

# CDC Data Centres

## Investor Presentation

October 2019



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DATA CENTRES

# 1

## CDC overview



# CDC overview

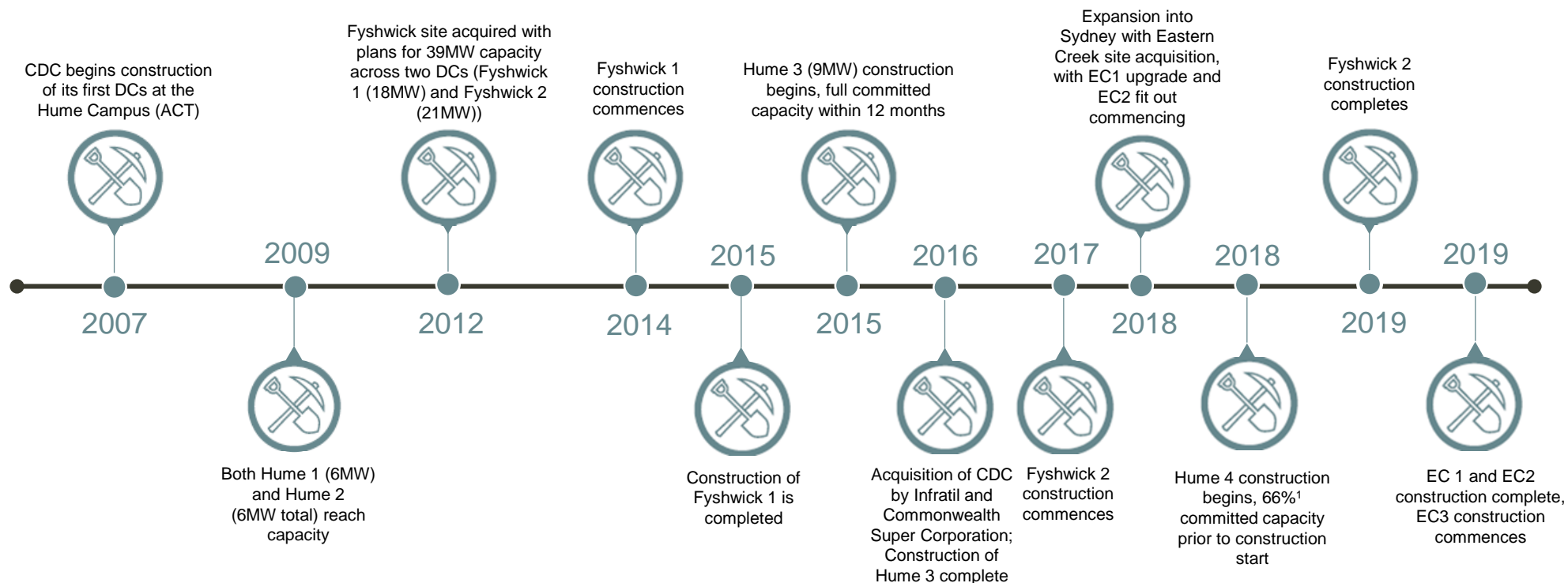
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CDC is a leading Australian operator of secure world-class Data Centre (DC) facilities, guaranteeing the availability of mission-critical systems

- CDC builds, owns and operates world-class facilities across a growing footprint at three campuses in Fyshwick (ACT), Hume (ACT) and Eastern Creek (NSW)
- Established in 2007, CDC has operated in Australia for over 12 years with the purpose of being the country's most secure and resilient provider of DC facilities to Government, Defence, Hyperscale and National Critical Infrastructure (NCI) / Commercial customers
- Today, CDC's diversified operations allow clients to securely store their core IT infrastructure within resilient centres whilst accessing global Hyperscale cloud providers, forming a growing and large-scale ecosystem
- CDC's innovative business model enables CDC to remain ahead of the growth curve, and provide clients with bespoke and scalable data hall fit-outs according to their specified needs

# CDC History

CDC has a strong track record of delivering incremental facilities on time and on budget



Notes: (1) Inclusive of FROR capacity.

# Leading management team

High quality management team with deep industry expertise in digital infrastructure, and a track record of operational and sales excellence

- Led by Greg Boorer, CEO, since 2007
- Supported by a capable senior management team across sales, finance, operations, IT, engineering and development with a combined sector experience of 100+ years, and an unrivalled track record of strategy execution in the Australian market
- Greg and many of the team are shareholders. All have long term incentives tied to the continued success of the business contingent on future success



**Greg Boorer**  
Chief Executive Officer

- Founded CDC in 2007
- Chair of Federal Council of Australian Information Industry Association for 9 years
- EY Entrepreneur of the Year for ACT and Eastern region (NSW) in 2015



**James Selkirk**  
Chief Financial Officer

- Joined CDC in 2015
- Was previously CFO of Hutchison Ports Australia
- Previous finance roles at Stockland, Charter Hall and Macquarie



**Matt Holden**  
COO



**Angus Vickery**  
CTO



**Kathie Harris**  
GM Government



**Simon Black**  
GM Sales



**Max Bristow**  
GM Engineering



**Andrew Kirker**  
GM Enterprise & Hyperscale





# Existing footprint

CDC now services its customers across 3 key site locations in Canberra and Sydney

## Hume

Canberra, established 2007  
 Installed capacity: 21MW  
 Potential capacity: 71MW

1



Hume 3 DC



Hume Site Overview

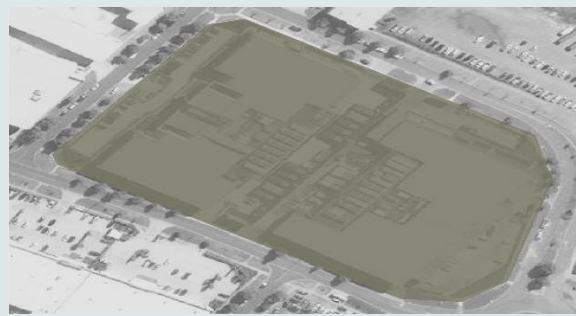
## Fyshwick

Canberra, established 2014  
 Installed capacity: 39MW  
 Potential capacity: 39MW

2



Fyshwick 1 DC



Fyshwick Site Overview

## Eastern Creek

Sydney, purchased 2018  
 Installed capacity: 20MW  
 Potential capacity: 120MW

3



Eastern Creek Campus

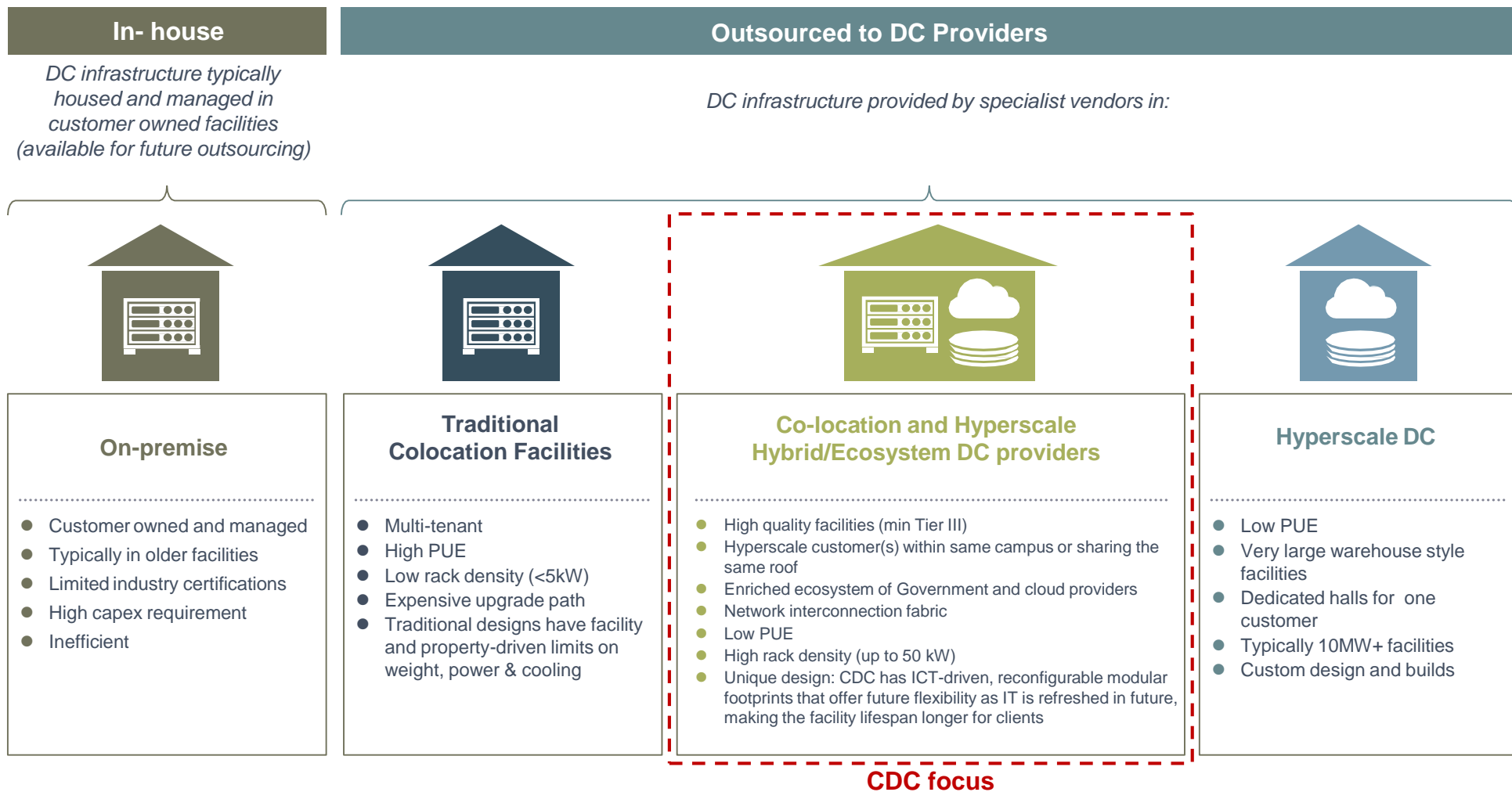


Eastern Creek Site Overview



# CDC operating model

CDC has differentiated itself by designing and building data centres that seamlessly accommodate traditional enterprise, Government and Hyperscale clients all co-located within the same buildings



# Key differentiators

CDC's unique advantages enable a high level of differentiation and are highly defensible

## 1 Hybrid Cloud Co-location Ecosystem

- Whilst close competitors mostly provide either public cloud or colocation DC services, CDC has private and public cloud as well as Government and enterprise all co-located under a shared roof
- CDC enables Government and enterprise to connect to cloud providers, or one another, without their data having to leave the data centre. This improves security and performance and removes costly telecommunication overheads

## 2 Data sovereignty and highest level of security classification

- High security standards are non-negotiable elements in the Government and NCI customer purchasing criteria. Many NCI customers have regulatory obligations around data sovereignty (e.g. utility customers)
- CDC is the only provider of significant scale in Canberra and Sydney that is 'built for Top Secret' and accredited for 'Secret' whilst also offering ICON connectivity in Canberra

## 3 Trusted Relationships with Government & Cloud Providers

- CDC have demonstrated strong Government relationships and increasing credibility with public cloud providers.
- Few competitors can match this across Government and public cloud provider customers



\* Very high differentiation

## 4 Dual Sites: Back up & disaster recovery

- CDC is treating Canberra and Sydney as a logical extension of one another, enabling seamless workload distribution between the two cities without charging extravagant interconnect/transfer fees to customers
- This is unique amongst competitors and very attractive to Federal Government agencies and NCI clients

## 5 Future Proof Technology: modular DC and availability

- CDC DCs are designed with granular modularity to the rack level across the entire DC architecture providing future proof flexibility
- CDC can increase power supply to customer's existing footprint at minimal cost to CDC, and with no disruptions to the customer, unlike competitors who only offer row or hall upgrades which come at a significant cost to the customer
- "Pay as you go, Pay as you grow" structure
- Only DC provider to offer 100% availability guarantee

# Customers and Market Segments

Revenue is underpinned by long-term contracts with high quality counterparties. Weighted-Average Lease Expiry (with options) of ~17 years, or ~9 years without options. CDC has a strong pipeline and a modular design capable of supporting all customer segments

	Government 40% Revenue <sup>1</sup>	Hyperscale 45% Revenue <sup>1</sup>	National Critical Infrastructure (NCI) / Commercial 15% Revenue <sup>1</sup>
Customers	<ul style="list-style-type: none"> <li>Australian Federal, State and local Governments</li> <li>Majority of revenue from Government counterparties with AAA or AA ratings</li> <li>Service providers to Government</li> </ul>	<ul style="list-style-type: none"> <li>Local cloud and international Hyperscale providers</li> <li>Private, protected and public-cloud</li> <li>Key partnership with AAA rated Global Hyperscale Provider</li> </ul>	<ul style="list-style-type: none"> <li>Operators of NCI, including: banks, insurers, ports, airports, utilities, healthcare etc</li> </ul>
Demand & Strategy	<ul style="list-style-type: none"> <li>Estimated 12-15% CAGR segment growth outlook<sup>2</sup></li> <li>CDC is well placed to deliver on the Australian Whole of Government Hosting Strategy (announced March 2019)</li> <li>Government DC consolidation is stimulating demand among third party, flexible, multi-tenant DCs that can offer hybrid computing outcomes, with CDC the best placed operator in Canberra</li> <li>CDC's sales strategy is customer-centric, with senior sales staff meeting with clients on a regular basis to understand upcoming requirements</li> <li>The strategy provides a framework to strengthen data sovereignty, supply chain and data ownership provisions</li> <li>CDC's membership of a whole-of-Government panel enables the company to submit tenders to individual Government departments in accordance with panel set pricing</li> </ul>	<ul style="list-style-type: none"> <li>Estimated 20-28% CAGR segment growth outlook<sup>2</sup></li> <li>Driven by the growth of cloud migration, artificial intelligence and machine learning, High Performance Computing research, biometric security, etc all of which necessitate secure, 24/7 availability and rapid delivery of data</li> <li>The ecosystem effect of CDC's DC campus networks brings intangible benefits to global Hyperscale customers by optimising data transit, security and performance between their hosted clients</li> <li>Sophisticated clients who understand their needs and infrastructure requirements now and in future, making an ideal partner to collaborate on growth and expansion</li> <li>Negotiated on a contract-by-contract basis according to client's design and MW capacity needs over the short, medium and long term</li> </ul>	<ul style="list-style-type: none"> <li>Estimated 12-15% CAGR segment growth outlook<sup>2</sup></li> <li>Providers of NCI are increasingly questioning the viability of retaining their own DCs and in-house DC costs, and instead looking to outsource the storage and security of their data to third parties particularly as regulatory obligations around data sovereignty and security have increased</li> <li>NCI organisations have an obligation to share sensitive data with Government agencies, which is facilitated with lower latency and cost for NCI's within CDC's 'ecosystem' model</li> <li>CDC's unique approach to designing and building facilitates bespoke fit-outs that can accommodate the co-location of an NCI's existing legacy systems, new cloud storage servers, and security benefits</li> <li>Negotiated on a contract-by-contract basis according to client's design and MW capacity needs over the short, medium and long term</li> </ul>
Position	<ul style="list-style-type: none"> <li>Combination of small, private and large-scale bespoke data halls and co-location model, depending on size and security-level of the client</li> </ul>	<ul style="list-style-type: none"> <li>Construction of large-scale bespoke data halls for use by a single Hyperscale provider</li> <li>Fit-out of data halls is fully-underwritten, with work only beginning after contract signing</li> </ul>	<ul style="list-style-type: none"> <li>Co-location model, with customers typically purchasing pods within data halls</li> </ul>

Notes: (1) FY20F monthly revenue if all future commitments were income producing today. (2) Source: Industry report

# Financial performance

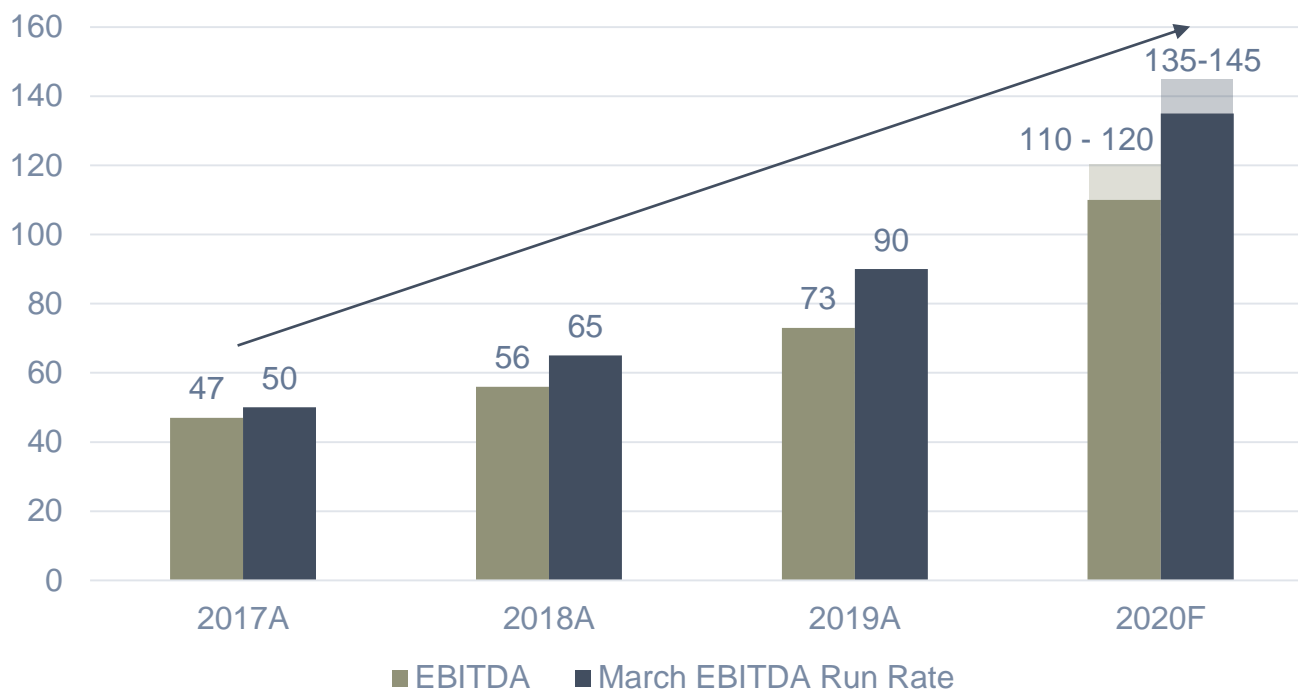
CDC has delivered a sustained period of both run rate and EBITDA growth

## CDC has built a loyal customer base, comprising Government, Hyperscale and NCI/Commercial clients

- Long-term contracts with indexed pricing and pass-through on key costs (Weighted Average Lease Expiry of 16.7 years with options)
- Majority of revenue from Government counterparties and leading global companies with AAA or AA ratings
- Strong track record of renewals and extensions
- History of strong contract renewal
- CDC has a very positive Net Promoter Score



- Strong track record of growth and attractive metrics
- EBITDA growth forecast on the back of secured, long term contracts
- Controlled expenses with power costs directly passed through to customers
- Expected to deliver on budget for FY2020

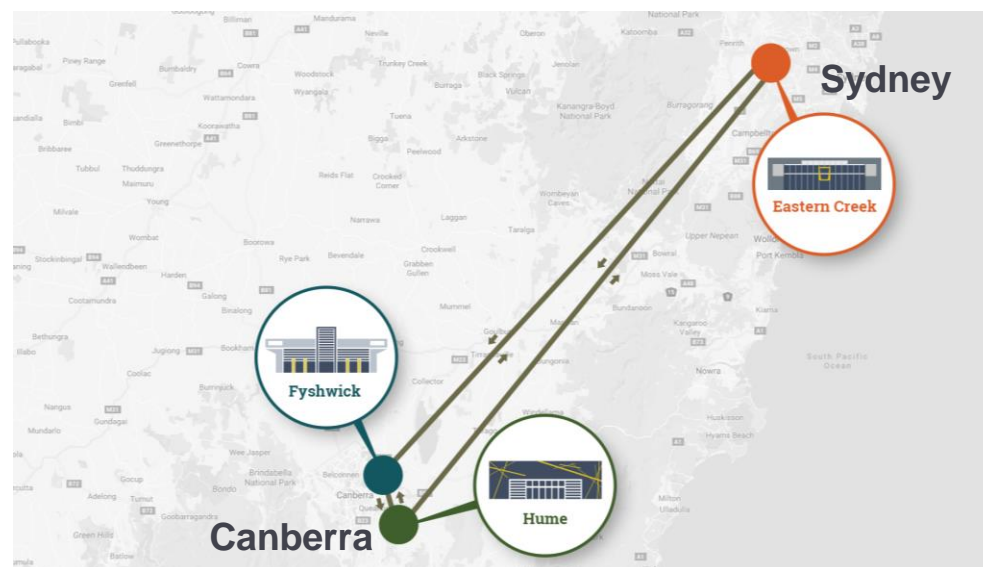


# Portfolio overview and growth outlook

CDC has a clear runway for growth within Canberra and Sydney

- Three established DC campuses at Fyshwick (ACT), Hume (ACT) and Eastern Creek (NSW)
- Existing operating capacity of 80MW, with 50MW under construction and 100MW+ capacity for future development
- Attractive scale and scope, with nine DCs across three locations forecast to be operational by 2021

	Hume	Fyshwick	Eastern Creek	Total
<b>Current</b>				
Facilities	3	2	2	7
MW capacity	21MW	39MW	20MW	80MW
<b>In construction</b>				
Facilities	1	-	1	2
MW capacity	25MW	-	25MW	50MW
<b>Potential</b>				
Facilities	2	-	3	5
MW capacity	25MW	-	75MW	100MW
<b>Total</b>	<b>6</b>	<b>2</b>	<b>6</b>	<b>14</b>
	<b>71MW</b>	<b>39MW</b>	<b>120MW</b>	<b>230MW</b>



# 2

## Growth strategy



DATA CENTRES



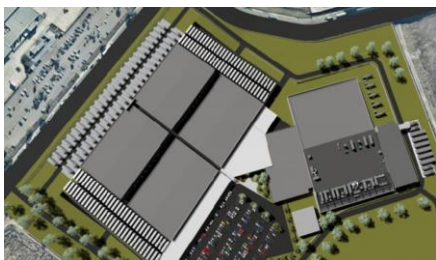
# Market Growth Drivers

Several long-term drivers underpin growth in the data centre market. The hyperscale DC segment is expected to grow at twice the pace of traditional DCs

	Traditional Data Centres	Hyperscale Data Centres
Shared growth drivers	<ul style="list-style-type: none"> <li>● Continuing, robust data growth, on average, 25% p.a., with certain industries growing at a faster rate</li> <li>● Continued digitisation of business operations</li> <li>● Increasing degree of “mission criticality” (i.e. 24-7 organisations wanting highly available data centres)</li> <li>● “Always on” consumers driving growth in digital content, including streaming</li> <li>● Commencement of the 5G rollout, underpinned by virtualisation of telco infrastructure</li> <li>● Data sovereignty requirements driving onshore development of DCs in Australia</li> <li>● Geo-politically, Australia is an attractive location to invest (e.g. strong rule of law, political / social predictability)</li> <li>● Canberra is set to become the first city outside Europe to source 100 per cent of its electricity needs from renewables, potentially a preferred destination for backup and disaster recovery</li> </ul>	
Unique growth drivers	<ul style="list-style-type: none"> <li>● Higher propensity to outsource DC services</li> <li>● Adoption of hyperconverged infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>● Increasing cloud adoption</li> <li>● Increase in cloud based workloads from AI, machine learning and IoT</li> <li>● Australia is an attractive location for the broader regional DR strategy of public cloud providers</li> <li>● Increase in number of global cloud provider availability regions / zones</li> </ul>

# Growth by site

CDC has successfully grown its portfolio of assets and has a range of ongoing, diversified growth options which now include the expansion of the Eastern Creek campus



Facility	Capacity (MW)	Capacity filled <sup>1</sup>	Phase 1: Build	Phase 2: Fit-out phase
Hume 1	6MW	>95%	Completed	Completed
Hume 2	6MW	100%	Completed	Completed
Hume 3	9MW	>95%	Completed	Completed
Hume 4	25MW	66% <sup>1</sup>	In progress	In progress
Hume 5 & 6	25MW	-	Future build	Future build
Fyshwick 1	18MW	>95%	Completed	Completed
Fyshwick 2	21MW	80%	Completed	In progress
Eastern Creek 1	7MW	~85%	Completed*	Completed*
Eastern Creek 2	13MW	100%	Completed*	In progress
Eastern Creek 3	25MW	~50% <sup>2</sup>	In progress	FY21
Eastern Creek 4, 5, 6	75MW	-	Future build	Future build



- 7 completed data centres
  - Built, income generating
  - Mostly let
- 2 data centres under construction
  - Strong pre lets

Note 1. From a Hyperscale provider, contracted based on FROR prior to construction commencing; Capacity filled is on a footprint POD basis and not MW basis; 2. 60% completed and 40% in the process of being commissioned  
\* In place at acquisition

# Eastern Creek focus

Eastern Creek is well-positioned to capitalise on the prolific growth of data held by Hyperscale cloud providers and operators of NCI who require increasingly secure and resilient storage solutions

## Highlights

- Acquired 145,000 sqm Eastern Creek campus in December 2018, 36km west of Sydney's CBD
- Close proximity to Sydney, a major hub for operators of NCI, and Western Sydney Airport (attractive to existing Government Agency clients)
- Substations and transformers in place for connectivity to 132KV transmission grade power with zero downtime
- Two existing 6,000 sqm data halls: EC1 is a 6MW capacity data hall occupied by enterprise and Government clients, EC2 (13MW capacity) is largely handed over, with final delivery date of December 2019
- Enables CDC to deliver 'outside Canberra' geographic diversity and expand its ecosystem, highly attractive to existing clients
  - Sydney becomes an on-ramp for Canberra capacity and vice-versa from a multi-geographic resilience perspective
- Transmission grade power with zero downtime

Facility	Capacity (MW)	Capacity filled	Phase 1: Build	Phase 2: Fit-out phase
Eastern Creek 1	7MW	~85%	Completed	Completed
Eastern Creek 2	13MW	100%	Completed	In progress
Eastern Creek 3	25MW	~50% <sup>1</sup>	In progress	FY21
Eastern Creek 4, 5, 6	75MW	-	Future build	Future build



Note: 1. 60% completed and 40% in the process of being commissioned

# Development philosophy

CDC has developed a strong track record of delivery and a world class build strategy

## Highlights

- Design and construct timeframe is circa 12 months for new data centre builds
- Once the surrounding campus infrastructure is completed, the fit-out of the individual DC facilities (Phase 2) is much faster
- This enables CDC to develop new sites within a sufficient timeframe to meet different customers' growth expectations
- CDC leverages close relationships with its clients to pre-empt demand and ensure the relevant capex is deployed at the right time
- Given the changing nature of Hyperscale and Government contracts, the separation of Phase 2 (fit-out) enables CDC to submit bespoke tender responses that meet clients' specific operational and financial requirements; avoiding a retro-fit of pre-built and designed facilities to client tenders

### Phase 1: Land Acquisition & Build ('Build')

- CDC acquires land at strategic locations based on proximity to power supply and critical infrastructure
- Significant site assessment and risk management diligence
- Following a build-ahead strategy, the building structure, initial infrastructure and communications connectivity are installed

### Phase 2: Fit-out

- Only once a customer has signed the SLA, fit-out of the data hall begins
- Consequentially, the capex to fund this expansion phase of growth is fully-underwritten by customers
- CDC's modular design enables data halls to be scaled incrementally
- Lower commercial risk: secured by client contracts
- Lower technical risk: smaller fit-out, repeatable builds on which CDC obtains fixed-pricing

# Next 6 months

FY20 is progressing well; delivering developments, securing new customers and providing the foundation for future growth

**Execute and deliver both short and mid-term**

**Establish a sustainable runway for continued mid term growth**

- Bring 24MW+ capacity to income producing – On track
- Final handover of Eastern Creek 2 in December – On track, 10MW to be handed over within 12 months of purchasing site
- Go live of Hume 4 in FY2020 – On track
- Construction of Eastern Creek 3 – commenced
- Grow EBITDA run rate by over 50% year on year – On track
- Extend debt facilities headroom and look to improve terms – well progressed
- Grow National Critical Infrastructure client base – well progressed
- Identify and pursue additional strategic opportunities – well progressed



# A

## APPENDIX

### Key terms



DATA CENTRES



# Acronym Library

Acronym	Definition
AI	Artificial Intelligence
CAGR	Compound Annual Growth Rate
CDC	Canberra Data Centres
CPI	Consumer Price Index
CSC	Commonwealth Superannuation Corporation
DC	Data Centre
FROR	First Right of Refusal
HV	High Voltage
ICON	Intra-Government Communications Network
IFT	Infratil
IP Traffic	Internet Protocol Traffic
KV	Kilovolt
kW	Kilowatt
LPI	Limited Price Indexation
MW	Mega Watts
NCI	National Critical Infrastructure
POD	Complete, stand-alone and multi-workload systems management module connected into power distribution and cooling
PUE	Power Usage Effectiveness

# B

## APPENDIX

### Key risks and mitigants



DATA CENTRES

# Risks and mitigants

CDC thoroughly understands the risks involved with the business and industry, and has worked to effectively mitigate these

Risk	Description	Mitigants
<b>Termination rights</b> <b>1</b>	Existing contracts with a termination for convenience clause	<ul style="list-style-type: none"> <li>✓ High switching costs and risks (time, IT risk), timing given embedded infrastructure and lack of secure alternatives</li> <li>✓ Long history of customer renewal and extension</li> <li>✓ Termination for convenience typical of Government contracts</li> </ul>
<b>Data information and security</b> <b>2</b>	Risk of physical security breach and impact on customer relationships	<ul style="list-style-type: none"> <li>✓ Responsibility for cybersecurity and application-layer protection of data rests with the client</li> <li>✓ CDC's responsibility for physical perimeter security is bolstered by strong record and ASIO-T4 certification</li> <li>✓ 24/7 security</li> </ul>
<b>Management</b> <b>3</b>	Existing management have strong relationships with customers and experience in execution	<ul style="list-style-type: none"> <li>✓ Management team has been expanded in recent years, with investment in all key areas</li> <li>✓ Existing management strongly committed to the business and appropriately incentivised</li> </ul>
<b>Development and execution</b> <b>4</b>	CDC could experience delays in completing its builds	<ul style="list-style-type: none"> <li>✓ Strong governance framework in place</li> <li>✓ Track record of executing on time and on budget</li> <li>✓ Large % of capex is underwritten by existing customer contracts</li> <li>✓ Significant demand expected to more than outweigh supply</li> </ul>
<b>Competition</b> <b>5</b>	Key competitors continue to invest in new facilities	<ul style="list-style-type: none"> <li>✓ CDC well-positioned in Sydney &amp; Canberra to win new business</li> <li>✓ Premium provider with privileged and ongoing trusted-advisor relationship with Government and a global Hyperscale provider</li> </ul>
<b>Contract renewal and repricing</b> <b>6</b>	Potential for re-pricing risk at contract renewal	<ul style="list-style-type: none"> <li>✓ CDC has a differentiated, premium offering and works with clients to customised pricing</li> <li>✓ No current sign of price pressure within CDC customer base</li> <li>✓ Government pricing secured for 5 years</li> <li>✓ Track record of re-tendering at / or above existing prices</li> </ul>

# C

## APPENDIX

### Introduction to data centres



DATA CENTRES

# Data Centre 101

A data centre is a facility used to house computer systems and associated components, it can be insourced or outsourced

A data centre's main purpose is holding and running IT systems that handle the core business and operational data of an organisation (e.g. its data, mail services, applications).

## Key Infrastructure



*Security*



*Temperature control*



*Power*



*Connectivity*

## Insourced vs. outsourced

### Insourced:

- an organisation builds, operates and manages its own data centre
- advantages include full control over data and applications
- disadvantages include increased operating and personnel costs and lower system reliability

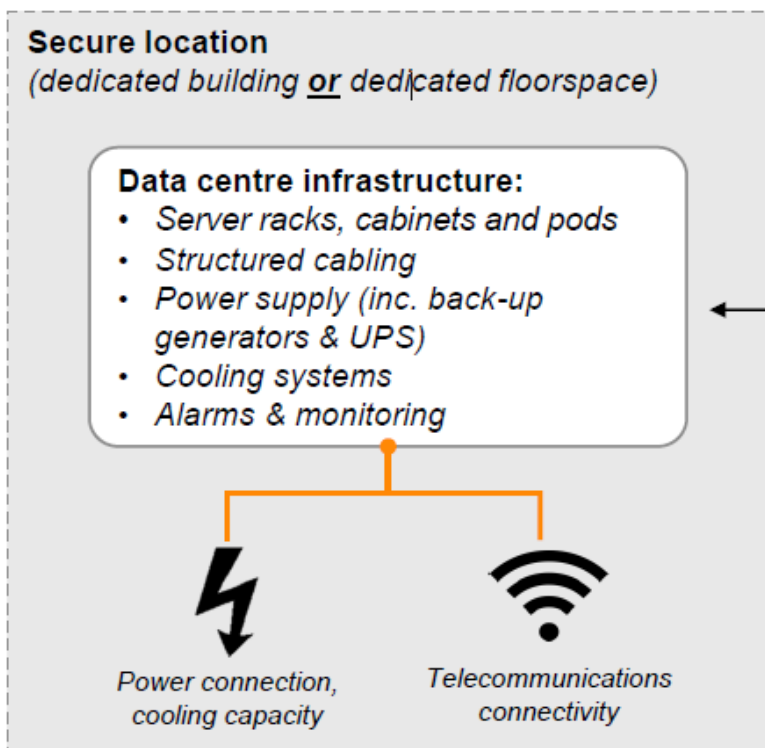
### Outsourced:

- an organisation leases space and/or hosting services from an external data centre provider
- advantages include lower operating cost, reduction in required in-house expertise and higher system reliability
- electricity costs are passed on to the customer (c.\$1k / month / rack\*)
- organisations may incur significantly lower electricity costs through outsourcing as the power usage effectiveness (PUE) ratios of colocation specialists tend to be far lower than those of insourced DCs
- disadvantages include reduced perceived control over system

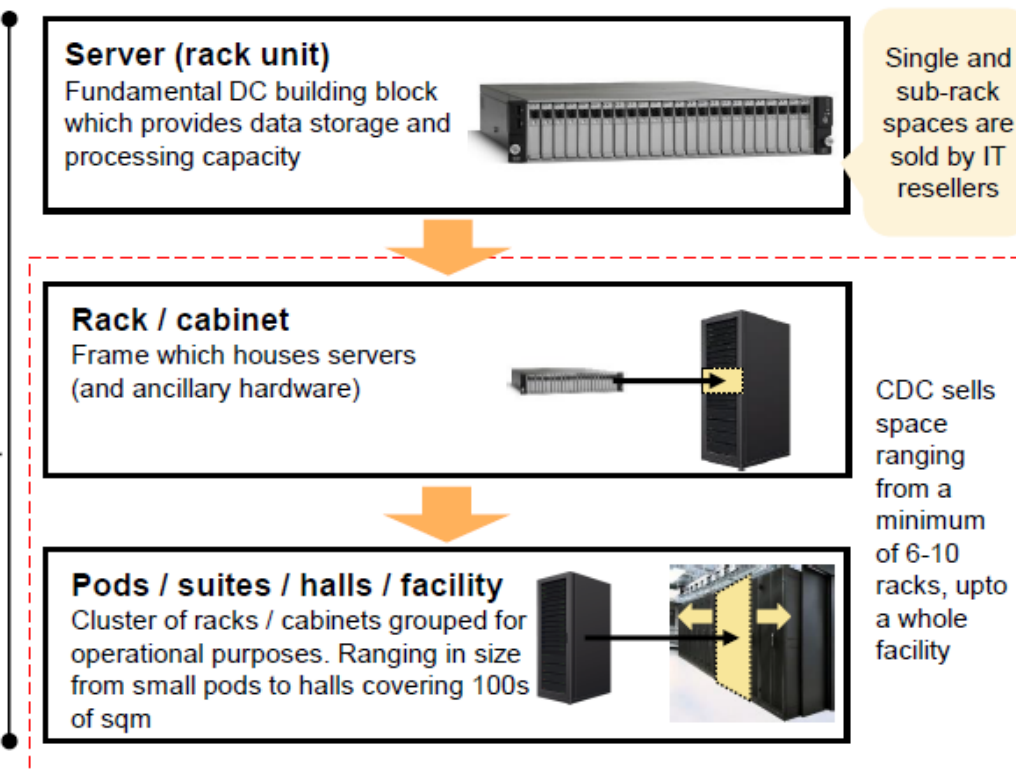
# Data Centre 101

DCs are dedicated, secure locations that house IT hardware (servers) and provide the power, cooling and connectivity needed to operate them

## DC location and core infrastructure:



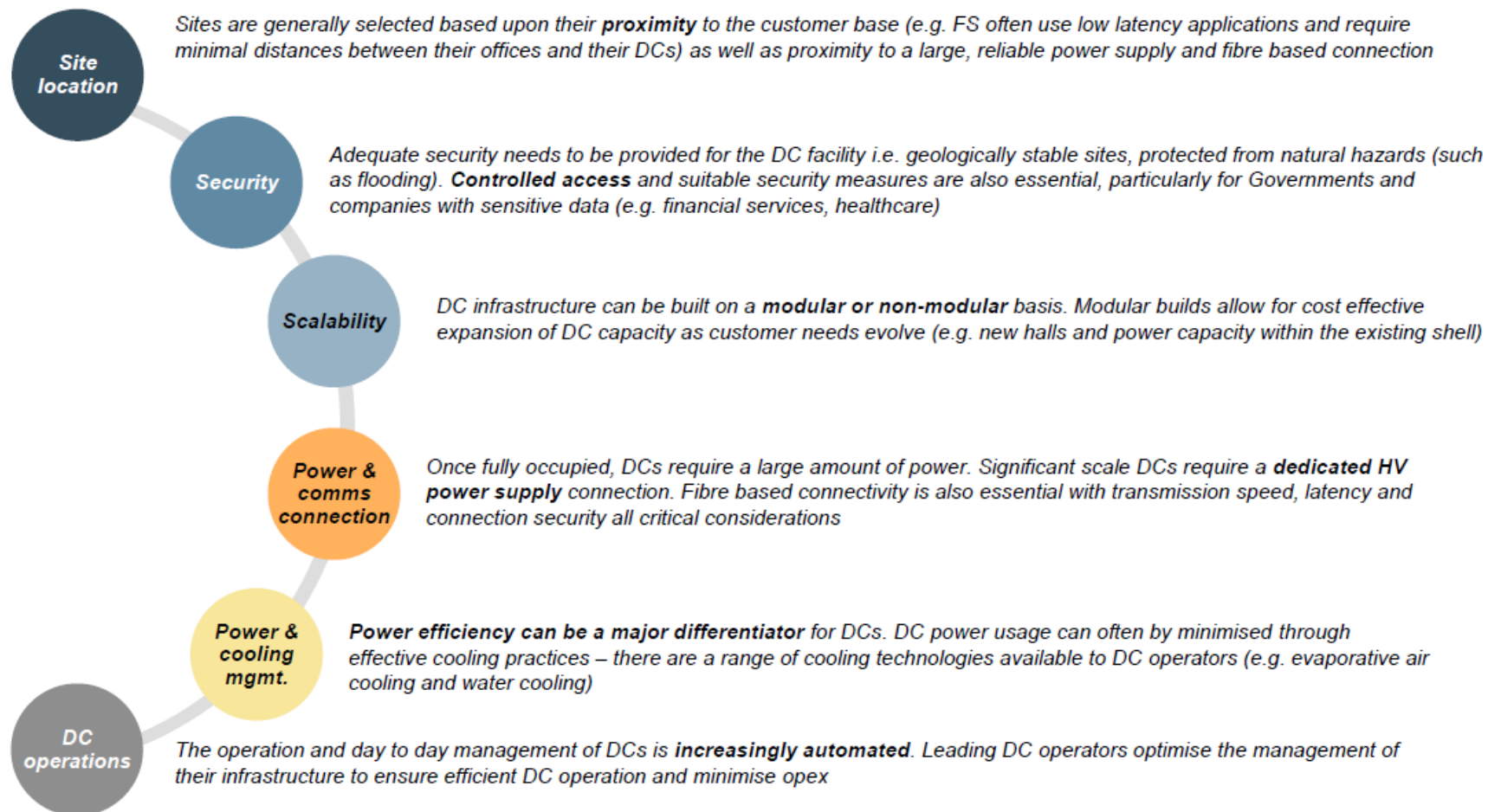
## DC equipment / housing:





# Data Centre 101

## DCs can differ in their infrastructure approach and the technologies they employ



# Data Centre 101

Data centre design options are evolving with client needs and new technologies

