

Annual Investor Report

Core Infrastructure Strategy | June 2016

Dear Investor,

I am pleased to write to you as an investor in the MFG Asset Management Core Infrastructure Strategy (the 'Strategy') for the year ended 30 June 2016.

The types of infrastructure assets in which the Strategy invests are generally natural monopolies that provide an essential service to the community. Infrastructure assets offer investors protection from the impacts of inflation because their earnings generally have some direct linkage to inflation. Over time, the stable, reliable earnings of infrastructure assets are expected to lead to a combination of income and capital growth for investors

The universe of infrastructure assets that are held by the Strategy is made up of two main sectors:

• **Utilities:** Utilities comprise approximately 62% of the Strategy and includes both regulated energy utilities and regulated water utilities. Utilities are typically subject to economic regulation. The terms of regulation typically require a utility to efficiently provide an essential service to the community and, in return, permit the utility to earn a fair rate of return on the capital it has invested in its operations. As a utility provides a basic necessity, e.g. energy or water, there is minimal fluctuation in demanded volumes in response to the economic cycle, while the price charged for the utility service can be adjusted with limited impact upon demanded volumes. As a result, the earnings of regulated utilities have been, and are expected to continue to be, stable irrespective of economic conditions.

• Infrastructure: This includes airports, toll roads, energy infrastructure assets such as pipelines and storage tanks and communications infrastructure including satellites and towers used for the rebroadcasting of mobile telephony. Regulation of infrastructure companies (where it exists) is generally less intensive than regulation of utilities and this allows companies to accrue the benefits of volume growth (i.e. the returns of infrastructure companies are linked to growth in passengers, vehicles or containers). As economies develop, grow and become more interdependent, we expect the underlying level of aviation, shipping vehicle, and wireless data traffic to increase. As a result, the revenues and earnings derived by infrastructure assets are expected to grow.

A key feature of the portfolio construction process for the Strategy is the application of what we call 'the 75% rule'. This relates to those companies whose assets are a mixture of assets that MFG Asset Management classifies as infrastructure and those assets that do not meet our strict requirements. In those circumstances, we require at least, and on a consistent basis, 75% of the company's earnings to be derived from the assets that meet our definitional requirement before it can be included in the Strategy.

Figure 1: Performance to 30 June 2016 in US dollars.

Yearly results to 30 June 2016	Core Infrastructure Composite - gross return (%)	Core Infrastructure Composite - net return (%)*	Infrastructure Benchmark#
2011/12#	7.2	6.8	3.8
2012/13	13.7	12.9	9.0
2013/14	25.6	24.7	24.7
2014/15	-3.5	-4.1	-4.1
2015/16	20.9	20.0	2.8

Annual compound results (%) per annum					
1 Year	20.9	20.0	2.8		
3 Year	13.6	12.8	7.1		
Since Inception (1 July 2007)	13.9	13.1	7.7		

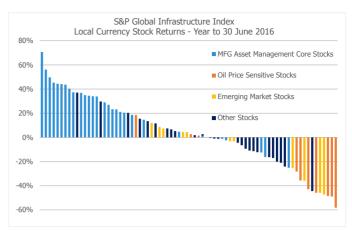
[#] S&P Global Infrastructure Index Net Total Return spliced with UBS Developed Infrastructure and Utilities Net Total Return Index. Note: as the UBS Developed Infrastructure and Utilities Net Total Return Index ceased to be published from 31 March 2015, it was replaced on 1 January 2015 with the S&P Global Infrastructure Index Net Total Return.

Portfolio Summary

For the year ended 30 June 2016, the Strategy delivered a return of +20.9% before fees (in US dollar terms). This was 18.1% better than the benchmark return of +2.8%.

This pleasing result provides a clear validation of the importance of imposing a tight definition of infrastructure when determining which stocks are included in the Strategy. In particular, our definition limits or precludes exposure to companies that are exposed to commodity price sensitivity. The heightened volatility seen in the prices of key commodities such as crude oil and natural gas meant that our Strategy was not adversely impacted by this development.

To illustrate this point, the following graph shows the total shareholder return (TSR) in local currency of the constituent stocks in the benchmark S&P Global Infrastructure Index for the 12 months ended 30 June 2016. Colour-coding is used to show those stocks in the benchmark index that MFG Asset Management includes in the Strategy, with the remaining stocks split between those whose earnings MFG Asset Management assesses as sensitive to commodity prices, those in non-OECD markets and other stocks that we exclude.



Source: MFG Asset Management.

The graph highlights a key reason why the Strategy has outperformed over the period: it not only held stocks that performed well over that period but, just as importantly, it avoided stocks that performed very poorly - in particular, stocks with commodity prices or emerging markets exposure.

To illustrate, the four worst performing stocks (in local currency terms) in the benchmark index for the year and their total shareholder return in local currency were:

- The Williams Companies Inc (-58.2%): A US energy company specialling in natural gas processing and transportation;
- Kinder Morgan Inc (-48.9%): The largest energy company in North America which owns oil and gas pipelines and terminals;
- Targa Resources (-48.4%): a midstream energy corporation, is one of the largest providers of natural gas and natural gas liquids in the United States; and
- CGN Power Ltd H shares (-45.9%): A Chinese company that operates and manages nuclear power generating stations in Guangdong, Fujian and Liaoning provinces.

At the end of the period there were 89 stocks held in the Strategy. Over the past 12 months, four stocks have been added to the Strategy and four stocks were removed:

Stocks added:

- Spanish communications tower company, Cellnex Telecom. The stock was added subsequent to its IPO;
- Australian toll road company, Macquarie Atlas Roads. The company was added as a result of meeting the Strategy's gearing requirements;
- US utility, Dominion Resources. The company's operations now comfortably exceed the Strategy's requirement for a minimum of 75% of earnings to accrue from regulated sources;
- UK Channel Tunnel and rail shuttle operator, Eurotunnel. The company was admitted to our universe

^{*} Performance figures are net of fees charged to clients and have been reduced by the amount of the highest fee charged to any client employing that strategy during the period under consideration. Actual fees may vary depending on, among other things, the applicable fee schedule and portfolio size. Fees are available upon request.

after selling its ferry business which previously failed to meet our 75% threshold of pure infrastructure earnings.

Stocks deleted:

- US utility, UIL. The company was sold following a takeover;
- New Zealand utility, Vectren. The position was exited on the basis of insufficient market liquidity;
- German port company, Hamburger Hafen. We exited the position as a result of the business expanding its inter-modal rail business, meaning that the company failed the 75% rule;
- US utility, Centerpoint Energy. This was another takeover-induced sale.

Corporate governance and proxy voting

Where MFG Asset Management retains authority to exercise proxy voting rights on behalf of clients under the Strategy, its internal Governance & Advisory team has responsibility for proxy voting. This responsibility transitioned from ISS in the fourth quarter of the year ended June 30, 2016. MFG Asset Management established the Governance & Advisory team to centralise proxy voting analysis and administration and lead engagement on corporate governance with portfolio companies on behalf of its clients.

MFG Asset Management maintains a Proxy Voting Policy, the objective of which is to promote the economic interests of its clients. MFG Asset Management considers that proxy voting rights are an important power, which if exercised diligently can enhance client returns, and should be managed with the same care as any other asset on behalf of its clients.

MFG Asset Management maintains a set of Corporate Governance Principles in respect of investee companies which outlines the company's core principles on corporate governance. A key governance focus for MFG Asset Management is executive compensation. Overall, MFG Asset Management believes pay practices must be designed to attract, retain and motivate executives and should be balanced, with an emphasis on risk mitigation and the creation of long-term shareholder value. MFG Asset Management believes in pay for performance with incentives genuinely at risk. MFG Asset Management is fundamentally against the use of stock options as part of executive compensation as such instruments do not properly align executives with shareholders given their asymmetric, leveraged payoff profile. MFG Asset Management is pragmatic about the use of stock options, particularly in the United States where their use is most prevalent, and believes stock options should be limited to 25% of executives' target direct compensation.

Brexit

On 24 June, the UK voted to leave the European Union ('EU') by a narrow margin (52% 'leave' to 48% 'remain') in a non-binding referendum. The result

triggered volatility in investment markets, including a sharp depreciation of the British pound and falls in the share prices of a range of UK and European companies. However, there were limited signs of financial system stress. In our view, the probability of a major global systemic risk event due to 'Brexit' in the short term is low.

It is interesting to note that the best performing region for the Strategy in the month of June was the UK, which delivered a weighted average return of +9.5% (in local currency terms) as investors sought refuge in the highly defensive utilities held by the Strategy.

Disruptive technology

MFG Asset Management is deeply concerned about the potential for technology to materially impact the investment fundamentals of stocks in its portfolios. Two technologies that we have investigated that are particularly relevant to this portfolio are the expected proliferation of distributed power, i.e. rooftop solar generation combined with residence based battery storage, and driverless cars. MFG Asset Management's thoughts on these technologies are included with this letter.

Outlook

MFG Asset Management believes that infrastructure assets with requisite earnings reliability that exhibit linkages to inflation offer an attractive, long-term investment proposition. Furthermore, given the predictable nature of its earnings profile, the investment returns generated by infrastructure assets are different from standard asset classes and offer investors valuable diversification when included in an investment portfolio. In the current uncertain economic and investment climate, the reliable financial performance of infrastructure investments makes them particularly attractive and an investment in listed infrastructure can be expected to reward patient investors within a three-to five-year timeframe.

Notwithstanding the resilient nature of the stocks held in the Strategy, we expect to see volatility in equity markets, particularly when US interest rates start to rise. However, we are confident that any increase in interest rates will have a minimal negative impact on the underlying financial performance of the stocks in the portfolio.

Self driving cars: Implications for toll roads - Dennis Eagar

Since 2007, our infrastructure portfolios have held material positions in toll road companies. These companies have had exposure to toll roads in Europe, the US, Canada, Latin America and Australia. When valuing these roads, we distinguish between four different types of roads because of their inherently different traffic growth dynamics, including their

sensitivity to economic conditions. There are four types of toll roads:

- Urban radial roads:
- Urban orbital roads;
- · Urban High Occupancy Toll (HOT) lanes; and
- · Inter-urban toll roads.

When valuing these roads, we build financial models that forecast traffic usage through to the end of the contracted concession period. In some cases, this can be more than 50 years. The advent of driverless cars therefore raises questions as to the impact of this rapidly developing technology on toll road traffic volumes.

The shift to driverless cars will clearly take some time to occur. While the basic technology for driverless cars already exists, there are a myriad social, regulatory and legal issues that need to be addressed before they become ubiquitous. But in the meantime, the technology will develop and will inevitably impact toll road usage.

Based on our analysis, we expect the development of driverless cars to provide a boost to toll road traffic and earnings over the next 10-20 years. However, beyond that period the impact on usage of toll roads is difficult to predict and may even be negative. We explain our thinking in the following discussion.

Autonomous vehicles

Cars are currently being produced that have Autonomous Vehicle ('AV') capability. This means they have the capability to allow the driver to relinquish complete control over the vehicle in certain circumstances and are smart enough to know when conditions do not allow that to occur, e.g. when lane markings are confusing or non-existent.

AVs are not driverless cars. Driving an AV allows the driver to hand over control of the vehicle but requires the driver to be ready to take back control of the car when needed. The vehicle will automatically keep a safe distance between itself and surrounding vehicles and, if needed, can change lanes. It will do all those functions more safely than a human – indeed road safety authorities are supportive of the adoption of AV technology because of the expected safety benefits.

So while the driver will still need to be behind the wheel and attentive to what is happening, the driving experience will generally be more relaxed, less stressful and safer than in non-AV vehicles.

While there are a raft of legal and regulatory issues that need to be solved before driverless cars become a reality, there are complex social/ethical issues that are even more important in the use of this technology. This is perhaps best illustrated when an AV is being used in a suburban street environment. In that situation,

it is entirely possible that the vehicle would have to make a decision between running over a person that has moved into the path of the car or swerving into the path of a vehicle coming in the opposite direction, potentially putting the lives of the occupants of the AV at risk. Such 'life and death' questions will take some sorting out!

In the context of such difficult issues, it is not surprising that the current thinking among road safety authorities is that AV usage is likely to be restricted only to motorways for some years to come. This is because:

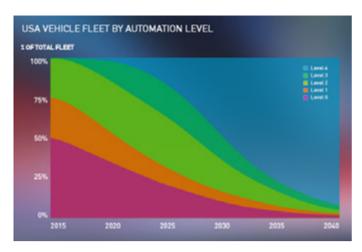
- Generally motorways have better and more consistent road markings and signage; and very importantly
- There is only very limited scope for an AV to be faced with situations that are difficult to predict in advance, e.g. a person running in front of the vehicle.

The future

So in the shorter term, we believe that the tolled motorways are likely to benefit from AV technology because it will enhance the attractiveness to using the toll road over the free, non-motorway alternatives. Initially, that benefit will be marginal because relatively few cars will have AV capability. But over the next decade and beyond as AV technology is rolled out in more and more cars, it is likely to be material. As the following diagram illustrates, a recent University of Minnesota study forecast that within 15 years almost 60% of the USA vehicle fleet would have either complete or limited self-driving capability, rising to 90% by 2040.

Their forecasts are shown in the following graph which uses vehicle automation levels as defined by the National Highway Traffic Safety Administration of the USA being:

- Level 4 Complete self-driving automation
- Level 3 Limited self-driving automation (an AV)
- Level 2 Combined function automation
- Level 1 Function specific automation
- Level 0 No automation.



Source: University of Minnesota, Levinson, The End of Traffic and the Future of Transport Funding (Aug 2015).

So, we do not see AV technology as being a disruptive technology that could have a negative impact on traffic growth on the toll roads in the next decade. Quite the opposite – for as long as its use is limited to motorway conditions, the toll roads are expected to be net beneficiaries.

The increasing usage of AV technology on motorways will also benefit toll roads in two other important ways:

- It will reduce traffic congestion on the toll roads because some congestion is caused by the poor behaviour of human drivers when changing lanes, breaking or accelerating. It will also reduce the number and severity of accidents frequently a cause of severe congestion on the toll roads; and
- It will increase the capacity of the toll road, particularly in peak periods. Toll roads currently can handle around 2,200 vehicles per lane per hour. A recent study by the University of California concluded that full penetration of AV could see this capacity double. This is because vehicles will be able to travel much closer together at much higher speeds in much thinner lanes than is currently the case. A different study by Tientrakool et al¹ found that a 50% presence of AVs in the traffic mix can increase highway capacity by 80%. While these studies may prove to be optimistic, there is no doubt that the increase in capacity will be meaningful particularly for urban toll roads which are already capacity constrained during peak periods. This capacity benefit can be phased in over time by the creation of AV only lanes on the toll roads.

Of course, this improvement in capacity will also be experienced by the free roads running parallel to the toll road thereby reducing congestion on the free alternative and removing the incentive for drivers to use the toll road. So when AV technology is allowed to be used on non-motorways, there is likely to be a negative impact on toll road usage, at least until the free alternative roads become congested again.

Driverless cars

The ultimate form of AV is a driverless car. Such a vehicle is likely to be configured completely differently from today's vehicles. It would have no steering wheel or other controls and seats would be configured to best suit the needs of the occupants at the time. Driverless cars:

- Would allow the occupant to use the travel time productively or enjoy a greater range of entertainment experiences including video/TV/computers;
- Would allow greater interaction between occupants;
- Would provide enhanced mobility to those in our society currently incapable of driving a car, e.g. the old, infirm and young would be able to use the car without assistance.

Driverless cars will increase the capacity of both toll roads and their free alternatives as automotive networked intelligence results in optimising traffic flow, less accidents, and automatic rerouting. Ultimately roads may not even need traffic signals, lane markings or speed limits. The fact that a driverless car trip will be an opportunity to be entertained will also reduce the utility of the time saved by using a toll road, i.e. drivers will be less inclined to spend \$5 or \$10 on the toll road to save say 15 minutes. Alone these developments are negative for toll roads given that usage of a toll road is almost entirely dependent on the actual or perceived time and reliability benefits of using the toll road.

However, driverless cars will also increase the demand for trips by reducing reticence to taking trips, introducing empty trips, and taking share from other modes.

A study by Princeton University forecasts that vehicle miles driven is likely to increase by between 5% and 20% when AVs reach 50% market penetration and when fleet penetration of driverless and AV cars reaches 95%, vehicle miles driven is expected to increase by 35%. The same study forecasts that this will be around 2040, well within the forecast period of toll roads in our investment universe.

The era of driverless cars is also likely to be associated with much lower levels of car ownership. It will simply be more economic to participate in some form of sharing arrangement that allows much greater utilisation of vehicles than to have a privately owned vehicle remaining idle. Again this is likely to lead to an increase in vehicle miles driven as it will decrease average trip costs.

Another study by academics at the University of Southern Florida showed that empty trips alone would increase total miles driven by at least 10%. These trips would arise because shared cars would drop off a passenger and drive empty to pick up the next occupant.

¹ Tientrakool, Patcharinee, Ho, Ya-Chi, and Maxemchuk, Nicolas M., 2011, "Highway Capacity Benefits from Using Vehicle-to-Vehicle Communication and Sensors for Collision Avoidance," Vehicular Technology Conference (VTC Fall) 2011 IEEE.

As an aside, it would appear that the clear losers of driverless cars would be the owners of parking stations and those making a living driving vehicles (at present, there are about 3.5 million truck drivers in the US, forming the largest job category in 29 states).

We believe there is significant potential for disruptive technologies to materially impact a range of industries. We know with certainty that none of the above quoted studies will be absolutely correct. We expect AV and driverless cars will generally be positive for the earnings of toll roads, and particularly urban toll roads, over the next 10 to 20 years but we have not changed any of our traffic forecasts to reflect this until we have greater certainty about how, and more importantly, when these developments will take place.

The long-term impact on toll roads will depend on the balance of the positive impact of the additional trips created by driverless cars and the negative impact of the additional capacity that is created on the free roads by the growth of driverless cars.

Utilities remain a bedrock of the MFG Asset Management Infrastructure Strategy - Ben McVicar

Electric utilities are a mainstay of our infrastructure portfolios. We often refer to utilities as providing the 'lead in the keel', or in other words, we expect these businesses will provide stable earnings, regardless of macroeconomic conditions. The stable earnings comes from both the reliable demand for energy and the application of strict price regulation to network fees. This means the utilities we invest in will continue to earn a modest, but reliable return.

However, the individual economics of an 'electric utility' vary by company and need to be considered on a case-by-case basis. Our preferred part of the industry to invest in is transmission and distribution assets, i.e. the poles and wires, or more simply - the 'grid'. The grid benefits from being a natural monopoly and is therefore regulated to ensure it only earns a fair return on its investment. By comparison, companies that are operating in the power generation and retailing space typically struggle to deliver reliable returns. This is because their earnings profile is affected by dramatic swings in the electricity price that occurs through the course of the year. As a general rule, we limit the exposure of the portfolio to companies without sufficient stability of returns.



Source: MFG Asset Management.

However, in recent years the price of both roof-top solar power generation and batteries have come down dramatically, begging the question as to whether these technologies will disrupt this reliable earnings profile of the grid. In this note, we consider if the arrival of moreaffordable roof-top solar and batteries undermines the investment case in the sector.

The first electric grids were developed over 100 years ago. Since then, the level of complexity has increased as the scale of the operations have grown. However, compared to a century ago, the underlying principle of how electricity is supplied to consumers is largely unchanged: electricity is generated in a remote location and delivered to a household or business through a series of wires and transformers.

In the developed world, access to power provided by the grid is considered an essential service and underpins the modern economy. Investment in electric grids has generally provided a stable, low-risk return.

Despite new technologies, we do not expect the investment fundamentals to change in the coming years.

Batteries

Batteries are the first piece of the puzzle. For context, the use of batteries in electricity grids is still in its early For large-scale batteries ('utility scale'), grid operators are largely at the trial phase in developing knowledge and capabilities to harness the technology. Meanwhile, the home-installation of batteries is a similar story, with consumer uptake still in its infancy. However, in the long-term, we expect batteries to play an important role in the grid. Why? Because unlike other commodities, electricity needs to be produced concurrent with consumption. This requires the construction of 'surplus' capacity to deal with the periods of peak demand. This 'surplus' capacity sits idle for the majority of the day (or even year) until there is a surge in demand. Batteries solve this by allowing electricity to be generated in off-peak periods² such as during overnight hours, for storage until needed. In turn, this reduces the need for excess capacity, which is a win for both the utilities companies and their customers. And importantly, the grid's role in all this is largely unchanged because energy will still need to be delivered to the batteries.

Solar power

The impact of renewable generation on the grid is more complex. Some renewables are being installed at the residential level, typically as roof-top solar, while others are being developed as larger 'utility scale' projects. These are typically developed on solar and wind-farms.

In assessing the impact to grids, it is worthwhile to initially analyse the implications of small-scale applications. In our view, utility scale solar or wind changes nothing for the owner of the grid. This is because the generation

² We note that batteries also have the potential to reduce the amount of 'wasted' energy that disappears as heat due to the resistance of the wiring used in electrical equipment. This heat loss is worst in the peak period, therefore using batteries to "flatten" the demand profile of the grid has significant implications for grid efficiency.

from the power station will still need to be transported to its customers. The dramatic decline in prices in wind and solar have made these technologies far more cost competitive with the more emissions intensive technologies. In recent years, global expenditure on utility scale renewables has outpaced expenditure on thermal power stations. As costs continue to decline, we expect this trend to continue, with the electric grid providing a key link for this renewable energy to reach its customers.

Connecting large scale renewables to the grid is likely to be an important source of capital expenditure for the high-voltage 'transmission' network that transports the output back to population centres. However, the shift to renewables at the transmission level is not without challenges. Unlike existing thermal power stations, which have a reliable production output, renewables tend to be more unpredictable and 'intermittent' in their power output and vary with changes in wind and clouds. Managing this variation in output requires operators of the grid to use reserve generators (often gas turbines) to balance the output from the renewables with the load or consumption of the customers on the grid. The difficulty for the operator of balancing this increases as the proportion of renewables increases. According to the US National Renewable Energy Laboratory, this additional cost on the grid of managing this variable output of renewable energy is often not thought about when considering the cost of renewables.

Where the renewables discussion gets more complex is roof-top solar. This is known as 'distributed' generation because it's no longer 'centralised' at a large scale generator. Theoretically, it does solve one of the problems of electricity supply – i.e. that electricity needs to be transported a long-distance from the generator to the household. The long distances involved have been unfortunate as the further the electricity is transported, the more that gets lost as heat.

When roof-top solar is combined with a battery, it begs the question, why do customers even need to be connected to a grid? Our short answer is, (1) building a reliable, disconnected system is prohibitively costly; (2) being connected to the grid provides enormous redundancy with numerous generators and electric lines that ensure the power stays on for consumers – especially in weeks when the sun isn't shining; and (3) not everyone in the community has the ability to self-generate.

The current installed cost for a reasonably sized solar and Tesla battery package is approximately AU\$20,000 (US\$15,000). Except for households with extremely low electricity consumption, this system would only act as an offset and would not allow for a full grid disconnection. This is because the system would not be able to supply enough power to meet most household's requirements in all conditions. For example, the new 7kWh Tesla

battery is rated to deliver 2 kilowatts of continuous power (3.3 kilowatts at peak). A kettle and toaster can require over 2.5 kilowatts, which when combined with a hairdryer, can easily pass 4.5 kilowatts of "load", exceeding the peak capacity of a single battery.

An Australian Think Tank, the Grattan Institute, put out a research paper in 2015 that addressed the cost of building a system capable of full grid disconnection. For a typical Sydney household, to fully disconnect from the grid would require a system worth AU\$34,200 (US\$25,600). However, this system would only be 95% reliable, i.e. the house would be without power in 1-in-20 days, on average. To be 99% reliable, the cost goes up to AU\$52,200 (US\$39,150). For 99.9% reliability, i.e. still below the level achieved by a grid – the price jumps to AU\$72,200 (US\$54,150). The same analysis highlights that using this disconnected system would cost the household over 5.5 times more than if it had simply opted to draw power from the grid.

Other studies in different markets have estimated the cost of a disconnected system to be eight times higher than simply drawing power from the grid. Even expected declines in technology costs are unlikely to save this, with an 80% reduction in the solar and battery costs still leading to a system that is 2.5 times the current cost of sourcing power from the grid.

While the cost of installing the system may come down in the future, there are still significant barriers to mass adoption. Many homes will have insufficient space available for all the requisite equipment to be installed – whether it's garage space for batteries or roof-top square-metres to install the solar panels. Some disconnected systems can include a back-up generator, however, in a relatively densely-populated neighbourhood, neighbours may have complaints about the sound of an engine running at full-tilt when sitting down to relax in the evening. Then there are apartment owners without space for panels, or even home-owners with roofs facing in the wrong direction, or with shadows from trees and other buildings. Future growth in population density is only likely to exacerbate this issue. And what about renters? They won't want to pay to have equipment installed and owners may be reluctant to spend the money, given it's typically the renter that makes the saving from the energy generated by the system.

Even for those households with adequate roof-top space and large solar/battery-systems, there is still a benefit in staying connected to the grid, being that it allows excess electricity to be exported back to the grid - an example being when the owners are away on holidays or even out for the evening. This leads to a future where the grid's role becomes a facilitator of trading between household 'generators', rather than as a pure delivery mechanism.

For the reasons above, we believe that for the foreseeable future, disconnecting from the grid will remain a poor financial decision for many customers. Furthermore, there will be a significant number of customers that can't disconnect at all. That's not to say we don't expect there will be continued growth in roof-top solar and batteries, but we do expect to see these customers using the technologies as a complement to the existing network. In turn, this will require regulators to review network pricing models. The grids themselves will need to work to adapt the network to deal with the changing flow patterns of electricity.

When things change, it is rare for all stakeholders to be winners. In our view, the worst impacted part of the energy supply chain will be the utility-scale scale thermal generators – gas, coal and nuclear power - as their economics are damaged by ongoing growth in renewable generation. While we expect many of these fuels to have a place in the fuel mix in coming decades, the transition to an increased renewables share in the market is likely to be problematic for them.

Fundamentally, the grid will continue to be an important piece of infrastructure in the community. At the present time we expect regulated utilities to remain a reliable investment and we remain confident in the outlook for the sector. As a rule, we exclude from our investment universe those companies who derive more than 25% of their earnings from unregulated power generation and/or power retailing. Hence, the companies most negatively impacted by these newer technologies fall outside our scope. While we remain aware of their disruptive potential, we believe that solar, wind and battery storage technologies are unlikely to materially impact the stocks in our investment universe. Where they do, the impact will be spread over many years and decades.

The other 'green' technology - electric cars

Discussion of the impact of technology on the grid is typically centred on the potential for disruption. In this note we have outlined why we believe this is an unlikely scenario. However, there are other technology changes that have the potential to dramatically increase the demand for energy from the grid, namely electric cars. Transport is one of the largest categories of global energy demand and if electric cars begin to take market share, the potential to create much greater on-grid demand for energy is significant. Households would see a large increase in electricity demand and more charging outlets would be required in cities. Interestingly, this growth in electricity demand would make it even more difficult for households to install solar and battery systems large enough to allow for complete grid disconnection.

Placing this observation in context, a three person household in Sydney is expected to consume 6.9MWh of electricity each year, while an average car typically drives in the order of 14,600km per year. Based on Tesla's guidance, the Tesla Model S would require around 11.1KWh per day to recharge or 4.1MWh per year. So for a typical household, this car would increase power demand by approximately 60%.

Yours sincerely,

Dennis Eagar, Portfolio Manager

28 July 2016



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The Global Infrastructure Benchmark is comprised of the following: from inception to 31 December 2014 the benchmark is UBS Developed Infrastructure & Utilities Index Net Total Return and from 1 January 2015 the benchmark is S&P Global Infrastructure Net Total Return Index. The benchmark changed because UBS discontinued their index series

The UBS Developed Infrastructure & Utilities Index Net Total Return is a market capitalisation weighted index that is designed to measure the equity performance of listed Infrastructure and Utility stocks. Index results assume the reinvestment of all distributions of capital gain and net investment income using a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties.

The S&P Global Infrastructure Net Total Return Index is a market capitalisation weighted index that is designed to track 75 companies from around the world diversified across three infrastructure sectors energy, transportation and utilities. Index results assume the reinvestment of all distributions of capital gain and net investment income using a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties.

GLOBAL INVESTMENT PERFORMANCE STANDARDS (GIPS®) DISCLOSURE

Magellan Asset Management Limited, doing business as MFG Asset Management in jurisdictions outside Australia and New Zealand, (MFG Asset Management) claims compliance with the Global Investment Performance Standards (GIPS ®)

For the purpose of complying with GIPS, the Firm is defined as all discretionary portfolios managed by MFG Asset Management.

The Global Core Infrastructure composite is a global strategy investing in strictly defined or "pure" infrastructure companies (typically 80-120). The filtered investment universe is comprised of stocks that 1. generate reliable income streams, 2. benefit from inflation protection and have an appropriate capital structure. The investment objective of the strategy is to minimise the risk of permanent capital loss; and achieve superior risk adjusted investment returns over the medium to long-term. The composite was created in February 2012.

To achieve investment objectives, the composite may also use derivative financial instruments including, but not limited to, options, swaps, futures and forwards. Derivatives are subject to the risk of changes in the market price of the underlying securities instruments, and the risk of the loss due to changes in interest rates. The use of certain derivatives may have a leveraging effect, which may increase the volatility of the composite and may reduce its returns.

Gross composite returns (includes the reinvestment of dividends and capital gain distributions), are net of transaction costs, withholding taxes and direct expenses, but before management fees, custody and other indirect expenses. Net composite returns are prepared by subtracting from the monthly gross returns one-twelfth of the maximum applicable to institutional investors (0.80% p.a.). A list of composites and descriptions, as well as policies for valuing investments, calculating performance, and preparing compliant presentations are available upon request by emailing data@magellangroup.com.au

The representative portfolio is an account in the composite that closely reflects the portfolio management style of the strategy. Performance is not a consideration in the selection of the representative portfolio. The characteristics of the representative portfolio may differ from those of the composite and of the other accounts in the composite. Information regarding the representative portfolio and the other accounts in the composite is available upon request.