LAUGFS POWER LIMITED

Research Report

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Prepared by

CAPITAL ALLIANCE PARTNERS LIMITED

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Sri Lanka

We, Capital Alliance Partners Limited ("CAL") hereby declare that we possess the requisite expertise to perform reports of this nature involving a company quoted categorized under the Power and Energy Sector

Table of Contents

Glossary of Terms and Abbreviations 4

1.0 Introduction 6

1.1 Executive Summary 6

1.2 Valuation Summary and Recommended Reference Price 6

2.0 Overview - LAUGFS Power Limited 7

3.0 Industry Overview 8

3.1 Background 8

3.2 Future Outlook 9

4.0 Financial Forecasts and Assumptions 11

4.1 Revenue forecasts and Assumptions 11

4.2 Cost of Sales forecasts and assumptions 13

4.3 Administrative Expenses 16

4.4 Finance Costs 16

4.5 Finance Income 16

4.6 Taxation 17

4.7 Capex 18

4.8 Depreciation 18

4.9 Working Capital 18

5.0 Valuation Methodology 19

5.1 EV/MW Relative 19

5.2 P/E Relative 19

5.3 Discounted Cash Flow (DCF) Method 19

5.4 Equity Value Allocation 20

6.0 Valuation Results 22

6.1 EV/MW Relative 23

6.2 P/E Relative 24

6.3 Discounted Cash Flow (DCF) Method 25

6.4 Voting and non-voting premium/discount calculation 30

7.0 Forecast Financial Highlights 31

7.1 Anorchi 31

7.2 Iris Eco 31

7.3 Pams Power 31

7.4 Ginigathena 31
7.5 Ranmudu Oya 31
8.0 Individuals Materially Participating in the Valuation Assignment 32
9.0 Disclaimer 33

Glossary of Terms and Abbreviations

AWPLR	Average Weighted Prime Lending Rate
BOO	Build, Operate and Own mechanism
BOI	Board of Investment of Sri Lanka
C.	Circa (Approximately)
CAL	Capital Alliance Partners Limited
CAGR	Compound Annual Growth Rate
CBSL	Central Bank of Sri Lanka
CEB	Ceylon Electricity Board
Comps	Comparable Companies to LAUGFS Power Limited
CSE	Colombo Stock Exchange
DCF	Discounted Cash Flow
EBIT	Earnings Before Interest & Tax
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortization
EPS	Earnings Per Share
EQRP	Equity Risk Premium
EV	Enterprise Value
FCFF	Free Cash flow to Firm
FY	Financial Year
GWh	Gigawatt hours
GGM	Gordon Growth Model
IPP	Independent Power Producers
IRD	Inland Revenue Department
Ke	Cost of Equity
KW	Kilowatt
kWh	Kilowatt hour
LAUGFS Power/LPL/the Company	LAUGFS Power Limited
LECO	Lanka Electricity Company (Pvt) Ltd
LKR	Sri Lankan Rupee
LKRm	Sri Lanka Rupee (in million)
LNG	Liquefied Natural Gas
Mn	Million
MW	Megawatt
NAV	Net Asset Value
NBV	Net Book Value
NCI	Non-Controlling Interest

Ordinary Voting Shares	Ordinary voting shares of LAUGFS Power Limited
Ordinary Non-voting Shares	Ordinary Non-voting shares of LAUGFS Power Limited
ORE	Other Renewable Energy Sources
P/E	Price to Earnings Ratio
PER	Price to Earnings Ratio
PPA	Power Purchase Agreement
PPE	Property, Plant and Equipment
PPP	Private Power Producers
P/BV	Price to Book Value Ratio
Peers	Comparable Companies to LAUGFS Power Limited
PLF	Plant Load Factor
PUCSL	Public Utilities Commission of Sri Lanka
Rf	Risk Free Rate
Shareholders	Shareholders of LAUGFS Power Limited
SOTP	Sum of the Parts
SPPA	Standardized Power Purchase Agreement
TGR	Terminal Growth Rate
TTM	Trailing Twelve Months
WACC	Weighted Average Cost of Capital
YoY	Year on Year

1.0 Introduction

1.1 Executive Summary

CAL valued LAUGFS Power Limited ("LPL"/ "Company") using a few fundamental valuation methods: EV/MW Relative, P/E Relative, and DCF Analysis. Considering LPL's business operations and the industry in which the Company operates, an EV/MW multiple was considered due to its appropriateness as a valuation technique for power companies. However, lack of listed power companies with solar power plants has limited CAL's reliance on multiple based valuations. DCF was considered as it captures the future potential and profitability of the Company. For comparative purposes and to provide a range of the potential value of LPL's shares, CAL also considered P/E multiples. CAL did not adopt an asset-based valuation method in deriving the value of LPL, since it does not consider the future earnings potential of the business. For going concerns, the real value of the business may be higher than selling its assets on a piecemeal basis, as the future potential of business operations is not reflected on the balance sheet.

In accordance with Section 3.4.8 b (iii) of the CSE Listing Rules, CAL has prepared this research report to provide the basis behind the reference price for the listing of the ordinary voting shares and the ordinary non-voting shares of the Company.

1.2 Valuation Summary and Recommended Reference Price

The table below sets out the findings from the valuation methodologies mentioned above. Please refer Section 6.0 – Valuation Results for a more detailed discussion.

Method	Intrinsic Value of Equity (LKR)	Weight	Value Per Share (LKR)	
			Voting	Non-Voting
DCF	4,112,179,751	40%	10.63	8.33
EV/MW Relative	3,152,806,978	30%	8.15	6.38
P/E Relative	2,735,551,119	30%	7.07	5.54
Average Value Per Share			**8.81**	**6.91**

The intrinsic value of LPL's shares is within the range of LKR 7.07 to LKR 10.63 per share for voting shares and LKR 5.54 to LKR 8.33 per share for non-voting shares. Based on the Company's business operations, the industry and the trading multiples of peer companies, CAL concludes that LPL voting shares would have a fair value of c. LKR 8.81 per share and LKR 6.91 per non-voting share. Hence, we recommend **LKR 8.80 per voting share and LKR 6.90 per non-voting share as the reference price.**

2.0 Overview - LAUGFS Power Limited

LAUGFS Power Limited (LPL) was incorporated in 2006 as a fully owned subsidiary of LAUGFS Gas PLC (LGL) for the purpose of creating a standalone entity to operate in the renewable energy space. LPL commissioned its first mini hydro power plant in Balangoda with a 0.5 MW capacity.

LPL presently has four 100% owned subsidiaries that are involved in power generation via solar and mini hydro sources. The group's current total capacity is 23.75 MW out of which 20MW is generated via solar sources and the remainder being generated via mini hydro.

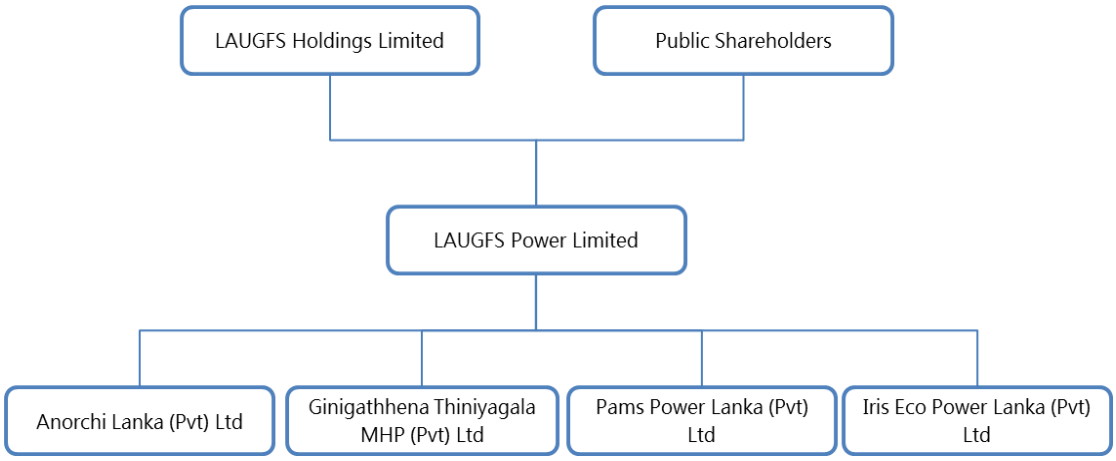
Table 2.1: LAUGFS Power Limited – Projects in commercial operation

Holding Company	Project	Type	Capacity
Anorchi Lanka (Pvt) Ltd	Anorchi SP	Solar	10.00 MW
Iris Eco Power Lanka (Pvt) Ltd	Iris Eco SP	Solar	10.00 MW
Ginigathhena Thiniyagala MHP (Pvt) Ltd	Ginigathhena MHP	Hydro	0.70 MW
Pams Power Lanka (Pvt) Ltd	Pams Power MHP	Hydro	2.00 MW
LAUGFS Power Ltd	Ranmudu Oya Phase 1	Hydro	0.50 MW
LAUGFS Power Ltd	Ranmudu Oya Phase 2	Hydro	0.55 MW

After the commissioning of the first mini hydro power plant in 2014, LPL entered a stage of rapid growth and acquired Ginigathhena Thiniyagala Mini Hydro Power (Pvt) Ltd, Anorchi Lanka (Pvt) Ltd, Iris Eco Power Lanka (Pvt) Ltd and Pams Power (Pvt) Ltd in 2015. All power plants acquired commenced operations in FY2017 with the exception of Pams Power Lanka (Pvt) Ltd, which is expected to commence operations in October 2019.

The commissioning of the solar plants with a capacity of 20MW in February 2017 positions LAUGFS Power as one of the leading renewable power sector players in the country with the largest solar power capacity in Sri Lanka.

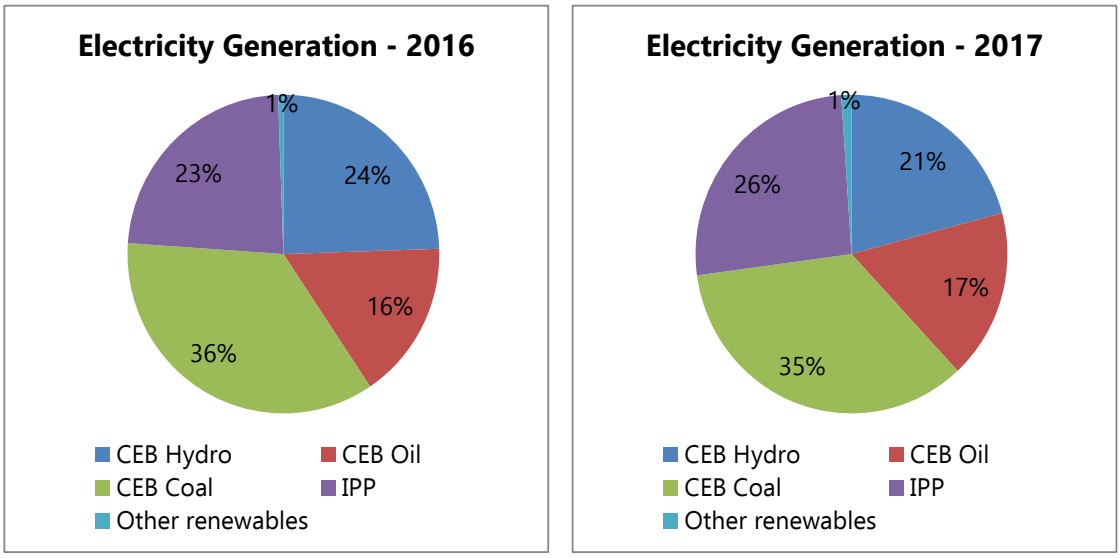
Figure 2.1: LAUGFS Power Limited – Holding Structure



3.0 Industry Overview

3.1 Background

Thermal Power and Hydro Power account for over 90% of the energy production in Sri Lanka. The remaining is made up of Mini Hydro, Wind, Solar and Dendro Power sources. The net generation for 2017 was 14,671, up 3.7% from the net generation for 2016 of 14,148 GWh[1]. By the end of year 2017 the Sri Lanka Power system had a total installed capacity of 4,084 MW[1].



Source: CEB Statistical Digest, 2017
https://www.ceb.lk/front_img/img_reports/1536209909CEB_Statistical_Digest_2017_-_Web.pdf

The electricity sector in Sri Lanka is governed by the Sri Lanka Electricity Act, No. 20 of 2009 amended by Act No. 31 of 2013 [1]. The Electricity Act empowers The Public Utilities Commission of Sri Lanka (PUCSL) established by the PUCSL Act No. 35 of 2002 which presently regulates the industry.

Ceylon Electricity Board (CEB), established by CEB Act No. 17 of 1969 (as amended), is responsible for most of the generation and distribution licenses while being the sole licensee for transmission. With a majority stake of 55.2%[2] in Lanka Electricity Company (Pvt) Ltd (LECO), the only other on-grid electricity company in Sri Lanka, CEB almost has a monopoly of the market. In 2017 CEB accounted for 72.9%[1] of electricity generated.

The remaining electricity is produced by Independent Power Producers (IPP) or Private Power Producers (PPP) who have agreements with the CEB to produce energy from sources such as Mini Hydro, Thermal, Wind and Other Renewable Energy sources. Presently 34.9%[1] of the electricity generated by PPPs is from Renewable Energy Sources.

[1] *Source: CEB Statistical Digest, 2017*
https://www.ceb.lk/front_img/img_reports/1536209909CEB_Statistical_Digest_2017_-_Web.pdf
[2] *Source: Least Cost Long Term Generation Expansion Plan (LCLTGEP) 2018-2037*

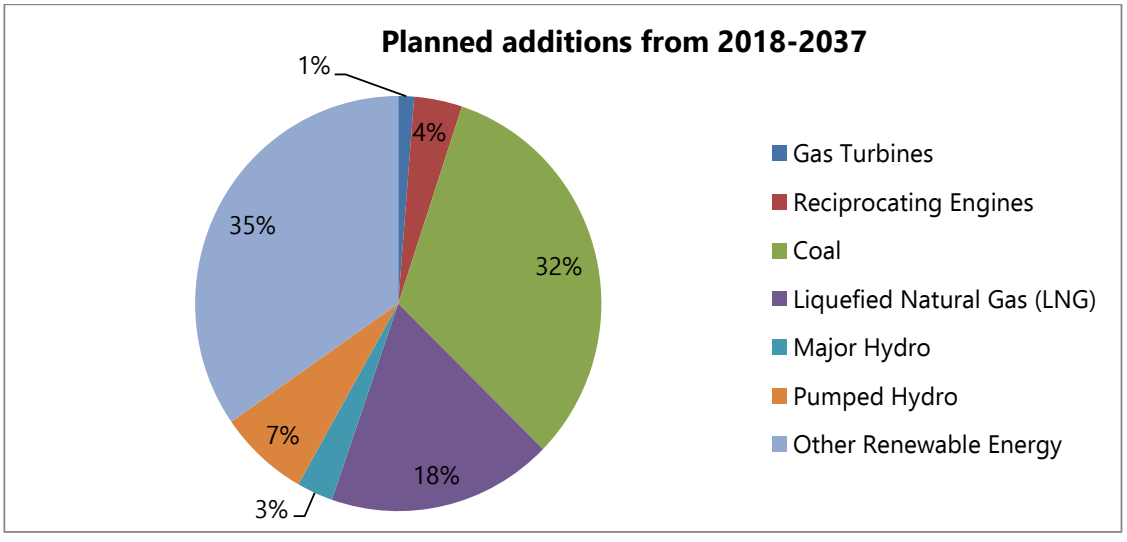
Table 3.1 – Operational Summary

	Unit	2016	2017	Change YoY (%)
No. of Power Stations (with PPPs)	No	232	247	6.5%
Installed Capacity (with PPPs)	MW	4,018	4,087	1.7%
Maximum Demand (with PPPs)	MW	2,453	2,523	2.9%
Net Generation (with PPPs)	GWh	14,148	14,671	3.7%
Trans. & Distri. Losses (on Net Generation)	%	9.63	8.45	-1.2
Gross Units Sold	GWh	12,785	13,431	5.1%
Avg. Selling Price per Unit	LKR/kWh	16.18	16.26	0.5%
Avg. Cost per Unit	LKR/kWh	18.08	20.34	12.5%
No. of Households Electrified	No	277,038	181,627	-34.4%
Avg. Electricity Consumption per Capita	kWh/person	603	626	3.8%

Source: CEB Statistical Digest, 2017
https://www.ceb.lk/front_img/img_reports/1536209909CEB_Statistical_Digest_2017_-_Web.pdf

3.2 Future Outlook

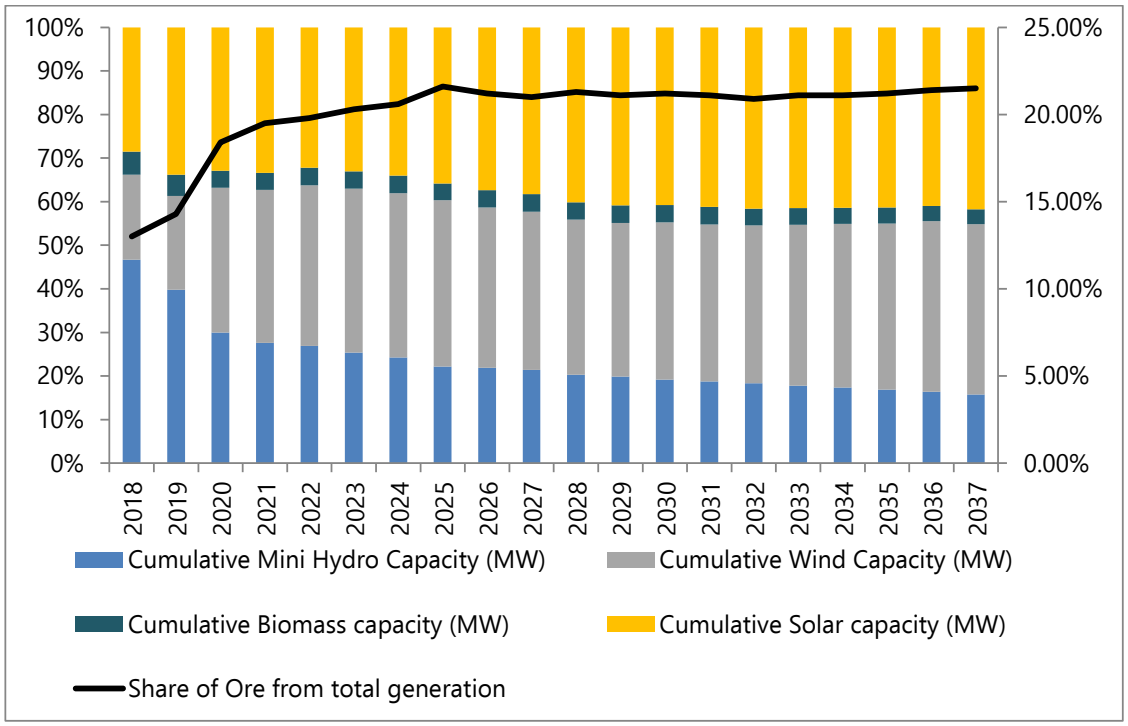
According to the Long-Term Generation Expansion Plan, CEB projects electricity demand and generation in Sri Lanka to increase at an average rate of 4.84% in the period starting from 2018 going up to 2042. It is expected that demand will grow at a higher rate of 6.8% in the next three years after which the growth rate will stabilize at 5% for 10 years before reducing further thus resulting in an average growth rate of 6.08% for the next 5 years. While the supply mix of the energy generation will still be dominated by thermal sources, significant investment can be expected to be made in other renewable energy sources (ORE) leading to an increase in the share of electricity generation from such Other Renewable Energy sources from 13% in 2018 to 22% in 2037.



Source: Least Cost Long Term Generation Expansion Plan (LCLTGEP) 2018-2037

The expansion in Other Renewable Energy going forward will be primarily based upon the expansion of Non-Conventional Renewable Energy such as Solar Power and Wind Power as opposed to Mini

Hydro sources on which the country previously focused on. Wind capacity is expected to increase by 9.4x whereas Solar capacity is expected to increase by 6.9x 2037.



Source: Least Cost Long Term Generation Expansion Plan (LCLTGEP) 2018-2037

Some of the key projects identified as the main contributors towards the proposed expansion of ORE capacity are the Mannar Wind Farm Project, Rooftop solar projects and the 60 X 1MW Solar PV project in line with the accelerated solar development plan of the government of Sri Lanka.

The increasing need for generation capacity to meet growing demand has resulted in both local and international investors showing a keen interest in the industry. The Build, Operate and Own mechanism (BOO) adopted by the government has translated well for both the investors and the country, increasing opportunities for investors to cater to growing demand for electricity in Sri Lanka.

4.0 Financial Forecasts and Assumptions

CAL forecasted the financial statements of LPL based on the audited financial statements and management accounts of LPL. Key inputs from management were also obtained in order to better understand the business operations of the Company. The forecast financial performance also took into consideration the future outlook of the power and energy sector in Sri Lanka.

CAL, the Manager to the Introduction, has established that the assumptions used in the forecasts and outlook given in this report are fair and reasonable to the best of its knowledge.

CAL forecasted the financial statements of each company under LPL until the expiry of the PPAs of each power plant. The assumptions used for the remaining forecasting period beyond FY22F are consistent throughout the forecasting period as per the basis provided under this section.

4.1 Revenue forecasts and Assumptions

Group Revenue (LKR Mn)

FYE 31 March	FY18	FY19	FY20F	FY21F	FY22F
Revenue from Anorchi	509	446	502	500	498
Revenue from Iris	506	447	499	498	496
Revenue from Pams Power	-	-	46	93	93
Revenue from Ginigathena	16	16	36	36	36
Revenue from Ranmudu Oya	37	58	64	65	66
Total	**1,068**	**967**	**1,148**	**1,192**	**1,189**

Revenue generated from Solar Plants

CAL has forecasted the revenue for both the solar plants, based on the equipment specifications of the solar panels, and the irradiation in the area. Since both plants have identical capacity, use similar equipment and are located in the same area, with the same horizontal irradiation levels, the electricity generated throughout their lifecycle is assumed to be similar or identical. The plants having identical tariff structures result in similar or identical revenue for both plants. Based on the location and equipment used, CAL has estimated the Plant Load Factor (PLF)* of the two solar plants to be 25%.

**Plant Load Factor is a measure of the output of a power plant compared to the maximum output it could produce.*

Revenue generated from Anorchi

	FY18	FY19	FY20F	FY21F	FY22F
Power Plant Capacity in kW	10,000	10,000	10,000	10,000	10,000
Number of Days in Operation	365	365	365	365	365
Total Radiation Collection Area (Sq. metres)	80,718	80,718	80,718	80,718	80,718
Annual Average Global Horizontal Irradiation (kWh/Sq. metre)	2,003	2,003	2,003	2,003	2,003
Solar Module Efficiency	15.5%	15.4%	15.3%	15.2%	15.2%
Annual Degradation Factor	0.0%	1.0%	0.4%	0.4%	0.4%
Performance Ratio	88%	88%	88%	88%	88%
Electricity Generated (000)	22,017	19,322	21,721	21,645	21,569
Tariff Rate	23.10	23.10	23.10	23.10	23.10

Total Revenue (LKR Mn)	**509**	**446**	**502**	**500**	**498**

Revenue generated from Iris

	FY18	FY19	FY20F	FY21F	FY22F
Power Plant Capacity in kW	10,000	10,000	10,000	10,000	10,000
Number of Days in Operation	365	365	365	365	365
Total Radiation Collection Area (Sq. metres)	80,718	80,718	80,718	80,718	80,718
Annual Average Global Horizontal Irradiation (kWh/Sq. metre)	2,003	2,003	2,003	2,003	2,003
Solar Module Efficiency	15.5%	15.4%	15.3%	15.2%	15.2%
Annual Degradation Factor	0.0%	1.0%	0.4%	0.4%	0.4%
Performance Ratio	87%	87%	87%	87%	87%
Electricity Generated (000)	21,915	19,332	21,620	21,544	21,469
Tariff Rate	23.10	23.10	23.10	23.10	23.10
Total Revenue (LKR Mn)	**506**	**447**	**499**	**498**	**496**

Revenue generated from Hydro plants

Revenue for hydro plants is based on their respective capacities and Plant Load Factors (PLF). The PLFs have been arrived at based on feasibility studies and historical performance provided such performance details were available. However, performance of FY16 and FY17 has been ignored in arriving at the PLF due to the said years reporting the worst drought experienced in the country in the last 40 years.

Revenue generated from Pams Power[1]

	FY18	FY19	FY20F	FY21F	FY22F
Power Plant Capacity in kW	2,000	2,000	2,000	2,000	2,000
Number of Days in Operation	-	-	180	365	365
Annual Energy Generation Capacity in kWh (000)	-	-	8,640	17,520	17,520
Plant Load Factor	40%	40%	40%	40%	40%
Annual Electricity Generation in kWh (000)	-	-	3,456	7,008	7,008
Fixed Tariff Rate	13.32	13.32	13.32	13.32	13.32
Total Revenue (LKR Mn)	**-**	**-**	**46**	**93**	**93**

[1]A group of five individuals has filed a case (Magistrate's Court of Hatton case bearing no. 10545) under the allegation that the mini hydro project of Pams Power (Private) Limited is posing a Public Nuisance. This matter is still pending in Court.

It is highly unlikely this particular case would have a detrimental effect on the project since there is no public nuisance caused by the project. In the event that the case is decided against the Company, LPL may be forced to remove the weir and the power plant would become non-operational.

Revenue generated from Ginigathena

	FY18	FY19	FY20F	FY21F	FY22F
Power Plant Capacity in kW	700	700	700	700	700
Number of Days in Operation	365	365	365	365	365
Annual Energy Generation Capacity in kWh (000)	6,132	6,132	6,132	6,132	6,132
Plant Load Factor	20%	22%	45%	45%	45%
Annual Electricity Generation in kWh (000)	1,248	1,255	2,759	2,759	2,759
Fixed Tariff Rate	13.04	13.04	13.04	13.04	13.04

Total Revenue (LKR Mn)	16	16	36	36	36

Revenue generated from Ranmudu Oya

	FY18	FY19	FY20F	FY21F	FY22F
Phase I					
Power Plant Capacity in kW	500	500	500	500	500
Number of Days in Operation	365	365	365	365	365
Annual Energy Generation Capacity in kWh (000)	4,380	4,380	4,380	4,380	4,380
Plant Load Factor	30%	35%	45%	45%	45%
Annual Electricity Generation in kWh (000)	1,314	1,528	1,971	1,971	1,971
Grid Availability	99%	99%	99%	99%	99%
Fixed Tariff Rate	13.04	13.04	13.04	13.04	13.04
Phase III					
Power Plant Capacity in kW	550	550	550	550	550
Number of Days in Operation	365	365	365	365	365
Annual Energy Generation Capacity in kWh (000)	4,818	4,818	4,818	4,818	4,818
Plant Load Factor	24%	45%	45%	45%	45%
Annual Electricity Generation in kWh (000)	1,161	2,168	2,168	2,168	2,168
Grid Availability	99%	99%	99%	99%	99%
Three Tier Tariff	17.79	18.04	18.31	18.61	18.95
Total Revenue (LKR Mn)	**37**	**58**	**64**	**65**	**66**

4.2 Cost of Sales forecasts and assumptions

FYE 31 March	FY18	FY19	FY20F	FY21F	FY22F
COS- Anorchi	118	133	134	134	134
COS- Iris	118	132	133	133	133
COS- Pams Power	-	-	30	34	34
COS- Ginigathena	11	12	12	13	13
COS- Ranmudu Oya	17	17	21	22	23
Total	**265**	**295**	**330**	**335**	**337**

Cost of Sales Anorchi (LKR Mn)

	FY18	FY19	FY20F	FY21F	FY22F
Depreciation	105	105	106	106	106
Operating and Maintenance Expenses	9	23	23	23	23
YoY	0%	172%	0%	0%	0 %
Electricity Charges	2	1	1	1	1
YoY	0%	-11%	5%	5%	5%
Telephone Charges	1	1	1	1	1
YoY	0%	0.07%	0.07%	0.07%	0.07%
Insurance	1	2	2	2	2
As a % of PPE	0%	-7%	5%	5%	5%
Cost of Sales	**118**	**133**	**134**	**134**	**134**

Cost of Sales Iris (LKR Mn)

	FY18	FY19	FY20F	FY21F	FY22F
Depreciation	106	106	107	107	107
Operating and Maintenance Expenses	7	21	21	21	21
YoY	0%	0%	0%	0%	0%
Electricity Charges	3	1	1	1	1
YoY	0%	-31%	5%	5%	5%
Telephone Charges	1	1	1	1	1
YoY	0%	0.07%	0.07%	0.07%	0.07%
Insurance	1	3	3	3	3
As a % of PPE	0%	-9%	5%	5%	5%
Cost of Sales	**118**	**132**	**133**	**133**	**133**

Cost of Sales Pams Power (LKR Mn)

	FY18	FY19	FY20F	FY21F	FY22F
Wages and Salaries	-	-	1	2	2
Number of Employees	-	-	6	6	6
Average Cost per Employee (LKR 000)	-	-	300	324	350
YoY			8%	8%	8%
EPF, ETF & Gratuity	-	-	0.1	0.3	0.3
As a % of Basic Wages and Salaries	15%	15%	15%	15%	15%
Other Staff Related Expenses	-	-	0.2	0.3	0.3
Number of Employees	-	-	6	6	6
Average Exp. per Employee (LKR 000)	-	-	0	0	0
YoY			8%	8%	8%
Overtime	-	-	0.7	1.5	1.6
As a % of Basic Wages and Salaries	75%	75%	75%	75%	75%
Plant and Machinery Maintenance	-	-	1	1	1
As a % of PPE	0.0%	0.2%	0.2%	0.2%	0.2%
Depreciation	-	-	28	29	29
As a % of total depreciation	87%	87%	87%	87%	87%
Cost of Sales	**-**	**-**	**30**	**34**	**34**

Cost of Sales Ginigathena (LKR Mn)

	FY18	FY19	FY20F	FY21F	FY22F
Wages and Salaries	2	2	3	3	3
Number of Employees	8	8	8	8	8
Average Cost per Employee (LKR 000)	228	300	324	350	378
YoY	13.00%	8.00%	8.00%	8.00%	8.00%
EPF, ETF & Gratuity	0.2	0.3	0.3	0.4	0.4
As a % of Basic Wages and Salaries	13.33%	13.33%	13.33%	13.33%	13.33%
Other Staff Related Expenses	-	-	-	-	-
Number of Employees	8	8	8	8	8
Average Cost per Employee (LKR 000)	0	0	0	0	0
YoY	0.00%	0.00%	0.00%	0.00%	0.00%
Overtime	1	1	1	1	1
As a % of Basic Wages and Salaries	49.96%	38.63%	38.63%	38.63%	38.63%
Plant and Machinery Maintenance	0.41	0.22	0.33	0.33	0.33
As a % of PPE	0.24%	0.20%	0.20%	0.20%	0.20%
Depreciation	8.04	8.04	8.05	8.05	8.05
As a % of total depreciation	99.93%	99.93%	99.93%	99.93%	99.93%
Insurance	0.0	0.0	0.0	0.0	0.0
As a % of PPE	0.01%	0.01%	0.01%	0.01%	0.01%
Other	0	-	-	-	-
YoY	0.00%	0.00%	0.00%	0.00%	0.00%
Cost of Sales	**11**	**12**	**12**	**13**	**13**

Cost of Sales Ranmudu (LKR Mn)

	FY18	FY19	FY20F	FY21F	FY22F
Wages and Salaries	3	3	3	3	4
Number of Employees	12	12	12	12	12
Average Cost per Employee (LKR 000)	215	248	268	289	312
YoY	8%	15%	8%	8%	8%
EPF, ETF & Gratuity	0.4	0.4	0.5	0.5	0.6
As a % of Basic Wages and Salaries	15%	15%	15%	15%	15%
Other Staff Related Expenses	1	0	0	0	1
Number of Employees	12	12	12	12	12
Average Cost per Employee (LKR 000)	43	36	38	40	42
YoY	8%	-17%	5%	5%	5%
Overtime	2	2	2	2	2
As a % of Basic Wages and Salaries	76%	71%	65%	65%	65%
Plant and Machinery Maintenance	2	1	1	1	1
As a % of PPE	0.9%	0.3%	0.3%	0.3%	0.3%
Depreciation	8	11	14	14	14
As a % of total depreciation	59%	72%	72%	72%	72%
Electricity Charges	0.1	0.11	0.11	0.12	0.13
YoY	-4%	5%	5%	5%	5%
Land rent	1	0.0	0.0	0.0	0.0
YoY	0%	5%	5%	5%	5%
Cost of Sales	**17**	**17**	**21**	**22**	**23**

4.3 Administrative Expenses

Administrative expenses of the plants mainly consist of staff salaries, other staff related expenses, utilities, rent, insurance, BOI registration in the case of the solar plants and other general administration overheads. CAL assumed each of the administrative expenses to grow at appropriate rates of growth based on past annual reports and management discussions that results in overall administrative expenses as outlined below.

Administrative Expenses (LKR Mn)

FYE 31 March	FY18	FY19	FY20F	FY21F	FY22F
Admin cost from Anorchi	8	25	26	27	29
Admin cost from Iris	7	25	26	28	29
Admin cost from Pams Power	6	6	13	17	18
Admin cost from Ginigathena	1	2	2	2	2
Admin cost from Ranmudu Oya	36	58	61	64	67
Total	**59**	**116**	**129**	**140**	**146**

4.4 Finance Costs

CAL forecasted finance costs for the plants as a percentage of total average borrowings. The borrowing costs are in the average floating range of AWPLR+1% to AWPLR+2%. CAL assumed the same rates to continue for the forecast period as well.

Finance Cost (LKR Mn)

FYE 31 March	FY18	FY19	FY20F	FY21F	FY22F
Finance cost- Anorchi	207	194	154	135	118
Finance cost- Iris	189	172	144	124	106
Finance cost- Pams Power	0	0	0	0	0
Finance cost- Ginigathena	7	5	6	5	3
Finance cost- Ranmudu Oya	11	13	12	8	6
Total	**413**	**385**	**316**	**272**	**233**

4.5 Finance Income

CAL has calculated finance income assuming the opening cash balance for each plant will bring a return of 2%-8% every year by way of interest income.

Finance Income (LKR Mn)

FYE 31 March	FY18	FY19	FY20F	FY21F	FY22F
Finance income- Anorchi	1.2	7.7	0.5	0.1	0.0
Finance income- Iris	1.2	3.0	0.5	0.1	0.0
Finance income- Pams Power	0.1	0.0	0.0	0.0	0.0
Finance income- Ginigathena	-	-	0.0	0.0	0.0
Finance income- Ranmudu Oya	3.1	1.0	1.1	0.6	4.4
Total	**5.6**	**11.7**	**2.1**	**0.7**	**4.5**

4.6 Taxation

Both solar power plants enjoy BOI tax concessions for the first 12 years after which they are taxed at the normal rate of 28%.

In the case of hydro plants all three plants will have a temporary concessionary rate of 14% for the next 3 years after which the tax rate will be 28% as per the IRD Act.

Taxation Anorchi (LKR Mn)

	FY18	FY19	FY20F	FY21F	FY22F
Profit before income tax	177	102	189	203	218
Finance income	1	8	1	0	0
Profit to be taxed at 0%/28%	176	94	188	203	218
Tax rate	0%	0%	0%	0%	0%
Tax on business operations	-	-	-	-	-
Tax rate for other and finance income	28%	28%	28%	28%	28%
Tax for other and finance income	0	2	0	0	0
Total Tax	**0**	**2**	**0**	**0**	**0**

Taxation Iris (LKR Mn)

	FY18	FY19	FY20F	FY21F	FY22F
Profit before income tax	193	120	197	213	228
Finance income	1	3	0	0	0
Profit to be taxed at 0%/28%	191	117	197	213	228
Tax rate	0%	0%	0%	0%	0%
Tax on business operations	-	-	-	-	-
Tax rate for other and finance income	28%	28%	28%	28%	28%
Tax for other and finance income	0	1	0	0	0
Total Tax	**0**	**1**	**0**	**0**	**0**

Taxation Pams Power (LKR Mn)

	FY18	FY19	FY20F	FY21F	FY22F
Profit before income tax	(6)	(10)	2	42	41
Finance income	0	0	0	0	0
Profit to be taxed at 14%/28%	(7)	(10)	2	42	41
Tax rate	14%	14%	14%	14%	28%
Tax on business operations	(1)	(1)	0	6	11
Tax rate for other and finance income	28%	28%	28%	28%	28%
Tax for other and finance income	0	0	0	0	0
Total Tax	**(1)**	**(1)**	**0**	**6**	**11**

Taxation Ginigathena (LKR Mn)

	FY18	FY19	FY20F	FY21F	FY22F
Profit before income tax	(3)	(3)	16	16	17
Finance income	-	-	0	0	0
Profit to be taxed at 14%/28%	(3)	(3)	16	16	17
Tax rate	14%	14%	14%	14%	28%
Tax on business operations	-	-	2	2	5
Tax rate for other and finance income	28%	28%	28%	28%	28%
Tax for other and finance income	-	-	0	0	0
Total Tax	**(0)**	**-**	**2**	**2**	**5**

Taxation Ranmudu Oya (LKR Mn)

	FY18	FY19	FY20F	FY21F	FY22F
Profit before income tax	(10)	(29)	291	344	365
Finance income	3	1	1	1	4
Profit to be taxed at 0%/28%	(13)	(30)	290	344	360
Tax rate	14%	14%	14%	14%	28%
Tax on business operations	-	-	41	48	101
Tax rate for other and finance income	28%	28%	28%	28%	28%
Tax for other and finance income	1	0	0	0	1
Total Tax	**1**	**0**	**41**	**48**	**102**

4.7 Capex

CAL has assumed there's no maintenance capex for the two solar power plants. For Pams, CAL has forecasted capex of 5% of the opening balance of PPE for FY20F and a maintenance capex of 1% of the opening balance of PPE every year starting from FY21F. CAL has assumed a 1.5% maintenance capex for Ranmudu and no maintenance capex for Ginigathhena. Since no major capex is expected to be incurred within the 20-year period for which the SPPAs are signed for the plants, CAL believes the said amount to be appropriate.

4.8 Depreciation

CAL has forecasted depreciation rates to be in the range of 4.8% to 5.6% across the existing power plants based on annual reports. The newer power plants are expected to depreciate in 20 years and hence a depreciation rate of 5% has been used.

4.9 Working Capital

CAL has forecasted working capital for the power plants based on management direction as outlined below.

Days	Anorchi	Iris	Pams	Ginigathena	Ranmudu
Receivable Days	75	75	75	45	75
Payable Days	60	60	60	90	30

5.0 Valuation Methodology

CAL considered the following valuation methodologies in order to arrive at a fair value for LPL's shares based on the relevance and appropriateness of the respective valuation methodology for a power company.

- EV/MW Relative Valuation
- P/E Relative Valuation
- Discounted Cash Flow (DCF) Method

5.1 EV/MW Relative

EV/MW is a valuation metric commonly used to value power companies. The relative value for LPL's shares using an EV/MW ratio would be calculated as follows:

$$Implicit\ Value\ of\ LPL = \left(Number\ of\ MW\ of\ LPL * \frac{EV}{MW} Multiple\right) - (Net\ Debt)$$

Where:
EV/MW Multiple = Weighted Average of the Peer Group EV/MW Multiple
Net Debt = Interest Bearing Debt – Cash and Cash Equivalents

5.2 P/E Relative

A P/E ratio measures a company's market value to its earnings. The relative value for LPL's shares using a P/E ratio would be calculated as follows:

$$Implicit\ Value\ of\ LPL = \left(Earnings\ of\ LPL * \frac{P}{E} Multiple\right)$$

Where:
P/E Multiple: Weighted Average of the Peer Group P/E Multiple
Earnings = Earnings of LPL

5.3 Discounted Cash Flow (DCF) Method

A discounted cash flow (DCF) analysis was used in order to arrive at an intrinsic value for LPL. A DCF analysis can be used to measure a company's ability to generate future cash flows. A DCF method can capture a company's growth potential and provide a more reflective result of the entire value of a business. Free cash flow to firm (FCFF) was calculated using the following formula:

Earnings Before Interest and Tax x (1-tax rate)
+ Depreciation and Amortization
- Capital Expenditure
+ Working Capital Investment
= FCFF

In deriving an intrinsic value for LPL, the present value of FCFFs was calculated using the following:

$$V_0 = \left[\sum_{t=1}^{n} \frac{FCFF_t}{(1+WACC)^t}\right] + TVn$$

Where:

V_0	=	Intrinsic Value in year 0
$FCFF_t$	=	Free Cash flow to firm in year t
$WACC$	=	Weighted Average Cost of Capital
TVn	=	Present value of terminal value at year n

Further, the Gordon Growth Model (GGM) was used to derive TVn with the following formula:

$$TVn = \frac{FCFFn\,(1+g)}{(WACC-g)\,\times(1+WACC)^n}$$

Where:

g	=	Intrinsic Value in year 0
$WACC$	=	Weighted Average Cost of Capital

The discount rate used in a DCF calculation is the Weighted Average Cost of Capital (WACC) which captures the effects of both equity and debt capital in a company when calculating the required rate of return. The following formula is used to calculate the WACC:

$$WACC = We(Ke) + Wd(Kd(1-t))$$

Where:

We	=	Weightage of Equity
Wd	=	Weightage of Debt
$Kd(1-t)$	=	After Tax Cost of Debt
Ke	=	Cost of Equity

In arriving at the intrinsic value per share for LPL, the following formula was used:

$$Intrinsic\ Value\ of\ LPL = Present\ Value\ of\ FCFFs - Net\ Debt$$

5.4 Equity Value Allocation

The sequential method was used in order to allocate the intrinsic value for LPL between voting and non-voting shares. The value of a voting share and a non-voting share was calculated using the following formula:

$$\frac{Intrinsic\ value\ of\ LPL}{The\ number\ of\ total\ voting\ and\ nonvoting\ common\ shares\ outstanding}$$

$$=$$

$$Intrinsic\ Value\ of\ LPL\ per\ share\ (voting) - selected\ discount\ for\ lack\ of\ voting\ rights *$$

$$=$$

$$Intrinsic\ Value\ per\ share\ (nonvoting)$$

* The discount for lack of voting rights is calculated as 1 – (1/(1 + premium for voting rights)). For example, a selected premium for voting rights of 5% equates to a discount for lack of voting rights of 4.76% (calculated as 1 – (1/(1.05)).

6.0 Valuation Results

This section details out the assumptions used for the valuation and results based on the valuation methods described in Section 5.0 – Valuation Methodology.

CAL used the following Comparable Peers for the relative valuation of LPL. The peer group for LPL was selected based off the companies listed under the power and energy sector on the CSE. CAL considered the following power companies where adequate information was available with regard to the operations of the peer companies.

#	Comparable Peers
1	Resus Energy PLC
2	Vallibel Power Erathna PLC
3	Panasian Power PLC
4	Vidullannka PLC
5	LVL Energy PLC

The applicable ratios for the Comparable Peers are provided in the tables below.

Comparable Peer[1]	Market Cap (LKR Mn)*	Enterprise value (LKR Mn)	MW[2]	EV/MW (LKR Mn)
Resus Energy PLC	1,646	3,464	10.60	327
Vallibel Power Erathna PLC	4,632	4,826	21.85	221
Panasian Power PLC	1,600	2,725	10.10	270
Vidullannka PLC	3,602	6,077	26.00	234
Market Cap. weighted peer average				**247**

Source: Colombo Stock Exchange

** Market Capitalization as at 28 June 2019*

[1]LVL Energy Fund Limited is a holding company. Hence, it holds small stakes in a number of power companies which gives a higher MW capacity which would skew the weighted average. Therefore, we have excluded the said company in deriving the Market Cap. Weighted peer average EV per MW relative.

[2]Based on latest Company Annual Reports

Comparable Peer	Market Cap (LKR Mn)*	Debt	Cash	NCI	Enterprise value (LKR Mn)**
Resus Energy PLC	1,646	1,938	120	-	3,464
Vallibel Power Erathna PLC	4,632	-	32	226	4,826
Panasian Power PLC	1,600	1,115	115	125	2,725
Vidullannka PLC	3,602	2,673	240	42	6,077
LVL Energy PLC	4,367	1,088	788	177	4,845

Source: Colombo Stock Exchange

** Market Capitalization as at 28 June 2019*

***Enterprise value=Market Cap+Debt-Cash+NCI*

Comparable Peer	Market Cap. (LKR Mn)*	PER (x)[1]
Resus Energy PLC	1,646	10.1
Vallibel Power Erathna PLC	4,632	5.5
Panasian Power PLC	1,600	4.5
Vidullannka PLC	3,602	7.0
LVL Energy Fund Limited	4,367	8.3
Market Cap. weighted peer average		**7.0**

Source: Colombo Stock Exchange

** Market Capitalization as at 28 June 2019*

[1]PER= Market Capitalization/Net profit attributable to equity holders of the parent

6.1 EV/MW Relative

Comparable Peer	Market Cap (LKR Mn)*	Enterprise value (LKR Mn)	MW**	EV/MW (LKR Mn)
Resus Energy PLC	1,646	3,464	10.60	327
Vallibel Power Erathna PLC	4,632	4,826	21.85	221
Panasian Power PLC	1,600	2,725	10.10	270
Vidullannka PLC	3,602	6,077	26.00	234
Market Cap. weighted peer average				**247**
LAUGFS Power Limited			23.75	
				5,864
Net Debt				3,071
Value of licenses (LKR Mn)				360
Equity Value (LKR Mn)				**3,153**
Equity Value per Voting share (LKR)				**8.15**
Equity Value per Non-voting share (LKR)[1]				**6.38**

Source: Colombo Stock Exchange

** Market Capitalization as at 28 June 2019*

***MW for peers has been taken from the latest company annual reports of each company*

[1]Refer section 6.4 for voting and non-voting premium/discount calculation

The company presently holds licenses for 12MW of solar power plants which are estimated to be valued at 30 Mn per MW.

Based on the Peer Weighted Average EV/MW ratio, the total equity value of LPL is LKR 3,153 Mn with a per share value of LKR 8.15 per voting share and LKR 6.38 per non-voting share.

6.2 P/E Relative

In LKR Mn	Rf	EQRP	Ke*	MW
Solar plants	10.3%	5.0%	15.3%	20
Hydro plants	10.3%	7.0%	17.3%	4
Weighted average			**15.6%**	**24**
Net profit FY21			438[2]	
			0.7763	
Discounted net profit			340	
Market Cap. weighted peer average				**7.0****
				2,376
Value of licenses				360
Equity Value				**2,736**
Equity Value per Voting share (LKR)				**7.07**
Equity Value per Non-voting share (LKR)[1]				**5.54**

[1]Refer section 6.4 for voting and non-voting premium/discount calculation

**Ke=Rf+EQRP*

***Page 23-table 1*

[2]Net Profit FY21

In LKR Mn	Anorchi	Iris	Pams Power	Ginigathhena	Ranmudu Oya	Total
Revenue	500	498	93	36	65	1,192
Cost of Sales	(134)	(133)	(34)	(13)	(22)	(335)
Gross Profit	366	365	60	23	43	857
Administrative Expenses	(27)	(28)	(17)	(2)	(64)	(140)
Operating Profit/(Loss)	339	337	42	21	(21)	717
Other Income	-	-	-	-	-	-
Finance Income	0	0	0	0	1	1
Finance Cost	(135)	(124)	(0)	(5)	(8)	(272)
Profit/(Loss) Before Tax	203	213	42	16	(29)	446
Income Tax Expense	(0)	(0)	(6)	(2)	0	(8)
Net Profit/(Loss) for the Year	203	213	36	14	(29)	438

Since all power plants become fully operational only by the FY21, CAL has discounted the FY21 earnings to current year terms to arrive at a PER valuation. The dividend income of Ranmudu Oya has been excluded when calculating the FY21 earnings, as it is an intercompany transaction. The cost of equity used for the discount factor has been arrived at by employing weights to the cost of equity of solar and hydro power plants based on their capacity.

Based on the Peer Weighted Average P/E ratio, the total equity value of LPL is LKR 2,736 Mn with a per share value of LKR 7.07 per voting share and LKR 5.54 per non-voting share.

6.3 Discounted Cash Flow (DCF) Method

Anorchi

LKR Mn (1/3)	FY20F	FY21F	FY22F	FY23F	FY24F	FY25F
Post tax EBIT	342	339	336	333	329	326
Depreciation & Amortization	106	106	106	106	106	106
Capex	-	-	-	-	-	-
Working capital investment	(11)	0	0	0	0	0
Free cash flow to firm (FCFF)	437	445	442	439	435	432
WACC	13.3%	13.3%	13.3%	13.3%	13.3%	13.3%
Year	0	1	2	3	4	5
Discount Factor	1.000	0.883	0.779	0.688	0.607	0.536
Discounted Cash flow	437	393	344	302	264	231

LKR Mn (2/3)	FY26F	FY27F	FY28F	FY29F	FY30F	FY31F	FY32F
Post tax EBIT	321	318	314	310	220	217	214
Depreciation & Amortization	106	106	106	106	106	106	106
Capex	-	-	-	-	-	-	-
Working capital investment	0	0	0	0	0	0	0
Free cash flow to firm (FCFF)	428	424	421	417	327	324	321
WACC	13.3%	13.3%	13.3%	13.3%	11.3%	11.3%	11.3%
Year	6	7	8	9	10	11	12
Discount Factor	0.473	0.417	0.368	0.325	0.343	0.308	0.277
Discounted Cash flow	202	177	155	135	112	100	89

LKR Mn (3/3)	FY33F	FY34F	FY35F	FY36F	FY37F
PV FCFF	79	70	63	56	43
PV of Scrap Value*					2

***** The scrap value is the net book value of property, plant and equipment as at the end of the power purchase agreement

FYE 31 March 2018	(LKR Mn)
Interest bearing borrowings	
Non-Current	1,174
Current	192
Total Debt	1,366
Cash and cash equivalents	(34)
Net Financial Debt	**1,332**
Enterprise Value	3,254
Net Debt	(1,332)
Equity Value	**1,922**

Assumptions	Stage I	Stage II
Rf	10.3%	10.3%
Ke	15.3%	15.3%
EQRP	5.0%	5.0%
Kd	12.0%	12.0%
Kd (1-t)	12.0%	8.6%
We	40.0%	40.0%
Wd	60.0%	60.0%
WACC	13.3%	11.3%

Based on the DCF analysis, the total equity of Anorchi is LKR 1,922 Mn.

Iris Eco

LKR Mn (1/3)	FY20F	FY21F	FY22F	FY23F	FY24F	FY25F
Post tax EBIT	340	337	334	330	327	323
Depreciation & Amortization	107	107	107	107	107	107
Capex	-	-	-	-	-	-
Working capital investment	20	(0)	(0)	(0)	0	0
Free cash flow to firm (FCFF)	467	443	440	437	434	431
WACC	13.3%	13.3%	13.3%	13.3%	13.3%	13.3%
Year	0	1	2	3	4	5
Discount Factor	1.000	0.883	0.779	0.688	0.607	0.536
Discounted Cash flow	467	391	343	301	263	231

LKR Mn (2/3)	FY26F	FY27F	FY28F	FY29F	FY30F	FY31F	FY32F
Post tax EBIT	319	316	312	308	219	216	213
Depreciation & Amortization	107	107	107	107	107	107	107
Capex	-	-	-	-	-	-	-
Working capital investment	0	0	0	0	0	0	0
Free cash flow to firm (FCFF)	426	423	419	415	327	323	320
WACC	13.3%	13.3%	13.3%	13.3%	11.3%	11.3%	11.3%
Year	6	7	8	9	10	11	12
Discount Factor	0.473	0.417	0.368	0.325	0.343	0.308	0.277
Discounted Cash flow	202	177	154	135	112	100	89

LKR Mn (3/3)	FY33F	FY34F	FY35F	FY36F	FY37F
PV FCFF	79	70	63	55	43
PV of Scrap Value*					2

***** The scrap value is the net book value of property, plant and equipment as at the end of the power purchase agreement

FYE 31 March 2018	(LKR Mn)
Interest bearing borrowings	
Non-Current	1,087
Current	198
Total Debt	1,285
Cash and cash equivalents	(12)
Net Financial Debt	**1,273**
Enterprise Value	3,277
Net Debt	(1,273)
Equity Value	**2,003**

Assumptions	Stage I	Stage II
Rf	10.3%	10.3%
Ke	15.3%	15.3%
EQRP	5.0%	5.0%
Kd	12.0%	12.0%
Kd (1-t)	12.0%	8.6%
We	40.0%	40.0%
Wd	60.0%	60.0%
WACC	13.3%	11.3%

Based on the DCF analysis, the total equity of Iris Eco is LKR 2,003 Mn.

Pams Power

LKR Mn (1/3)	FY20F	FY21F	FY22F	FY23F	FY24F	FY25F
Post tax EBIT	2	36	29	28	27	26
Depreciation & Amortization	32	33	34	34	34	35
Capex	(32)	(7)	(7)	(7)	(7)	(7)
Working capital investment	74	(11)	1	(0)	1	(0)
Free cash flow to firm (FCFF)	75	52	58	55	56	54
WACC	13.1%	13.1%	12.1%	12.1%	12.1%	12.1%
Year	0	1	2	3	4	5
Discount Factor	1.000	0.884	0.796	0.710	0.634	0.565
Discounted Cash flow	75	46	46	39	36	31

LKR Mn (2/3)	FY26F	FY27F	FY28F	FY29F	FY30F	FY31F	FY32F
Post tax EBIT	25	24	23	22	20	19	17
Depreciation & Amortization	35	35	36	36	36	37	37
Capex	(7)	(7)	(7)	(7)	(7)	(7)	(7)
Working capital investment	2	(0)	(0)	(0)	(0)	(0)	(0)
Free cash flow to firm (FCFF)	55	52	51	50	49	48	47
WACC	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%
Year	6	7	8	9	10	11	12
Discount Factor	0.504	0.450	0.401	0.358	0.320	0.285	0.254
Discounted Cash flow	28	24	21	18	16	14	12

LKR Mn (3/3)	FY33F	FY34F	FY35F	FY36F	FY37F	FY38F	FY39F
PV FCFF	10	9	8	7	6	5	4
PV of Scrap Value*							9

***** The scrap value is the net book value of property, plant and equipment as at the end of the power purchase agreement

FYE 31 March 2018	(LKR Mn)
Interest bearing borrowings	
Non-Current	200
Current	100
Total Debt	300
Cash and cash equivalents	(0)
Net Financial Debt	**300**
Enterprise Value	462
Net Debt	(300)
Equity Value	**162**

Assumptions	Stage I	Stage II
Rf	10.3%	10.3%
Ke	17.3%	17.3%
EQRP	7.0%	7.0%
Kd	12.0%	12.0%
Kd (1-t)	10.3%	8.6%
We	40.0%	40.0%
Wd	60.0%	60.0%
WACC	13.1%	12.1%

Based on the DCF analysis, the total equity of Pams Power is LKR 162 Mn.

Ginigathena

LKR Mn (1/3)	FY20F	FY21F	FY22F	FY23F	FY24F	FY25F
Post tax EBIT	18	18	15	14	14	14
Depreciation & Amortization	8	8	8	8	8	8
Capex	-	-	-	-	-	-
Working capital investment	(4)	0	0	0	0	0
Free cash flow to firm (FCFF)	23	26	23	23	22	22
WACC	13.1%	13.1%	12.1%	12.1%	12.1%	12.1%
Year	0	1	2	3	4	5
Discount Factor	1.000	0.884	0.796	0.710	0.634	0.565
Discounted Cash flow	23	23	18	16	14	12

LKR Mn (2/3)	FY26F	FY27F	FY28F	FY29F	FY30F	FY31F	FY32F
Post tax EBIT	13	13	12	12	11	10	9
Depreciation & Amortization	8	8	8	8	8	8	8
Capex	-	-	-	-	-	-	-
Working capital investment	0	0	0	0	0	0	0
Free cash flow to firm (FCFF)	21	21	20	20	19	18	18
WACC	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%
Year	6	7	8	9	10	11	12
Discount Factor	0.504	0.450	0.401	0.358	0.320	0.285	0.254
Discounted Cash flow	11	9	8	7	6	5	4

LKR Mn (3/3)	FY33F	FY34F	FY35F	FY36F	FY37F
PV FCFF	4	4	3	2	(0)
PV of Scrap Value*					1

***** The scrap value is the net book value of property, plant and equipment as at the end of the power purchase agreement

FYE 31 March 2018	(LKR Mn)
Interest bearing borrowings	
Non-Current	41
Current	10
Total Debt	51
Cash and cash equivalents	(0)
Net Financial Debt	**51**
Enterprise Value	170
Net Debt	(51)
Equity Value	**119**

Assumptions	Stage I	Stage II
Rf	10.3%	10.3%
Ke	17.3%	17.3%
EQRP	7.0%	7.0%
Kd	12.0%	12.0%
Kd (1-t)	10.3%	8.6%
We	40.0%	40.0%
Wd	60.0%	60.0%
WACC	13.1%	12.1%

Based on the DCF analysis, the total equity of Ginigathena is LKR 119 Mn.

Ranmudu Oya

LKR Mn (1/3)	FY20F	FY21F	FY22F	FY23F	FY24F	FY25F
Post tax EBIT	(18)	(21)	(24)	(27)	(51)	(54)
Depreciation & Amortization	19	19	20	20	20	21
Capex	(5)	(5)	(5)	(5)	(5)	(6)
Working capital investment	(45)	(5)	(6)	(6)	(2)	(7)
Free cash flow to firm (FCFF)	(50)	(12)	(15)	(18)	(38)	(45)
WACC	13.1%	13.1%	12.1%	12.1%	12.1%	12.1%
Year	0	1	2	3	4	5
Discount Factor	1.000	0.884	0.796	0.710	0.634	0.565
Discounted Cash flow	(50)	(11)	(12)	(13)	(24)	(26)

LKR Mn (2/3)	FY26F	FY27F	FY28F	FY29F	FY30F	FY31F	FY32F
Post tax EBIT	(57)	(61)	(64)	(68)	(72)	(81)	(85)
Depreciation & Amortization	21	21	21	22	22	22	23
Capex	(6)	(6)	(6)	(6)	(6)	(6)	(6)
Working capital investment	(7)	(7)	(8)	(8)	(8)	(8)	(9)
Free cash flow to firm (FCFF)	(49)	(52)	(56)	(60)	(64)	(72)	(78)
WACC	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%	12.1%
Year	6	7	8	9	10	11	12
Discount Factor	0.504	0.450	0.401	0.358	0.320	0.285	0.254
Discounted Cash flow	(25)	(24)	(23)	(21)	(20)	(21)	(20)

LKR Mn (3/3)	FY33F	FY34F	FY35F	FY36F
PV FCFF	(19)	(18)	(19)	2
PV of Scrap Value*				2

***** The scrap value is the net book value of property, plant and equipment as at the end of the power purchase agreement

FYE 31 March 2019	(LKR Mn)
Interest bearing borrowings	
Non-Current	77
Current	52
Total Debt	129
Cash and cash equivalents	(14)
Net Financial Debt	**115**
Enterprise Value	(340)
Net Debt	(115)
Equity Value	**(455)**

Assumptions	Stage I	Stage II
Rf	10.3%	10.3%
Ke	17.3%	17.3%
EQRP	7.0%	7.0%
Kd	12.0%	12.0%
Kd (1-t)	10.3%	8.6%
We	40.0%	40.0%
Wd	60.0%	60.0%
WACC	13.1%	12.1%

Based on the DCF analysis, the total equity of Ranmudu Oya is LKR (455) Mn**.

***Ranmudu Oya is operated by the holding company, LAUGFS Power Ltd, where all administration cost related to the head office is allocated. Hence, has resulted in a negative valuation compared to power plants of similar size.*

DCF Summary	LKR Mn
Equity value of Anorchi	1,922
Equity value of Iris Eco	2,003
Equity value of Pams Power	162
Equity value of Ginigathena	119
Equity value of Ranmudu Oya	(455)
Equity Value of operations	3,751
Value of licenses	360
Equity Value	4,112
Equity Value per Voting share (LKR)	**10.63**
Equity Value per Non-voting share (LKR)[1]	**8.33**

[1]Refer section 6.4 for voting and non-voting premium/discount calculation

Based on the DCF analysis, the total equity of LPL is LKR 4,112 Mn with a LKR 10.63 per voting share and LKR 8.33 per non-voting share.

6.4 Voting and non-voting premium/discount calculation

CAL considered 8 companies and calculated an average premium of c.28% which was used to derive the discount for lack of voting rights of c.22%. CAL looked at all the companies which have listed both voting and non-voting shares at the CSE and removed all the outliers when considering the 8 companies. The 8 companies represent c. 60% of all the listed companies with both voting and non-voting shares and capture a wide range of c.7% to c.46% in terms of premiums. The premiums of other companies were considered as outliers since these were extreme numbers which would create a discrepancy. Below is a list of companies, their share prices per voting and non-voting share and the premium for voting share.

Voting and non-voting premium/discount calculation

	Voting share price	Non-voting share price	Premium
Citizens Development Business Finance PLC	79.60	63.90	24.6%
Commercial Bank of Ceylon PLC	90.00	78.80	14.2%
Hatton National Bank PLC	136.00	123.70	9.9%
CIC Holdings PLC	38.00	26.00	46.2%
Renuka Holdings PLC	13.80	10.40	32.7%
Tokyo Cement Company (Lanka) PLC	22.00	17.60	25.0%
Morison PLC	789.10	561.00	40.7%
LAUGFS Gas PLC	17.00	13.00	30.8%
Average			**28%**

Source: Colombo Stock Exchange

** Closing price as at 04 June 2019.*

7.0 Forecast Financial Highlights

7.1 Anorchi

In LKR Mn	FY19	FY20F	FY21F	FY22F	FY23F	FY24F
Revenue	446	502	500	498	497	495
Gross Profit	313	368	366	364	362	360
Operating Profit	288	342	339	336	333	329
Profit Before Tax	102	189	203	218	233	248
Profit After Tax	102	188	203	218	233	248

7.2 Iris Eco

In LKR Mn	FY19	FY20F	FY21F	FY22F	FY23F	FY24F
Revenue	447	499	498	496	494	492
Gross Profit	315	367	365	363	361	358
Operating Profit	289	340	337	334	330	327
Profit Before Tax	120	197	213	228	243	258
Profit After Tax	120	197	213	228	243	258

7.3 Pams Power

In LKR Mn	FY19	FY20F	FY21F	FY22F	FY23F	FY24F
Revenue	-	46	93	93	93	93
Gross Profit	-	16	60	59	58	58
Operating Profit	(10)	2	42	41	40	38
Profit Before Tax	(10)	2	42	41	21	23
Profit After Tax	(10)	2	36	29	15	17

7.4 Ginigathena

In LKR Mn	FY19	FY20F	FY21F	FY22F	FY23F	FY24F
Revenue	16	36	36	36	36	36
Gross Profit	4	24	23	23	23	22
Operating Profit	2	21	21	21	20	19
Profit Before Tax	(3)	16	16	17	18	19
Profit After Tax	(3)	14	14	12	13	13

7.5 Ranmudu Oya

In LKR Mn	FY19	FY20F	FY21F	FY22F	FY23F	FY24F
Revenue	58	64	65	66	67	47
Gross Profit	41	43	43	43	43	23
Operating Profit	(17)	(18)	(21)	(24)	(27)	(51)
Profit Before Tax	(29)	291	344	365	380	388
Profit After Tax	(25)	250	296	263	274	280

8.0 Individuals Materially Participating in the Valuation Assignment

Deshan Pushparajah, CFA, FCMA, FCCA, BSc – Managing Director, Global Markets & Investment Banking

Deshan is an expert at public and private capital markets, both buy-side and sell-side M&A and enjoys the trust of an established network of clients in the local and international capital markets. He has been with the group since 2007 and has overseen the team through the changing post-conflict economic realities and has been instrumental in CAL emerging as a market leader in Equity capital markets and a considerable force in Debt capital markets. Deshan is a CFA Charter holder (USA) and a Fellow Member of the Chartered Institute of Management Accountants, UK and the Association of Chartered Certified Accountants, UK. He also holds a bachelor's degree in Applied Accounting from Oxford Brookes University, UK

Vishnu Balachandran, CFA, ACMA, BBA – Executive Vice President - Head of Investment Banking

Vishnu joined CAL in 2011 and has been a key driver in concluding many noteworthy M&A advisory transactions and debt issuances. Prior to joining CAL, he worked as an Equity Analyst at Amba Research, covering FMCG and retail markets in East Asia. Vishnu is a CFA Charter holder (USA), an Associate Member of the Chartered Institute of Management Accountants (UK) and holds a Bachelor's in Business Administration from the University of Colombo.

Rizny Faisal, CFA, ACMA, – Vice President - Investment Banking

Rizny carries with him over 9 years of financial consultancy field experience in providing buy-side financial due diligence, financial valuation, vendor assistance and external audit and assurance services. He has provided transaction advisory services with a particular emphasis on financial due diligence reviews across a range of industries including hospitality, manufacturing, FMCG retail and distribution, power and energy, financial services, construction and apparel. He also has experience in a range of audit and assurance services, covering a diverse range of industries including hospitality, manufacturing, financial services, retail and distribution, FMCG and shipping. Rizny is a Chartered Financial Analyst and an Associate Member of the Chartered Institute of Management Accountants UK.

Ashvanth Vijayaram – Assistant Vice President - Investment Banking

Ashvanth joined CAL in early 2017 and has been involved in a number of M&A transactions since. He is an Affiliate of the Association of Chartered Certified Accountants (UK) and holds a Bachelor's degree in Business Administration (Finance) from the University of Colombo. Prior to joining CAL Ashvanth lectured at the Mercury Institute of Management.

Dakshitha Vithanage – Analyst - Investment Banking

Dakshitha joined CAL in early 2018. He holds a Bachelor's degree in Finance from the University of Sri Jayewardenepura and he is an Affiliate of the Chartered Institute of Management Accountants (UK).

9.0 Disclaimer

CAL's analysis is based on information obtained from the audited financial and unaudited management accounts supplied by LAUGFS Power Limited. CAL relied primarily on the information provided by LAUGFS Power Limited and acted with due care, due diligence and consideration in preparing the report. CAL assumes no responsibility for errors or omissions in information furnished by LAUGFS Power Limited.

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In carrying out this Assignment, analysis deemed appropriate and assessments that were possible and practical within the time available have been carried out. Financial information and market data from the CSE have also been used for this Assignment.

Certain numerical figures in the Research Report have been subject to rounding adjustments; accordingly, numerical figures shown as totals in certain tables may not be an arithmetic aggregation of the figures that precede them.

The value recommendations given in this report are valid as at 27 June 2019 and a reasonable period of time there on. The use of these value recommendations will not be appropriate after the passage of a substantial time period (generally 6 months from 27 June 2019) and/or where material changes have taken place in the Company's operating environment. A factor to be considered for this report is that the valuations carried out are done based on financial data released by LAUGFS Power Limited. Where the data provided were incomplete, we have used reasonable judgment and we take responsibility for the same.