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Infigen Energy (ASX: IFN)

Management Discussion and Analysis of Financial and Operational Performance for the six months ended 31 December 2016

22 February 2017

All figures in this report relate to businesses of the Infigen Energy Group (“Infigen” or “the Group”), being Infigen Energy Limited (“IEL”), Infigen Energy Trust (“IET”) and Infigen Energy (Bermuda) Limited (“IEBL”) and the subsidiary entities of IEL and IET, for the six months ended 31 December 2016 (H1 FY17) compared with the six months ended 31 December 2015 (“prior year” or “prior corresponding period”) except where otherwise stated.

All references to $ are a reference to Australian dollars unless specifically marked otherwise. Individual items and totals are rounded to the nearest appropriate number or decimal. Some totals may not add down the column due to rounding of individual components. Period on period changes on a percentage basis are presented as favourable (positive) or unfavourable (negative). Period on period changes to items measured on a percentage basis are presented as percentage point changes (“ppts”). Period on period changes that are not comparable are marked not meaningful (“n.m.”).

No representation, warranty or other assurance is made or given by, or on behalf of, Infigen that any projection, forecast, forward-looking statement, assumption or estimate contained in this presentation should or will be achieved.

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COMPANY OVERVIEW

Infigen Energy (Infigen) is an active participant in the Australian energy market. It is a developer, owner and operator of renewable energy generation assets delivering energy solutions to Australian businesses and large retailers.

Infigen owns 557 megawatts (MW) of installed capacity operating in New South Wales (NSW), South Australia (SA) and Western Australia (WA).

Infigen sells the energy and Large-scale Generation Certificates (LGCs) through a combination of medium and long term contracts and through the spot market. Each wind and solar farm is entitled to create one LGC for each megawatt hour (MWh) that is exported to the grid after applying its marginal loss factor.

Of Infigen's six operational wind farms, approximately 45-50%[1] of the production from these wind farms (electricity and LGCs) is currently contracted under medium and long-term agreements. Further details of the offtake agreements for Infigen's wind farms are included in Appendix B.

Infigen's development pipeline comprises equity interests of approximately 1,300 MW of large-scale wind and solar PV projects (86% of which have planning approval) in Australia. Further details of the development pipeline are included in Appendix C.

H1 FY17 Highlights

- **Safety:** rolling 12-month lost time injury frequency rate (LTIFR) of zero
- **Production:** 889 GWh, up 18% on prior corresponding period
- **EBITDA:** $84.0 million, up $26.0 million or 45% on pcp
- **Substantial deleveraging:** repaid $34.6 million of Global Facility borrowings and $2.7 million of Woodlawn facility borrowings
- **Net operating cash flow:** $33.0 million, up $22.1 million or 203% on pcp
- **Net profit after tax:** $21.4 million, up $23.6 million
- **Growth and development:** progressing towards a final investment decision for the Bodangora wind farm project

[1] Merchant LGC exposure varies based on the Sydney Desalination Plant's operating regime.

Key Financial Outcomes

Summary of the key financial outcomes and metrics

The prior corresponding period (pcp) comparisons are reported on a continuing operations basis.

Six months ended 31 December ($M unless otherwise indicated)	2016	2015	Change %
Revenue	**115.4**	**83.4**	**38**
EBITDA	**84.0**	**58.0**	**45**
Depreciation and amortisation	(26.0)	(25.9)	-
EBIT	**58.0**	**32.0**	**81**
Net financing costs	(26.6)	(31.5)	16
Profit before tax	**31.4**	**0.5**	**n.m.**
Tax expense	(10.0)	(3.1)	(223)
Profit from discontinued operations	-	0.4	n.m.
Net profit / (loss) from continuing operations	21.4	(2.6)	n.m.
Net profit / (loss) after tax	**21.4**	**(2.2)**	**n.m.**
EBITDA margin	72.8%	69.5%	3.3 ppts
Net operating cash flow per security (cps)	4.2	1.4	200
Earnings per security (cps)[2]	2.7	(0.3)	n.m.

Position at ($M unless otherwise indicated)	31 Dec 2016	30 Jun 2016	Change %
Debt	710	742	4
Cash	145	148	(2)
Net debt	565	595	5
Securityholders' equity	319	281	14
Book gearing	63.9%	68.0%	4.1 ppts
EBITDA / (net debt + equity)[3]	16.5%	13.7%	2.8 ppts
Net assets per security ($)	0.41	0.36	14
Net tangible assets per security ($)	0.25	0.20	25

[2] Calculated using weighted average issued securities for the stapled securityholders.
[3] Calculated on a 12-month lookback basis.

WORK HEALTH AND SAFETY

Measured on a rolling 12-month basis As at 31 December[4]	2016	2015	Change %
Total recordable injury frequency rate (TRIFR)	4.8	4.7	(2)
Lost time injury frequency rate (LTIFR)	-	-	-
Lost time injuries (LTI)	-	-	-

Infigen's first priority is the safety of our people and the communities in which we operate. Our goal is zero harm: zero lost time incidents and injuries. Lake Bonney and Alinta wind farms are tracking towards the tenth consecutive year with zero LTIs.

TRIFR increased from 4.7 to 4.8. which represents one medical treatment injury in the current period. Infigen's LTIFR and rate of LTIs were zero as at 31 December 2016 which remains the same as the pcp. Our work, health and safety approach includes an on-going focus on improvement strategies and collaborative team work, regular training, "toolbox talks" and safety meetings with our contractors.

[4] Infigen's safety incident performance rates are measured on a rolling 12-month basis in accordance with Australian standards. TRIFR is calculated as the number of lost time injuries and applicable medical treatment incidents multiplied by 1,000,000 divided by total hours worked; and LTIFR is calculated as the number of lost time injuries multiplied by 1,000,000 divided by total hours worked. Infigen includes contractor hours in its rate calculations.

REVIEW OF FINANCIAL AND OPERATIONAL PERFORMANCE

Six months ended 31 December ($M unless otherwise indicated)	2016	2015	Change %
Operating capacity (MW)	557	557	-
Production[5] (GWh)	889	754	18
Capacity factor	36.2%	30.7%	5.5 ppts
Turbine availability	96.7%	97.8%	(1.1) ppts
Site availability	96.6%	97.4%	(0.8) ppts
Total recordable injury frequency rate (TRIFR)	4.8	4.7	(2)
Lost time injury frequency rate (LTIFR)	-	-	-
Lost time injuries (LTIs)	-	-	-
Revenue	**115.4**	**83.4**	**38**
Operating costs	(21.1)	(18.3)	(15)
Operating EBITDA	**94.3**	**65.0**	**45**
Corporate costs	(8.9)	(6.4)	(39)
Development costs	(1.5)	(0.6)	(150)
EBITDA	**84.0**	**58.0**	**45**
Depreciation and amortisation	(26.0)	(25.9)	-
EBIT	**58.0**	**32.0**	**81**
Net borrowing costs	(25.4)	(27.3)	7
Net FX and revaluation of derivatives	(1.2)	(4.2)	71
Profit / (loss) before tax	**31.4**	**0.5**	**n.m.**
Tax expense	(10.0)	(3.1)	(223)
Profit from discontinued operations	-	0.4	n.m.
Net profit / (loss) after tax	**21.4**	**(2.2)**	**n.m.**
Operating EBITDA margin	81.7%	78.1%	3.6 ppts
Average price ($/MWh)	129.8	110.6	17
Operating costs ($/MWh)	23.7	24.3	2

[5] Production includes compensated production of 4 GWh in H1 FY17.

Production

Six months ended 31 December (GWh)	2016	2015	Change %
Alinta wind farm	180	163	10
Capital wind farm	216	181	19
Lake Bonney 1, 2 & 3 wind farms	400	336	19
Woodlawn wind farm	90	75	20
Compensated production[6]	4	-	n.m.
Total production	**889**	**754**	**18**

Production increased 18% or 135 GWh to 889 GWh due to improved wind conditions across all sites (+152 GWh), compensated production (+4 GWh) and reduction in balance of plant losses at Lake Bonney (+3 GWh). This was partially offset by reduced turbine availability, mostly at Capital and Lake Bonney wind farms due to maintenance work and high wind speeds (-17 GWh), and reduced network availability at Lake Bonney mostly due to the September 2016 black system event in South Australia (-7 GWh).

Prices

The weighted average portfolio bundled (electricity and LGCs) price was $129.8/MWh, 17% higher than $110.6/MWh in the pcp reflecting higher merchant electricity prices in SA and in NSW, and higher LGC prices.

Electricity

TWA wholesale electricity ($/MWh)	H1 FY17	H1 FY16	10 year average
South Australia	96.03	58.39	55.62
New South Wales	58.10	43.43	45.77
Western Australia[7]	55.88	46.07	53.95

Source: NemSight

Time weighted average (TWA) spot electricity prices in SA and NSW were 64% and 34% higher respectively than the pcp due to retirement of the Northern power station in SA, limitations on the SA-VIC Heywood interconnector flows, and periods of above-average daily maximum temperatures in NSW and QLD.

Infigen's DWA wholesale electricity ($/MWh)	H1 FY17	H1 FY16	Change %
SA (Lake Bonney)	71.90	47.04	53
NSW (Woodlawn)	53.33	42.55	25

Infigen's dispatch weighted average (DWA)[8] electricity prices increased 53% to $71.90/MWh in SA and 25% to $53.33/MWh in NSW. Lake Bonney wind farm DWA prices were 25% below the SA TWA prices, and Woodlawn wind farm's DWA prices were 8% below NSW TWA prices.

Average spot prices in the National Electricity Market can be significantly influenced by extreme price events. Wholesale electricity spot prices can vary between the market price floor of -$1,000/MWh and the market price cap of $14,000/MWh. During the period there were 288 half-hourly settlement intervals above $300/MWh in SA and 12 in NSW compared to 70 in SA and 6 in NSW in the pcp. There were 253 negative price events in SA and none in NSW compared to 149 in SA and one NSW in the pcp.

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[6] Compensated production relates to business interruption and liquidated damages under service and maintenance agreements.
[7] Data from the Wholesale Electricity Market of WA dates back to September 2006; Alinta wind farm in Western Australia will not become exposed to merchant electricity prices until 2026.
[8] Calculated as electricity revenue divided by production sold.

Large-scale Generation Certificates (LGCs)

LGC spot price ($/LGC)	31 December 2016	31 December 2015	Change %
Closing price	86.90	72.90	19
Six month average price	87.28	61.34	42

Source: GFI Broker Report

The closing LGC market price at 31 December 2016 was up 19% to $86.90/LGC, and the six-month average LGC market price was up 42% to $87.28/LGC compared with the pcp. Growing market expectation of a shortfall in LGC supply has resulted in continued incremental strengthening in LGC spot prices and near-term forward prices. There is a charge to liable parties for non-compliance under the Large-scale Renewable Energy Target legislation.

Infigen's LGC inventory at 31 December 2016 was approximately 579,000 certificates (477,000 in the pcp). The increase was primarily due to strong production in November and December of 2016 and forward sales commitments. The value of inventory at 31 December 2016 was $43.5 million ($26.8 million in the pcp) due to an increased volume and LGCs being brought to account at higher average LGC spot prices.

Revenue

Revenue increased $32.0 million or 38% to $115.4 million as a result of higher production (+$10.9 million), higher electricity prices (+$10.0 million), higher LGC prices (+$9.8 million) and compensated and other revenue (+$1.4 million).

Marginal Loss Factors[9]

Year ended 30 June (MLF)	2017	2016	Change %
Alinta wind farm	0.9519	0.9384	1
Capital and Woodlawn wind farms	0.9931	0.9748	2
Lake Bonney 1, 2 & 3 wind farms	0.8768	0.9352	(6)

Source: AEMO

Six months ended 31 December (GWh)	2016	2015	Change %
Alinta wind farm	180	163	11
Capital wind farm	214	176	22
Lake Bonney 1, 2 & 3 wind farms	351	314	12
Woodlawn wind farm	89	73	22
Total production sold	**834**	**726**	**15**

Marginal loss factors (MLFs) had a more adverse impact on "production sold" compared to the pcp (-23 GWh).

[9] As electricity flows through the transmission and distribution networks, energy is lost due to electrical resistance and the heating of conductors. Marginal loss factors (MLF) are calculations fixed annually by the Australian Energy Market Operator (AEMO) to account for the impact of network losses on spot prices.

Operating, Corporate and Development Costs

Operating Costs

Six months ended 31 December ($M)	2016	2015	Change	Change %
Asset management	3.1	3.2	0.1	3
FCAS fees[10]	1.6	1.7	0.1	6
Turbine O&M	11.3	8.8	(2.5)	(28)
Balance of plant	0.3	0.3	-	-
Other direct costs	3.5	3.5	-	-
Total wind farm costs	**19.7**	**17.5**	**(2.2)**	**(13)**
Energy Markets	1.2	0.9	(0.3)	(33)
Operating costs	**21.1**	**18.3**	**(2.8)**	**(15)**

Higher turbine operations and maintenance (O&M) expenses were due to increased production-linked incentive payments (+$2.1 million), more than offset by higher revenue. Other variances in wind farm costs reflected a post-warranty step-up in costs at the Woodlawn wind farm (+$0.4 million) and FCAS fees (-$0.1 million) that were incurred mostly as a result of increased imposition of security measures by AEMO and reduction in FCAS capacity made available in South Australia, partially offset by a hedge benefit.

Operating Earnings Before Interest, Tax, Depreciation and Amortisation (**Operating EBITDA**) was $94.3 million, up 45% or $29.3 million. This was due to higher revenue, partially offset by higher operating costs.

Corporate costs were $8.9 million, up 39% or $2.5 million due to a number of one-off personnel expenses, and costs associated with undertaking corporate and strategic projects.

Development costs were $1.5 million, up 150% or $0.9 million due to costs associated with enhancing development capability and increased activity on development opportunities, with a focus on the Bodangora wind farm development project.

[10] Frequency control ancillary services (FCAS) fees relate to services that maintain key technical characteristics of the power system.

PROFIT AND LOSS

EBITDA was $84.0 million, up 45% or $26.0 million reflecting higher revenue, partially offset by higher operating, corporate and development costs.

Depreciation and amortisation expense of $26.0 million was in line with the pcp.

Earnings Before Interest and Tax (**EBIT**) was $58.0 million, up 81% or $26.0 million.

Financing Costs

Six months ended 31 December ($M)	2016	2015	Change %
Interest expense	(24.6)	(26.4)	7
Bank fees and amortisation of loan costs	(1.1)	(1.2)	8
Amortisation of decommissioning costs	(0.1)	(0.1)	-
Total borrowing costs	**(25.7)**	**(27.6)**	**7**
Interest income	0.4	0.3	33
Net borrowing costs	**(25.4)**	**(27.3)**	**7**
Net FX and revaluation of derivatives	(1.2)	(4.2)	71
Net financing costs	**(26.6)**	**(31.5)**	**16**

Net borrowing costs were $25.4 million, down $1.9 million due to lower interest expense resulting primarily from a lower debt balance (-$1.8 million), lower bank fees (-$0.1 million), and higher interest income (+$0.1 million).

Net FX and revaluation of derivatives resulted in a $1.2 million expense, up $3.0 million due to more stable FX and interest rates in the period.

Profit before tax was $31.4 million, a $30.9 million favourable variance to the pcp due to a favourable operating result and lower financing costs.

Income tax expense of $10.0 million was $6.9 million higher than the $3.1 million in the pcp due to higher underlying profit.

Infigen reported a **net profit after tax** of $21.4 million, a favourable variance of $23.6 million to the pcp.

CASH FLOW

Cash Movement

Cash at 31 December 2016 was $144.7 million, 2% or $2.9 million lower than at 30 June 2016.

Cash inflows included operating cash flow of $33.0 million and a favourable FX movement of $3.1 million on cash balances held in USD and EUR.

Other cash movements included $37.3 million for debt repayments (refer to Debt section on page 12) and $1.7 million for capital expenditure on development assets and wind farm property, plant and equipment.

Operating Cash Flow

Six months ended 31 December ($M)	2016	2015	Change %
Operating EBITDA	94.3	65.0	45
Corporate and development costs	(10.4)	(7.0)	(49)
Movement in LGC inventory	(22.9)	(14.1)	(62)
Movement in other working capital	(3.5)	(5.7)	39
Financing costs and taxes paid	(24.6)	(27.3)	10
Net operating cash flow	**33.0**	**10.9**	**203**

Net operating cash flow was up $22.1 million from $10.9 million due to higher operating EBITDA (+$29.3 million), lower financing costs (+$2.7 million) and lower movement in working capital (+$2.2 million), partially offset by an unfavourable movement in LGC inventory (-$8.8 million), and higher corporate and development costs (-$3.4 million).

Distributions

No distributions have been declared for the six months ended 31 December 2016.

CAPITAL STRUCTURE

Debt

Total debt (including capitalised loan costs[11]) at 31 December 2016 was $709.9 million comprising Global Facility borrowings of $677.1 million and Woodlawn facility borrowings of $37.2 million. This was $32.6 million lower than the pcp. During the six months Infigen repaid $34.6 million of Global Facility borrowings and $2.7 million of Woodlawn facility borrowings. The depreciation of the AUD against the USD resulted in a $4.6 million unfavourable FX movement on foreign currency denominated borrowings.

The Global Facility is a multi-currency facility with outstanding USD, EUR and AUD balances. The outstanding balances at 31 December 2016 were US$97.2 million, EUR7.7 million and AUD $531.0 million. At 31 December 2016, Infigen held foreign currency cash balances of US$75.2 million and EUR12.3 million.

The Global Facility leverage ratio covenant was satisfied at 31 December 2016 (i.e. less than 6.0 times). Infigen expects to continue to satisfy the Global Facility leverage ratio covenant in conformity with the terms of the facility (i.e. less than 6.0 times from 31 December 2016 until the next step-down from July 2019).

In reviewing its corporate structure Infigen has concluded that various restrictive covenants under the Global Facility apply to the activities of the Infigen Energy Trust. This differs from the prior understanding and corresponding disclosure. For further information refer to page 1 (Corporate Structure) of *the Interim Financial reports for the half-year ended 31 December 2016*.

Net Debt

Net debt decreased from $594.9 million at 30 June 2016 to $565.2 million at 31 December 2016. The net movement of $29.7 million was due to debt repayments and lower cash balance.

Equity

Total equity increased 14% from $280.6 million at 30 June 2016 to $318.9 million at 31 December 2016. The increase of $38.3 million is attributable to:

- Net profit for the half year (+$21.4 million)
- Movement in reserves (+$9.6 million)
- Movement in issue of equity securities (+$7.3 million)

During the six months the number of securities on issue increased by 8,108,219 to 780,577,365. The securities were issued to satisfy vested Performance Rights in accordance with the Infigen Energy Equity Plan.

Gearing

The following table provides a comparison of Infigen's book gearing at 30 June 2016 and 31 December 2016. A summarised balance sheet is provided in Appendix A.

Position at ($M)	31 Dec 2016	30 June 2016	Change %
Net debt	565	595	(5)
Total equity	319	281	14
Book gearing	64%	68%	4 ppts

[11] Capitalised loan costs accounted for $4.4 million as at 31 December 2016 and $5.1 million as at 30 June 2016.

DEVELOPMENT

Infigen's development pipeline comprises equity interests of approximately 1,300 MW of large-scale wind and solar PV projects (86% of which have planning approval) in Australia. Details of the projects are included in Appendix C.

Projects in Infigen's development pipeline can be tailored to combine different elements of risk and returns; geography and market; and project size and technology. During the period Infigen continued to pursue opportunities to supply renewable energy through procurement processes and bilateral discussions.

Substantial progress has been made on advancing the Bodangora wind farm development project and positioning it for a final investment decision.

Infigen also expanded its prospecting activities and added approximately 200 MW of solar projects in early stages in the Northern Territory and Queensland.

APPENDIX A – BALANCE SHEET

Position at ($M)	31 Dec 2016	30 Jun 2016
Cash	144.7	147.6
Receivables	18.5	24.1
Inventory of LGCs	43.5	20.6
Property, plant and equipment	760.7	783.8
Goodwill and intangible assets	121.3	122.7
Investments in associates	1.4	1.3
Deferred tax assets and other assets	33.0	52.4
Total assets	**1,123.1**	**1,152.5**
Payables	9.2	17.4
Provisions	9.7	11.3
Borrowings	709.9	742.5
Derivative liabilities	75.5	100.8
Total liabilities	**804.2**	**872.0**
Net assets	**318.9**	**280.6**

Foreign exchange rates	31 Dec 2016	30 Jun 2016	Change %
AUD:USD (closing rate)	0.7208	0.7457	(3)
AUD:EUR (closing rate)	0.6843	0.6724	2

APPENDIX B – OPERATIONAL ASSETS

Asset	State	Commercial operation date	Nameplate capacity (MW)	H1 FY17 average output[12]	FY17 marginal loss factor[13]	O&M services agreement end date	Power contracted	LGCs contracted	Power/LGC contract end date	Customer
Alinta wind farm	WA	Jul 2006	89.1	46%	0.9519	Post-warranty: Dec 2017	100%	100%	Power: Dec 2026 LGC: Jan 2021	Power: Alinta Energy LGC: Alinta Energy & AGL
Capital wind farm	NSW	Jan 2010	140.7	35%	0.9931	Post-warranty: Dec 2017[14]	90-100%	50-100%[15]	Power & LGC: Dec 2030	SDP & merchant
Lake Bonney 1 wind farm	SA	Mar 2005	80.5	32%	0.8768	Post-warranty: Dec 2017	-	-	-	Merchant
Lake Bonney 2 wind farm	SA	Sep 2008	159.0	33%	0.8768	Post-warranty: Dec 2017	-	-	-	Merchant
Lake Bonney 3 wind farm	SA	Jul 2010	39.0	34%	0.8768	Post-warranty: Dec 2017	100%	-	Power: Dec 2018	Power: Alinta Energy LGC: merchant
Woodlawn wind farm	NSW	Oct 2011	48.3	42%	0.9931	Post-warranty: Dec 2017[14]	-	100%	LGC: Sep 2020	Power: merchant LGC: Origin Energy
Total			**556.7**	**36%**						

[12] Average percentage of nameplate capacity.
[13] Australian Energy Market Operator (AEMO) published annual marginal loss factors (available at http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Security-and-reliability/-/media/EC6AF881593F4DB7B10F6286F3AD1004.ashx).
[14] Infigen has option to extend to December 2022.
[15] Effectively all output is contracted when Sydney Desalination Plant (SDP) is operating. Approximately 50% of LGCs are sold on a merchant basis when the plant is not operating.

APPENDIX C - DEVELOPMENT PIPELINE

Development project	State / Territory	Capacity (MW)	Planning status	Approval date	Connection status
Batchelor solar farm	NT	10	In progress	N/A	Intermediate
Bluff solar farm	QLD	~100	In progress	N/A	Intermediate
Bodangora wind farm[16]	NSW	~113	Approved	Aug 2013	Advanced
Bogan River solar farm	NSW	12	Approved	Dec 2010	Intermediate
Bowen solar farm	QLD	30-40	In progress	N/A	Intermediate
Capital solar farm	NSW	50	Approved	Dec 2010	Offer received
Capital 2 wind farm	NSW	90-100	Approved	Nov 2011	Offer received
Cherry Tree wind farm	VIC	45-55	Approved	Nov 2013	Advanced
Cloncurry solar farm	QLD	30	In progress	N/A	Early
Flyers Creek wind farm	NSW	100-115	Approved	Mar 2014	Intermediate
Forsayth wind farm[16]	QLD	~70	Approved	Feb 2014	Advanced
Manildra solar farm[17]	NSW	40-50	Approved	Mar 2011	Advanced
Manton Dam solar farm	NT	12	In progress	N/A	Intermediate
Mt Benson wind farm	SA	150	Approved	Jun 2012	Early
Walkaway 2 wind farm[18]	WA	41	Approved	Dec 2008	Intermediate
Walkaway 2 solar farm[18]	WA	45	Approved	July 2016	Intermediate
Walkaway 3 wind farm[18]	WA	~310	Approved	Dec 2008	Early
Woakwine wind farm	SA	~300	Approved	Jun 2012	Intermediate
Total (Infigen equity interests)		**~1,300**			

[16] Infigen has a 50% equity interest.
[17] Infigen entered into a letter of intent regarding co-development and potential sale of the Manildra solar development project. Infigen expects to receive a $4 million profit from the sale of the project.
[18] Infigen has a 32% equity interest.