

The background is a vibrant, stylized illustration of a swimming pool. The water is a deep blue with dynamic, wavy lines suggesting movement. Several swimmers are depicted in various stages of a stroke, with splashes of white water around them. Red lane lines divide the pool into sections. In the lower right, a swimmer is shown from a high angle, moving towards the bottom right corner. The overall aesthetic is energetic and modern.

Infratil Update May 2017

CREATING VALUE

To be the fastest swimmer
Find the fastest flowing river

CREATING VALUE

Each year Infratil hosts an Investor Day attended by 150 fund managers, analysts, regulators, bankers, investment partners and others with an interest in Infratil.

The Day starts with presentations that cover management's view of the world and why Infratil has invested in its chosen businesses (which operate in the fields of renewable generation, retirement and student accommodation, data storage, and so on). Following that, the chief executives of some of those businesses explain their plans to create wealth for Infratil and its shareholders.

This year one of the analysts attending asked "is Infratil still seeking to deliver 20% per annum after tax returns to its shareholders?". The short answer was "yes", a fuller answer is set out below as it helps explain why Infratil has chosen to invest in Longroad Energy, Tilt Renewables, Canberra Data Centres, RetireAustralia and ANU Student Accommodation.

- 20% per annum is less than what investors require for taking high risks but obviously well above the risk-free government bond rate. Infratil has a quite specific, middle-ground, appetite for risk. It's important for shareholders to understand the implications. If the strategy is well executed it can deliver 20% per annum over the longer term, naturally with ups and downs along the way.

The business model used by Longroad Energy (which is developing renewable generation in the USA) illustrates how these returns can be achieved. In its case it is through a mixture of development of generation projects, realisation of gains, and the use of debt to reduce the cost of capital:

- Longroad's core activity is the development of utility-scale wind or solar power projects. The target returns on such "green fields" projects is 15% per annum and higher, pre-tax.
- However, the returns investors are seeking on operating facilities is closer to 9% per annum (i.e. there is quite a drop in target return between development projects and fully operational assets).
- Also, once a power station is operating it is appropriate to use some debt for its funding, which can enhance the equity return.

By undertaking high-return developments some of which will be sold down, and by using debt when risks are lower, Longroad hopes to provide a blended return close to Infratil's target 20% per annum.

Infratil may choose to retain some of Longroad's operating assets so as to source the stable earnings, but the priority will be to free up capital to maintain higher overall return through new projects.

NB. Although development projects will only ever utilise a relatively small part of Infratil's total capital, they represent an important element to achieving a higher blended return for shareholders.

Development projects are opportunities to create returns which are simply not available from owning stable reliable cash generative assets. They can reward expertise and flexibility because they are more difficult and uncertain. They are also relatively uncontested because pension funds and banks prefer to invest and lend once development is over and a project is in its final form. They accept less risk and receive a lower return.

Each Infratil business is in the business of investing in its own activities. While those recently established or acquired are expected to have many opportunities to build generation, data centres, student/elderly accommodation, each of Infratil's long-held businesses illustrates the model. For instance, over the last decade Wellington Airport has invested over \$300 million in its facilities and increased earnings from \$50 million to \$90 million and its enterprise value has roughly doubled. Trustpower invested more than \$1.4 billion over the same period.



This Update explains why Infratil invested in Canberra Data Centres, Longroad Energy and Tilt Renewables, and outlines the investment plans of each of those businesses.



WHERE INFRATIL SEEKS TO INVEST

In the past, and now, Infratil has sought to identify sectors with growth or change characteristics which can be expected to attract investment and offer good returns, over the long-term.

Ageing	<p>People live longer and have lifestyle aspirations that are different to even a generation ago. Many, but not all, elderly people have capital to support their lifestyles.</p> <p>It's a global societal change, affecting China as much as Australasia.</p>	<p>Luxury cruises at one end of the spectrum, governments struggling to provide affordable homes and care, at the other.</p>	<p>Retirement villages</p>
Decarbonisation	<p>Human produced emissions are changing the earth's climate.</p> <p>The cost of reducing CO₂ emissions is falling.</p> <p>But political and social willingness to pay for lower emissions varies between countries.</p>	<p>As the cost of reducing emissions falls, the disruption to established industries rises.</p>	<p>Hydro/wind/solar generation</p>
Connectivity	<p>Every day, on a screen near at hand are newspapers, books, radio, films, TV, bank account details, health records, traffic information, goods that can be purchased, theatre and air tickets, music and personal picture collections, and so on.</p>	<p>Data is not all the same; some is entirely public, some entirely private, some is Top Secret.</p>	<p>Data centres</p>
Global Mobility	<p>In 1977, 14.5 weeks of work at the average after-tax NZ wage paid for a return air ticket NZ-UK. Today it takes two weeks to pay for the tickets.</p> <p>In 1977, 3 million international passengers used NZ airports. This year it's likely to be 17.5 million.</p>	<p>China: 1977, 1 international air passenger per 1,000 people. 2017, 1 per 3.5 people.</p> <p>NZ: 1977, 1 passenger per person. 2017, 3.8 passengers per person.</p>	<p>Wellington Airport</p>
Social Infrastructure	<p>Government social infrastructure (houses, schools, hospitals, prisons) is often in the wrong place, poorly maintained, outdated and not meeting changing demand.</p> <p>Private providers do a better job for users.</p>	<p>By leasing on behalf of tenants and users governments can demand changes and maintain standards which they struggle to deliver from facilities they own.</p>	<p>Student accommodation</p> <p>Australian social infrastructure partnership</p>

It isn't just about finding a sector with robust growth, it's also necessary to find businesses that have the potential to take advantage of that growth. For Infratil that means seeking out two characteristics. On the one hand market circumstances that give an advantage (due to geography, contractual arrangements, regulation, or industry structure, which results in a cost, convenience or other advantage relative to competing providers). On the other hand individual business features and capabilities that increase the prospects that incremental investment will add value. The first characteristic reflects the market in which the company operates while the second will be a feature of the company.

Infratil's recent investment in Student Accommodation at the Australian National University in Canberra illustrates the competitive-advantage and capability features. Across its large campus ANU has granted Infratil (through the partnership Infratil has with co-investor Commonwealth Superannuation Corporation) a preferred position as the provider of accommodation to its students. To take advantage of this (beyond just

deriving earnings from the existing apartments), Infratil must employ individuals who are able and incentivised to develop and build additional apartments and facilities to meet the needs of an expanding student population.

Not every Infratil business will have the same endowment of the features depicted in the diagram copied below, and they wax and wane over time. Today, Trustpower is experiencing almost no electricity demand growth, but it has developed a competitive retail advantage with its multi-utility offer; also, its geographically spread hydro power schemes (19 in New Zealand and three in Australia) offer long-term growth options when new generation is required.

THE INVESTMENT ENVIRONMENT & INFRATIL'S INVESTMENT ACTIVITY

In the decade since the GFC, economists, analysts, fund managers and miscellaneous experts have struggled to forecast financial market variables. Incredibly low interest rates have defied conventional logic. Market values for shares, bonds and property imply expectations for low inflation, healthy growth and few risks.

But in the real-world growth rates are anaemic while tensions and risks have not gone away.

Infratil cannot insulate itself from unpredictability and the worst of potential catastrophes, but over recent years it has taken proactive steps that reflect market valuations and uncertainty about the future.

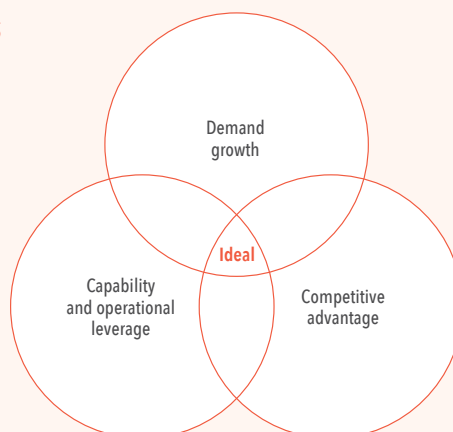
- It raised over \$2 billion selling businesses that had good exit values and limited growth potential.
- It redeployed that capital into several businesses with growth prospects, which also provides diversification.
- It has maintained conservative debt levels and structure so that if the worst happens in the capital markets, Infratil will be able to withstand significant pressure.

Infratil's management doesn't profess more expertise at financial forecasting than any of the gurus, but it does believe that investing to benefit from societal trends will underpin returns, especially over the long run.

FEATURES OF INFRATIL'S BUSINESSES

Capability and operational leverage

Characteristics of the business that offer the potential to generate high risk-adjusted returns on new-build developments.



Demand growth

Sectors with long-term growth or undergoing structural change.

Competitive advantage

Factors that put competitors at a disadvantage.

CANBERRA DATA CENTRES

Infratil acquired a 48% interest in CDC on 14 September 2016 for A\$386 million (NZ\$412 million) which gave CDC an enterprise value, including debt, of A\$1,075 million. In the year to 30 June 2016 CDC's EBITDAF was A\$46 million.

CDC owns four data centres in Canberra split across two geographically separate sites. Hume comprises three centres with total capacity of 21 MW and Fyshwick has one 18 MW centre with a second 20 MW centre under development. CDC also has land available for further expansion.

The selection of the two sites and the physical and operational configuration of the five data centres (including the one under development) was architected to

meet the needs of Australian government agencies.

- Both campuses are connected to the Australian government fibre network, as well as commercial communications networks.
- While the separate centres can function as one, their physical separation provides back-up against possible catastrophic events.
- The centres' facilities conform with Australian government requirements for Top Secret, Secret, Protected and Unclassified data.
- To ensure there is full back-up to the centres' total potential energy needs of 59 MW they have access to up to 118 MW of generation capacity (equivalent to the peak load of about 60,000 homes).

CDC's existing 39 MW of capacity make it one of the largest owners and operators of data centre capacity in Australia and by far the main provider to the Australian government. CDC estimates that its centres house equipment that cost over

A\$2 billion supported by software that cost A\$4 billion!

DATA CENTRES & THE CLOUD

Data centres are tangible structures that contain data storage, processing and communications equipment. The cloud is a little more ephemeral.

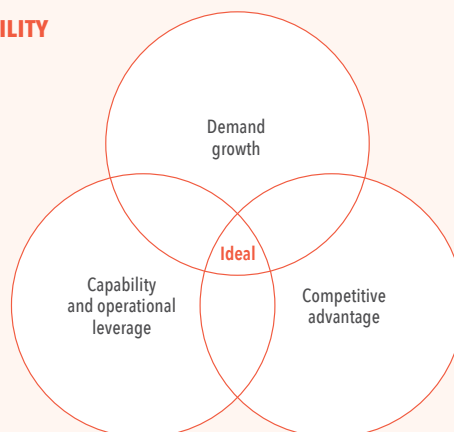
Until a few years ago your home computer may have held all your domestic files, photographs, etc. Then you may then have added a data storage device that plugged into the computer, to add capacity and to provide back-up in case the computer crashed permanently. Subsequently, almost without noticing it, your data is likely to have slipped into the cloud. Somewhere out there are your pictures and your Xero accounting files.

But while Apple and Xero provide cloud storage for your pictures or accounting records, they will have arranged the actual storage of the data in a data centre which may be in North Virginia (the US state with the largest data centre concentration) or

CDC: DEMAND, ADVANTAGES, CAPABILITY

Capability and operational leverage

High understanding and trust relationships with users.
Few variable operating costs.



Demand growth

Huge growth in government data requirements.

Competitive advantage

Multiple government agencies already on-site. A unique combination of physical security and accessibility.



CDC Chief Executive Greg Boorer in the Fyshwick Data Centre. He spoke at the Investor Day.



Canberra or anywhere. A decade ago author Joe Bennett wrote a 258 page book “Where Underpants Come From” to explain the convoluted global production of a pair of briefs. “Where your data comes from” is probably going to require a longer book.

For companies, and other organisations, the process has been similar. Until a few years ago employee computers were linked to common data storage, often located on the premises. As the risk of data loss grew (fire, earthquake, theft) the servers containing the data are likely to have been shifted to a data centre, or perhaps two data centres to ensure back-up.

The organisation may want to retain total control of the data by ensuring it knows exactly where it is stored so the relevant

servers could literally be picked up and carried back to head office. Or, like the individual with a home computer, the organisation may have no knowledge of where the data storage is physically located.

THE CDC NICHE

Australian Federal Government spending on information and communication technology is estimated to be over A\$9 billion in 2017.

With spending on outsourced data centres growing at 25% per annum predictions indicate that government consumption of cloud data services will be over A\$1 billion by 2019. CDC is well placed to benefit from this as these services must be provided out of data centres.

Government will also face entirely new information storage and processing needs in the future, which will require 24/7 performance and 100% security across a broad range of functions. Whether its national security or social services, real time access to information is required anywhere, anytime.

CDC offers exactly the features required by Australian government agencies with the added benefits that comes from several agencies holding their data in one place. Co-location reduces communication costs and time (communication is literally in-house) as it's not uncommon for 75% of communication traffic to occur inside centres.



Canberra's War Memorial. Photographed from the site of the New Zealand Memorial.

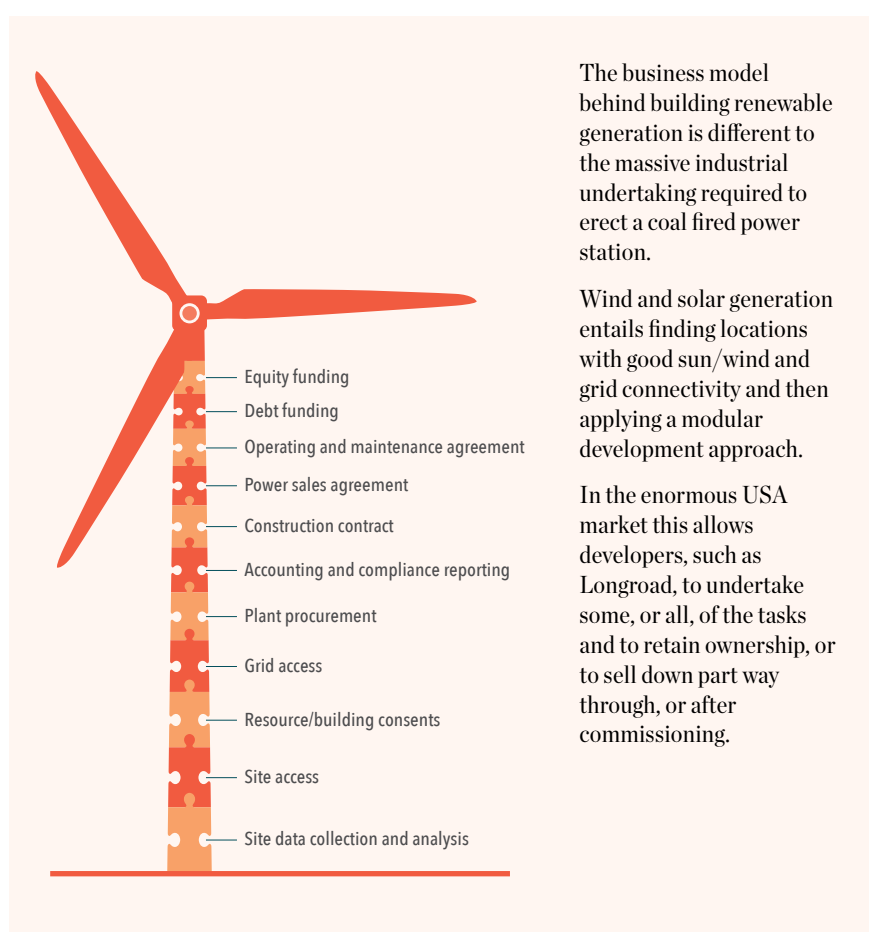
LONGROAD ENERGY

Longroad's CEO Paul Gaynor presented at the Investor Day about his team's capabilities, why they want to work with Infratil and the NZ Superannuation Fund (both are 45% shareholders with management owning 10%), the nature of the opportunity, and what success looks like.

WHERE LONGROAD LEADS

In the USA, as elsewhere, electricity from renewable sources is supplanting coal fired generation. Originally this was thanks to subsidies on renewables and emission pricing, now it is because solar and wind generation provide cheaper electricity thanks to falling costs. Illustrating progress; 2016 was the first ever year in which coal fired generation was not the main source of electricity in the USA. In the UK, Thursday 20th April 2017 was the first day since 1882 on which no coal fired generation occurred.

Over the last decade the Longroad team developed 38 utility scale generation projects amounting to approximately 4,000 MW of capacity (more than twice what was commissioned in New Zealand over the same period). The company they established and managed, First Wind, was then acquired for US\$2 billion.



The business model behind building renewable generation is different to the massive industrial undertaking required to erect a coal fired power station.

Wind and solar generation entails finding locations with good sun/wind and grid connectivity and then applying a modular development approach.

In the enormous USA market this allows developers, such as Longroad, to undertake some, or all, of the tasks and to retain ownership, or to sell down part way through, or after commissioning.

THE MANAGEMENT & SHAREHOLDER FIT

The core Longroad team of 23 people provides expertise and a proven track record in renewable generation development in the USA. Their willingness to work with Infratil and NZ Super was due to their recognition of the shareholders' sector expertise, commitment and flexibility.

The shareholders have control of capital allocation so management naturally wants to have confidence that capital will be forthcoming as opportunities arise.

On the flip side, management has an incentive to put forward good investment opportunities to build a track record with the capital providers.

THE OPPORTUNITY

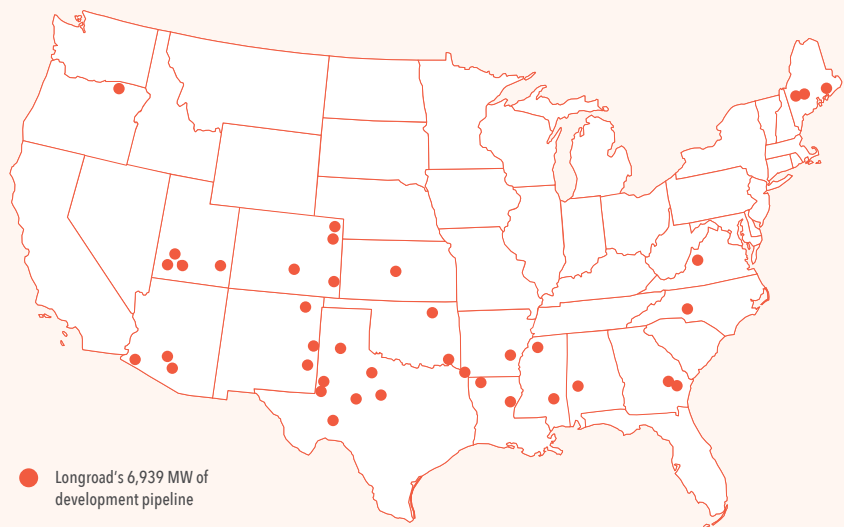
The USA does not have a Federal energy policy. It has 50 separate regulated states and 10 regional transmission grids.

US electricity generation is about 1,000 times that of New Zealand, and is undertaken by over 3,000 private, public and cooperative energy utilities.

Since the year 2000 renewable generation has risen 385%, gas-fired generation 116% and coal fired generation has declined 35%. In a little over two decades coal fired generation has fallen from half of the US total to less than a third.

In 2016 renewables provided 9% of total generation and made up 65% of all new plant commissioned.

LONGROAD'S DEVELOPMENT PIPELINE

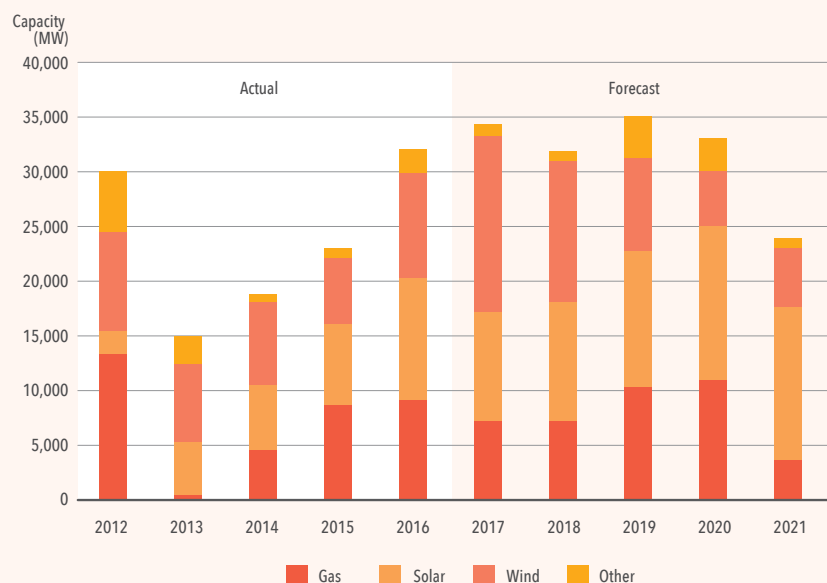


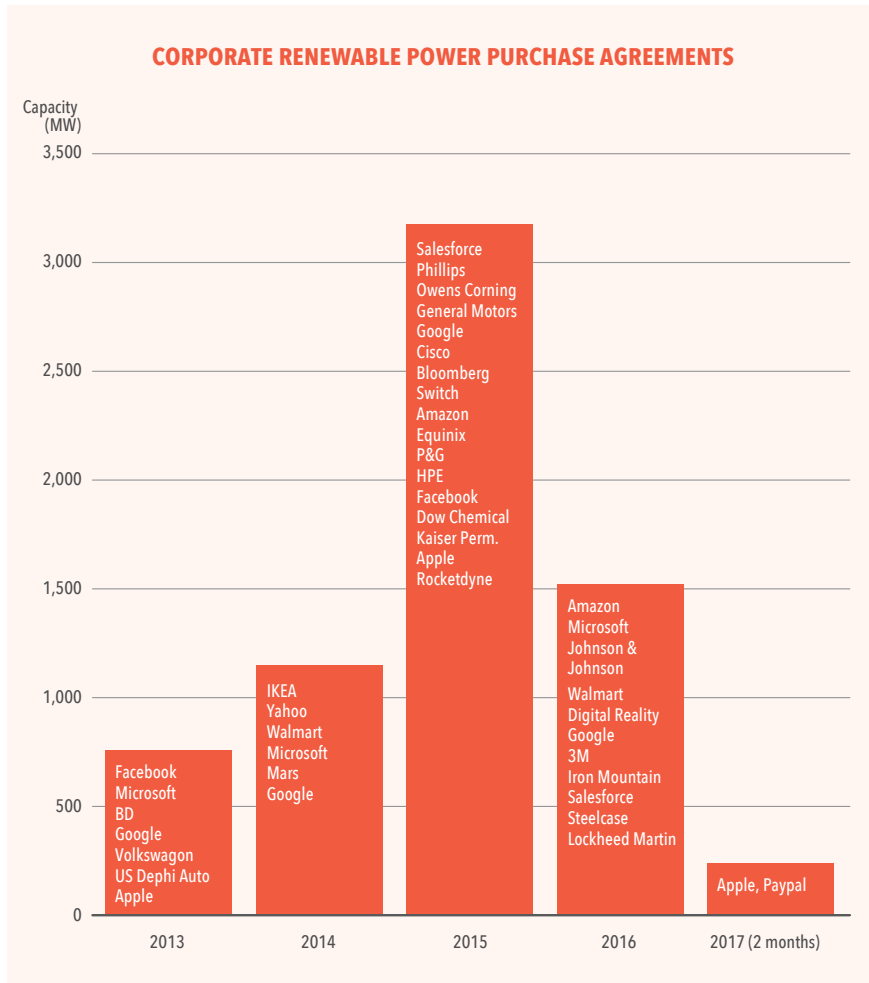
Longroad's substantial and diverse development pipeline provides plenty of choice about which projects to prioritise

There are five distinct drivers of increasing renewable generation in the US.

1. Tax incentives for investors which reduce the cost of capital.
2. 29 States have mandated renewable generation targets.
3. Retirement of end-of-life uneconomic thermal power stations.
4. Generation from solar, wind and gas has similar costs without subsidies, and all are cheaper than building coal-fired or nuclear generation.
5. Many corporates are purchasing renewable electricity on long-term contracts.

GENERATION CAPACITY ADDITIONS





One graph from Paul Gaynor's presentation stood out. It illustrates both the scale of the US renewable generation market and a feature that is distinct from what is usual in New Zealand and Australia.

Over the last five years, large US corporate purchases of renewable electricity on bilateral contracts has amounted to approximately 8,000 MW of capacity, only slightly less than that of all New Zealand's generation.

It illustrates the scale of demand and shows how generators are able to transfer the price and revenue risk associated with their developments. All of which is remote from US Federal Government policies.

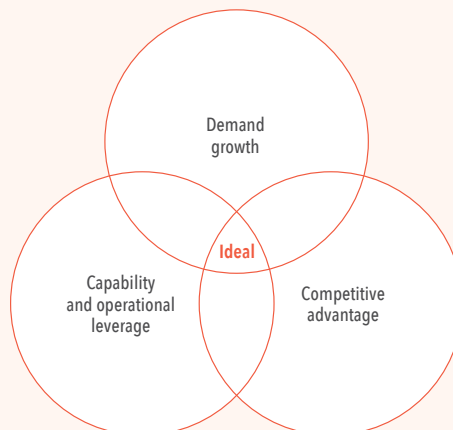
For Infratil's New Zealand based shareholders, the US renewable market is likely to seem remote and a once-over lightly review is likely to be dominated by President Trump's pro coal and confusing climate-change rhetoric.

It will take time for Longroad to deploy capital to provide tangible examples of the type of value the management team created at First Wind, but certainly within 12-24 months given US demand for renewable generation, the nature of the market, and the expertise and energy of Longroad's management team.

LONGROAD: DEMAND, ADVANTAGES, CAPABILITY

Capability and operational leverage

Management with a track record of achievement, who understand the technicalities and risks



Demand growth

Enormous demand for additional generation, especially from renewable sources.

Competitive advantage

The market is complex and most other parties (developers and investors) tend to specialise and focus on parts of the development chain.

TILT RENEWABLES

Comparisons between Tilt Renewables and Longroad Energy are a helpful way to appreciate that while both companies are seeking to develop a portfolio of wind and solar generation, the USA and Australia are quite separate jurisdictions presenting quite distinct challenges and opportunities.

EXPERIENCE & TRACK RECORD

In common with Longroad, Tilt has an experienced management team with an excellent pedigree. Tilt of course already owns generation developed by its team; Tatarua I and II and Mahinerangi wind farms in New Zealand and Snowtown I and II, Crookwell and Blayney wind farms in Australia. In total that is 582 MW of

capacity providing about A\$160 million of revenue in a year of average wind.

In effect Tilt is a couple of years more advanced than Longroad, although both companies will ultimately be judged on what they build rather than their starting generation.

AUSTRALIAN ENERGY POLICY, POLITICS & PRICES

The Australian scheme to encourage investment in renewable generation involves Renewable Energy Certificates which energy retailers and some power consumers must surrender when they sell or consume electricity, or they pay a fine. RECs can be purchased from renewable generators, which provides those generators with a second source of income in addition to that derived from selling electricity.

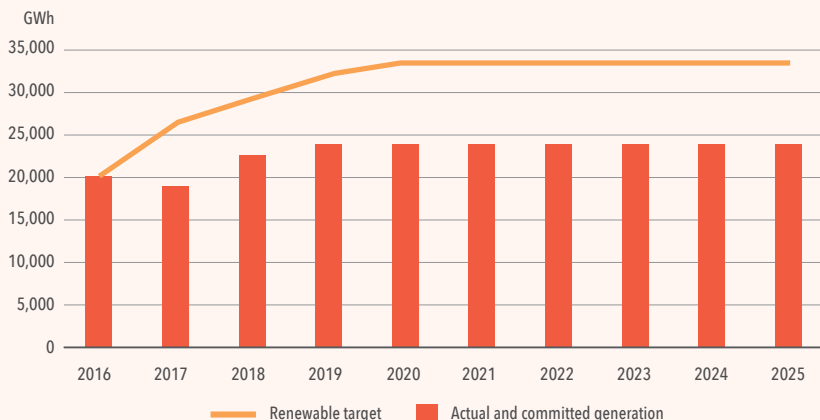
As the graph below shows, in Australia demand for renewable generation is now far outstripping supply. Consequently, demand for RECs has driven the market price up to about 8.5 cents/kwh and some

retailers/consumers are paying the fine of a non tax deductible 6.5 cents/kwh (for a tax payer, the equivalent of about 9 cents/kwh pre-tax).

This shortfall in RECs/renewable generation arose because the Australian government under PM Tony Abbott threatened to drop the push for renewables which resulted in less construction of new power stations. Now, both the Government and Opposition parties support the 33,000 GWh target, but changes of government policy happen faster than decisions to start construction of power stations.

Another consequence of the hiatus in the construction of power stations, exacerbated by rising gas prices and the decommissioning of old coal-fired generation, has been a doubling of wholesale electricity prices. At present the wholesale price for electricity in New Zealand is 6 cents/kwh. In NSW and Victoria it is 11 cents/kwh and in South Australia 15 cents/kwh (expressed in A\$ the New Zealand price is 5.5 cents/kwh).

AUSTRALIAN RENEWABLE GENERATION CAPACITY & TARGETS



For 2019 and 2020 there are a number of transitory arrangements not shown in the graph

The Australian government has mandated that by 2020 33,000 GWh of annual generation will come from renewable sources (which would give Australia a similar quantity of renewably generated electricity as New Zealand).

To achieve this requires an increase of about 10,000 GWh (or about 3,000 MW of capacity), which will require approximately A\$6 billion of investment.



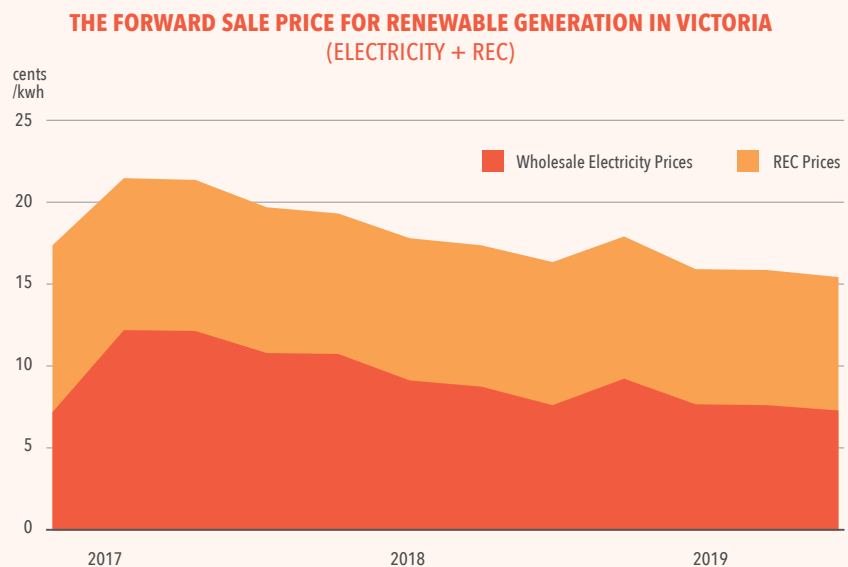
Robert Farron's presentation on Tilt Renewables drew attention to both its similarities with Longroad, and its significant differences.



The graph on the right shows the contract price of electricity in Victoria and the price of RECs, in both cases out to the end of 2019.

For the three year period a Victorian renewable generator can lock in an average price of over 15 cents/kwh. It's a similar story in NSW, SA and QLD.

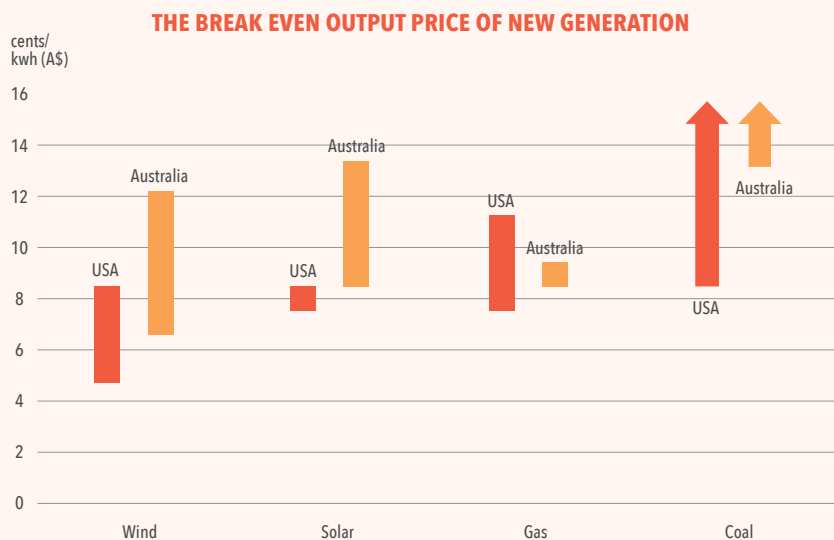
By way of comparison, the three year contract price in New Zealand is about 7.4 cents/kwh (which in A\$ is about 6.6 cents/kwh).



The graph on the right shows the breakeven prices required to provide a return of 8 to 9% per annum on the capital required for the construction of new power stations. These prices have been independently calculated for Australia and the USA.

An Australian wind farm that sells its output for 7-10 cents/kwh should provide a return of about 9% per annum after tax on its construction cost (the wide price range reflects that wind conditions and grid connection costs vary significantly).

That compares extremely favourably to the market price of 15 cents/kwh, as shown in the graph at the top of the page.



Tilt's wind farm project at Salt Creek is "shovel ready".

At current market prices it would be extraordinarily lucrative, but of course current prices reflect a shortage of supply. The more generation that is built to raise supply to the 33,000 GWh level, the less will be the shortage and the lower will be prices.

SALT CREEK WIND FARM (VICTORIA)

Capacity
53 MW

APPROXIMATE COST
\$110 million

OUTPUT
170 GWh

ANNUAL REVENUE
at 8 cents/kwh \$12.0 million
at 15 cents/kwh \$25.5 million

If Tilt decides to progress Salt Creek in June 2017, its first output would be available in October 2018

TILT RENEWABLES GENERATION DEVELOPMENT PROJECTS



Salt Creek	Wind	Vic	53 MW
Dundonnell	Wind	Vic	300 MW
Rye Park	Wind	NSW	300 MW
Palmer	Wind	SA	300 MW
NSW project	Wind	NSW	500 MW
Waddi	Wind	WA	105 MW
Waddi	Solar	WA	40 MW
Nebo	Solar	QLD	50 MW
Dysart	Solar	QLD	50 MW
Mahinerangi	Wind	Otago	160 MW
Kaiwera Downs	Wind	Otago	240 MW
Waverley	Wind	Taranaki	130 MW
			>2,200 MW

LOW RISK VS. HIGH RISK: THE DILEMMA

Tilt faces a choice with the sale of the output of its wind farms. It can contract the price for 10 years (lower risk), or it can sell the output on one to two year contracts (higher risk).

Selling the output of Salt Creek wind farm on a ten year contract may provide revenue of \$13.6 million a year, whereas short term contracts would provide \$25.5 million for the same output (but of course for a much shorter time).

Several factors must be considered when deciding which direction to take. In particular, the price gap between two and ten year contracts and the price forecast after year 2. Almost as important is Tilt's

cost and availability of debt and equity. If Tilt chooses to sell its output on short term contracts (i.e. accepts the higher risk) then it would be prudent for the funding of the power station to involve more equity and less debt.

The decision about how long to contract the price of the wind farm's output will reflect:

- The prices available on short and long-term electricity sales contracts.
- The long-term forecast of electricity prices.
- The relative cost and availability of debt and equity.

This dilemma will not be going away. Tilt has nine Australian generation projects under active development. As each comes

to fruition, funding and contracting decisions will have to be made. Tilt also has three major New Zealand projects, two of which are fully consented.

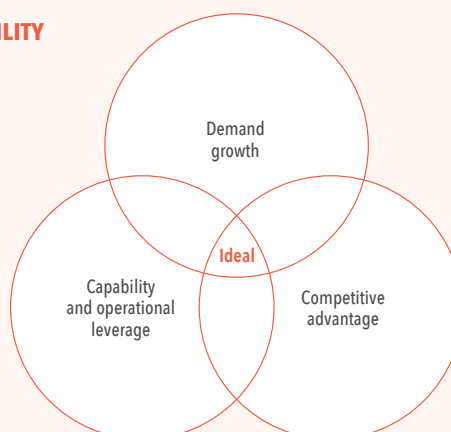
Both Tilt and Longroad face demand for new renewable generation in their respective markets, but how the two companies take advantage of the opportunity is likely to differ.

US corporates are more willing to enter into long-term power purchase contracts than is the case in Australia. If this persists it will have consequences for how Tilt and Longroad go about funding their developments and whether they retain or sell them down. Time will tell.

TILT: DEMAND, ADVANTAGES, CAPABILITY

Capability and operational leverage

Management with a track record of achievement, who understand the market.

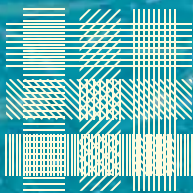
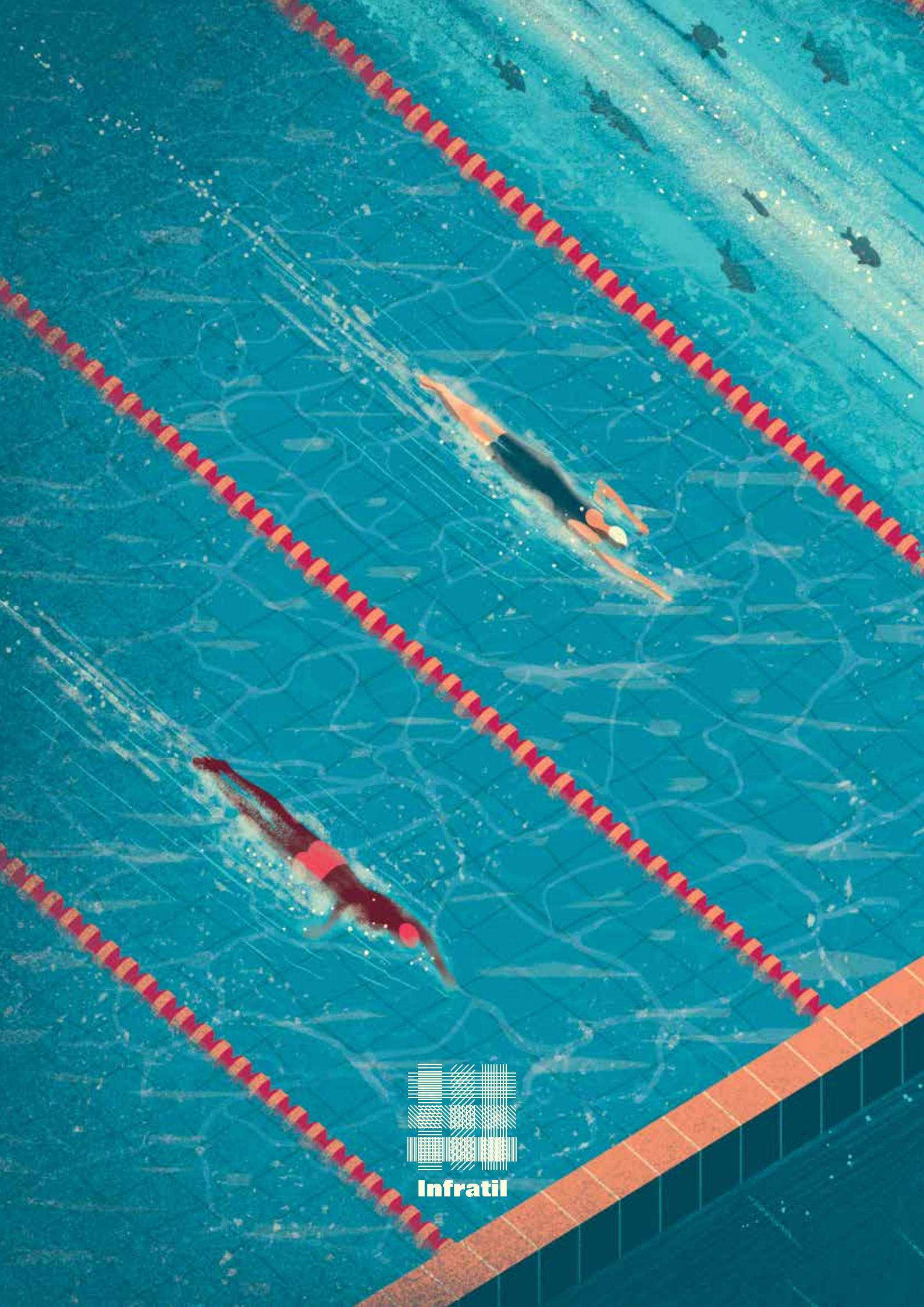


Demand growth

Considerable demand for new renewable generation.

Competitive advantage

A complex market and policy environment. Tilt is at an advanced stage of development on several projects.



Infratil