

PIVOT ELECTRIC MACHINES



Converting diesel heavy equipment to battery electric power, targeting a 30% ROI for clients

January 2026



Co-Founders



Michael Collins
CEO & DIRECTOR, P.Geo.

30 years of active mining and exploration experience with a focus on continual improvement and project optimization. Now focused on decarbonization in mining to both improve the working and global environment while reducing mining cost.



William Hughes
CHIEF ENGINEER, COO, P.Eng.

From surveying the mining face to managing \$400 million mining construction project, William has built success in the mining business. For the last 12 years built and lead an engineering team to build battery electric mining equipment from the cell level up.

Taking over 60 years of mining and manufacturing experience and applying that to build cost effective and efficient mining haul trucks.



Haul Trucks Use Expensive Polluting Diesel

There are about 46,000 haul trucks using 276M liters of diesel per day
(equivalent to daily consumption by 48m American cars)

- Diesel is 2 times more an expensive power source than grid power
- OEM equipment manufactures are moving slowly to build battery electric replacement equipment
- Replacing existing fleets will take at least until 2050, (Worley Consulting 2024)

*Pivot uses “Best in Class” battery chemistry and charging technology
to electrify existing diesel mining equipment.
Reducing mining costs and greenhouse gas emissions*



The Time Is Now

A unique opportunity to reduce the cost of Mining and reduce GHG emissions



Proprietary Pivot technology combined with mature EV technology allow for diesel trucks to be converted to battery electric, deployed commercially, and reduce mining cost.



Regulation - Growing regulation around climate change and emissions penalties are pushing the mining industry to hit 30% reductions by 2035 and net-zero by 2050.



Economics - The battery technology already exists to retrofit existing trucks. However, manufacturers are focused on developing next generation electric vehicles, ignoring the \$200B fleet already in operation.



Pivot is a Battery and Mining Specialist

Engineering team

- 40 years experience building mining equipment
- Deep experience in mining site engineering
- 4 generations of battery design
 - Cell testing, characterization and module design
 - 3 generations of Lithium Iron Phosphate batteries
 - 1 generation of Lithium Titanate batteries
- Over 300 light mobile battery electric units deployed to mines in North and Central America, and Australia

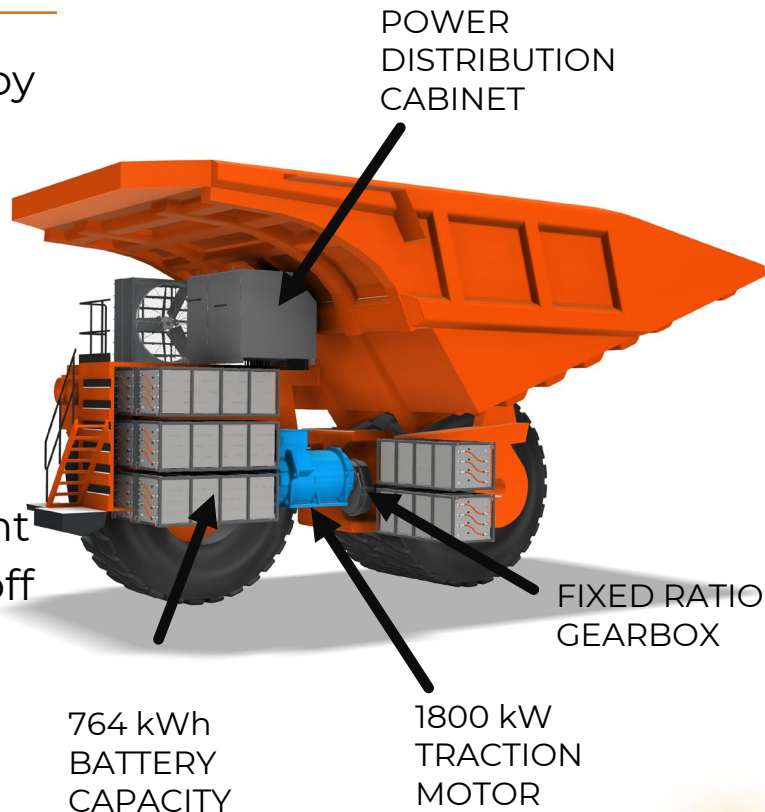




Surface Truck Solution

We convert existing haul truck fleets to electric by customized existing battery technology optimized to retrofit existing trucks.

1. We extend the life and value of the existing haul truck fleet, (8-10 year repeatable).
2. We reduce cost per ton hauled, (10-20%)
3. We lower execution risk and carbon footprint by reusing reliable OEM truck frames and “off the shelf” power system parts
4. We leverage the new operations system to optimize performance through AI



Traction



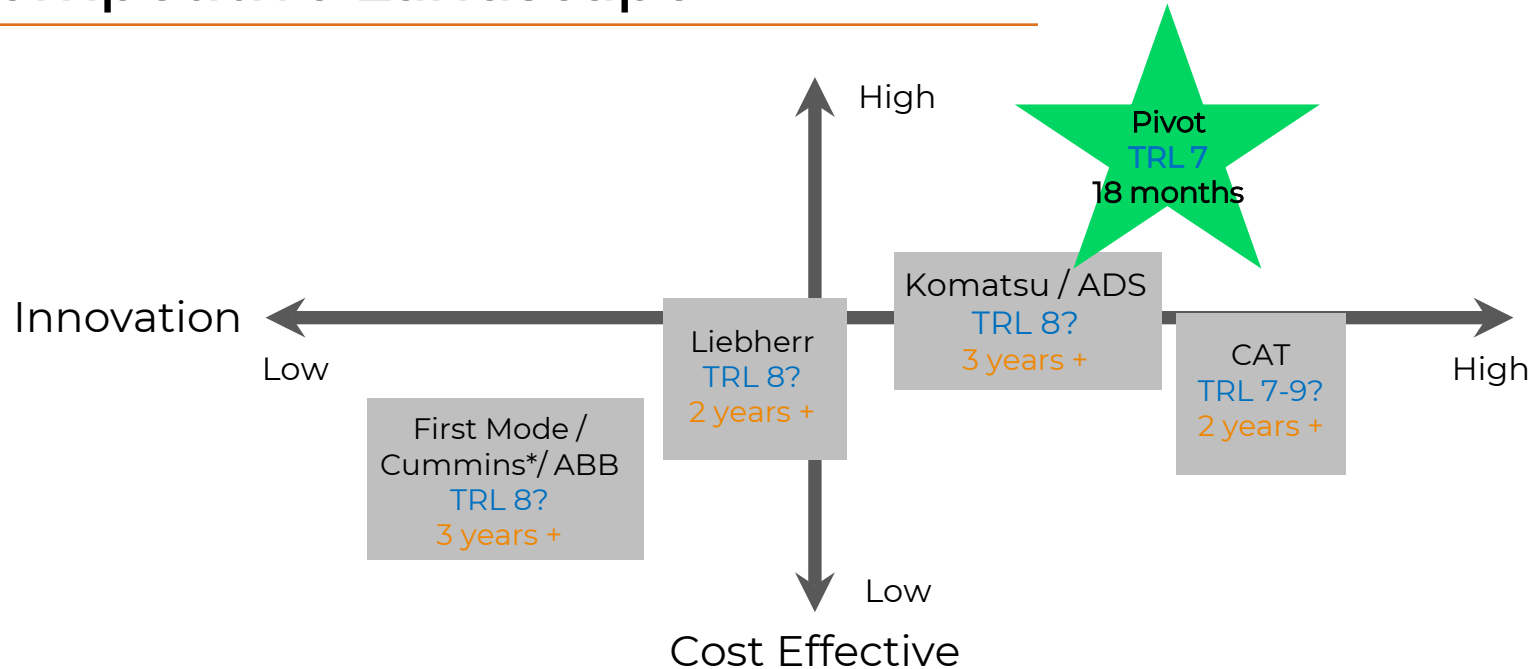
1. First 231 tonne truck rebuild start in Q4 2025, commercial deployment in Q2 2027.
2. 5 truck contract pending demonstration of commercial operation of the first EV truck conversion (~\$25m value).
3. In discussions with multiple mining companies with fleet sizes ranging from 30 trucks to 122 trucks per mine site.



Equipment Test Area in Alberta Canada



Competitive Landscape



- Pivot TRL 7 – deployment in 1 year
- OEMs: 2–10 years from readiness
- Our conversion is faster, cheaper, smarter



The Economic Difference

1. Pivot designed and patent pending: battery technology and charging equipment to effectively operate heavy mining equipment.
2. Key shareholder and contractor Prairie Machine has over 40 years of mining equipment manufacturing experience. Most importantly, in building 4 generations of batteries systems; testing cells, designing modules into battery systems for successful commercial deployment.
3. Optimized conversion packages that seamlessly integrate existing equipment fleets and operating procedures, reducing execution risk while moving tonnes of rock for less.



The Design Difference

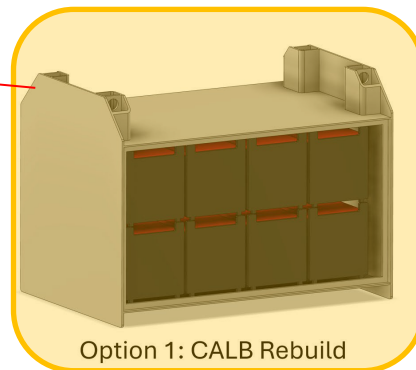
1. Working with latest commercially available LPF, LTO and Sodium Ion battery chemistries; choosing the right one for your mine
2. Understanding the design requirements for high energy equipment
 - Cycle live versus energy density
 - Cooling properties of cylindrical cells vs Prismatic
 - Cell sizing, 150-300 Amperes discharge
 - Internal refrigerant cooling systems
 - Automatic fast charging static charging systems as base case
 - Design hardened and torqued for mine site durability

OEM's default to diesel. Pivot must and does provide an effective and profitable electrification solution

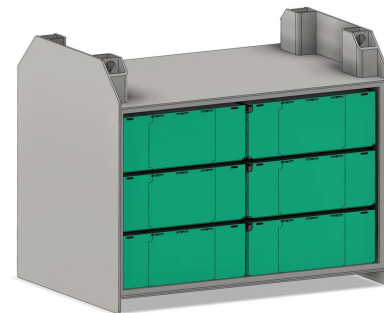


Example: OEM Batteries for UG equipment

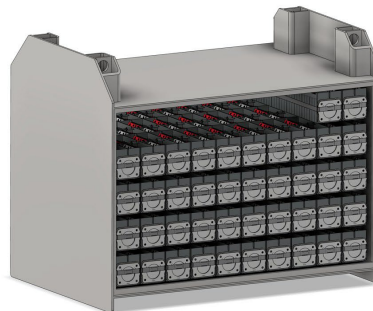
	Option 1	Option 2	Option 3	Option 4
	OEM LFP	LFP	LTO	NaO-ion
kWh/kg Capacity	88	172	70	120
Charge C-rate	1	2	5	4
Run Time (hours)	2.5	4.9	2	3.4
Charge power (kW)	75	146	298	510
Cooling	No	Yes	Yes	Yes
Charge Time (minutes)	60	60	12	20
Charge Time/Run Time (%)	40%	20%	10%	10%
# Cycle Lives	1,000	3,000	40,000	20,000
Battery \$ vs Base	1.00	1.13	1.26	0.84
Batteries per vehicle (swap)	3	1	1	1
Charger cost vs Base	1.00	1.90	3.87	6.12
Cost per Operated Hour (1)	\$207	\$25	\$9	\$15
# of Vehicles	2	4	8	15
Cost per Operated Hour	\$187	\$14	\$2.8	\$4.0



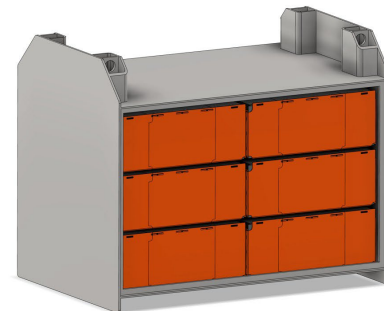
Option 1: CALB Rebuild



Option 2: CATL Assembly



Option 3: LTO Assembly



Option 4: Sodium Assembly

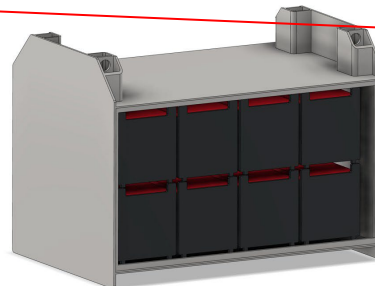
**For small UG equipment but scalar to large equipment*

***Diesel equivalent sizing, 10L/hr ~\$16.00/hr fuel cost*

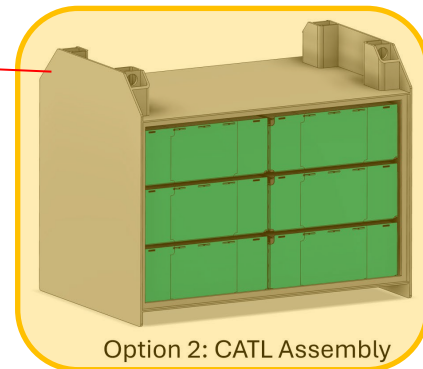


Example: Our base case option for UG equipment

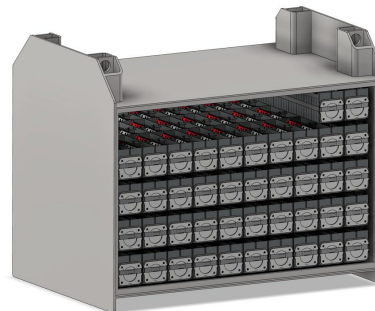
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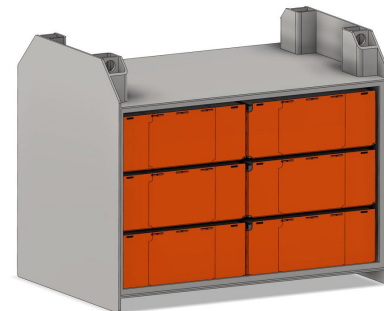
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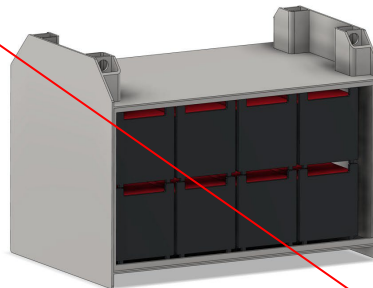
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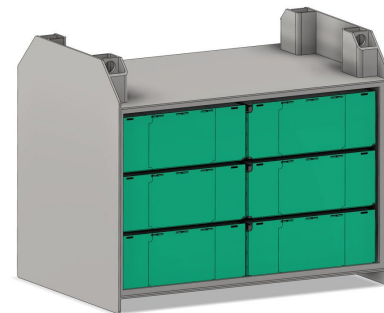


Example: Best in Class Batteries for Haul Trucks

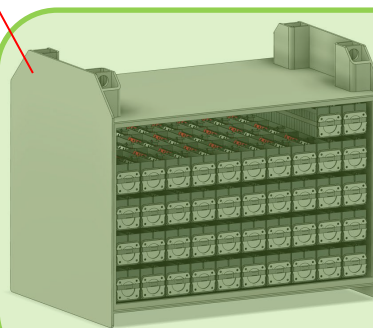
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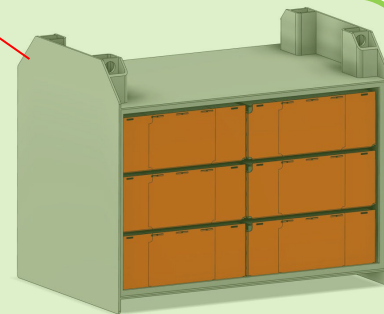
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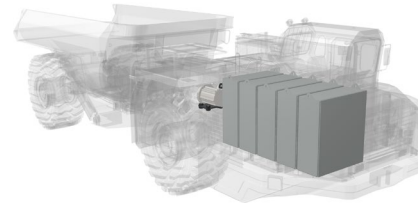
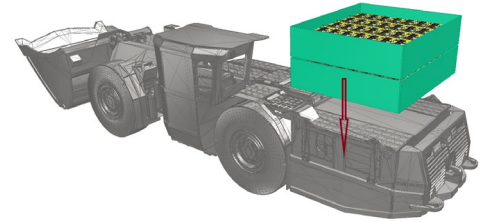
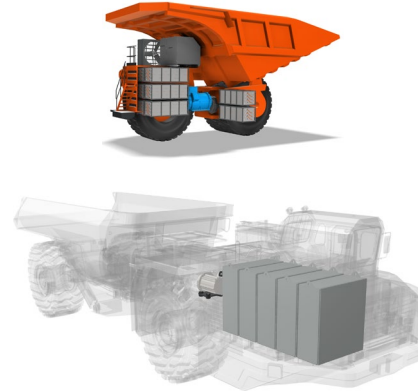
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Current projects

While Haul Trucks are our main focus we have several other product lines maturing

1. 231t diesel-mechanical haul truck conversion
2. 363t diesel-electric haul truck conversion
3. 42t diesel-mechanical underground haul truck conversion
4. 15t UG diesel-mechanical scoop tram conversion
5. Battery optimization of 4t battery electric scoop tram
6. Battery power storage for mobile hospital units



Next:

1. Grid power buffering and peak load smoothing systems

Pivot is led by proven batteries and mining equipment builders



Board and Senior Team



Michael Collins
CEO, Dir. & Co-Founder



William Hughes
COO & Co-Founder



Monty Sutton
Director



Marc Leduc
Director



Christopher Huggins
VP Marketing



Jessica Van Den Akker
CPA, VP Finance



Alvin Pyke
VP Engineering



Advisors



Dr Chris Burns



Reg (Rejean) Labelle



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