## "Disrupting a Multi-Billion \$ Material Handling Sector"





### Safe Harbor Language

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### Who is Flux Power?

- Designer, developer, manufacturer, and seller of lithium-ion battery packs that replace inefficient and environmentally undesirable lead-acid battery packs that are used in industrial equipment
- Unique modular design and proprietary software lends itself to tremendous flexibility
- Investment and engineering talent have yielded unique lithium-ion solutions that offer compelling economic advantages as well as environmental benefits
- Over 5 years of relationship building has positioned Flux Power for significant revenue growth and margin improvement in 2021-2022
- Relocated in 2019 to a 64,000 sq ft facility with production capacity for \$100M revenue annually



Flux Power LiFT Pack



ISO 9001 Certified Assembly Facility

## Flux Power in the Current Environment

#### Enabling the Paradigm Shift to an Electrified World for Material Handling

- Decade of experience in design and packaging lithium-ion battery packs for motive applications
- Products available for Class 1, 2, and 3 forklifts, airport ground support equipment (GSE), and natural product line extensions including solar energy storage for electric vehicle (EV) charging and warehouse robotics

#### Early Stages of Multi-Billion Dollar Market Opportunity

- Technology and economic advantages open a \$2.5B dollar North American market\*
- Lithium-ion value proposition: lower total cost of ownership via better performance, longer life, greater energy efficiency and no water maintenance versus legacy lead acid batteries

#### **Market Validation with Fortune 500 Customers**

- UL Listing & OEM approvals provide validation of performance and safety
- Fortune 500 early adopters purchasing Flux Power LiFT Packs include: PepsiCo, Frito-Lay, Mondelez, Caterpillar and Delta Air Lines

#### **High Growth with Margins Expanding**

- Ramping production & sales FY'20 revenue increased 81% to \$16.8M vs FY'19 revenue of \$9.3M; rapid growth anticipated to continue with impact of full product line rollout and high sector growth
- Expect continued gross margin expansion through continued focus on volume purchasing, cost downs, design optimizations, sourcing changes, and manufacturing efficiencies post launch of new product lines
- Expanded facility to 64,000 sq. ft. to support up to \$100M of annual production

\*Company estimates based on Industrial Truck Association (ITA), Sept 2019 Annual Publication; comparisons reflect feedback from customers



### A Foundation Built for Fortune 500 Electrification



Flux Power Company Presentation

### **Competing Power Sources for Equipment**

Lithium-ion	<ul> <li>High volume, multi-shift applications</li> <li>Five competitors of comparable revenue (Only one has UL Listings and one other has private label with OEM)</li> <li>Flux Power was the first mover in the motive lift space and has over 7,000 packs in the field</li> </ul>
Lead Acid	<ul> <li>Low purchase price; single shift; low usage</li> <li>Requires regular water maintenance</li> <li>Requires monthly lead acid reporting by government</li> </ul>
Internal Combustion (Propane)	<ul> <li>Higher maintenance cost; emissions preclude certain industries</li> <li>Sustainability issues</li> </ul>
Fuel Cell (Hydrogen)	<ul> <li>High capital investment; tailored for 5-minute charging; special handling and maintenance required for hydrogen; requires lithium for use</li> <li>Caters to companies like Amazon and Walmart having 24X7 high volume with 200 or more forklifts on site</li> </ul>

## Large Addressable Market

- The Industrial Truck Association (ITA) estimates that ~242,000 lift trucks were sold in North America in 2019
- \$2.5B addressable annual market for electric trucks; 35% of forklift sector is internal combustion (primarily propane)
- Sales are building for fleets transitioning from propane to lithium-ion to address environmental and maintenance issues
- We believe lithium-ion currently has a 3% market share in North America
- Flux Power LiFT Packs "drop-in and play" easily with most forklifts for lead acid battery replacement business

Forklift Type	Class	Description	
	Class 1	Sit-on / Counterbalance	
L	Class 2	Narrow Aisle	Sector
Electric Trucks	Class 3	Walkie Pallet	focus
	Class 3	End Riders / Center Riders	
Internal	Class 4	IC, Solid Tires	Potential
Combustion (IC) Trucks	Class 5	IC, Pneumatic Tires	conversion
Tractors / Rough	Class 6	Electric and IC Tractor / Trailers	
Terrain Trucks	Class 7	Rough Terrain Forklift Trucks	
*OSHA Classifications IC includes: propane, gasoline, dies	el,		•
Sit-on	Narrow Aisle	e Walkie End Ride	r



### **Customers Want Lower Cost and Higher Performance**



## Flux Power LiFT Packs eliminate forklift operation pain points, with lower total cost of ownership

\* Lithium-ion has 7-year life, Argonne National Labs Study

\*\* Lithium chemistry wastes less energy per Battery University

\*\*\* Requires no water maintenance

Attribute	Lead Acid Batteries	Flux Power Lithium-Ion "LiFT Packs"
Performance	Power & runtime Limitations	Run longer shifts, maintain power
Lifespan *	Shorter cycle life	5 – 10 year warranties
Efficiency **	Less efficient energy storage	More efficient energy usage than lead acid
Maintenance ***	Must water; requires multiple packs/truck	Single pack/truck, opportunity charge
Environmental	Acid; produces offgasses during charge	Environmentally sealed for life, no risk of spills
Cost	Lower initial purchase cost	Lower total cost of ownership



### 5-Year Cost Savings: Lithium-ion vs Lead Acid

Battery Costs	Lead-Acid		M-Series			Net
Price per Battery	\$	4,000	\$	12,000	S	avings
Expected lifetime (years)		6		10		
Batteries per unit		2		1		
Total batteries in 5 years		1.7		0.5		
Number of Trucks in fleet		10		10		
Total 5-Year Battery Cost	\$	66,667	\$	60,000	\$	6,667
Operating Costs						
Watering System Cost	\$	300	\$	-		
H <sub>2</sub> O Maintenance (mins/wk/bat)		2		0		
H <sub>2</sub> O Maintenance Rate (\$/Hr)	\$	60	\$	-		
Staff Labor Rate (\$/ Per Hour)	\$	20	\$	-		
Change-out time (mins)		5		0		
Change outs/week/truck		7		0		
Total Staff Labor-hrs/week		6		0		
Total 5-Year Operation	\$	36,167	\$	-	\$	36,167
Energy Savings						
Energy Cost (kWh)		\$0.14				
Efficiency Gain		40%				
Battery Voltage (V)		36				
Battery Capacity (Ah)		400				
8 hour shifts per week		14				
Total 5-Year Cost	\$	51,368	\$	30,821	\$	20,547
		Metric To	ns o	of CO <sub>2</sub> Savec	1:	109
Warehouse Space						
Cost per square foot per month		\$0.30				
Square footage saved		800				
Total 5-Year Cost	\$	14,400	\$	-	\$	14,400
5-Year Total	\$	168,601	\$	90,821	\$	77,780
Annualized Total	\$	33,720	\$	18,164	\$	15,556

End Rider Fleet (10 units):

- Battery savings
   \$6,667
- Operating savings
   \$36,167
- Energy savings \$20,547
- Warehouse space <u>\$14,400</u>
- 5-Year Total Savings \$77,780
- Percent Savings vs Lead Acid 46%

### **Environmental Impact:**

- 109 tons of CO<sub>2</sub> Saved
- No EPA monthly lead acid reporting
- No acid spills in warehouse

## Fortune 100 Manufacturing Company ROI

Battery Costs	Lead-Acid		L/X-Series			Net
Price per Battery	\$	6,500	\$	22,000		Savings
Expected lifetime (years)		5		7		
Batteries per unit		3		1		
Total batteries in 5 years		3.0		0.7		
Number of Trucks in fleet		80		80		
Total 5-Year Battery Cost	\$	1,560,000	\$	1,257,143	\$	302,857
Operating Costs						
Watering System Cost	\$	300	\$	-		
H <sub>2</sub> O Maintenance (mins/wk/bat)		11		0		
H <sub>2</sub> O Maintenance Rate (\$/Hr)	\$	60	\$	-		
Staff Labor Rate (\$/ Per Hour)	\$	35	\$	-		
Change-out time (mins)	Ť	22	7	0		
Change outs/week/truck		21		0		
Total Staff Labor-hrs/week		616		0		
Total 5-Year Operation	\$	5,843,100	\$	-	\$	5,843,100
Energy Savings						
Energy Cost (kWh)		\$0.08				
Efficiency Gain		50%				
Battery Voltage (V)		36				
Battery Capacity (Ah)		600				
8 hour shifts per week		19				
Total 5-Year Cost	\$	478,034	\$	239,017	\$	239,017
		Metric To	ons	of CO <sub>2</sub> Save	d:	2,223
Warehouse Space						
Cost per square foot per month		\$0.30				
Square footage saved		0				
Total 5-Year Cost	\$	-	\$	-	\$	-
5-Year Total	\$	7,881,134	\$	1,496,160	\$	6,384,974
Annualized Total	\$	1,576,227	\$	299,232	\$	1,276,995

Class I Forklifts (80 units)

•	Battery savings	\$0.3M
•	Operating savings	\$5.8M

- Energy savings <u>\$0.2M</u>
- 5-Year Total Savings \$6.3M
- Percent Savings vs Lead Acid 81%

### **Environmental Impact**

- 2,000+ tons of CO<sub>2</sub> Saved
- No EPA monthly lead acid reporting
- No acid spills in warehouse



## Full Product Line for Large Fleets

👷 💦 Equip	Flux Power Product		Description	
	Class 3 Walkie		S8 & S24 LiFT Pack	High volume workhorse
	Class 3 End / Center Rider	PLACE B	M24 LiFT Pack	Market volume similar to Walkies 4X energy of Walkie
	Class 2 Narrow Aisle		M36 LiFT Pack	Narrow Aisle, High Growth 10X energy of Walkie
-	Class 1 3-Wheel & Class 2 Turret Truck		L48 LiFT Pack	8X energy of Walkie
	Class 1 Counterbalanced		X-Series LiFT Pack	12X energy of Walkie
	Airport GSE		GSE Pack	Modular design similar to Class 1 14X energy of Walkie
Other Industrial Applications	Solar Storage, AGV, etc.		C-Series	Lowest \$/kWh product 2-6X energy of Walkie

### Modular Designs Enable Nimble Product Development



(no Cobalt)

## **SkyBMS Telematics: Transforming Warehouse Management**

### Access to Fleet Management and Diagnostics Anywhere



Battery 'Deep Dive'



# Airport Ground Support Equipment (GSE)

- GSE Packs utilize the same modular design as our large products and represents a natural product extension from forklift applications
- Industry trends:
  - Recent increase of "Green Initiatives" at airports favors a lithium-ion solution
  - Delta Air Lines announced \$1B spend to become carbon neutral in 10 years
  - Despite COVID-19 related slowdown with airlines, airline cargo demand and GSE equipment OEMs continue pacing
- Sales are getting traction:
  - Major US-based global airline selected Flux Power over competitors as their supplier for lithium-ion battery packs for 3-year agreement
  - Collaboration with GSE OEMs for installation on cargo loaders, baggage loaders, and belt loaders for their new equipment sales
  - Have completed initial successful trials with other major US airlines (at LAX, Charlotte, Atlanta, Houston, and Seattle), along with initial sales to global GSE service provider







### **Emerging New Products**

- Solar Energy Storage
  - Partnering with Beam Global (formerly Envision Solar International) to supply our lithiumion battery packs for their solar EV charging stations
  - Our solar energy storage product is a natural product extension
  - Utilizes our modular design adapted for form and power requirements

#### Warehouse Robotic Solutions

- Recent initial sales for rapidly growing warehouse robotics
- Also a natural product extension of our modular design









### **R&D** and Manufacturing

- Proprietary designs including battery management system and telemetry
  - Advanced features and capabilities have evolved from 6 years of material handling customer experience
  - Five innovative features of our next generation BMS currently in patent process
    - State of the art data collection, analysis and custom reporting
    - Adaptable to many product lines and industry applications
    - Enables telemetry capability

#### Designed to meet UL Listed certifications

- Third party validation of highest safety and durability standards; result of significant investment
- Expected to have complete forklift product lineup with UL certification by Dec 2020
- UL testing and certification is expected to ensure all operational modes are addressed for safety and durability
- ISO 9001 Certified and \$100M Production Capacity
  - Established process infrastructure to achieve consistent high levels of reliability and quality, including repeatable, reliable processes subject to annual certification
  - 3 assembly lines capable of \$100M of annual production, launched June 2019







### **Diverse Customer Base in Multiple Segments**





## **Multiple Sales Channels**

OEMs	<ul> <li>Have sold to a majority of the top 10 forklift OEMs</li> <li>Private label with a top five global OEM</li> <li>Formal Supply Agreements with three Fortune 500 OEMs</li> </ul>
Equipment Dealers	<ul> <li>Nationwide relationships with both OEM-affiliated &amp; independent Equipment Dealers</li> </ul>
Battery Distributors	Utilize regional Battery Distributors for sales and service
End Users	<ul> <li>Direct sales to large End Users</li> <li>Fortune 50 company – Global Supply Agreement</li> </ul>



### Private Label Program with Large OEM

- OEM has given validation and support of Flux Power products and service
- Flux Power Walkie Pack is provided as a "private label" under OEM brand; launched April 2019
- Currently near completion developing a follow-on proprietary model for OEM new Class 3 forklift
- Flux Power will continue to serve all major lift equipment OEMs



### Strong Revenue Growth

### Fiscal Year Revenue & GM

Revenue — Gross Margin



- Continued revenue trajectory despite COVID-19
- Gross Margin expansion tracking to improvement plan

	Income S	tatement		
(\$ Millions)	Q2'20	Q3'20	Q4'20	Q1'21
Fiscal Period Ending	Dec 31, 2019 N	lar 31, 2020 J	un 30, 2020 S	ep 30, 2020
Total Revenue	3.6	5.1	6.3	4.5
Cost Of Goods Sold	3.3	4.4	5.2	3.6
Gross Profit	0.3	0.6	1.1	0.9
Gross Profit %	9.0%	12.8%	17.0%	19.4%
Selling & Administrative	2.2	2.6	2.7	2.9
R&D	1.0	1.5	1.1	1.5
Total Operating Expense	3.3	4.1	3.7	4.4
Operating Income	-2.9	-3.5	-2.7	-3.6
Interest Expense	-0.4	-0.5	-0.6	-0.4
Net Income	-3.3	-4.0	-3.3	-4.0



### **Gross Margin Expansion in Progress**

Initiatives for gross margin improvement	Explanation
Next-Generation Battery Management System (BMS)	Consolidates PCBs; modular design to accommodate large packs
Cell sourcing & purchasing improvements	New cell supplier has automated factory for better quality & cost
Volume & sourcing efficiencies	Higher purchasing will lower unit costs
Assembly efficiencies & utilization	Continuous improvement of production line efficiencies
Unit pricing from new features/options	Adds: heater options, telemetry options, weight, dimensions
Achieve most of goal within 12 months	All initiatives now underway

Note: Currently have progression of improving gross margin with long-term goal > 30%



## Flux Power Financial Snapshot (Nasdaq: FLUX)

Closing Price (11/17/20):	\$8.56
52 Week Range	\$4.00 - \$12.49
Market Cap	\$100M
Shares Outstanding	12.0M
Revenue Q1'21	\$4.5M
Revenue Q1'20	\$1.9M
Gross Margin Q1'21	19.4%
Gross Margin Q1'20	6.1%
Borrowing on Inventory Lines of Credit *	\$2.4M

\*\$Short-term notes. No long-term debt.



### Leadership Team



**Ron Dutt: CEO, Director** 

Leadership at DHL, Ford Motor Company, Visa, Directed Electronics and SOLA Int'l. Led companies from early stage to >\$1B rev.



#### **Chuck Scheiwe: CFO**

Led accounting and financial planning operations of diverse companies, Senstay Reptron & Teletrac and GreatCall, from startup stage to high growth



#### Jon Berry: COO

Senior roles at Alstom Transport, PACCAR UK, Clean Air Power and Pilkington Aerospace.

- Certified first tilting train for passenger operation in UK - Supplied Alt fuel components direct to Volvo trucks



### **Paulus Geantil: CTO**

Expert in embedded systems, electrical design, robotics, & system integration and has patents across various technologies.



#### **Tod Kilgore: Director of Sales**

Led sales organization at Samina Corporation, Accurate Solutions, Amistar Manufacturing and Marshall Industries.



#### **Tim Vaughan: Director of Engineering**

Experienced automation and process improvement Engineer, including medical and aerospace industries with John Deere & Veridiam.

## Summary

### 1. Lithium technology enables transformational change for industry

- Cleaner than traditional technologies and enables fleet electrification
- Coupled with on-board processors enables intelligent fleet control (telemetry)
- Lithium cells are technically accepted, and widely produced to exceptional quality

### 2. Lithium-ion battery packs solve major productivity, cost, and environmental problems

- Longer battery life; no performance degradation; faster charge times
- Higher energy efficiency
- No maintenance; no acid spills; no off-gassing during charging; no products of combustion

### 3. Flux Power is leading the adoption of lithium-ion battery packs

- A solid foundation: full product line, scalable production, and customer satisfaction
- Our modular designs adapt easily for solar backup and robotic applications
- Product & management team vetted by global OEMs and fleet operators
- Implementation of gross margin expansion plan and fixed cost reduction / containment program
- Expanding OEM relationships with pending supply agreement with top ten global forklift OEM



## Thank you!







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