



**HILLCREST**  
energy technologies™

# 公司介紹

2024年4月1日

為未來提供動力的能源解決方案

## 前瞻性聲明通告

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This Presentation contains "forward-looking information" within the meaning of applicable Canadian securities laws. This information and these statements, referred to herein as "forward looking statements", are made as of the date of this Presentation or as of the date of the effective date of information described in this Presentation, as applicable. Forward-looking statements relate to future events or future performance and reflect current estimates, prediction, expectation or beliefs regarding future events and include, without limitation, statements with respect to: (i) the Company's ability to commercialize its products; (ii) the Company's ability to continue to develop new products; (iii) the ability of the Company to bring its products to the market and the speed with which it can do so; (iv) costs savings and other benefits of using the Company's products; (v) and the impact of the Company's products on the automotive supply chain.

Generally, forward-looking information can be identified by the use of forward-looking terminology such as "plans", "expects", or "does not expect", "is expected", "budget", "scheduled", "estimates", "projects", "targets", "forecasts", "intends", "anticipates", or "does not anticipate", or "believes" or variations (including negative and grammatical variations) of such words and phrases or state that certain actions, events or results "likely", "may", "could", "would", "might", or "will be taken", "occur", or "be achieved". Forward-looking information is based on opinions and estimates of management at the date the information is made, and is based on a number of assumptions and is subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by such forward looking information, including without limitation: (i) commodity prices; (ii) the willingness and ability of third parties to honor their contractual obligations; (iii) the decisions of third parties over which the Company has no control; (iv) environmental and government regulations; (v) availability of financing; (vi) judicial proceedings, (vii) force majeure events; (viii) risks associated

with the Company's ability to meet historic sales performances; (ix) the Company's ability to implement and fulfill its business strategies; (x) general economic conditions; (xi) adverse industry events; (xii) marketing costs; (xiii) loss of markets; (xiv) future legislative and regulatory developments; (xv) inability to access sufficient capital from internal and external sources, and/or inability to access sufficient capital on favourable terms; (xvi) income tax and regulatory matters; (xvii) the ability of the Company to implement its business strategies including expansion plans; (xviii) competition; and (xix) changes in regulation. The foregoing factors are not intended to be exhaustive.

Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking information contained in this Presentation or in certain of the other documents on file with Canadian securities regulatory authorities, which are available on the Company's SEDAR+ profile at [sedarplus.ca](http://sedarplus.ca). The Company and its directors, officers and employees each disclaim any obligation to update any forward-looking statements, whether as a result of new information, future events or results or otherwise, except as required by applicable law. Accordingly, readers should not place undue reliance on forward-looking statements due to the inherent uncertainty therein. All forward-looking information is expressly qualified in its entirety by this cautionary statement.

An investor should read this Presentation with the understanding that the Company's actual future results may be materially different from what is expected.

This Presentation does not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of the securities of the Company in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of such jurisdiction. The securities of the Company have not been and will not be registered under the United States Securities Act of 1933, as amended (the "**U.S. Securities Act**"), or any state securities laws and may not be offered or sold within the United States. Information concerning the assets and operations of the Company included in this Presentation has been prepared in accordance with Canadian standards and is not comparable in all respects to similar information for United States companies.

There is an offering document related to this offering that can be accessed under the Company's SEDAR+ profile at [sedarplus.ca](http://sedarplus.ca) and the Company's website at <https://hillcrestenergy.tech/>. Prospective investors should read this offering document before making an investment decision.

**No securities regulatory authority has expressed an opinion about these securities and it is an offence to claim otherwise. This offering may not be suitable for you and you should only invest in it if you are willing to risk the loss of your entire investment. In making this investment decision, you should seek the advice of a registered dealer.**

## 投資亮點



### 率先將革命性的逆變器技術平臺推向市場

- 高度差異化的專有硬體和控制固件相結合，提供下一代電源轉換功能
- 適應眾多快速增長的細分市場，如電動交通、並網發電和儲能
- 不斷增長的IP（知識產權）組合，且100%由Hillcrest所有



### 快速進入市場

- 輕資產商業模式
- 正在合作開發多個專案，有明確的商業化路徑
- 有能力通過潛在的OEM合作夥伴關係迅速擴大收入規模



### 每輛車最多可以節省2200美元

- 與傳統逆變器相比，電磁相容性顯著提高
- 與市面上的傳統逆變器相比，**99.7%**的逆變器效率具有顯著優勢

### 可增加高達1320萬美元的太陽能發電收入

- 改善電能品質和諧波
- 與傳統逆變器相比，電磁相容性顯著提高
- 與市面上的傳統逆變器相比，**99.7%**的逆變器效率具有顯著優勢



### 擁有豐富的技術和行業經驗

- 加起來近**100**年的汽車行業經驗
- 加起來超過**50**年的並網電力系統經驗
- 加起來超過125年的電力電子和電力控制經驗

# 什麼是功率逆變器？

## 對電氣系統至關重要



逆變器是一種將直流電(DC)轉換為交流電(AC)的電力電子器件

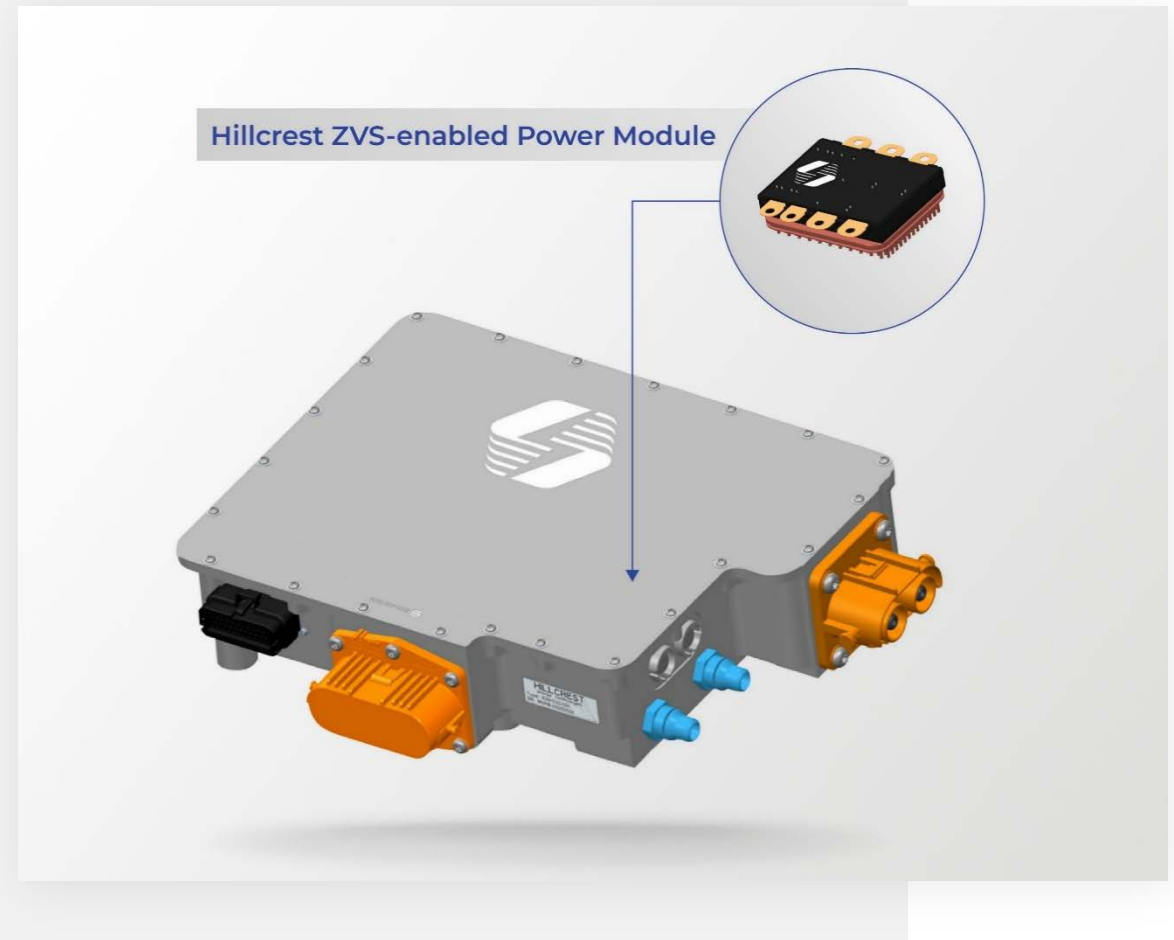


點擊[此處](#)查看資料來源

# Hillcrest EV牽引逆變器

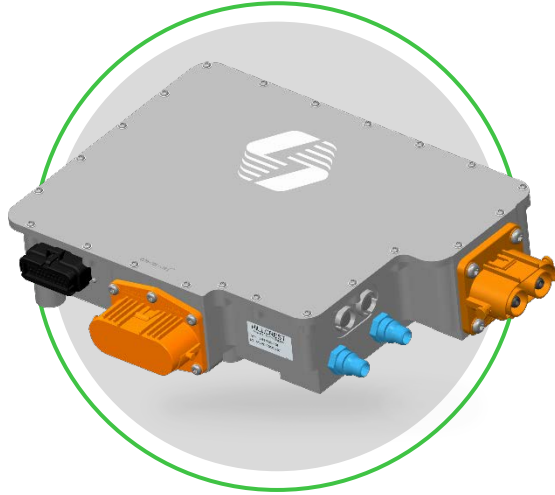
## 額定350千瓦 | 1000伏碳化矽逆變器

- 目前效率最高的逆變器 (99.6%)
- ZVS技術消除了開關損耗
- 更高的開關頻率有可能提高電機的效率。
- 專有的Hillcrest硬體和ZVS軟體組合可以適用於幾乎任何電動機
- 包括首款支持ZVS的電源模組



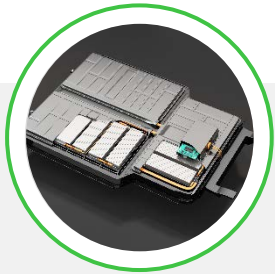
# 整個動力傳動系統的優勢

## 電動車 - Hillcrest ZVS技術的首次應用



### 功率逆變器

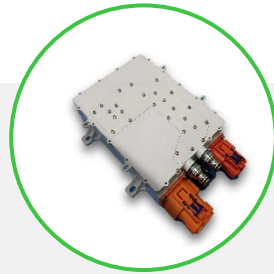
- 逆變器效率  $\approx 99.7\%$
- 直流支撐電容器的尺寸最多可縮小50%
- 優化使用半導體材料



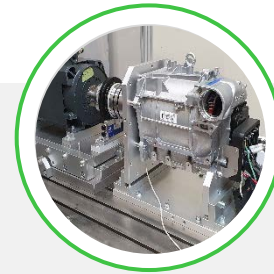
**牽引電池組\***  
電池組體積最多可縮小15%



**充電器**  
擴展充電功能



**車載充電器**  
取消車載充電器



**牽引電機**  
效率最高可提高13%（部分負載），續航能力最高可提高 26%；實現了電機技術的新進步

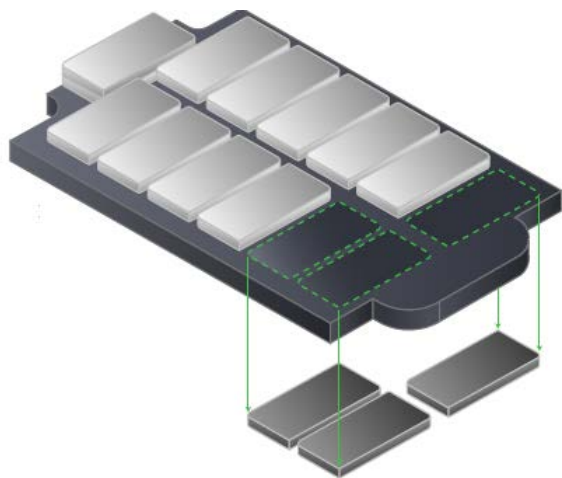


**電磁干擾遮罩**  
減少電磁干擾遮罩/濾波器，提高系統可靠性

\*基於電池組容量75千瓦時、重量2000磅和每千瓦時132美元的成本進行的估算

# 對供應鏈的影響

## Hillcrest ZVS牽引逆變器



電池成本最多可節省**1500美元\***

電池重量最多可減輕**300磅\***

最高達 **15%\***

- 電池單元減少
- 電池系統的複雜程度降低
- 報廢電池廢棄物減少
- 減少每輛車所需的**關鍵電動汽車電池礦產資源**
- 與供應**關鍵電動汽車電池礦物**相關的**上游溫室氣體排放減少**

\*基於電池組容量75千瓦時、重量2000磅和每千瓦時132美元的成本進行的估算

**US\$2,200**  
Costs saving per vehicle

電池組節省高達1500美元\*，其他材料成本節省高達700美元

**US\$220M**

預測生產10萬輛汽車的成本節約

# Hillcrest ZVS並網逆變器

## 面向新行業的下一代能力

### GRID-TIED INVERTER VALUE PROPOSITION

Hillcrest is redefining the landscape of power inverter capabilities with its Zero Voltage Switching (ZVS) technology. This cutting-edge solution introduces higher switching frequencies without the common drawbacks associated with conventional power inverters.

HIGHEST POSSIBLE  
**INVERTER  
EFFICIENCY**  
UP TO  
**99.6%**

SYSTEM COST SAVINGS  
THROUGH SIZE AND WEIGHT  
**REDUCTION**  
UP TO **45%** UP TO **60%**  
LINE FILTERS DC-LINK CAPACITORS

### IMPROVED POWER QUALITY AND HARMONICS

Ability to string more inverters in parallel or run faster motors.

### REDUCED ELECTROMAGNETIC INTERFERENCE (EMI)

Requires less shielding and filters, reducing costs and weight.

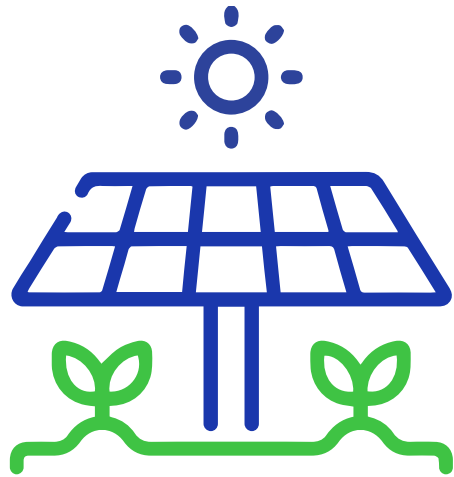
### IMPROVED SYSTEM RELIABILITY AND EXTENDED LIFESPAN

Reduces operating and capital costs.

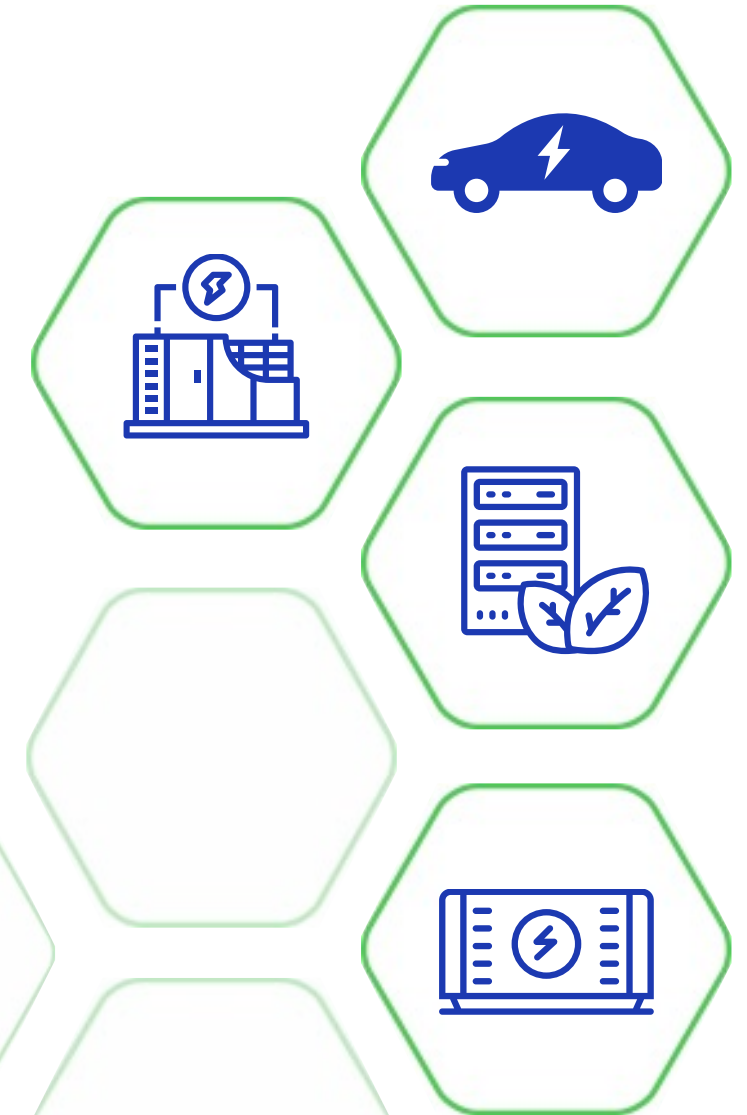


# Hillcrest ZVS並網逆變器

## 提高變頻器效率的影響示例



AN ADDITIONAL  
**US\$13.2M\***  
in potential revenues over the lifetime of a  
**250MW SOLAR FARM**  
with a 2% increase in inverter efficiency



\*假設：

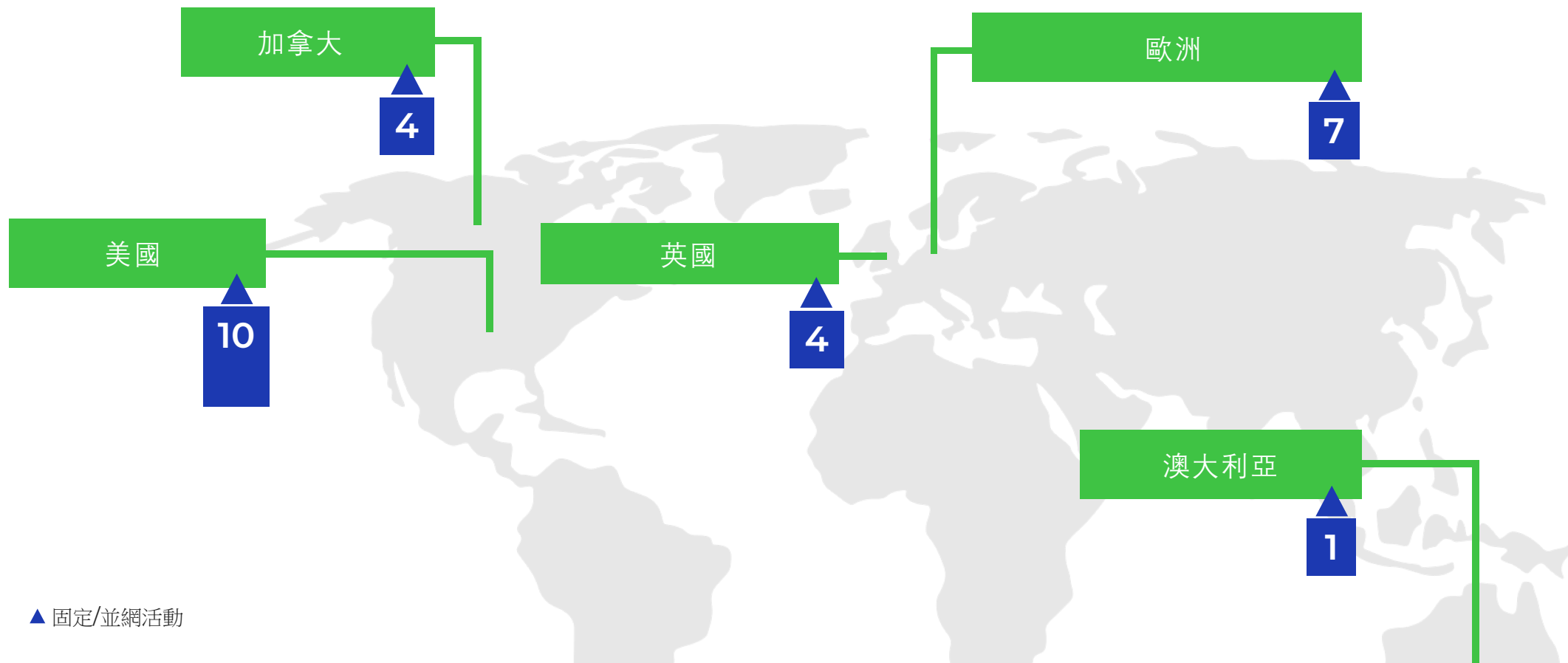
容量因數為24.5%

購電價格為49.52美元/兆瓦時

太陽能發電場的壽命為25年

# 正在進行的商業活動

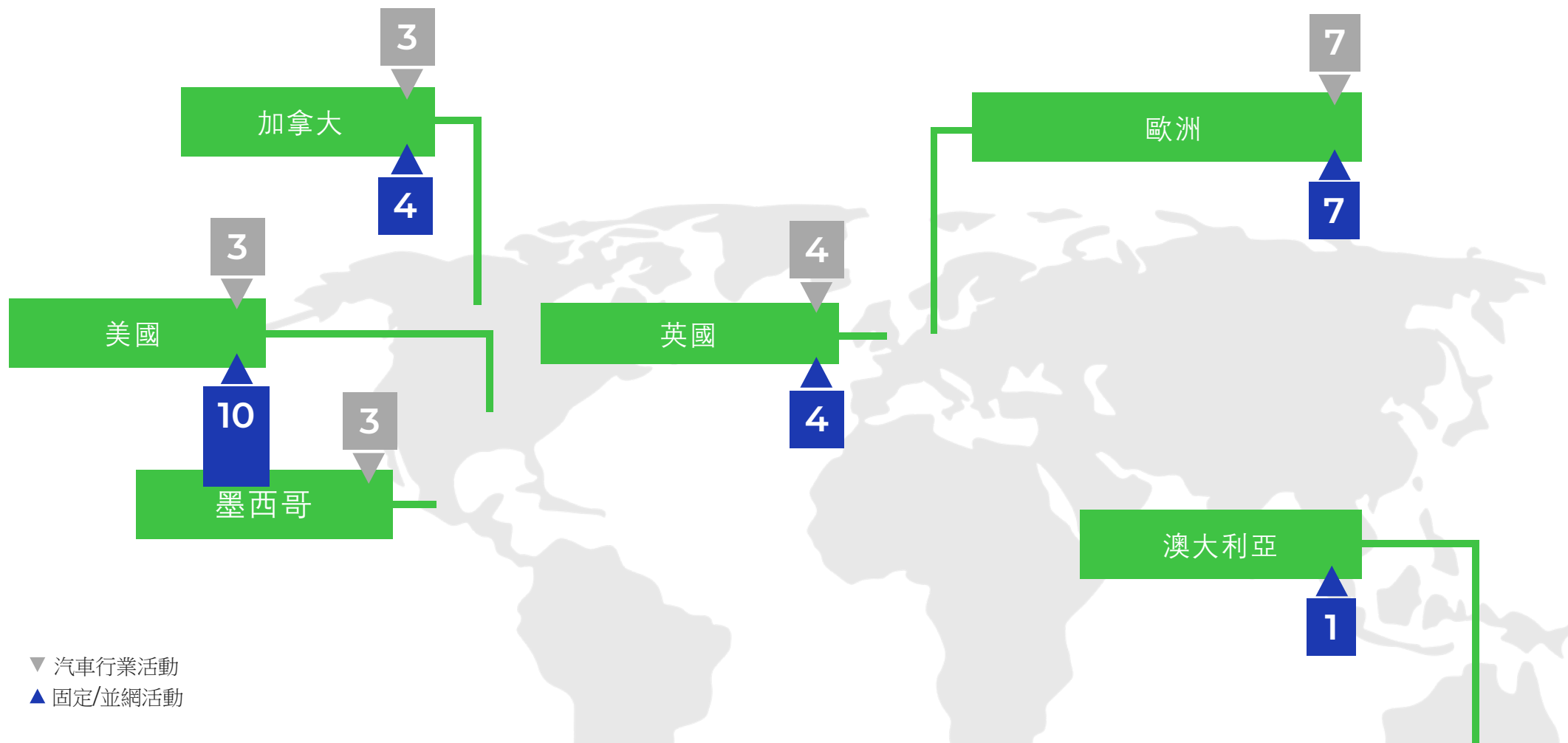
## 固定 | 並網活動



▲ 固定/並網活動

# 正在進行的商業活動

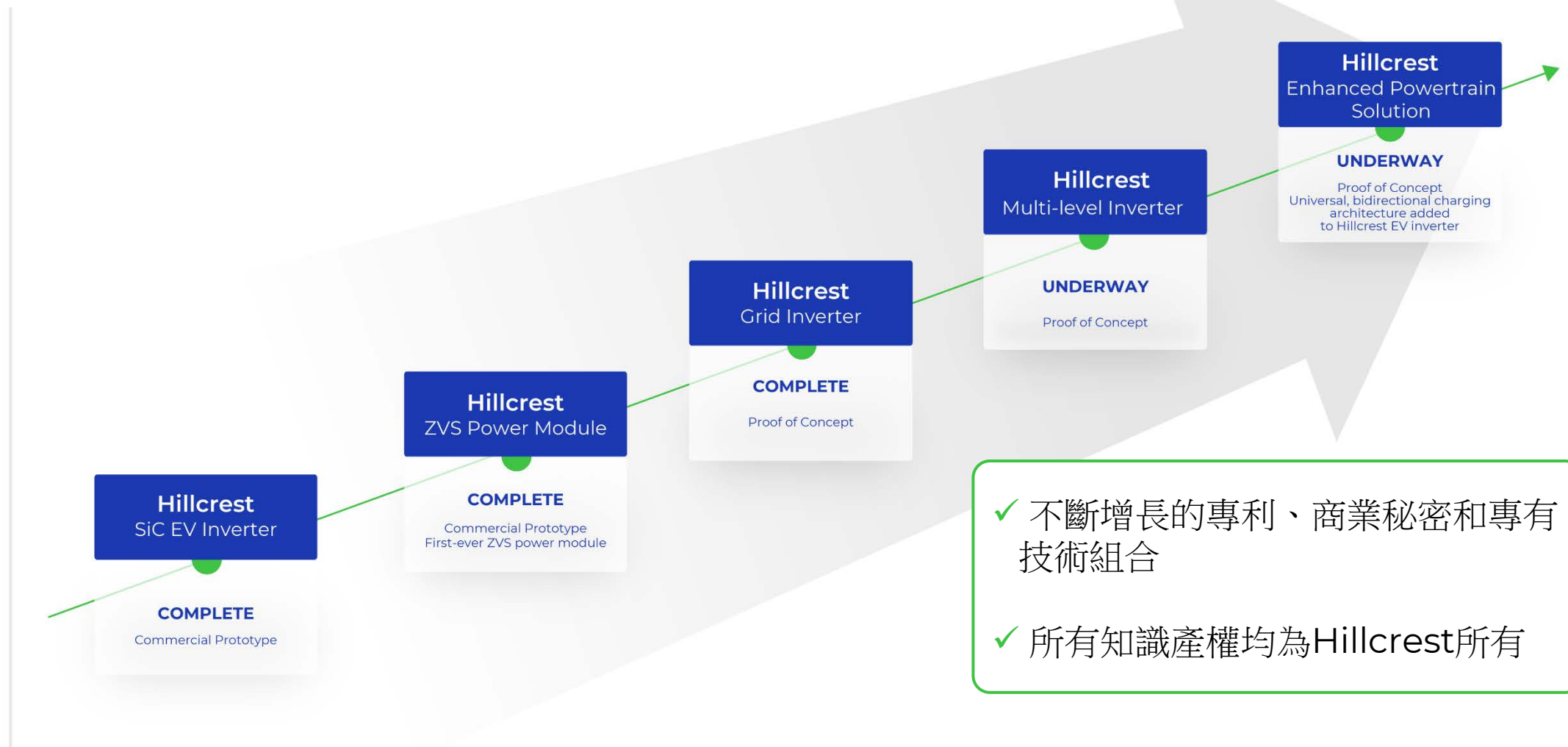
## 所有商業活動



▼ 汽車行業活動  
▲ 固定/並網活動

# 產品路線圖

一個ZVS技術平臺 - 5項產品部署



## 核心技術團隊



**ARI BERGER**  
Hillcrest首席技術官

電機控制技術、系統工程和多學科產品設計方面的專家；擁有十多年的商業經驗，特別是在電氣化領域，在部署新技術和市場進入戰略方面成績斐然。



**JALAL AMINI**博士  
Hillcrest高級電力電子工程師

高級電力電子工程師，在電網應用、電能品質和可再生能源方面擁有豐富的知識和經驗，設計並實現了多種電力電子設備，包括風能轉換器、有源濾波器、快速充電器和儲能系統、感應電機驅動器和多電平換流器等並網設備。



**HARALD HENGSTENBERGER**  
董事總經理、所有者兼創始人

Systematec團隊領導者，資深電氣工程師，擁有超過25年的混合動力和電動汽車動力系統設計、製造、測試和驗證經驗



**JAMES HAMOND**  
Hillcrest高級技術顧問

Hamond先生是一個多面手，曾在消費品、工業和國防領域積累了工作經驗，也精通硬體、嵌入式軟體、控制和自適應演算法、寄存器傳輸級 (RTL)、熱管理和機械設計。他在軟開關系統領域工作了15年以上，最近擔任Pre-Switch Inc.的首席技術官兼聯合創始人。

## 戰略顧問



DAN COKER

Hillcrest戰略顧問

汽車行業資深高管和開拓者型企業家，擁有出色的領導能力和全球人脈。在擔任Gentherm總裁兼首席執行官20多年的任期內，Coker先生領導了該公司從創立初期發展到一家市值達10億美元的企業，從根本上改變了汽車熱管理領域。



HEINZ-GEORG BURGHOFF博士

Hillcrest商業化顧問

Burghoff 博士是汽車業務和產品戰略專家，擅長車輛電子學，曾在戴姆勒克萊斯勒公司(DaimlerChrysler AG)任職超過20年，擔任乘用車開發、電動/電子開發以及電池技術和戰略指導等多個管理職位。



Dan Mathieson

Hillcrest戰略顧問

Mathieson先生是一位具有創新精神的開拓者，曾成功連任五屆市長，很善於建立人脈。他高瞻遠矚的領導能力使他所在的社區成為了尖端汽車技術的中心。他目前是汽車製造商協會Project Arrow專案的顧問委員會成員。

## 資本概況

截至2024年4月1日

股票上市	CSE: HEAT OTCQB: HLRTF FRA: 7HI
發行在外的流通股	7370萬
完全攤薄後的流通股	9720萬
未行權的認股權證 (平均行權價格1.68加元)	1480萬
未行權的期權	370萬
受限制的股票單位	500萬
市值 (截止2024年2月14日)	\$1600萬加幣
3個月日均成交量	123,194

## 持股情況

內部人士持股	11%
紐約的家族理財室	4.9%
公司的德國顧問	5%
關係密切的商業夥伴	16%
散戶投資者	63.1%

# 概述

# 100%

自有知識產權組合

# 99.7%

~ 最大逆變器效率



# \$1320萬美元

新增太陽能發電收入

# \$2200美元

每輛車節省

# 7個

與電動車和並網電力系統合作夥伴共同開發的專案



# 免責聲明

## 買方撤銷權和轉售限制

### **Statutory Rights of Action**

In certain circumstances, purchasers resident in certain provinces of Canada, are provided with a remedy for rescission or damages, or both, in addition to any other right they may have at law, where a presentation and any amendment to it contains a misrepresentation. Where used herein, “misrepresentation” means an untrue statement of a material fact or an omission to state a material fact that is required to be stated or that is necessary to make any statement not misleading in light of the circumstances in which it was made. These remedies, or notice with respect to these remedies, must be exercised or delivered, as the case may be, by the purchaser within the time limits prescribed by applicable securities legislation.

The following summary is subject to the express provisions of the applicable securities laws, regulations and rules, and reference is made thereto for the complete text of such provisions. Such provisions may contain limitations and statutory defenses not described here on which the Company and other applicable parties may rely. Purchasers should refer to the applicable provisions of the securities legislation of their province for the particulars of these rights or consult with a legal adviser.

The following is a summary of rights of rescission or damages, or both, available to purchasers resident in the provinces of Ontario, New Brunswick, Nova Scotia and Saskatchewan. If there is a misrepresentation herein and you are a purchaser under securities legislation in Ontario, New Brunswick, Nova Scotia or Saskatchewan you have, without regard to whether you relied upon the misrepresentation, a statutory right of action for damages, or while still the owner of the securities, for rescission against the Company. This statutory right of action is subject to the following: (a) if you elect to exercise the right of action for rescission, you will have no right of action for damages against the Company; (b) except with respect to purchasers resident in Nova Scotia, no action shall be commenced to enforce a right of action for rescission after 180 days from the date of the transaction that gave rise to the cause of action; (c) no action shall be commenced to enforce a right of action for damages after the earlier of (i) 180 days (with respect to purchasers resident in Ontario) or one year (with respect to purchasers resident in Saskatchewan and New Brunswick) after you first had knowledge of the facts giving rise to the cause of action and (ii) three years (with respect to purchasers resident in Ontario) or six years (with respect to purchasers resident in Saskatchewan and New Brunswick) after the date of the transaction that gave rise to the cause of action; (d) with respect to purchasers resident in Nova Scotia, no action shall be commenced to enforce a right of action for rescission or damages after 120 days from the date on which payment for the securities was made by you; (e) the Company will not be liable if it proves that you purchased the securities with knowledge of the misrepresentation; (f) in the case of an action for damages, the Company will not be liable for all or any portion of the damages that it proves do not represent the depreciation in

value of the securities as a result of the misrepresentations; and (g) in no case will the amount recoverable in such action exceed the price at which the securities were sold to you. The foregoing is a summary only and is subject to the express provisions of the *Securities Act* (Ontario), the *Securities Act* (New Brunswick), the *Securities Act* (Nova Scotia) and the *Securities Act* (Saskatchewan), and the rules, regulations and other instruments thereunder, and reference is made to the complete text of such provisions contained therein. Such provisions may contain limitations and statutory defenses on which the Company may rely.

Notwithstanding that the *Securities Act* (British Columbia), the *Securities Act* (Alberta), and the *Securities Act* (Québec) do not provide, or require the Company to provide, to purchasers resident in these jurisdictions any rights of action in circumstances where this presentation or an amendment hereto contains a misrepresentation, the Company hereby grants to such purchasers contractual rights of action that are equivalent to the statutory rights of action set forth above with respect to purchasers resident in Ontario.

In Manitoba, the *Securities Act* (Manitoba), in Newfoundland and Labrador the *Securities Act* (Newfoundland and Labrador), in Prince Edward Island the *Securities Act* (PEI), in Yukon, the *Securities Act* (Yukon), in Nunavut, the *Securities Act* (Nunavut) and in the Northwest Territories, the *Securities Act* (Northwest Territories) provide a statutory right of action for damages or rescission to purchasers resident in Manitoba, Newfoundland, PEI, Yukon, Nunavut and Northwest Territories respectively, in circumstances where this presentation or an amendment hereto contains a misrepresentation, which rights are similar, but not identical, to the rights available to Ontario purchasers.

The statutory right of action described above is in addition to and without derogation from any other right or remedy at law.

### **Resale Restrictions**

The securities described herein will be offered on a private placement basis in reliance upon prospectus exemptions under applicable securities legislation. Resale of the securities offered hereby will be subject to restrictions under the applicable securities legislation, which will vary depending on the relevant jurisdiction. Generally, such securities may be resold only pursuant to an exemption from the prospectus requirements of applicable securities legislation or pursuant to an exemption order granted by appropriate securities regulatory authorities.



**HILLCREST**  
energy technologies™

## 聯繫我們



dcurrie@hillcrestenergy.tech



+1 604 609 0006



<https://hillcrestenergy.tech>

# 感謝參閱！

為未來提供動力的能源解決方案



# Hillcrest與Systematec GmbH

## 我們的戰略夥伴關係



### 共同開發

- ✓ 持續合作協議
- ✓ Hillcrest指導專案並擁有知識產權
- ✓ 與Hillcrest工程團隊無縫整合



### 能力

- ✓ 位於德國的全方位電力電子工程服務
- ✓ 由13名成員組成的多學科團隊擁有豐富的行業經驗
- ✓ 對電動汽車行業的全面瞭解



### 關係

- ✓ 客戶包括眾多汽車原始設備製造商和一級供應商
- ✓ 在汽車、電氣和電子領域擁有廣泛的行業關係網
- ✓ 無可挑剔的聲譽

如欲瞭解更多關於Systematec的資訊：[Systematec GmbH](#)

## 管理團隊



### DON CURRIE

首席執行官兼董事

擁有數十年北美股票市場經驗和上市公司融資成功經驗；廣泛的擁有和經營私營企業，並在部分上市公司董事會任職的經驗，是一名值得信賴的關係和業務建立者。



### Daryn Gordon

首席財務官

Gordon先生是特許專業會計師（CPA,CA），擁有二十多年的上市公司從業經驗，職業生涯始於全球審計公司Grant Thornton LLP和普華永道加拿大分公司，並在14年前轉為向加拿大上市公司提供首席財務官服務。



### JAMES BOLEN

首席商務官

Bolen先生是一名資深高管，擅長領導創新團隊從概念開發到取得商業化成功的整個過程，曾是Global Power Technologies USA的共同所有者兼總經理，該公司是一家為遠程工業架構提供超可靠電力系統的全球領先企業。



### JAMIE L. HOGUE

首席運營官

二十多年來，在能源、水、自然資源和可持續發展政策領域逐步積累了領導、組織發展、市場行銷和財務分析方面的專業知識。



### ARI BERGER

首席技術官

電機控制技術、系統工程和多學科產品設計方面的專家；擁有十多年的商業經驗，特別是在電氣化領域，在部署新技術和市場進入戰略方面成績斐然。

## 董事會成員



### DAVID FARRELL

獨立主席

Farrell先生（金融學士、法學學士、公司董事協會ICD.D任命）是一位企業董事，擁有超過25年的企業和投資銀行經驗，並曾為眾多初創公司談判、構建並完成了價值超過250億美元的並購和結構化融資交易。



### MICHAEL MOSKOWITZ

獨立董事

技術行業經驗豐富的高管，曾擔任松下北美業務運營負責人。Moskowitz先生在可持續能源、智能出行、沉浸式體驗、集成供應鏈和消費者生活方式等關鍵領域推動技術創新。



### DON CURRIE

首席執行官兼董事

擁有數十年北美股票市場經驗和上市公司融資成功經驗；廣泛的擁有和經營私營企業，並在部分上市公司董事會任職的經驗，是一名值得信賴的關係和業務建立者。



### KYLIE DICKSON

獨立董事

作為一名加拿大註冊會計師，她在多項融資和並購交易中發揮了關鍵作用，曾任Equinox Gold Corp.業務發展副總裁、Trek Mining業務發展副總裁、JDL Gold Corp.、Anthem United Inc.和Esperanza Resources的首席財務官，以及Minefinders Corporation的財務總監。

## 董事會成員（接上頁）



**MICHAEL KRZUS**

董事

曾任紐約證券交易所上市公司首席執行官和董事，擁有38年能源行業經驗，曾在加拿大、美國、澳大利亞和荷蘭的大型和小型上市公司擔任高級技術和行政管理職務。



**ROBERT LAMBERT**

獨立董事

目前擔任Jadestone Energy Inc.副主席、也是Ipex Energy Ltd.的創始人以及Oilfield Capital International LLP合夥人。在過去12年中，他曾擔任Petra Petroleum Inc.首席執行官、Eland Oil & Gas PLC高級獨立董事、GB Petroleum Ltd.首席執行官，並曾在25年的國際職業生涯中在Conoco Inc.擔任高管和高級運營職務。



**TOM MILNE**

獨立董事

高級財務管理人員，在能源勘探和生產、管道、油砂和通信技術領域擁有豐富的國際經驗；曾擔任上市和私營公司董事，包括AMEX上市油砂公司的審計委員會主席。