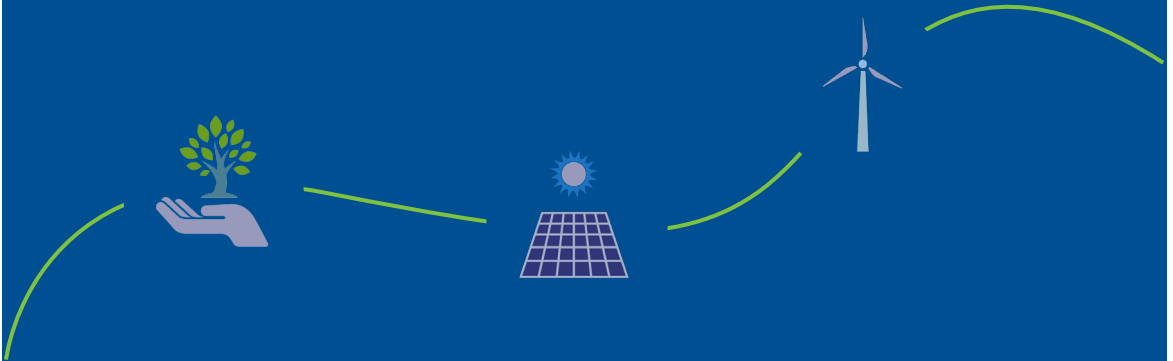


# Bird & Bird & Energy Transition & Singapore





## From Fossils to Zero Carbon

### The path to decarbonisation?

CO2 emissions must be cut to limit climate change. Decarbonisation of the energy sector requires imminent energy transition. Renewable energy and energy efficiency measures are key to achieving the required carbon reductions.

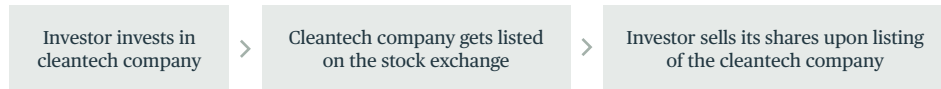
### What are the types of investments?

- Joint ventures & Collaborations
- Mergers & Acquisitions
- Strategic loans & Green bonds
- R&D & testbedding

### Who are the investors?

Venture capital funds, private equity firms, angel investors and government.

### Life cycle of a cleantech investment, start-up to exit



### Examples of cleantech in Singapore

Red Dot Ventures is a seed stage venture capital firm that invests in cleantech companies. GCoreLab is a dedicated Singapore-based cleantech thermal management company.

## Why Singapore? - A Hub for Smart Sustainable Solutions

*The Singapore Government has identified five pillars to build a smart, sustainable Singapore: Infrastructure, Built Environment, Clean Energy, Water & Environment, Urban Mobility; and to attract businesses to Singapore, it has strategically positioned itself with competitive advantages to set Singapore apart from other countries in the region.*

These competitive advantages include:

- Stable and supportive government encouraging foreign investment;
- Robust R&D climate through the provision of grants and incentive schemes;
- World-class intellectual property regime: allowing for strong R&D capabilities through its providing of fine balance between protection of innovation and anti-competition behaviour;
- Strong manufacturing sector in accompanying industries such as electronics, precision engineering and chemicals; and
- Excellent connectivity to other regional markets and its access and attractiveness to skilled international talent.

## Urban Economy

*As part of its plan to strategically position itself as a leading clean energy hub in the region and in tandem with the emerging interest in deep tech sectors, the Singapore government has initiated several strategic funding and incentive schemes to promote urban solutions and sustainability.*

There are excellent prospects to develop intelligent energy solutions for resilient urban systems.

Enterprise Singapore supports start-ups and institutions to identify options for the transformation of the energy landscape in Singapore and the region:

- facilitating investments in cleantech and sustainability
- forging opportunities to form partnerships
- access to the research and development expertise of its technology partners
- leverage Singapore's strong position as a global hub for innovation

## Startups

*Singapore boasts a vibrant startup ecosystem where startups and stakeholders, particularly in the clean energy and smart technology sector, can access ready avenues of support and enjoy a host of initiatives and pragmatic programs.*

### Startup SG Tech Grant (Enterprise Singapore)

A grant that supports the development of proprietary technology solutions with a scalable business model

### EcoLabs Centre of Innovation for Energy

A partnership between NTU, Enterprise Singapore and the Sustainable Energy Association of Singapore (SEAS) to help SMEs and startups develop their clean energy-related innovations and business ideas, and commercialise them into technologies that will benefit industry and the society

### SEAS Sustainable Energy Start-Up Network

A platform that connects startups in the sustainable energy sector with existing market players, which aims to provide startups with mentorship and test-bedding partnership opportunities

## Intellectual Property & Innovation

*For companies engaged in renewable energy R&D, where brand identification and state of the art technology is often the key to commercial success, Intellectual Property plays a huge role in safeguarding a Company's interest.*



- Points to Note:
- IP protection is often territorial (i.e. protection in 1 country/jurisdiction does not protect in another)
  - IP protection is sometimes limited only to the class registered in (i.e. Trademarks must be registered in specific category)

## Harnessing Technology for Energy Transition

### Repurpose

Look for new uses and applications  
for existing technologies;  
e.g. thermal films improve existing solar  
panels, solar panels as shelters

### Scale

Tap into the smart-nation  
and big data initiatives;  
e.g. nation-wide sensors and  
publicly-accessible datasets

Always-on, always-  
there sensors;  
e.g. smart watches  
and devices

### Disrupt

Challenge norms;  
e.g. energy-recovery  
roadways and tracks

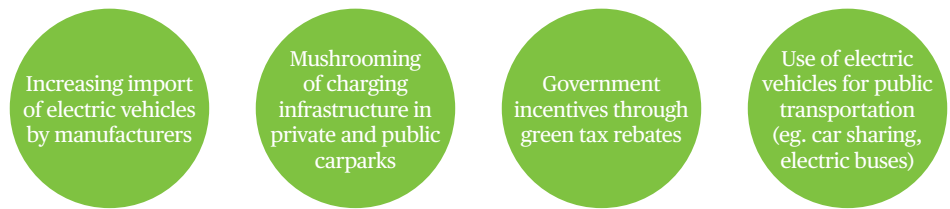
Crowd-fund, crowd-  
source as a resource



## Energy Transition & Automotives

*To reduce vehicular carbon emissions while sustaining Singapore's heavy reliance on transport industry, another key industry for cleantech investments is in electric/hybrid vehicles and their related infrastructure.*

The Land Transport Authority has identified “Green Mobility” as one of its focus areas in its Smart Mobility 2030 masterplan, which has paved the way for increasing adoption of electric vehicles in Singapore.



Increasing import  
of electric vehicles  
by manufacturers

Mushrooming  
of charging  
infrastructure in  
private and public  
carparks

Government  
incentives through  
green tax rebates

Use of electric  
vehicles for public  
transportation  
(eg. car sharing,  
electric buses)

## Helping you achieve sustainable solutions

*Bird & Bird's involvement in renewable energy and cleantech forms part of our longstanding work in the energy and utilities sector.*

Our international renewables & cleantech team advises commercial and public sector organisations on a wide range of legal issues within the renewables and cleantech sector including power purchase agreements, microgrids, energy storage, carbon mitigation, IP assets, electricity futures and fuel cells.

Our clients include many organisations that are developing or investing in projects and technological solutions to the challenges presented by the combined forces of climate change and energy security. We support these clients on a wide range of issues such as corporate structures, project management, sustainability reporting, intellectual property, regulatory, commercial contracts and dispute resolution.

### Our clients:

- Onsite & offsite solar
- Sustainability & Decarbonisation
- Waste to energy
- Hydrogen
- Biomass
- Batteries and Fuel Cells
- Microgrids & distributed generation
- Hydro power
- Grid & Transmission
- E-mobility
- Digitalisation

Understanding your sector & a  
switched-on international legal team  
& real passion & creative energy &  
leading to bright ideas & sustainable  
solutions & making deals happen &  
that's Cleantech with Bird & Bird

## Get in touch



**Sandra Seah**

Joint Managing Partner, Singapore

Tel: +65 6428 9429

[sandra.seah@twobirds.com](mailto:sandra.seah@twobirds.com)



**Ken Cheung**

Partner, Singapore

Tel: +65 6428 9893

[ken.cheung@twobirds.com](mailto:ken.cheung@twobirds.com)

Find out more about our services at [www.twobirds.com/en/sectors/energy-and-utilities](http://www.twobirds.com/en/sectors/energy-and-utilities)

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