, and assembly.

Assembly: Minimize on site construction and assembly.

Testing: Comprehensive testing and commissioning to ensure system functionality.

Training: Extensive training and support for staff on new system operations and maintenance.

'DISRUPTIVE GLOBAL PARADIGM'**Deliverables**

Detailed Project Plan:

Within ten (10 days) from funded LoA, including timelines, milestones, and key deliverables.

System Design Documents:

Drawings and technical specifications.

Installation Reports:

Documentation of the installation process.

Testing Reports:

Results from system testing phases.

Training Materials:

Instruction videos, manuals, and training session records.

Commissioning (ISO)

In Service Date (ISD):

365 days from full construction access to site or funded LoA, whichever is the later.

Milestones and Timeline

Project Kickoff:

Initial project start date. TBD

Design Phase Completion:

Expected date for design completion. TBD

Installation Phase Completion:

Expected date for installation completion. TBD

Start-up Phase Completion:

Expected date for commission completion. TBD

Project Completion:

365 days from full construction access to site or funded LoA, whichever is the later.

'DISRUPTIVE GLOBAL PARADIGM'

Warranty and Maintenance

Lifetime Warranty:

- ▶ Comprehensive lifetime warranty on all operating systems.
- ▶ Inclusive of all advance and regular technology upgrades and maintenance.

Support Services: 24/7 Dedicated support team available around the clock for any operational, support and troubleshooting needs.

Maintenance Schedule: Regular maintenance and inspection schedules.

Risks Elimination

Risk Analysis: Continuous potential risk analysis, identification, and elimination.

Risk Elimination Strategies: Mandate to eliminate all risks, when identified.

Approval and Signatures

Franchisee Approval:

RBITT Approval:

'DISRUPTIVE GLOBAL PARADIGM'

1 Transition Module	Capacity / Output	Footprint	Proximity
Overall ▲ Complete stand-alone facility ▲ Licensed IP Protected Technology ("IPP")	16,000 BPD		<5km
RTM ▲ Receipt Tank ▲ Blending Facility (IPP) ▲ Packaging Facility (IPP)	TBD* TBD* 16,000 BPD	TBD* TBD* 2,000m ²	
Transport to Storage ▲ High-Capacity Conveying System	TBD*	TBD*	
Storage ▲ Double-hulled in-ground storage (IPP) ▲ Double hulled floating storage (IPP)	TBD* TBD*	TBD* TBD*	TBD* TBD*
Loadout ▲ High-Capacity Conveying System ▲ TBD* - (refinery site specific)	Unit Train Capacity	TBD*	<5km

'DISRUPTIVE GLOBAL PARADIGM'

1 Transition Module	Activity Duration (Days)	Activity Finish Date	Revenue Start Date
Design & Engineering	90	90	
Procurement	60	120	
Fabrication	180	270	
Installation	60	330	
Commissioning	30	360	
Revenue Start			365

RISK ELIMINATION

'DISRUPTIVE GLOBAL PARADIGM'

Risk Category	Risk Identification	Risk Elimination
Investment Protection	Intellectual Property	<p>RBITTT™ transition has global patents secured for all steps of RBITTT™ journey (packaging, storage, transportation, reliquefaction).</p> <p>USPTO Patent Numbers: US 2022/0251388 A1, US2022/0251453 A1, US2022/0250832 A1, US 2022/0251454 A1</p> <p>WIPO PCT Global Patent Numbers: WO 2022/168058 A, WO 2022/168059 A1, WO 2022/168056 A1, WO 2022/168060 A1</p>
Market	Cost Competitive-ness	<p>Lowest Global Delivered Cost</p> <p>CO2 emission-free delivery</p> <p>Cost-effective transition of API<10 bitumen</p> <p>No existing competitors and patents ensure barrier to entry</p>
Completion Risk	Schedule Certainty	<p>On-time contract execution incentives and penalties</p> <p>Our discipline on quality certain eliminates all mistakes well before they could affect execution.</p>

Risk Category	Risk Identification	Risk Elimination
Delivery	Delivery Certainty	<p>Redundancy engineered into all critical path operational steps of delivery process: 5 stand-alone production lines in each plant</p> <p>Doubled wall storage structures</p> <p>Full-time access to multiple main-line railroads</p> <p>Exclusive full-time access to unloading, storage and dockage at multiple tidal ports</p>
Geopolitical	Regulatory Delays	Pure Zero compliance exceeds all geopolitical barriers
Customers	Quality Certain	Independent laboratory test approvals for RBITTT QC
Product	Demand Certain	<p>Bitumen/Asphalt is a basic building block of surface transportation</p> <p>Forecasted growth of >4% CAGR</p>
Technology	Warranty Issues	<p>Min. 50 year design life</p> <p>Proven engineering</p> <p>Proven work methods</p> <p>High quality feedstock</p>

'DISRUPTIVE GLOBAL PARADIGM'



US011912942B2

(12) United States Patent
Giannelia(10) Patent No.: US 11,912,942 B2
(45) Date of Patent: Feb. 27, 2024

(54) METHODS OF TRANSPORTING SOLID FORMATIONS OF NON-VOLATILE BITUMINOUS MATERIALS AND REDUCING CARBON DIOXIDE EMISSIONS

(56) References Cited

U.S. PATENT DOCUMENTS
8,114,494 B2 2/2012 Marchal
10,125,321 B2 11/2018 Auld et al.
(Continued)

(71) Applicant: PHILERGOS GROUP FOUNDATION, Cochrane (CA)

FOREIGN PATENT DOCUMENTS
CA 2958443 A1 4/2017
CA 3008103 A1 1/2019
(Continued)

(72) Inventor: Paul Giannelia, Cochrane (CA)

(73) Assignee: PHILERGOS GROUP FOUNDATION, Cochrane (CA)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 188 days.

(21) Appl. No.: 17/665,532

OTHER PUBLICATIONS

(22) Filed: Feb. 5, 2022

Bitcrude CA, Bitcrude Energy's Success of Commercial-Scale, Diluent-Free, Non-Toxic Heavy Oil Shipping Process Revolutionizes Access to Offshore Markets, Press Release, Jan. 11, 2021, published online at <https://www.bitcrude.ca/s/BitCrude-Media-Release-January-2021-Final-For-Distribution-11.pdf>.
(Continued)(65) Prior Publication Data
US 2022/0250832 A1 Aug. 11, 2022

Related U.S. Application Data

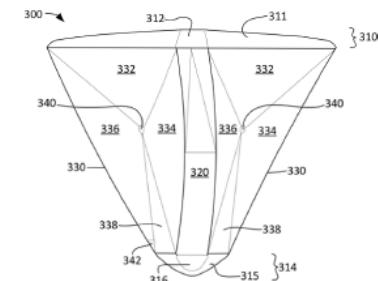
(60) Provisional application No. 63/146,812, filed on Feb. 8, 2021.

(51) Int. Cl.
C10C 3/14 (2006.01)
C10L 5/14 (2006.01)
(Continued)(52) U.S. Cl.
CPC .. C10C 3/14 (2013.01); B65D 88/74 (2013.01); C08L 95/00 (2013.01); C10C 3/02 (2013.01);
(Continued)(58) Field of Classification Search
CPC .. C08L 95/00; C08L 2201/08; C08L 2555/32; C08L 2201/56; C10C 3/14;
(Continued)

ABSTRACT

A method of transporting non-volatile bituminous materials from a first location to a second location involves carrying a plurality of irregular bricks formed by the bituminous material in transport chambers carried by vehicles. Bricks are defined by a plurality of non-planar surface, which create gaps between adjacent bricks, and can further include polymer skeletons and other features that help them float. The bricks can travel by land, sea, air, or rail and need not be heated while in transit. Transport chambers have active or preferably passive environmental control systems to circulate cooling air, water, or other substances through the transport chamber and the gaps between adjacent bricks. In a preferred embodiment, ambient air circulates among the bricks during travel by land and ambient water circulates among the bricks during marine travel. The vehicles carrying the transport chambers can be low-emissions or zero-emissions vehicles.

(Continued)



Steven Lumbala



Skills

- ▲ International Transactions
- ▲ JV / Shareholder Agreements
- ▲ Government Transactions
- ▲ Corporation Agreements

Competencies

- ▲ Attention to Detail
- ▲ Due Diligence
- ▲ Management
- ▲ Relationship Building
- ▲ Organization

Languages

- ▲ English
- ▲ French
- ▲ Spanish

Profile

A multilingual, international, legal counsel, Steven provides well rounded knowledge to this project team.

Steven has experience working for and with the oil & gas industry along with solid exposure to government while working through a large variety of legal transactions. Specifically working with joint ventures, corporation agreements and financing agreements. As a member of a professional athletic team, there is a strong sense of relationship and team building.

Key Experience

- ▲ **Senior Manager** – Group Legal, DP World FZE – Dubai, UAE – Responsible for the oversight of various types of international transactions and deals. Oversaw the completion of the Condition Precedent process on various projects, each valued over US\$100M.
- ▲ **Associate - Mergers & Acquisitions (Technology Group)** – Fasken Martineau DuMoulin LLP – Managed closing process for CAD\$450MM sale of a Vancouver based wealth management fund to a large American private equity company. Undertook drafting of ancillary documents and managed closing process of CAD\$30MM financing of Vancouver based health technology company
- ▲ **Articling Student** – Borden Ladner Gervais LLP – Drafted closing documents for \$300MM settlement transaction and closing between parties that included various oil and gas assets. Managed seven closing(s) books in the \$300M settlement transaction and acted as one of the main points of contacts for the Senior Associate, Vendors (domestic and foreign) and opposing counsel to ensure documents in closing folders were complete and accurate.
- ▲ **Summer Law Student 1L** – Borden Ladner Gervais LLP – Undertook due diligence and review of the Government of Canada's \$4.5Bn purchase of Kinder Morgan's Trans Mountain Pipeline Expansion project.
- ▲ **Summer Law Student 2L** – Pembina Pipeline Corporation – Conducted legal research and drafted memoranda for senior team members on the standard required for large energy infrastructure projects in the United States pursuant to the Department of Energy's standards.
- ▲ **Commercial Analyst (NGL Extraction Group)** – Inter Pipeline Ltd.. –
- ▲ **Professional Athlete – Running Back** – Canadian Football League – Drafted 1st round, 5th pick overall in the 2013 Canadian College Football Draft by the Montreal Alouettes

Education

Juris Doctor – **Université de Moncton** – April 2020
Exchange program – Faculté de droit et de sciences politiques de Montpellier (France)
Bachelor of Commerce – **University of Calgary** – April 2013
Major in Petroleum Land Management

Profession Affiliations

Law Society of British Columbia – Bar Call Date: September 2021
Law Society of Alberta – Bar Call Date: July 2021
Young Professionals in Energy - Calgary Chapter
Canadian Association of Black Lawyers – Alberta Chapter
Francophone Representative
Fellow at the Black Wealth Club
Association des juristes d'expression francophone de l'Alberta (AJÉFA)
Dinos Football 5th Quarter Alumni Association

Lewis Cardinal – INDIGENOUS ADVISOR & iPGFund Steward

- ▲ Lewis Cardinal is a communicator, educator, and story holder. Lewis has dedicated his life's work to creating and maintaining connections and relationships that cross-cultural divides. His long track record of public service currently includes; Co-Chair of Initiatives of Change-Canada, Chair of the Global Indigenous Dialogue of Initiatives of Change, and Trustee and Chair of the Indigenous Taskforce for the Council for a Parliament of World Religions.
- ▲ <https://www.linkedin.com/in/lewis-cardinal-531243121/>

Paul Giannelia



Skills

- ▲ Project Delivery
- ▲ Execution Excellence
- ▲ Strategic Planning
- ▲ Budget and Schedule
- ▲ Risk Management
- ▲ Strategic Planning

Competencies

- ▲ Execution Excellence
- ▲ Decision Making
- ▲ Project Delivery
- ▲ Problem Solving
- ▲ Critical Thinking

Languages

- ▲ English

Profile

A leader of innovation and project delivery in infrastructure for over 30 years. His practical experience includes most aspects of infrastructure implementation in roles ranging from laborer and project director/leader to company founder and president.

Paul's full working knowledge and proven experience in the complete development and implementation of infrastructure projects was gained in a global environment and often on complex mega projects. The experiences gained in infrastructure project development and delivery were realized over a geographic reach from coast to coast across Canada, along the eastern seaboard, south to Georgia, the Pacific northwest and Pacific of the USA, Mexico, Argentina, Brazil, the Caribbean and briefly eastern Europe. Largest project in excess of \$25B.

Key Experience

- ▲ **Executive Advisor to CEO**, Honolulu Authority for Rail Transport ('HART') - Engaged to establish earliest completion execution plan, of (\$9B+) long extended new elevated transit project. Developed a 2023 solution and HART selected an extended 2028+ completion strategy.
- ▲ **Technical Advisor to Owner**, City of Calgary - Engaged to establish project execution plan ("Managing Director") of (\$5B+) new transit line expansion, including significant underground alignments. Determined underfunding of CAPEX and Owner is now addressing affordability.
- ▲ **Executive Advisor**, Trans Canada Corp. - Engaged to advise and provide recommendations of changes required by Major Projects' structure, leadership, processes, systems and culture. Also, to advise and assist COO with implementing a performance culture into Major Projects Group. Specific assignments included establishing the execution plan in detail for three (3) pending LNG (\$10B+) mega gas pipelines in western Canada and chair of owner's committee on nuclear plant multibillion refurbishment.
- ▲ **Execution Director**, Northern Gateway Project, Enbridge Inc. – Led the technical execution of the FEED, construction delivery strategy, engineering, project management and construction planning for the Northern Gateway pipeline project in Western Canada (focused on offshore works, terminal facilities, tunnels and general mountain construction). This multi-year, multi-billion-dollar (\$20B+) mega project plans to deliver land-based Alberta oil to the Pacific coast crossing the Rocky and Coastal mountain ranges for export to Asian markets. In addition, was responsible for the execution planning for two (2) of the pending LNG mega gas pipelines in western Canada.
- ▲ **Project Director, Co-Founder & Co-Owner**, Confederation Bridge – Led Canada's first major public-private partnership and selected as one of the top 5 Canadian engineering achievements of the 20th Century. Project leader fully responsible for (multi-B\$) complete project delivery from concept development, social license success, government negotiations, regulatory, environmental, community approvals, engineering, overall project execution and commissioning on original scheduled RSD.

Education

Project Management – CCA Gold Seal Designation
Economics – Wifrid Laurier University
University of Prince Edward Island – PhD.H Laws – 2007
University of Calgary – PhD.H Laws – 2001
Wilfrid Laurier University – PhD.H Laws – 1999
University of New Brunswick – PhD.H Science – 1997

Industry Recognition

Canada CIAU Lester B. Pearson National Award, for distinction and accomplishment
Engineering Institute of Canada, Honorary Life Member
Pinnacle Award, Alberta, Fraser Milner Casgrain LLP, for entrepreneurship
Ted Walden Award, Alberta, Calgary Construction Association, for contribution to construction
Montgomery Awards, Canadian Construction Association, for innovation in engineering and construction (First 3x winner)

RBITTT™ Enters the Climate Change Race leading with their Revolutionizing BITumen Transition Transfer – A PARADIGM SHIFT for Environment, Infrastructure, and Investment

Calgary, Alberta | 2025

In a bold leap forward for global energy and infrastructure RBITTT™ (Revolutionizing BITumen Transition Transfer) announces the global launch of its breakthrough solution for transferring extra heavy bitumen — a transformative innovation poised to redefine the global heavy and asphalt bitumen market and drive sustainable growth across multiple sectors.

Backed by decades of engineering, proven field performance, and a globally issued family of patents, **the epicenter of the Business Case is the global elimination of diluent or heating when moving heavy bitumen.**

"That is one small step for Bitumen Transfer, and one giant leap in the Climate Change Race ('CCR')," states RBITTT™.

This shift, slashing CO₂e achieves the smallest environmental footprint (SEF) of Ø, maximizing carbon credit (CCR) accumulation — an unprecedented convergence of **Planet, Performance, and Profit.**

"We aren't just moving bitumen — we're moving the entire industry forward CO₂Øe,"... adds RBITTT.™

Cross-Sector Benefits

Heavy Bitumen Producers & Refiners

- Drastically reduced feedstock, transfer & inventory costs
- Expanded access to global markets experiencing exponential growth.

Logistics & Ports:

- Optimizes shortest existing rail to marine corridors
- Shared infrastructure with rare earths, potash, forestry, grain, etc.

Construction & Asphalt Industries:

- Reliable, consistent input supply
- Enhanced performance and extended service life.

Governments & Regulators:

- Buoyant, unsinkable, non-flammable, Ø cleanup-risk
- Circular economy contributor via permanent waste polymer disposal

Investors & Infrastructure Funds:

- High-return, ESG-aligned investment
Participation in exponentially growing CCR accumulation.

Global Licensing Opportunity

- RTransition Module (RTM) facility, cost neutral, in-service date (ISD) of less than 16 months
Target full global deployment by 2035, a capacity of 6MM (BPD) of CO₂Øe PMB.

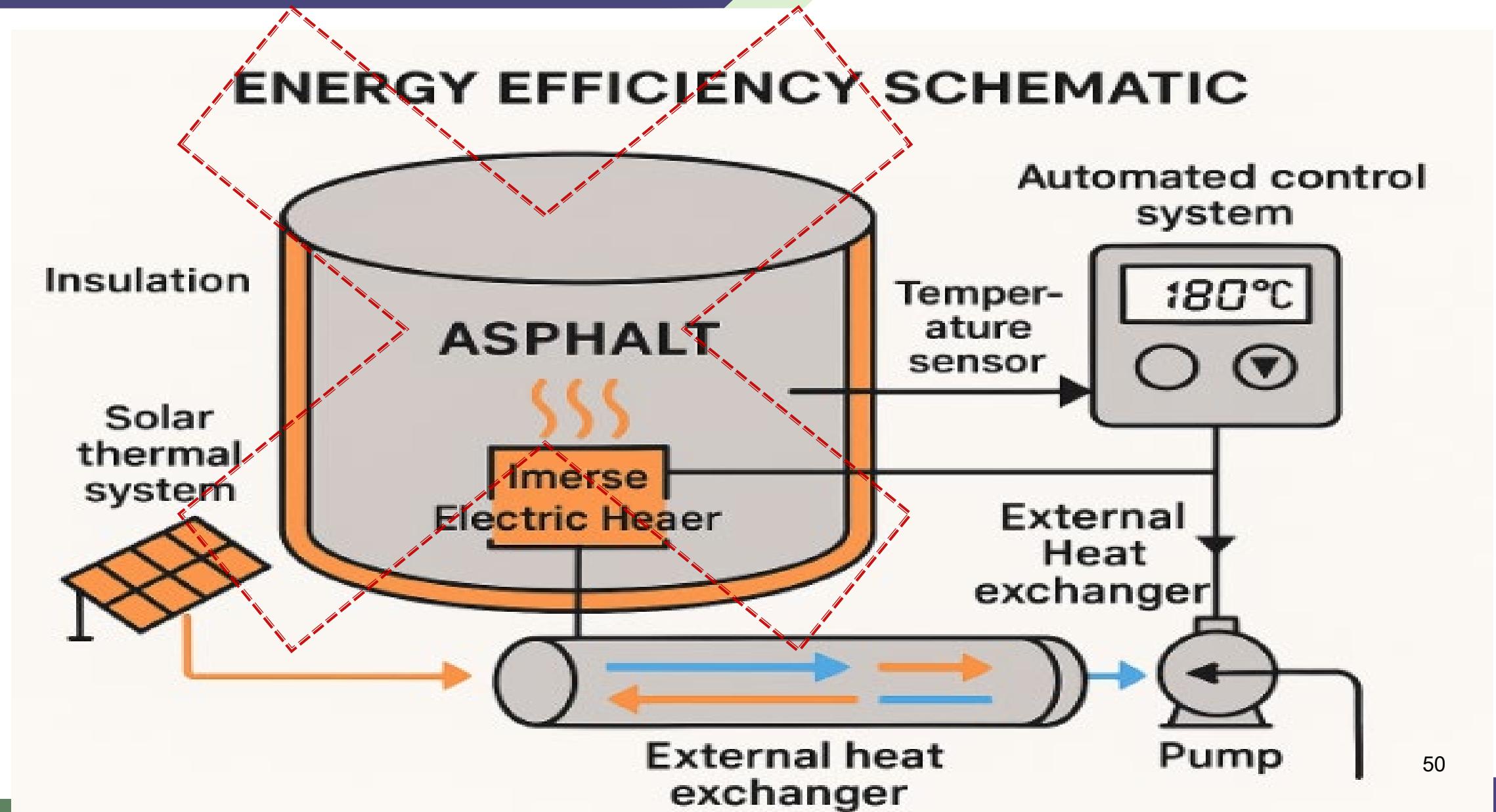
A Gigaton-Scale Emissions Reduction, Built for Today, Ready for Tomorrow

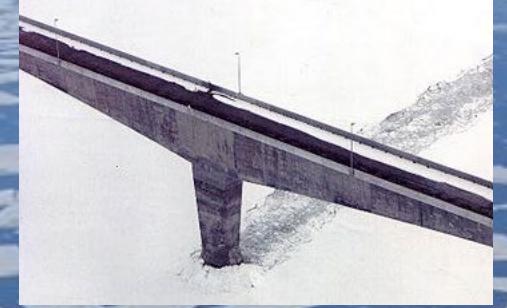
Beyond Net-Zero. it's Pure Zero™

NET ZERO means cleaning up the mess you made.

PURE ZERO™ means you never made the mess in the first place.

"Before this decade is out, Athabasca Heavy will be catapulted to Heavy Bitumen Global Energy Superpower." ~ RBITTT™





SEF = Ø

= EARLIEST ISD = LOWEST \$



Appendix 1 - Acronyms

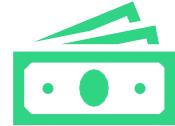
AirCtrl™	Air Control	FID	Final Invest Decision	ROE	Return on Equity
API	American Petroleum Institute Gravity	HLT	Heated Liquid Transfer	RTM	Post-Refinery Transition Module
AOS	AB Oil Sands	IP	Intellectual Property	RTF	Pre-Refinery Transition Feedstock
BBL	Barrel(s)	ISD	In Service Date	SEF	Smallest Environment Footprint
BET	Bitumen Export Terminal	ISO	International Standards Organization	TPD	Tons per Day
BOE	Barrel Oil Equivalent	LoA	License Offtake Agreement	TPY	Tons per Year
BPD	Barrel per Day	Net-Negative	Eliminate more emissions than created	TRL	Technology Readiness Level
BPG	Bridging Planet Globe	Net-Zero	Eliminate equal emissions than created	USMCA	USA Mexico Canada Trade
BPY	Barrel per Year	NO	No-is-No-Answer	USPTO	US Patent & Trademark Office
CAGR	Compounded Annual Growth Rate	NOW	Not-in-Future	UT	Unit Train 150#
CAPEX	Capital Expenditure	OPEX	Operating Expenditure	VLBC	Very Large Bulk Carrier >200k
CCR	Carbon Credit	PGC	Philergos Global Corporation	WIPO	World Intellectual Property Org.
CO₂e	CO₂ emissions	PGF	Philergos Group Foundation	WIT	Work Item
CO₂Øe	CO₂ nil emissions	PGF	Poly Grid Friction	Wp	Waste Plastics
ECCR	Eligible Carbon Credit	PGZ	Project Global Zero	Ø	nil
EoI	Expression of Interest	iPGF	iPhilergos Global Fund	ZØ	Zero Emissions & nil Liquid
EPCM	Engineering, Procurement & CM	PMA	Polymer Modified Asphalt	ØHT	nil Heated Transfer
EPS	Earnings per Share	PMB	Polymer Modified Bitumen	ØLT	nil Liquid Transfer
EU	Europe	Pure-Zero	Creating Ø Emissions	☒	Obsolete
FEED	Front End Engineering & Design	Q1	Quarter of Year		
FEL	Front End Loading	RBITTT™	Refinery Bitumen Transition Transfer		



The RBITTT™ Vision

Innovative Technology:
RBITTT™ is transforming the bitumen industry with a sustainable and cost-efficient solution that reduces environmental harm and enhances operational effectiveness.

Market Validation:
Supported by a Letter of Intent from a global refinery distributor and confirmed by existing storage and transport for solid bitumen,



Investment Opportunity

Funding Needed: We are looking for a \$250 million investment to expand our operations and apply RBITTT™ technology in various refineries globally.

Use of Funds: Investment will support the installation of transition modules, operational scaling, and global expansion to address significant demand.



Why Now?

Strategic Timing: As global attention on sustainability and environmental regulations grows, the demand for green technologies such as RBITTT™ is rapidly increasing.

Financial incentives: Initial investments can lead to significant savings, carbon credits, and a competitive advantage in the growing green infrastructure sector.



Your Role

Become a Strategic Partner:
Work with us to drive the shift towards sustainable bitumen production and contribute to a greener future for global infrastructure.

Impact Investment: Your investment provides appealing returns while also making a substantial social and environmental difference.

'DISRUPTIVE GLOBAL PARADIGM'

Z⁹

'BRIDGING PLANET GLOBE'

Thank you.

