

# LVL ENERGY FUND PLC

*Investing in energy that powers nations*



# About Us

LVL Energy Fund Limited was incorporated in June 2006 as a subsidiary of Lanka Ventures PLC with an initial capital of Rs. 300 Mn. The main objective of the Company was to invest in the form of equity and quasi equity in projects in the power and energy sector in Sri Lanka and abroad.

Up to June 2016 the Company had several rounds of fund raising which culminated in a total fund base of Rs. 2,636 Mn by 31<sup>st</sup> March 2017 prior to launching an IPO to raise further capital of Rs. 1,200 Mn and obtaining a listing for shares at the Colombo Stock Exchange.

The Company remains a well-diversified entity with investments in renewable and thermal power projects in Sri Lanka, Bangladesh and Nepal.

# Our Locations

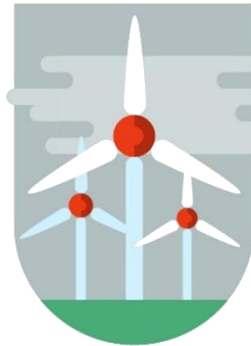


# Our Projects



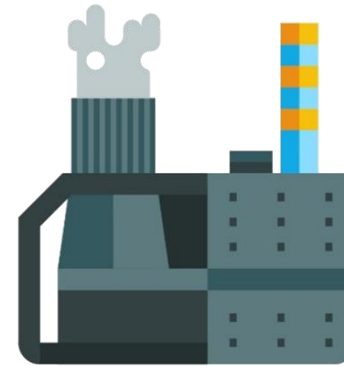
## HYDRO POWER

Run-Of-River Hydro Power Plant begins at the weir which divert water via a canal or pipeline to bring the water to the power station. The water is then fed into a high-pressure penstock (or pipeline) which drives the water under high pressure into the powerhouse, where it is connected to an installed turbine driving the generator. The amount of power a hydro station can generate is dependent on the head and flow of the water. At the outlet of the turbines, the water is discharged back to the river via a tailrace.



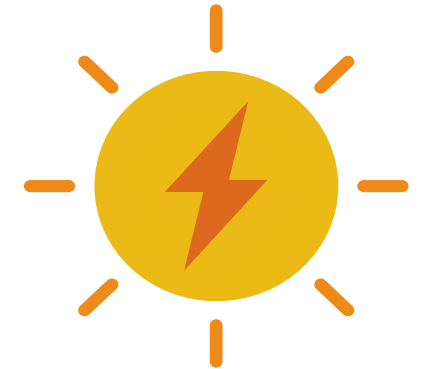
## WIND POWER

Wind power is the use of air flow through wind turbines to provide the mechanical power to turn electric generators. Wind farms consist of many individual wind turbines, which are connected to the electric power transmission network. The energy that can be captured by wind turbines is highly dependent on the local average wind speed. The speed of the wind rotates the blades of a rotor, producing kinetic energy. The rotor then drives the generator that converts the mechanical energy into electricity.



## THERMAL POWER

A thermal power plant is a power station in which heat energy is converted to electric power. Usually the turbine is steam-driven. The steam is produced in high pressure in the steam boiler from burning of fuel in boiler furnaces. This steam is further super heated in a super heater. This superheated steam then enters into the turbine and rotates the turbine blades which drives an electric generator. After it passes through the turbine, the steam is condensed in a condenser and recycled to where it was heated.



## SOLAR POWER

Solar power generation systems collect and concentrate sunlight to produce the useable electricity. The solar panels consist of photovoltaic cells, known as PV or solar cells, to directly convert sunlight into usable electricity. These panels are made from semiconductor materials, usually some form of silicon. When photons from sunlight hit the semiconductor material free electrons are generated which can then flow through the material to produce a direct electrical current. The DC current then needs to be converted to alternating current (AC) using an inverter before it can be directly used or fed into the electrical grid.



# HYDRO POWER PROJECTS



# Belihul Oya

Nividu (Pvt) Ltd



Location

Belihuloya,  
Rathnapura  
district



Capacity

2.2 MW



Gross Head

178 m



Rainfall

2,638 mm  
per year



Design Flow

1.5 m<sup>3</sup>/s



Catchment Area

21.5 km<sup>2</sup>



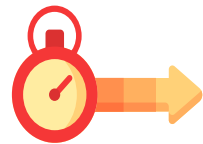
Equipment Supplier

Wasserkraft,  
Germany



Year of Commissioning

2002



PPA Expiry

2022

\* Extendable till 2037



Ownership

25%



Investment

LKR 120.2  
MN

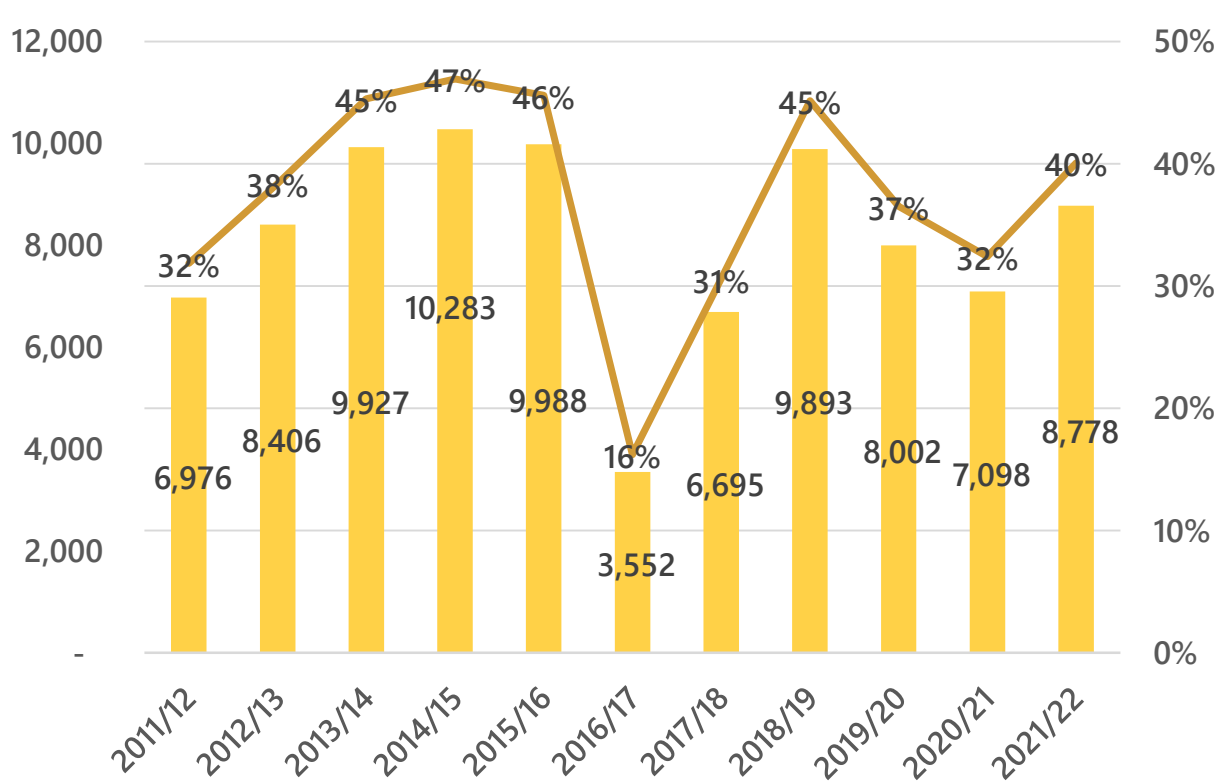


Project Partners

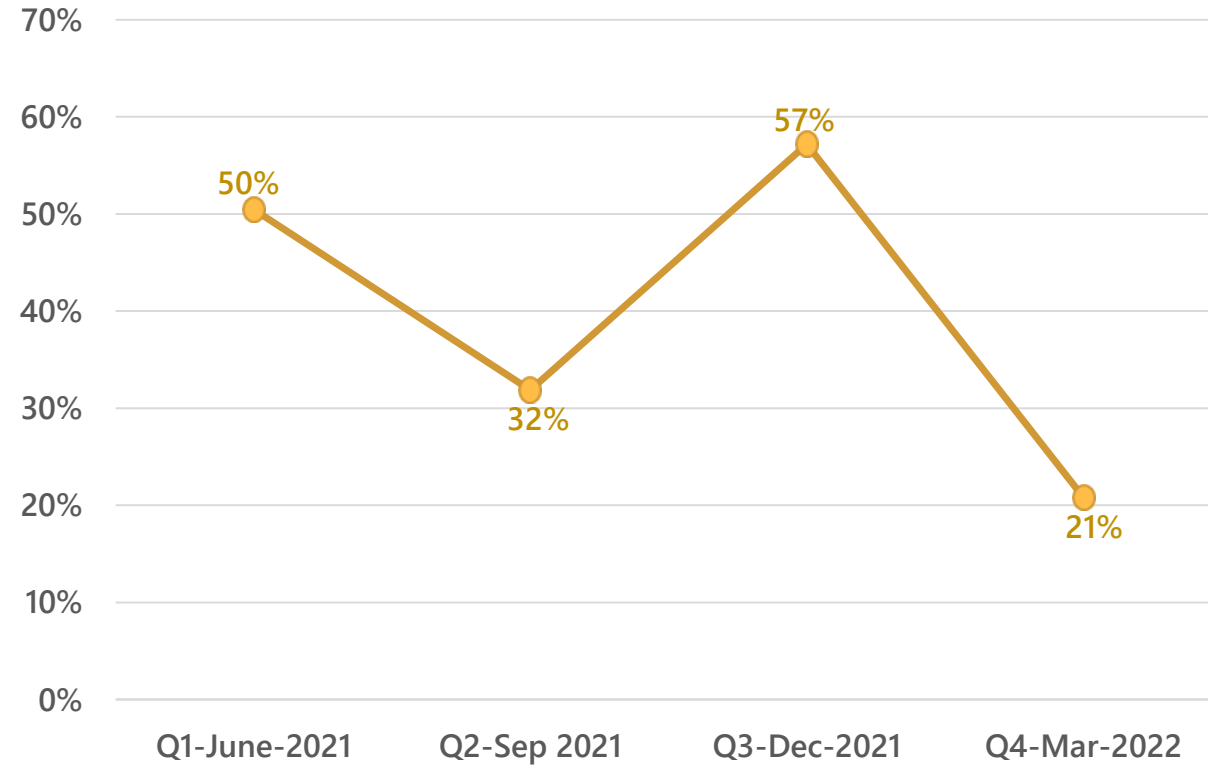
LTL Holdings  
(Pvt) Ltd



### Plant Factor (Annual)



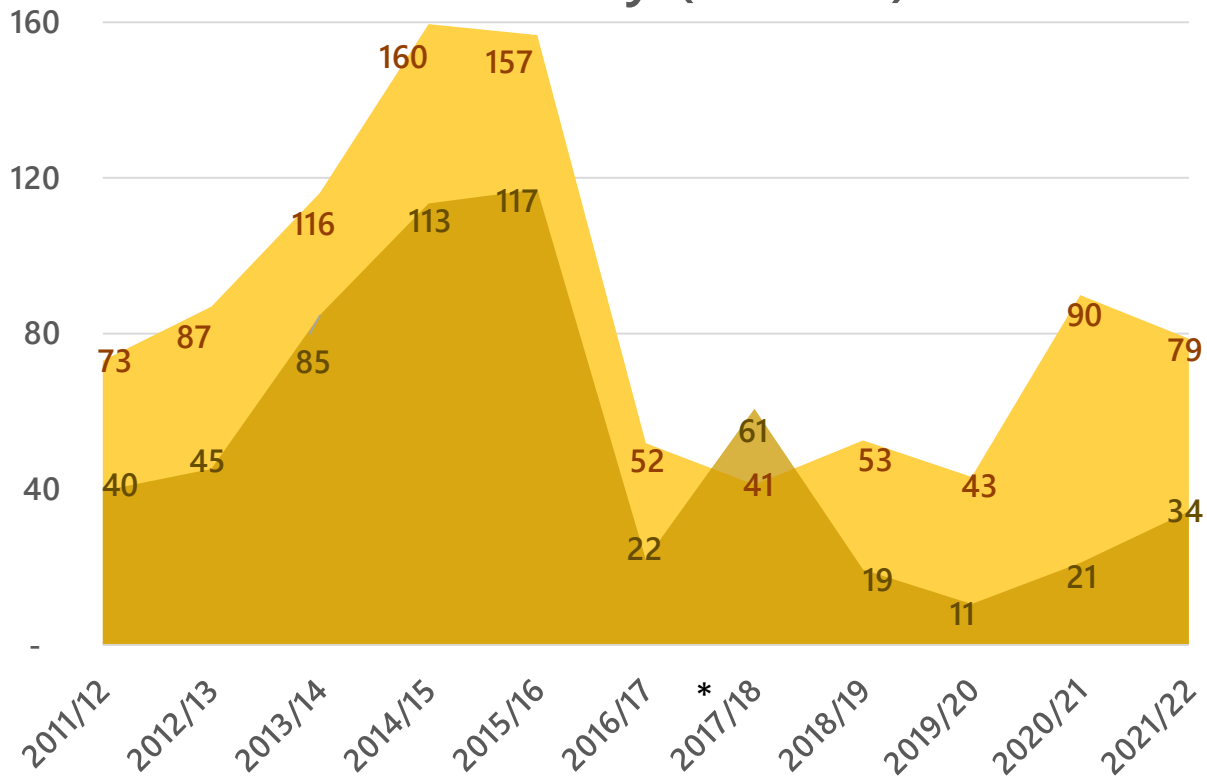
### Plant Factor (Quarterly)



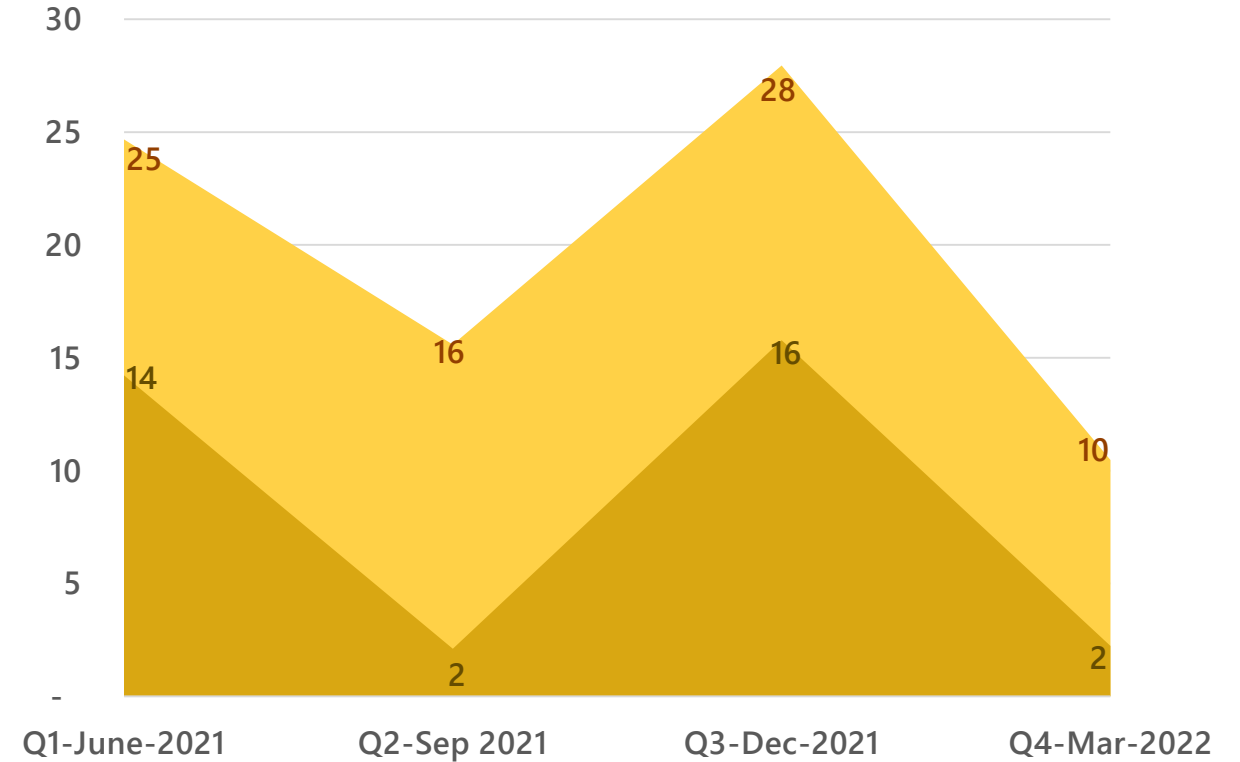
\* Plant generation had been affected due to drought condition prevailed in the year 2016 and 2017.

█ Generation (MWh)
 ● Plant Factor

## Profitability (Annual)



## Profitability (Quarterly)



\* The profit is higher than revenue due to re-valuation of plant assets. The plant was fully depreciated within the initial PPA of 15 year. It was required to re-value the assets and depreciate according to the new life span.

Revenue (Mn)

Profit (Mn)

# Assupini Ella

Nividu Assupini Ella (Pvt) Ltd



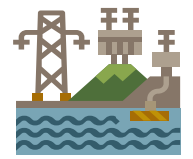
Assupiniella,  
Kegalle district

Location



4.0 MW

Capacity



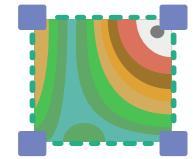
210 m

Gross Head



2,134 mm  
*per year*

Rainfall



27 km<sup>2</sup>

Catchment Area



2.2 m<sup>3</sup>/s

Design Flow



VA Tech,  
Germany

Equipment Supplier



2005

Year of Commissioning



2020

PPA Expiry

\* Extendable for  
another 20 years



25% effective  
holding

Ownership



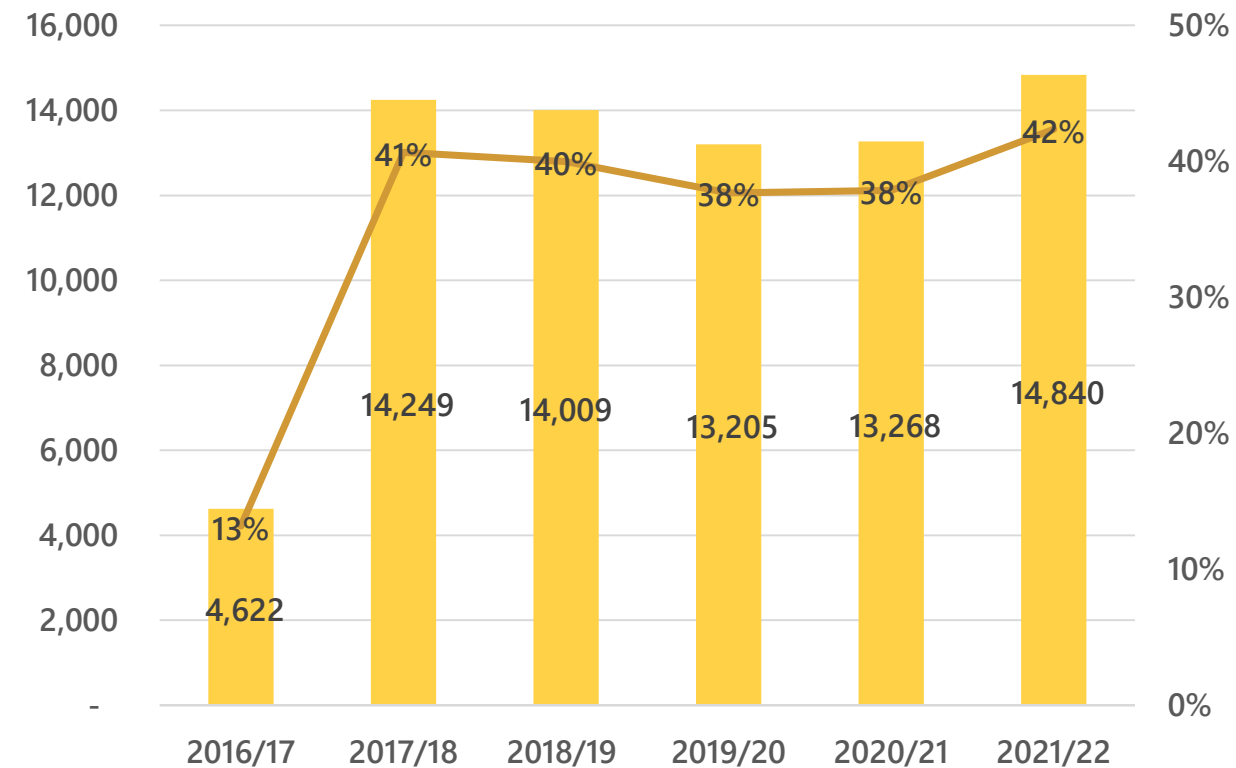
LTL Holdings (Pvt)  
Ltd

Project Partners

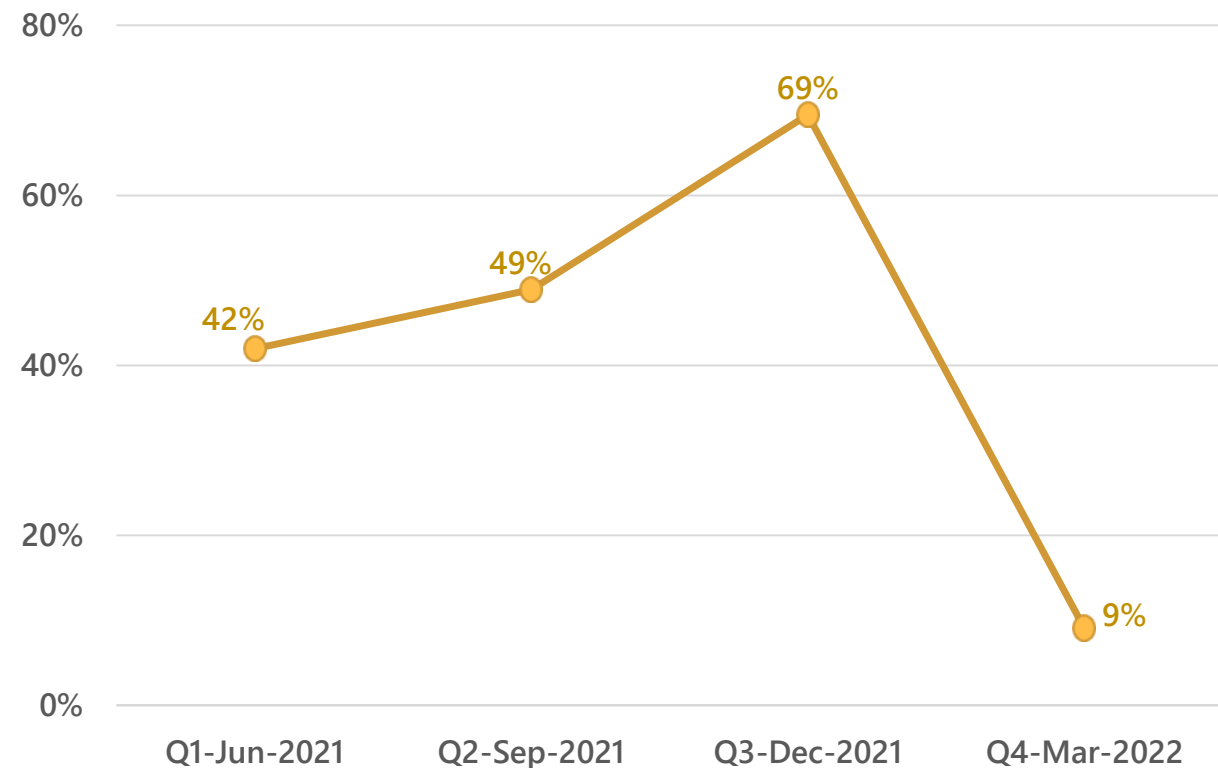




### Plant Factor (Annual)



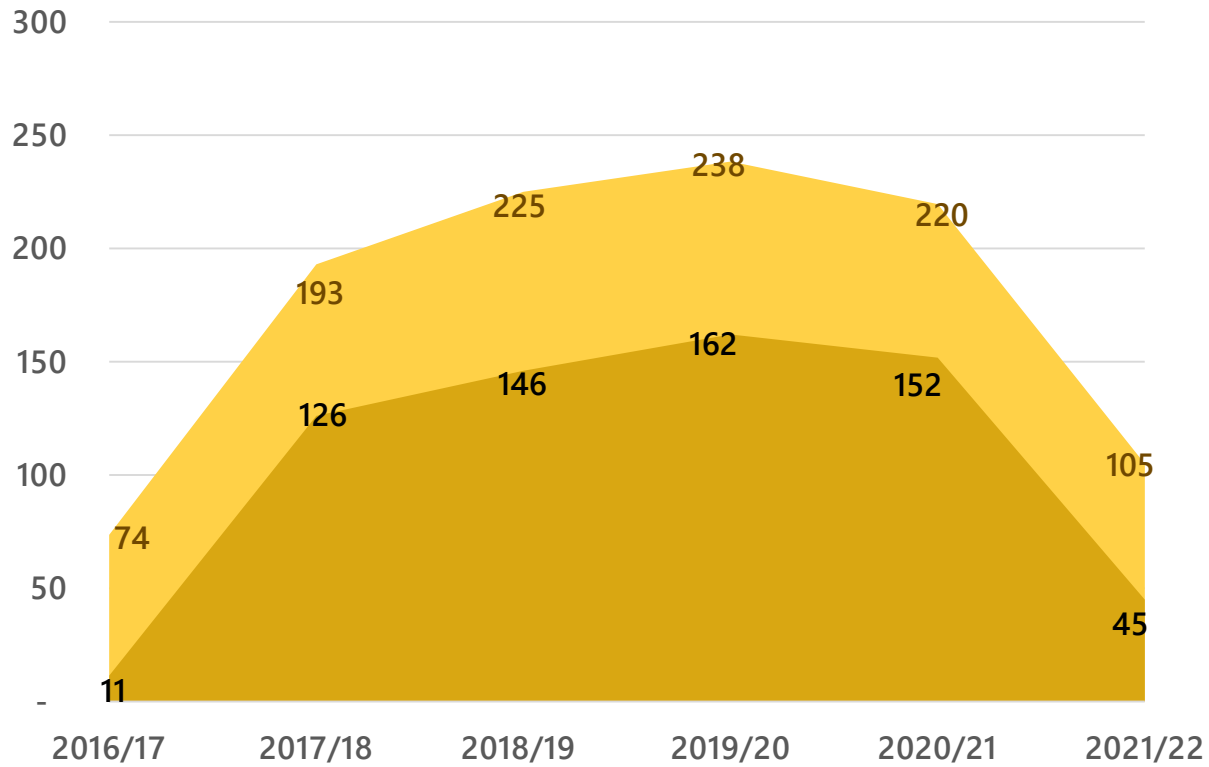
### Plant Factor (Quarterly)



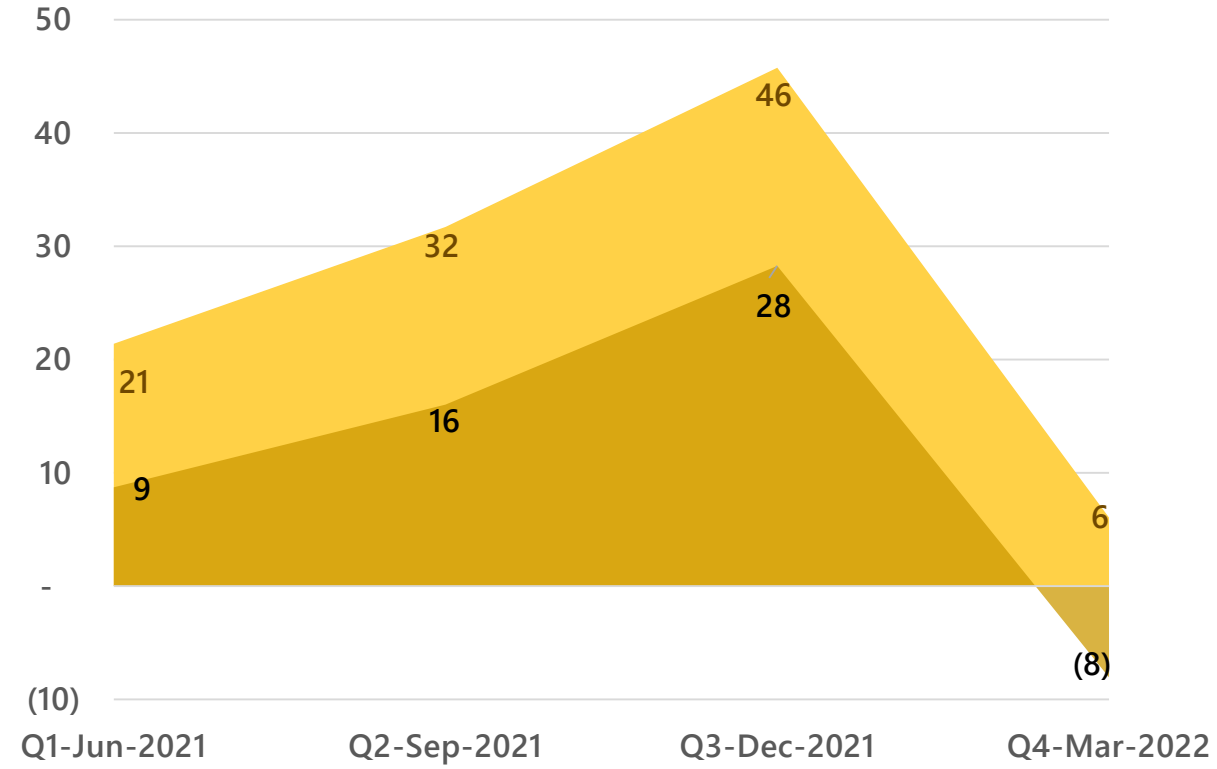
\* Plant had to shut down on 15th May 2016 due to part of the canal (approximately 30m) was damaged following a flash flood and earth slip. The plant was re-commissioned in September 2016 after repairs.

— Generation (MWh) —●— Plant Factor

### Profitability (Annual)



### Profitability (Quarterly)



■ Revenue (Mn)

■ Profit (Mn)

# Kadawala

Unit Energy Lanka (Pvt) Ltd



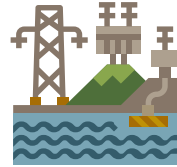
Ginigathhena,  
Nuwara Eliya district

Location



Capacity

6 MW



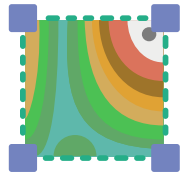
Gross Head

132 m



Rainfall

4,406 mm  
per year



Catchment Area

26 km<sup>2</sup>



Design Flow

5.2 m<sup>3</sup>/s



Equipment Supplier

Voith Siemens,  
Germany



Year of Commissioning

2008



PPA Expiry

2023

\* Extendable for  
another 20 years



Ownership

55%



Investment

LKR 135.4  
MN

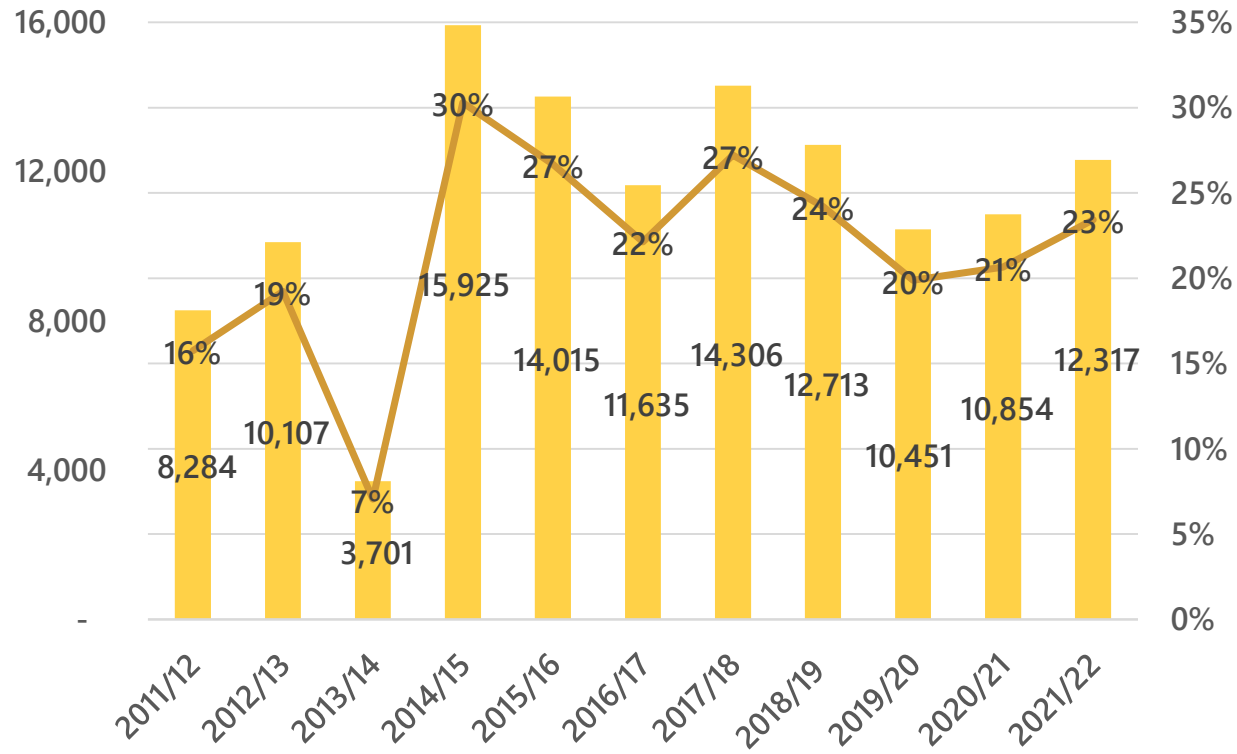


Project Partners

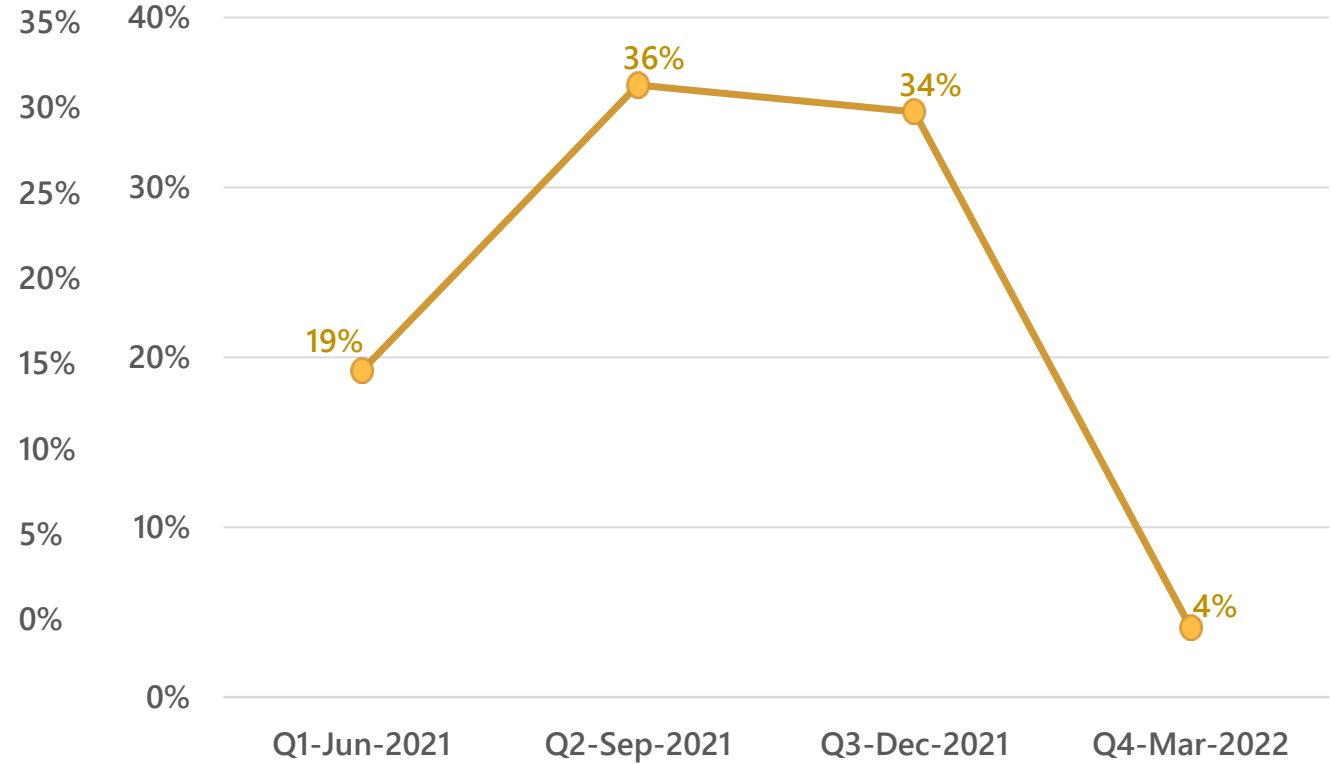
VS Hydro  
(Pvt) Ltd



### Plant Factor (Annual)



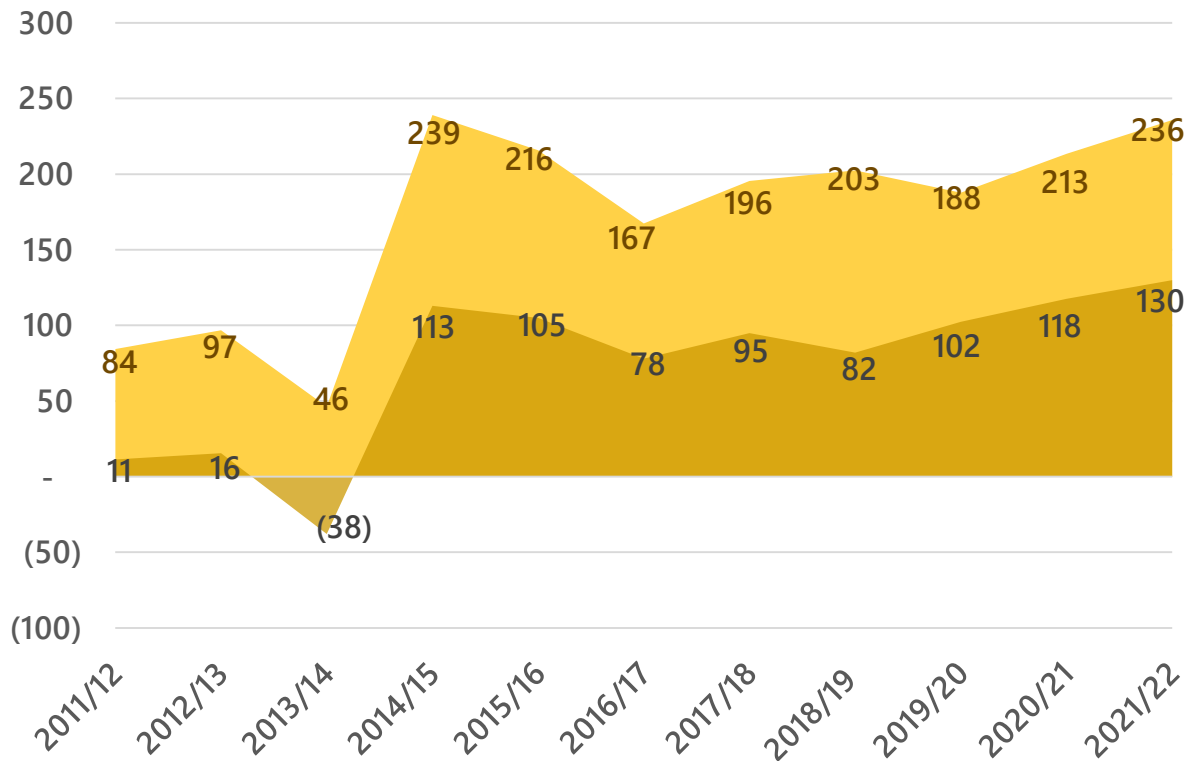
### Plant Factor (Quarterly)



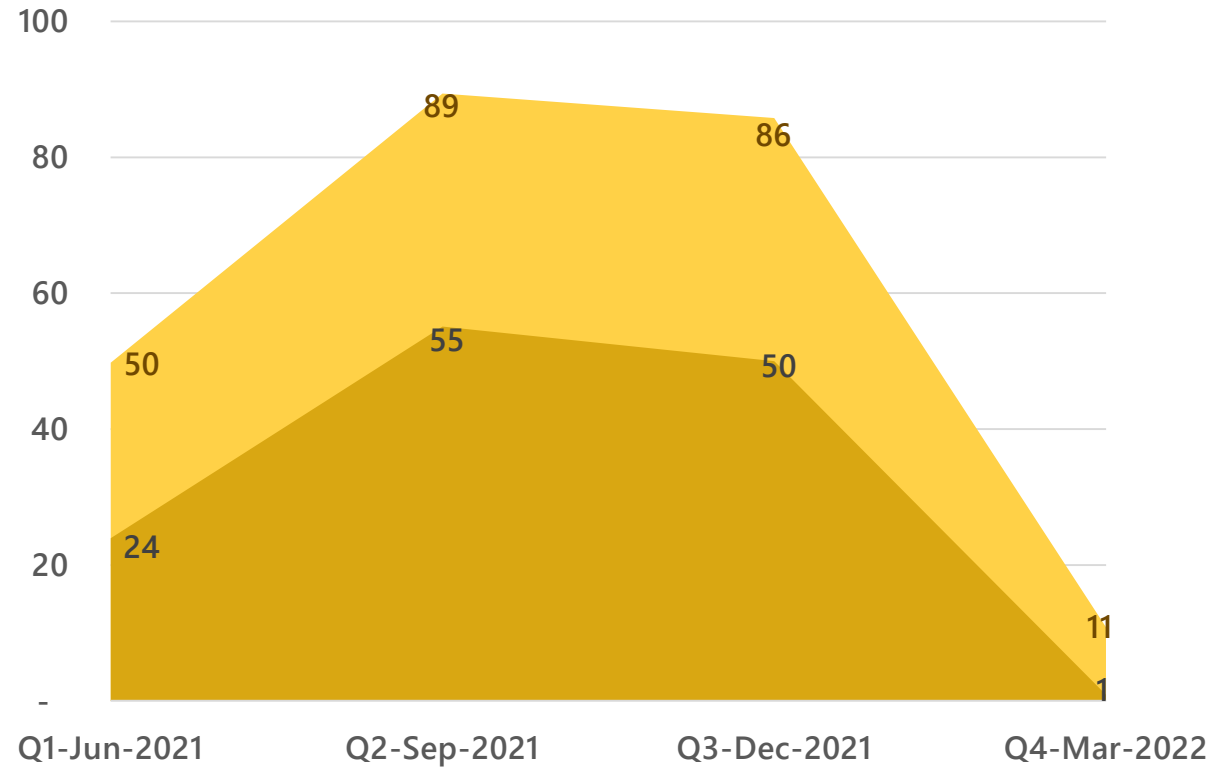
Generation (MWh)
  Plant Factor



## Profitability (Annual)



## Profitability (Quarterly)



\*On 13th May 2013, the plant went under water due to a flash flood following heavy rains in the area affecting other nearby hydro power plants as well. This incident caused damage to few anchor supports and electrical equipment including control panels.

■ Revenue (Mn)

■ Profit (Mn)

# Neluwa

Neluwa Cascade Hydro Power (Pvt) Ltd



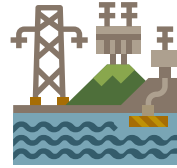
Thawalama,  
Galle district

Location



2.2 MW

Capacity



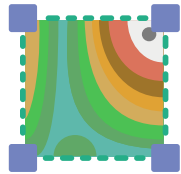
6 m

Gross Head



3,973 mm  
per year

Rainfall



304 km<sup>2</sup>

Catchment Area



40 m<sup>3</sup>/s

Design Flow



Gugler Hydro  
Energy, Austria

Equipment Supplier



2008

Year of Commissioning



2023

\* Extendable for  
another 20 years

PPA Expiry



49%

Ownership



LKR 58.8  
MN

Investment

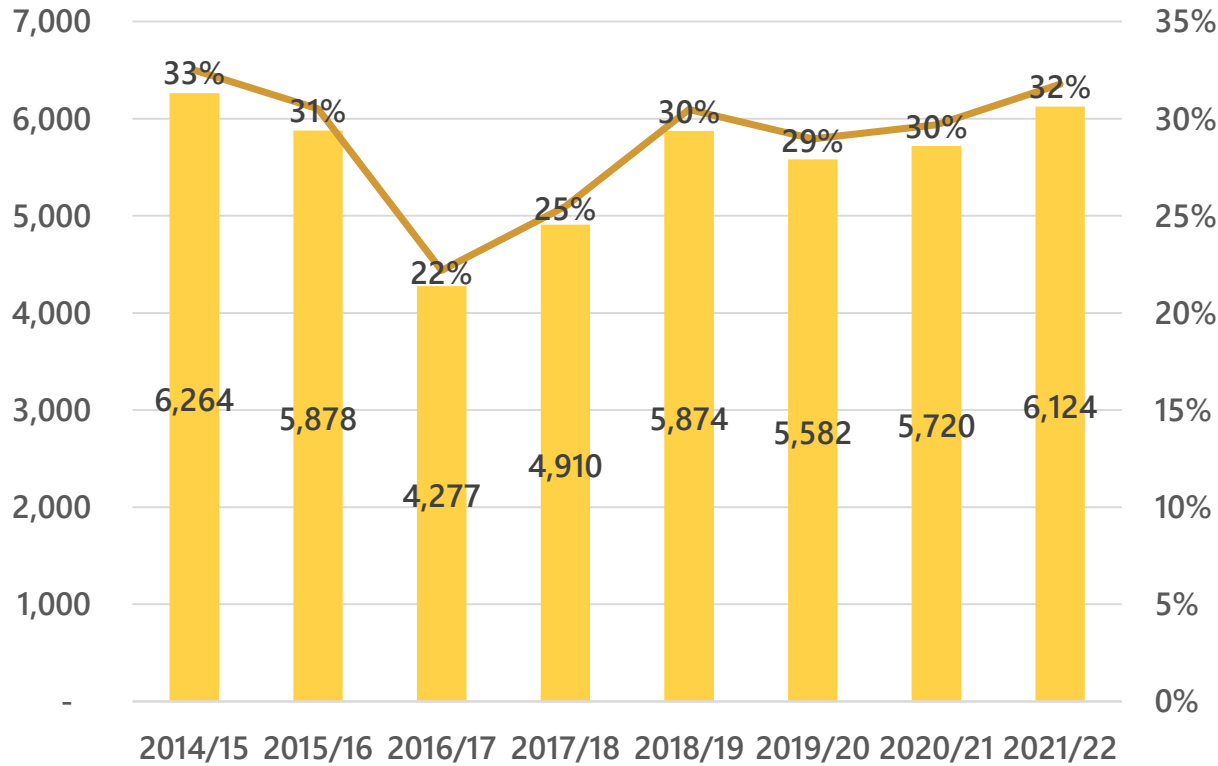


Hayleys Power  
(Pvt) Ltd

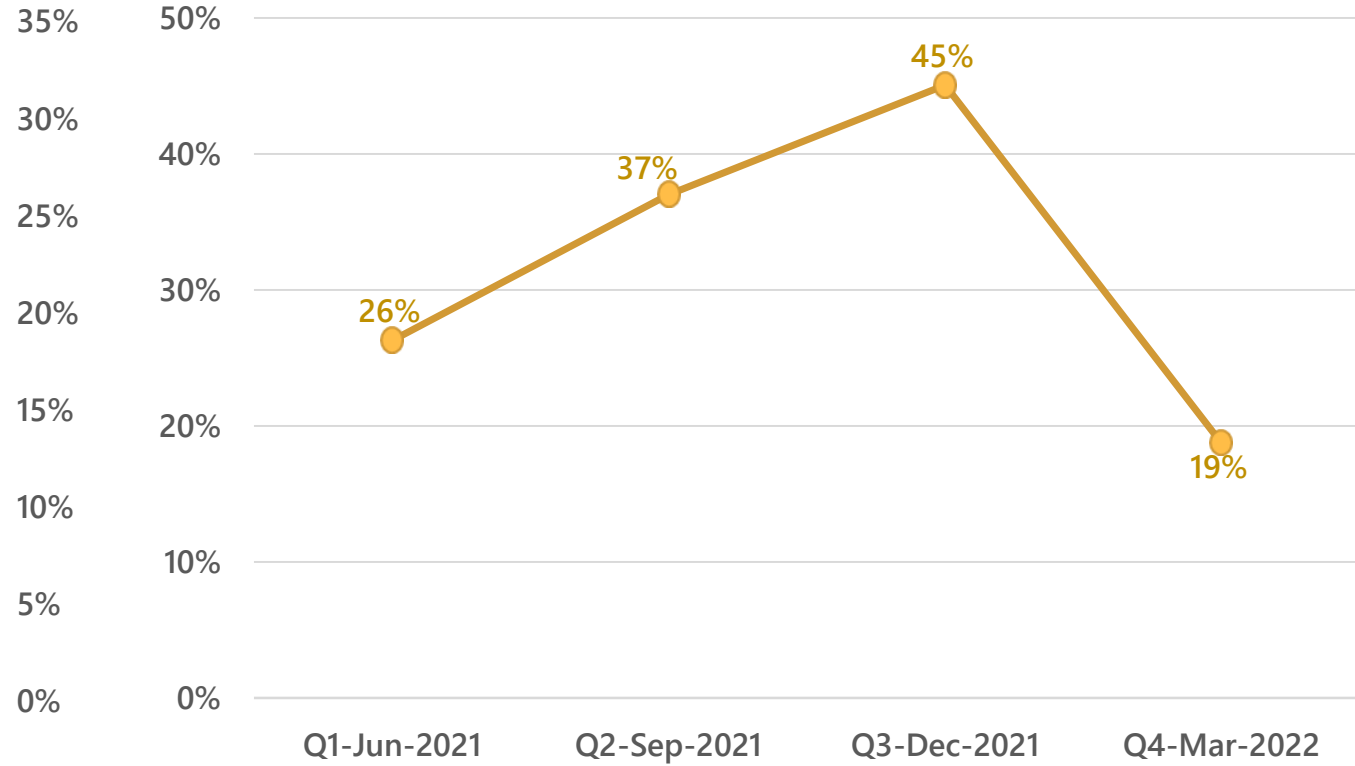
Project Partners



### Plant Factor (Annual)

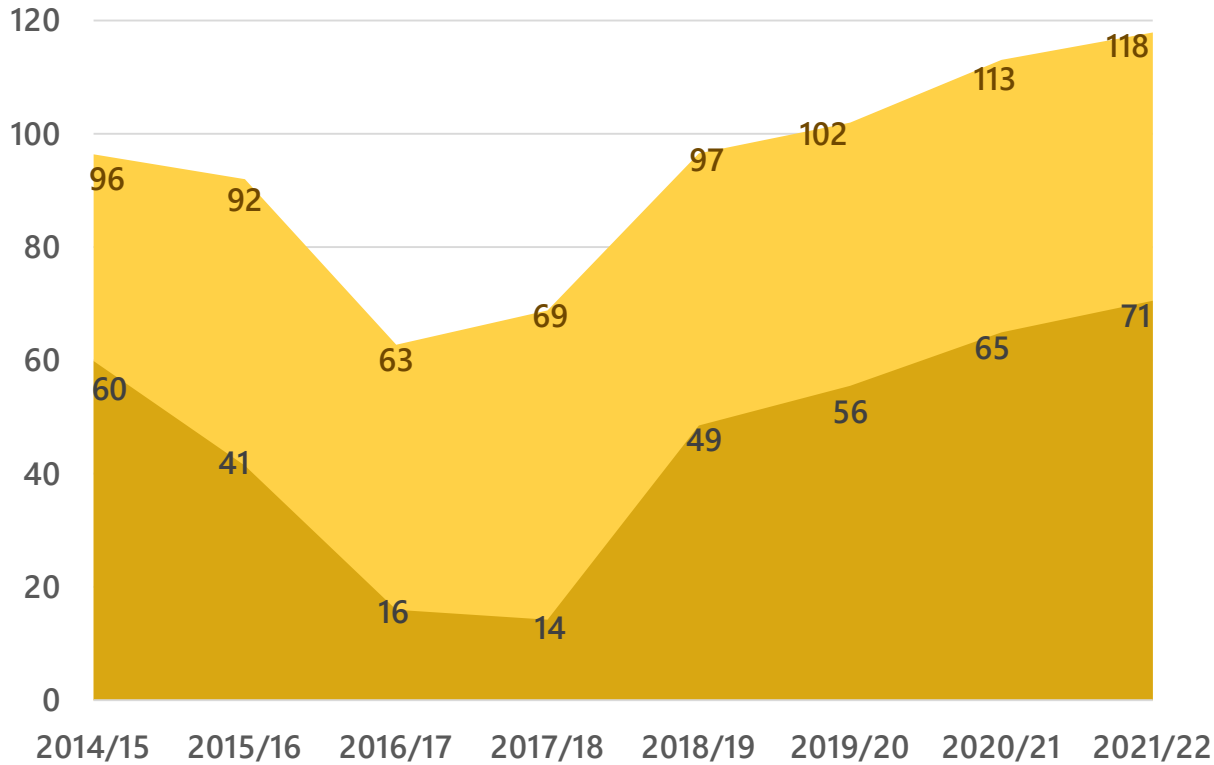


### Plant Factor (Quarterly)

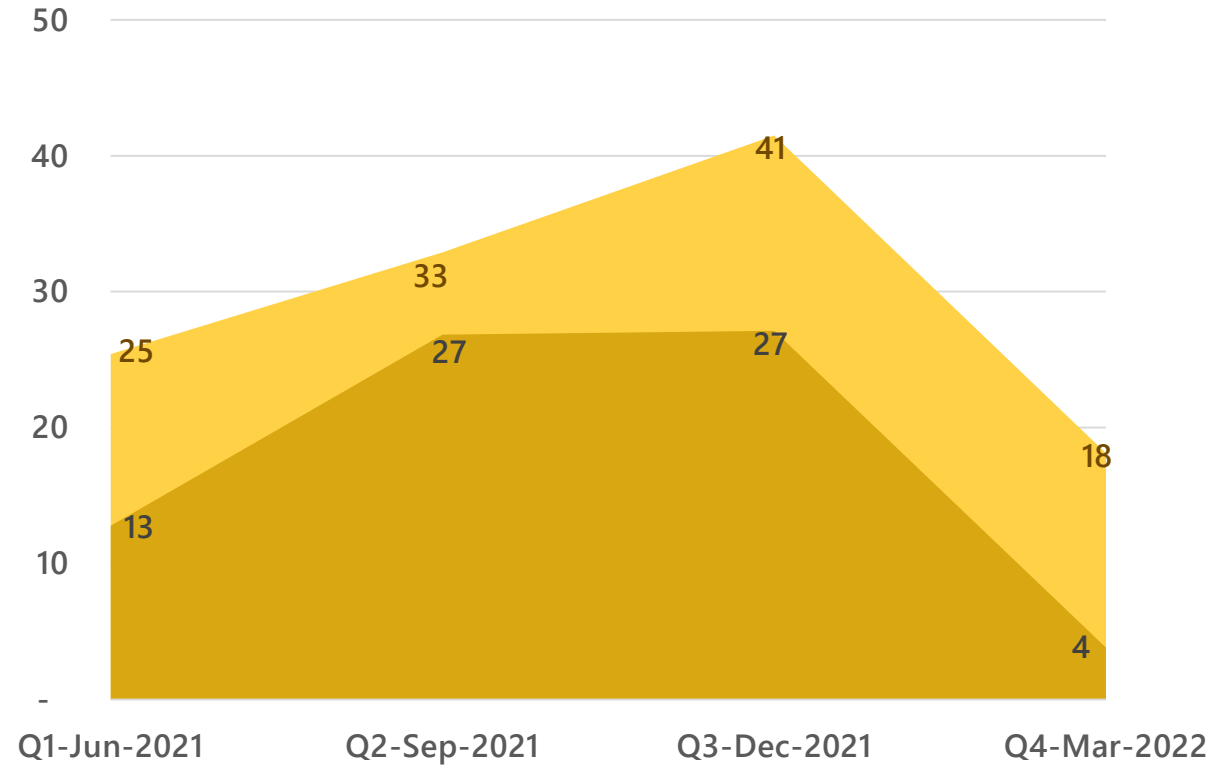


Generation (MWh)
  Plant Factor

### Profitability (Annual)



### Profitability (Quarterly)



Revenue (Mn)

Profit (Mn)



# Theberton

Sapthakanya Hydro Electric Company (Pvt) Ltd



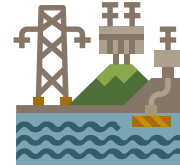
Location

Kiriwaneliya village,  
Nuwara Eliya district



Capacity

1.3 MW



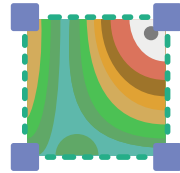
Gross Head

90 m



Rainfall

4,086 mm  
*per year*



Catchment Area

10 km<sup>2</sup>



Design Flow

1.950 m<sup>3</sup>/s



Equipment Supplier

- Fuchun Industry Development Co, China
- Hongya Power Generating Equipment, China



Year of Commissioning

2015



PPA Expiry

2035



Ownership

85%



Investment

LKR 142.8  
MN

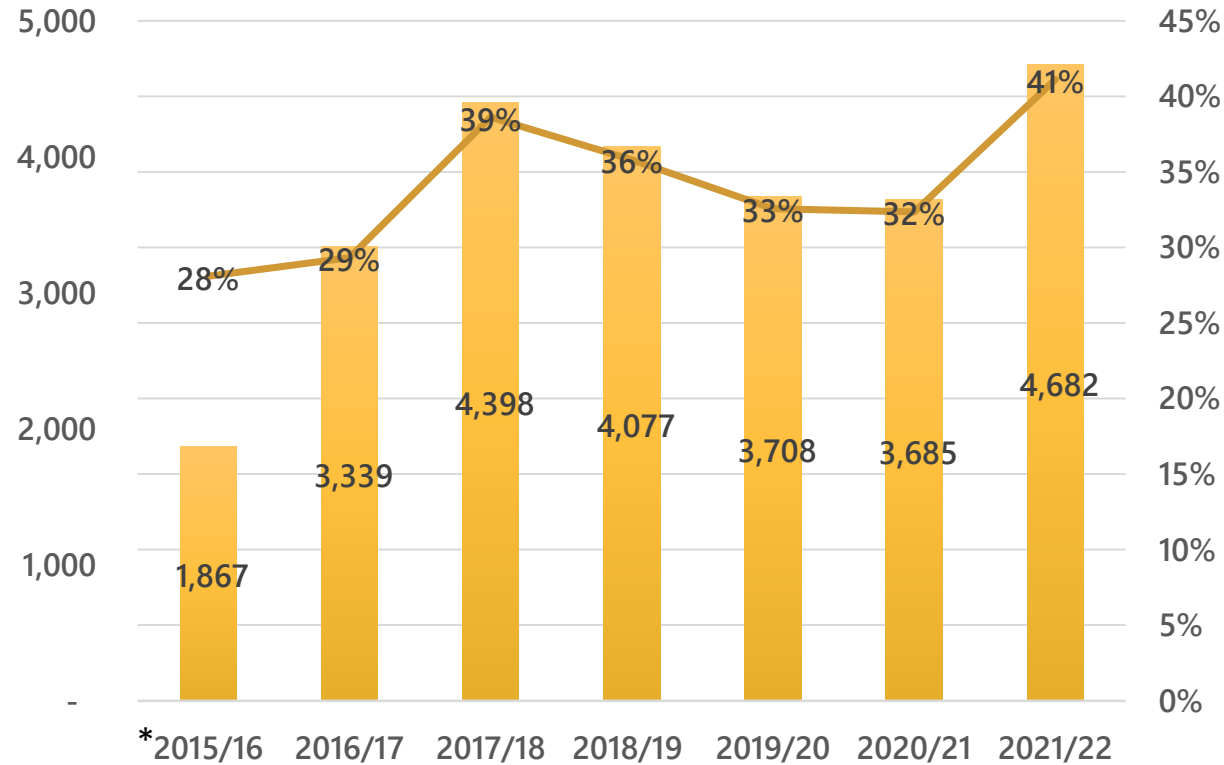


Project Partners

Colombo Energy Services (Pvt) Ltd



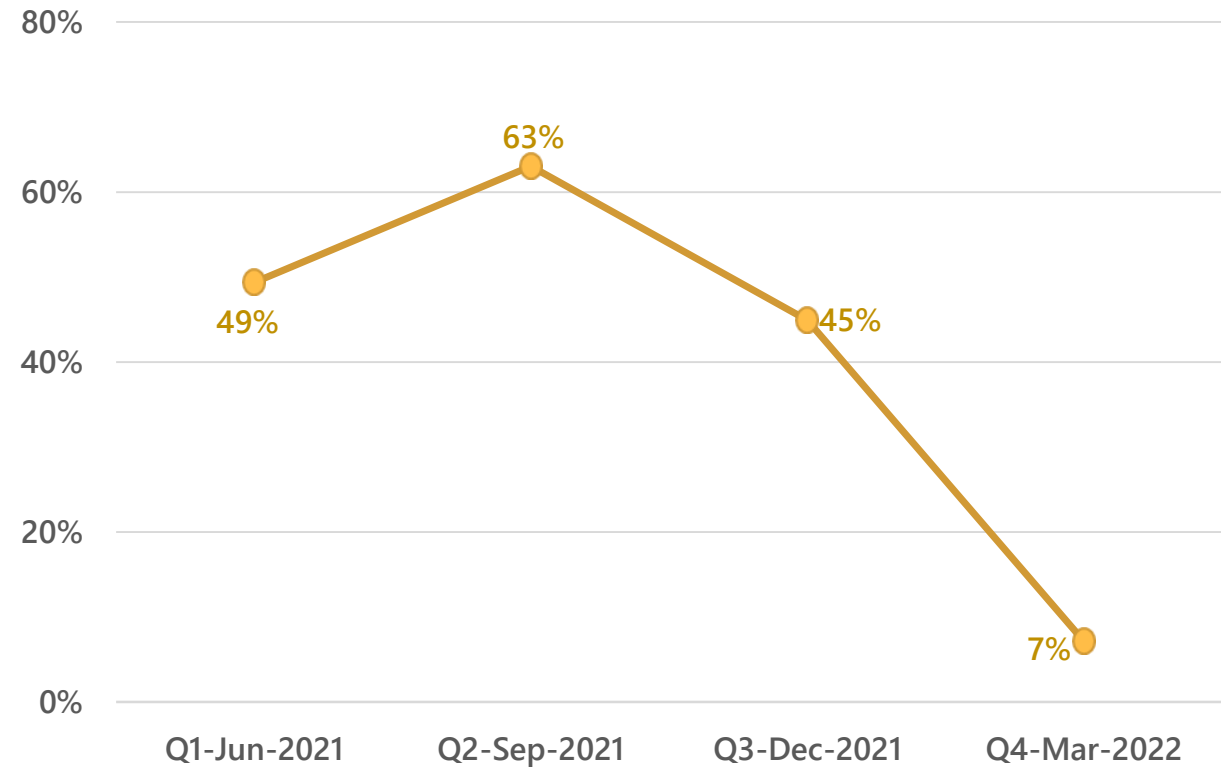
### Plant Factor (Annual)



\* 2015/16 2016/17 2017/18 2018/19 2019/20 2020/21 2021/22

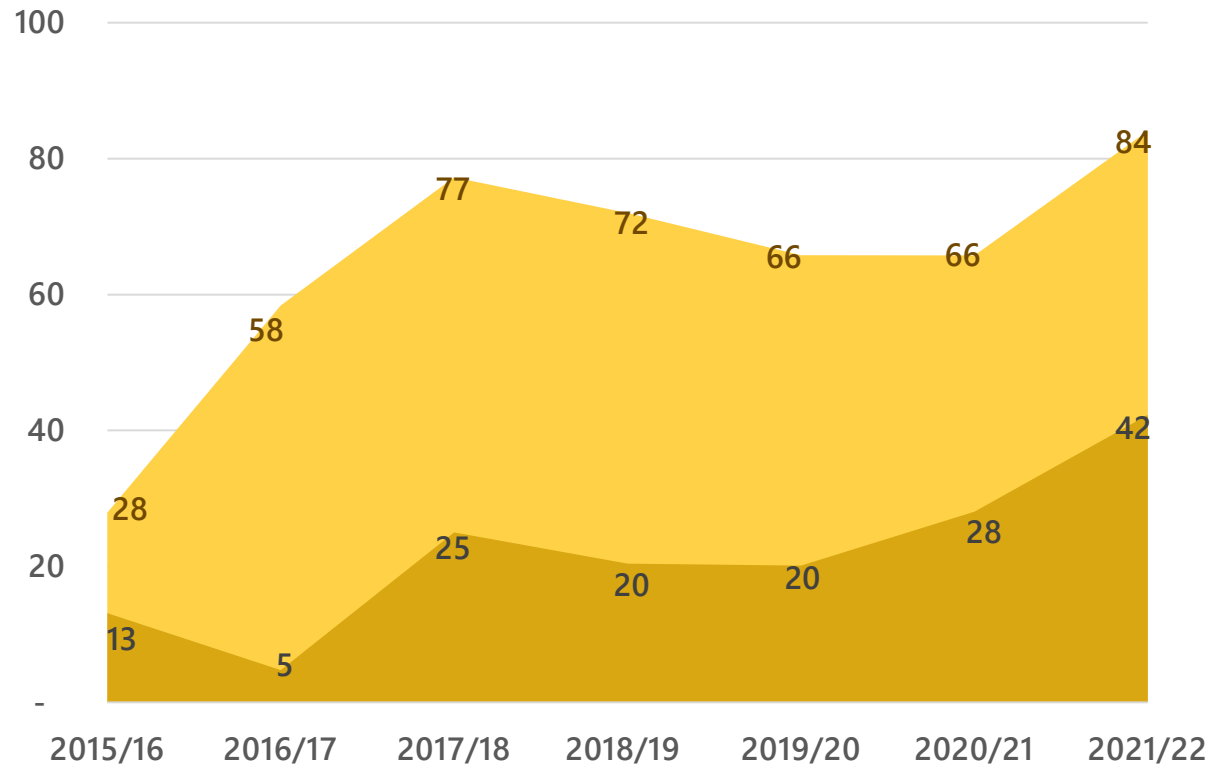
\* First year of commercial operation.

### Plant Factor (Quarterly)

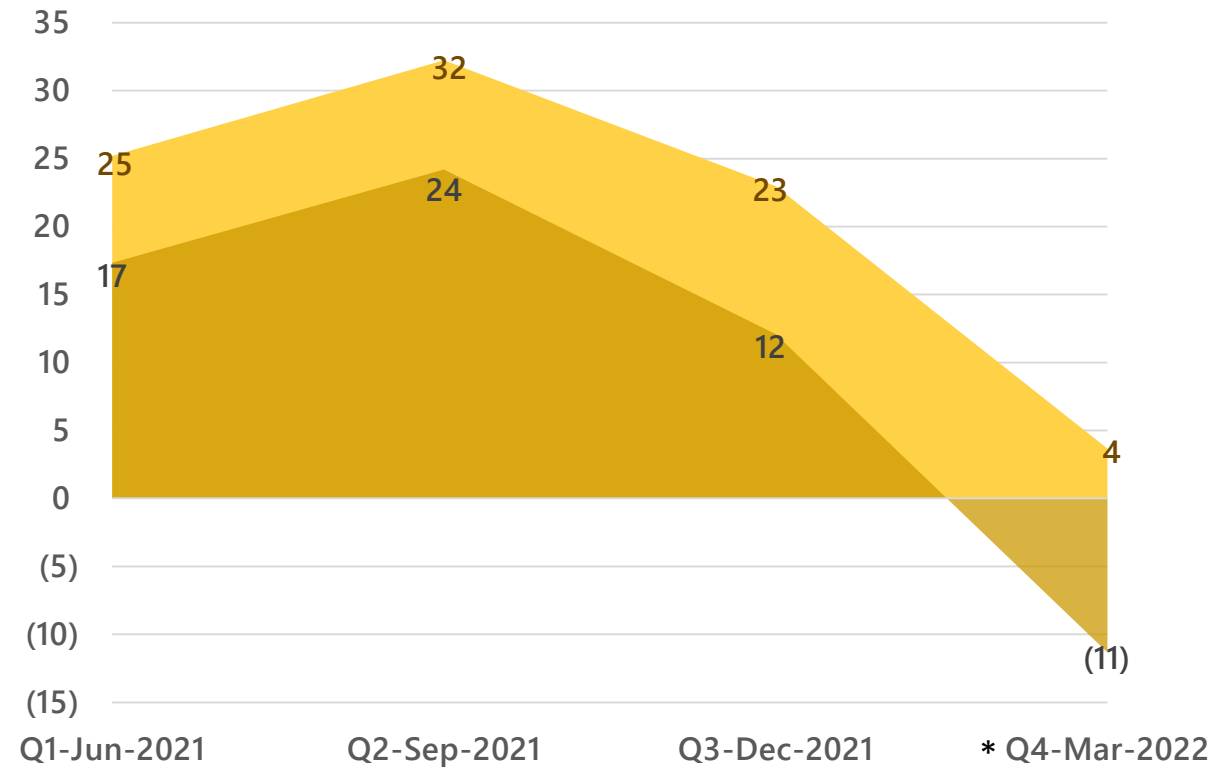


Generation (MWh) Plant Factor

## Profitability (Annual)



## Profitability (Quarterly)



\*Plant was shut down for repairs from 23<sup>rd</sup> February 2022 due to a breakdown in the Turbines. The Plant re-commissioned on 20<sup>th</sup> March 2022.

■ Revenue (Mn)

■ Profit (Mn)

# Campion

Campion Hydro Power (Pvt) Ltd



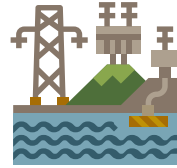
Location

Bogawantalawa,  
Nuwara Eliya district



Capacity

1.2 MW



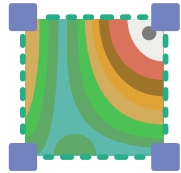
Gross Head

76 m



Rainfall

2,384 mm  
*per year*



Catchment Area

27 km<sup>2</sup>



Design Flow

2.1 m<sup>3</sup>/s



Equipment Supplier

Hongya Power  
Generating  
Equipment,  
China



Year of Commissioning

2017



PPA Expiry

2037



Ownership

84%



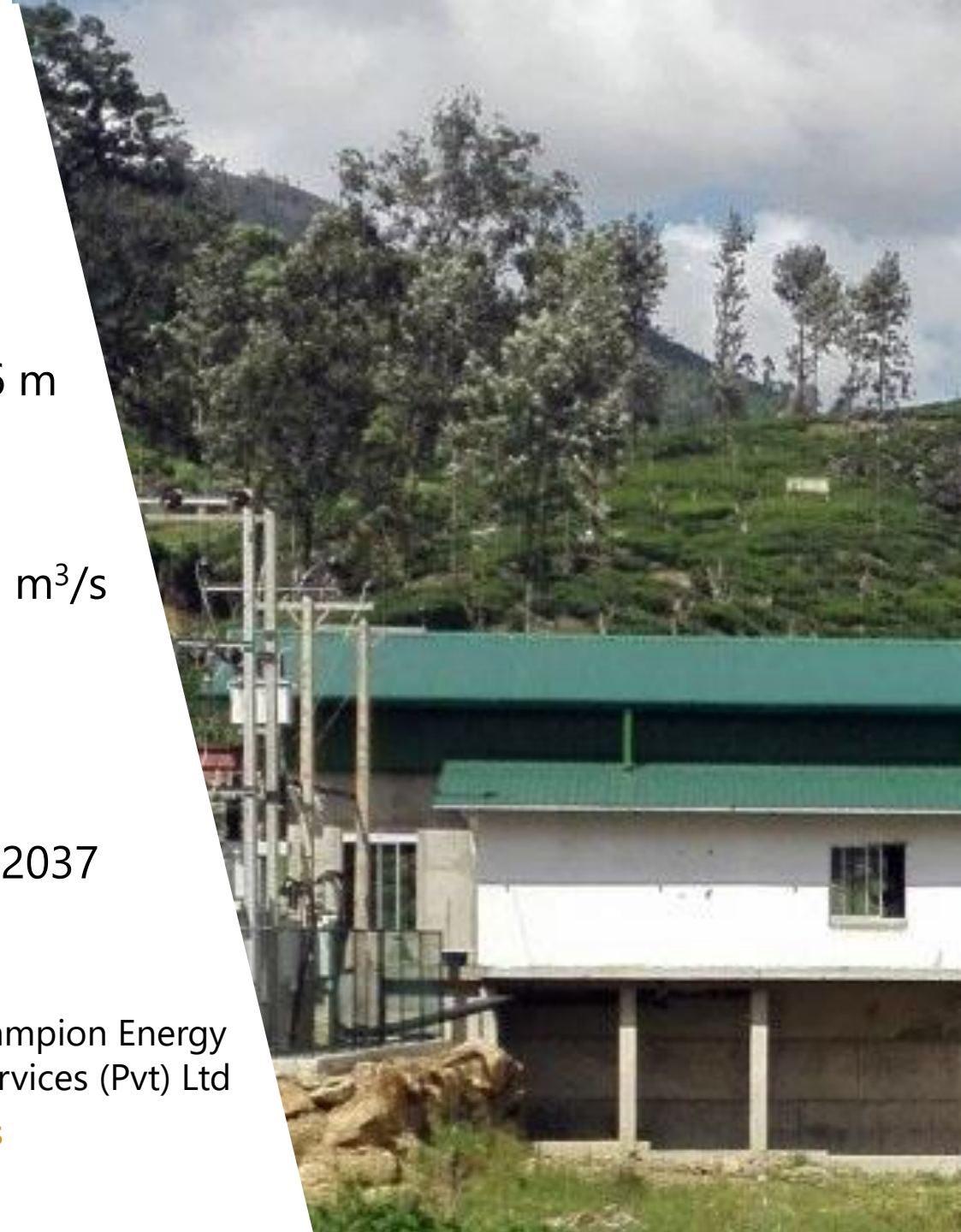
Investment

LKR 118  
MN



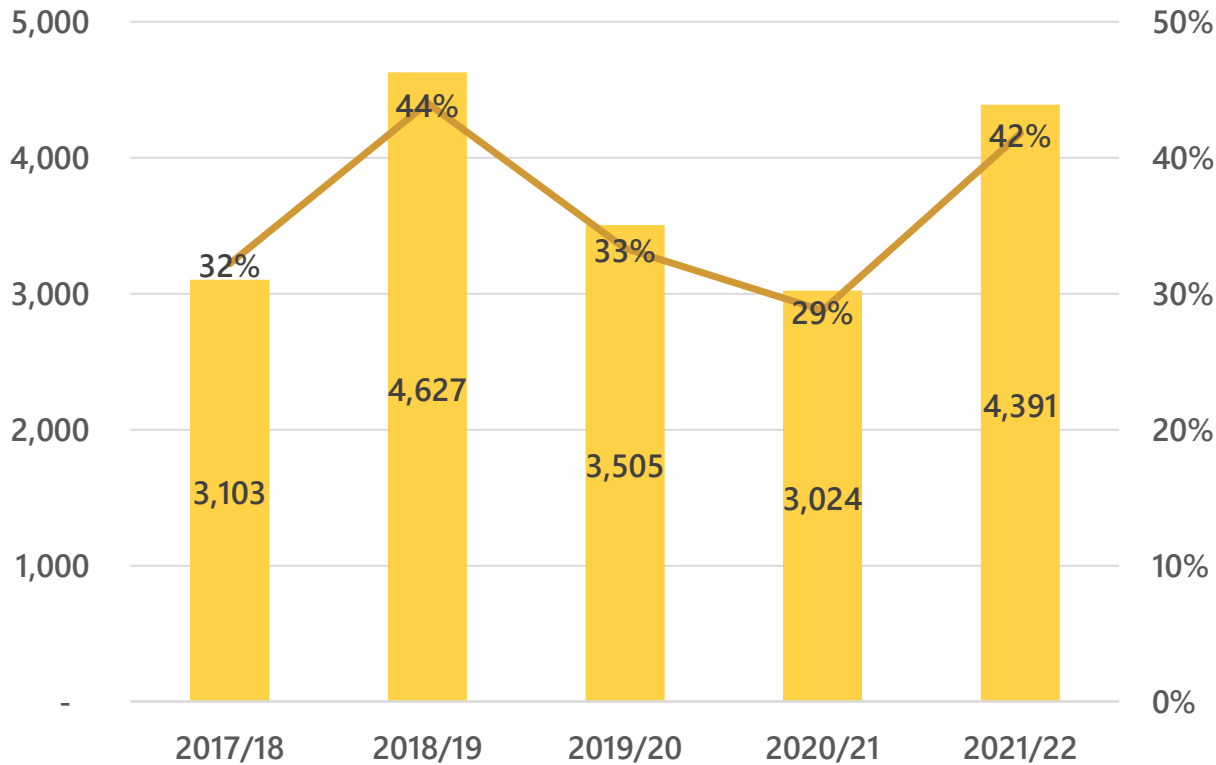
Project Partners

Campion Energy  
Services (Pvt) Ltd

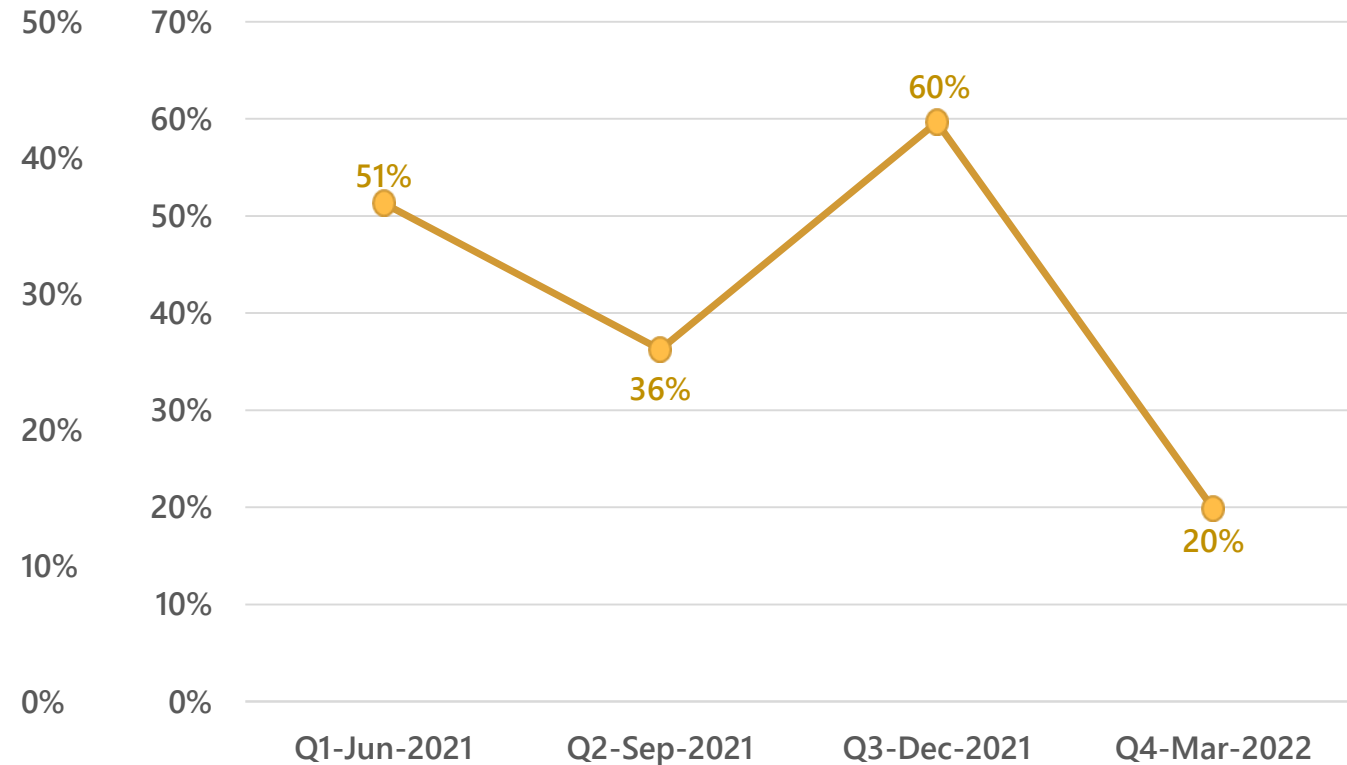




### Plant Factor (Annual)

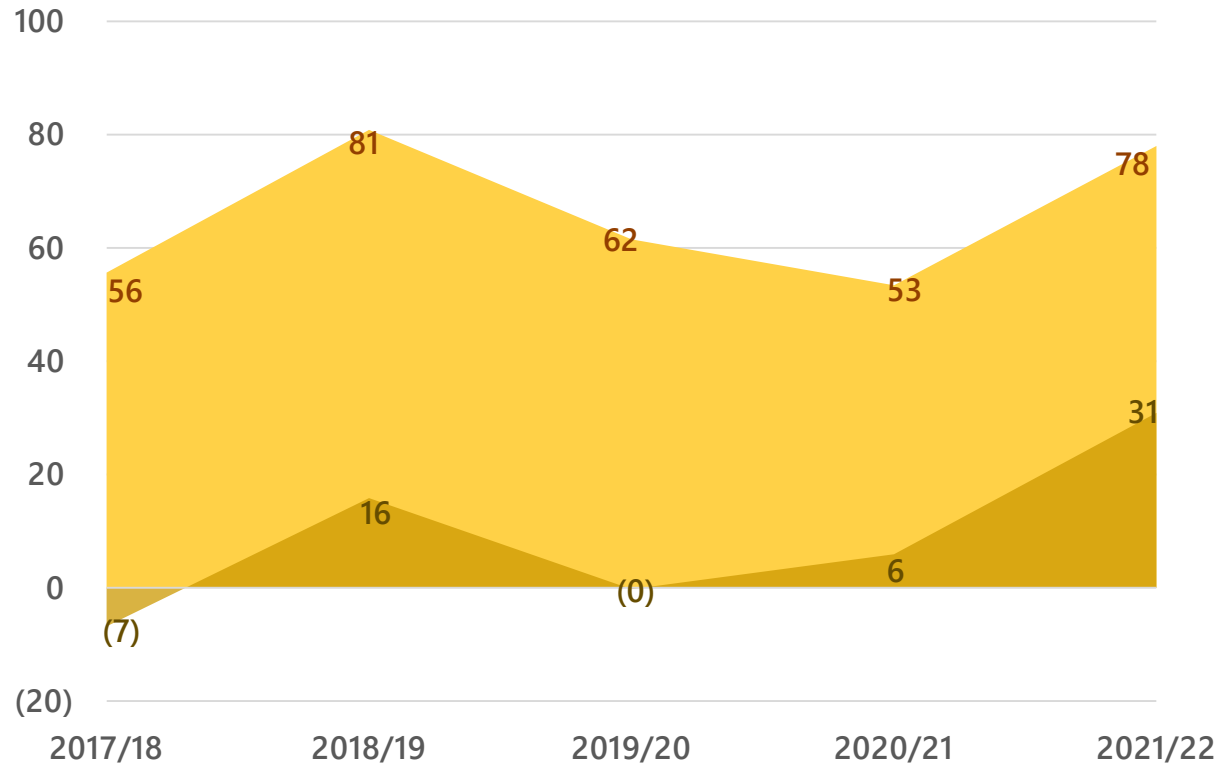


### Plant Factor (Quarterly)

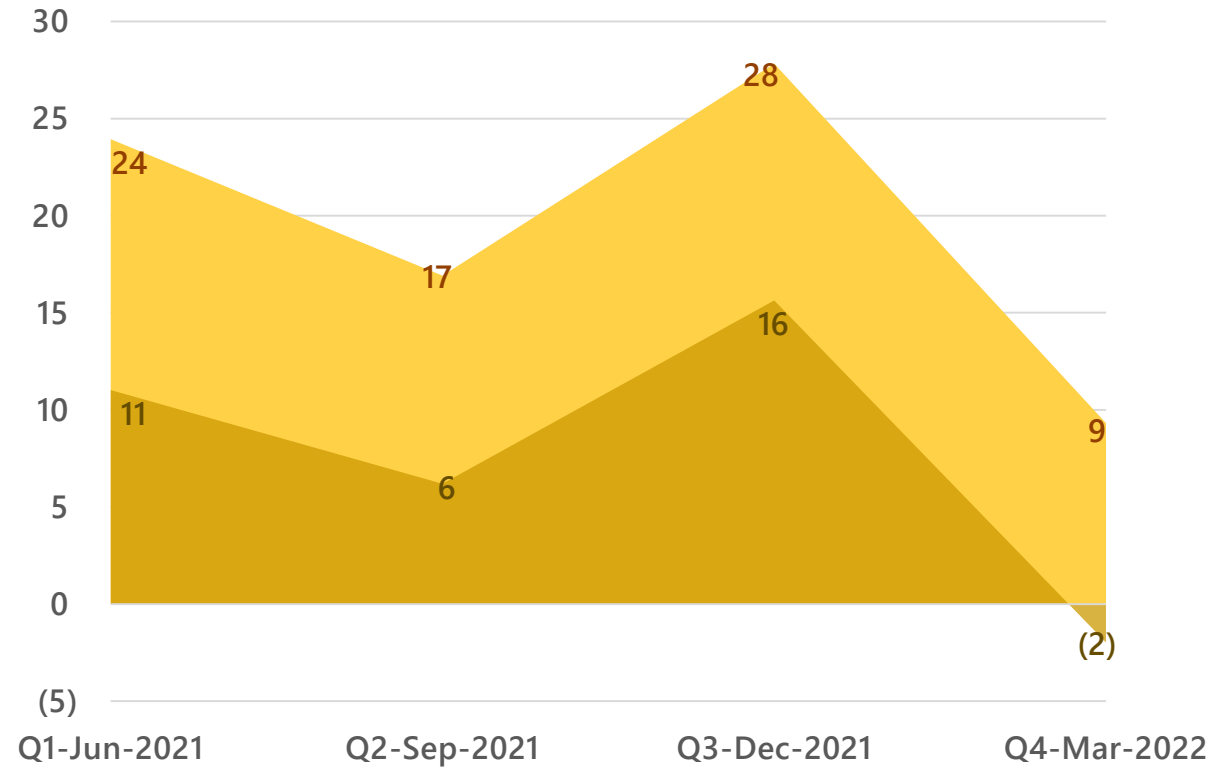


Generation (MWh)
  Plant Factor

## Profitability (Annual)



## Profitability (Quarterly)



■ Revenue (Mn)

■ Profit (Mn)

# Bambarapana

Bambarapana Hydro Power (Pvt) Ltd



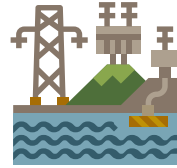
Location

Haliela,  
Badulla district



Capacity

2.5 MW



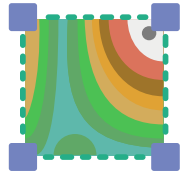
Gross Head

46 m



Rainfall

1,650-1,880 mm  
*per year*



Catchment Area

180.5 km<sup>2</sup>



Design Flow

6.5 m<sup>3</sup>/s



Equipment Supplier

Global Hydro  
Energy, Austria



Year of Commissioning

2018



PPA Expiry

2038



Ownership

40%



Investment

LKR 155.6  
MN

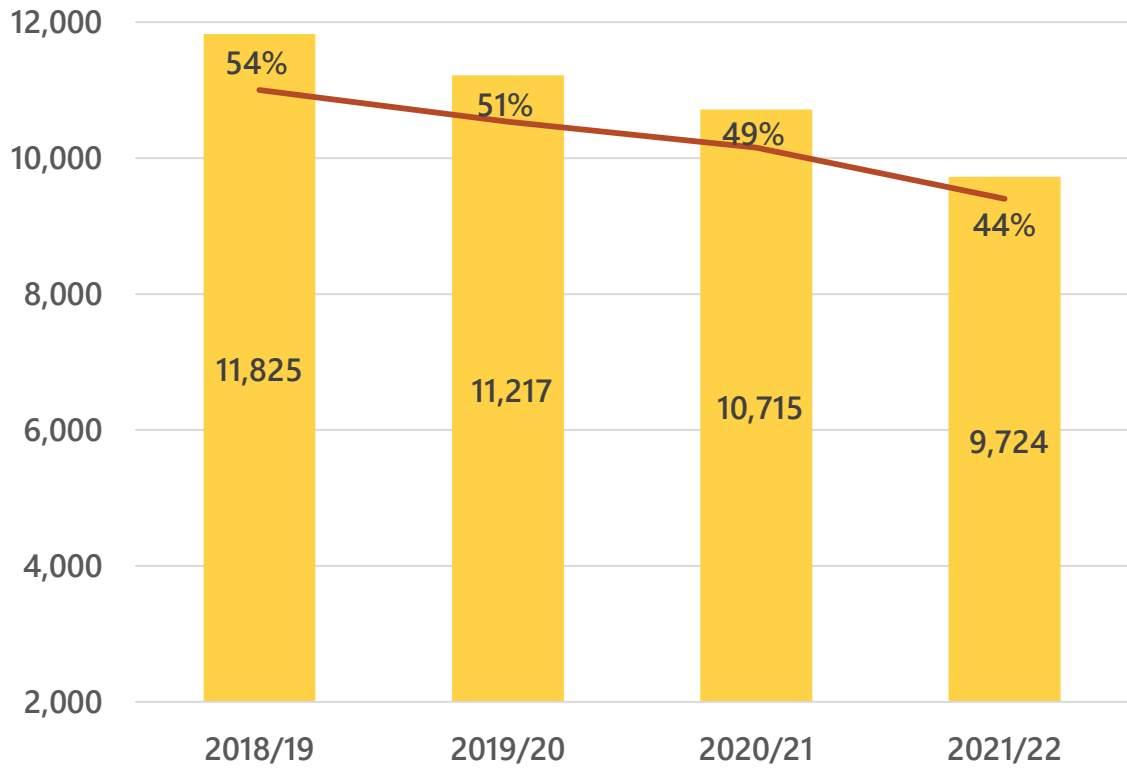


Project Partners

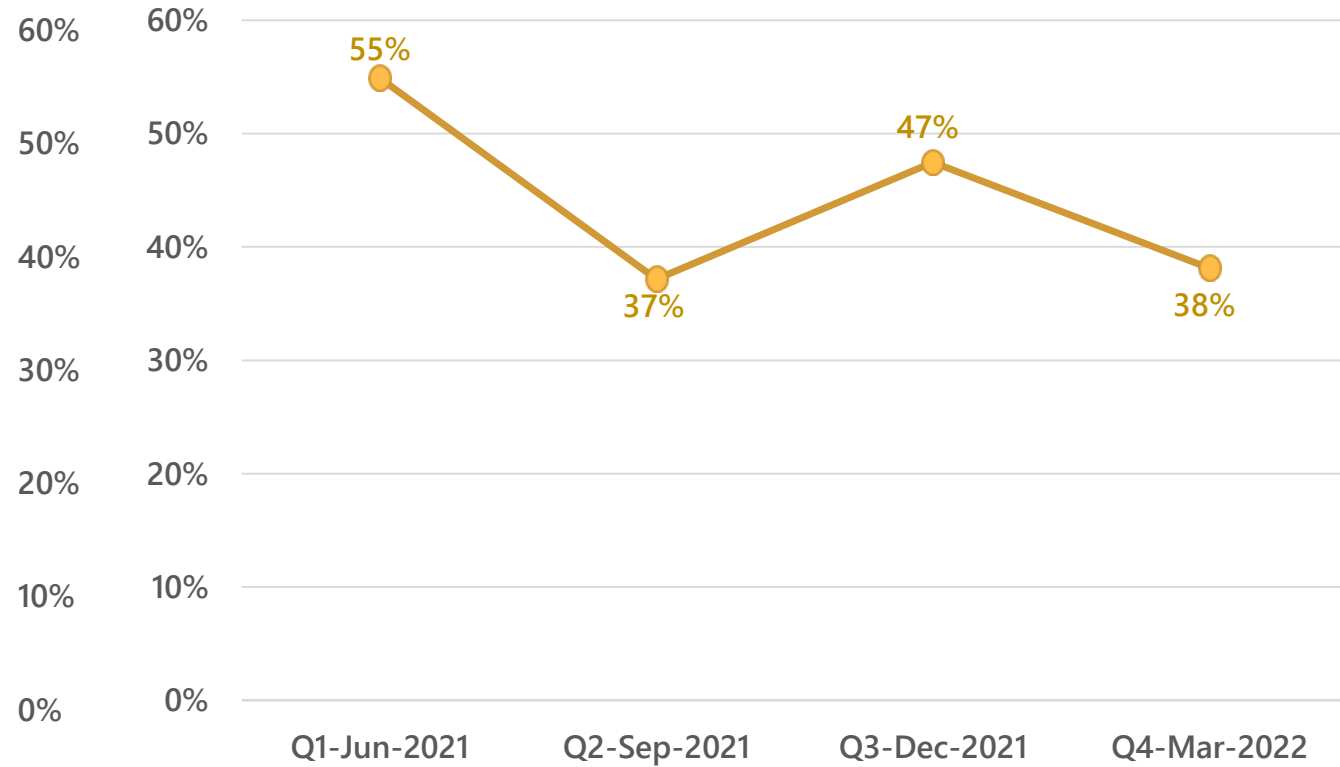
Ceylex Engineering  
(Pvt) Ltd



### Plant Factor (Annual)

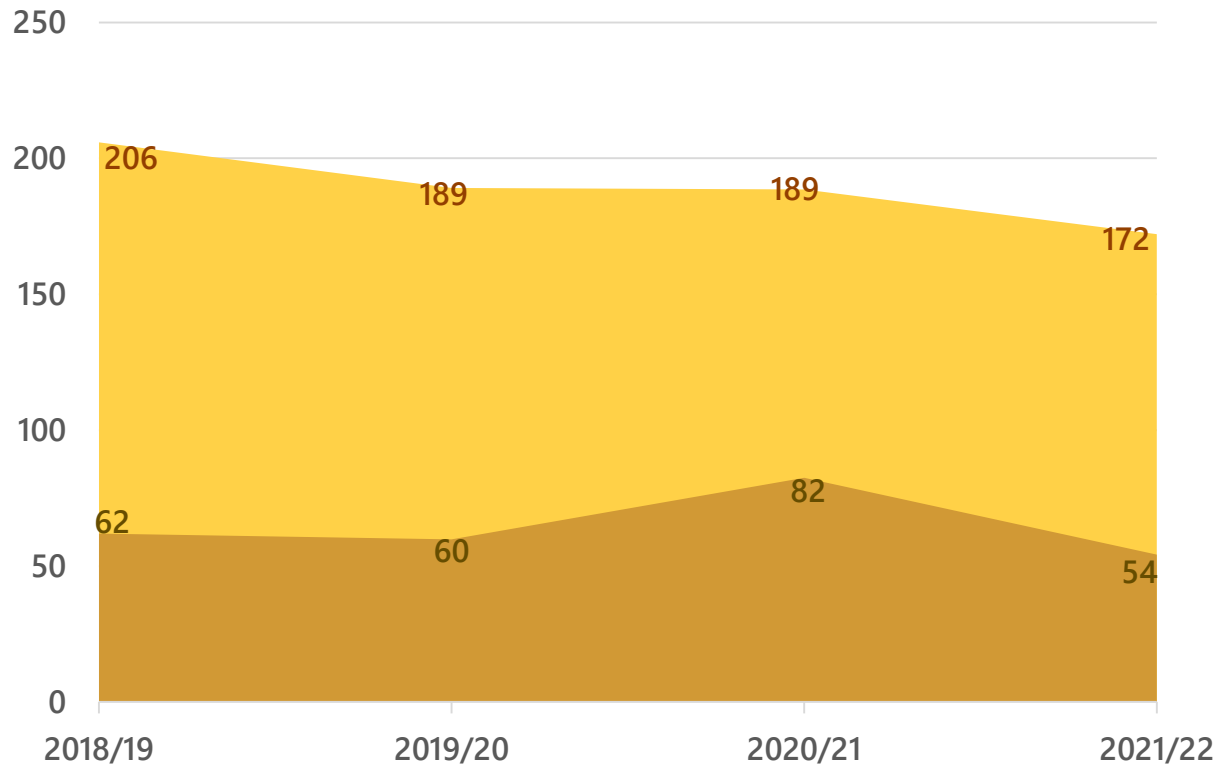


### Plant Factor (Quarterly)

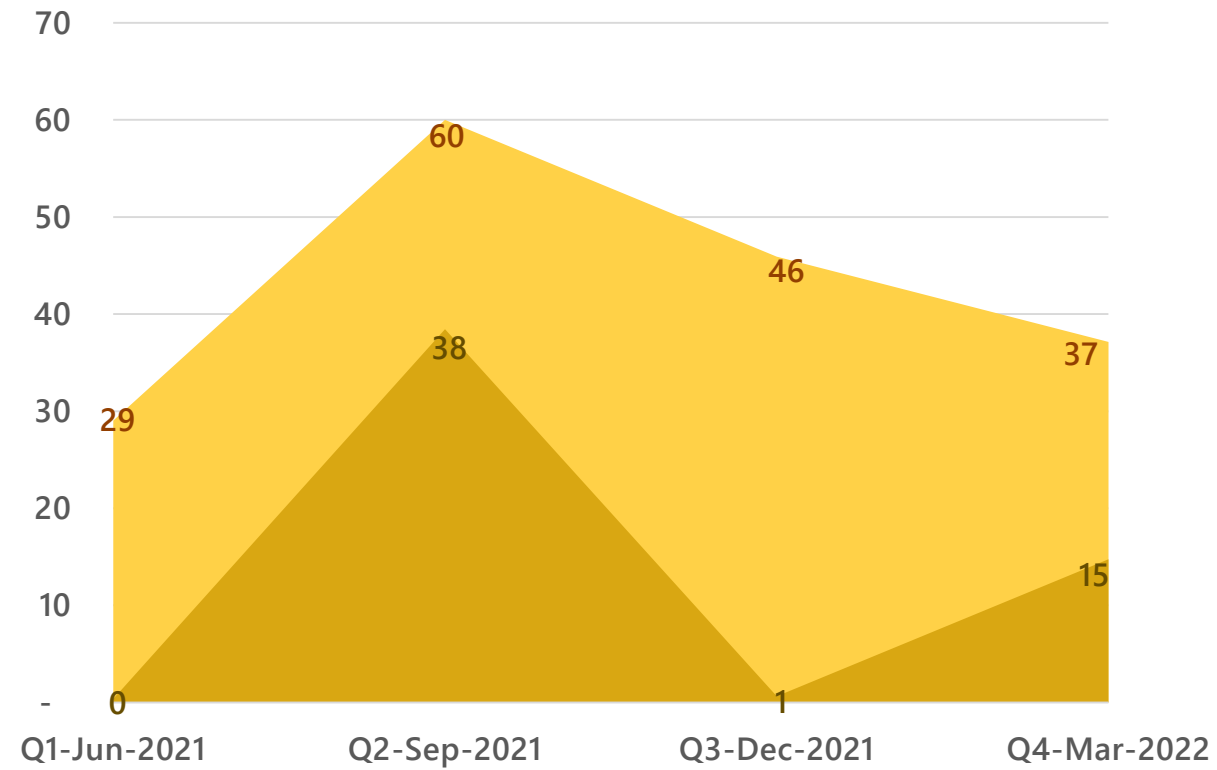


Generation (MWh) Plant Factor

### Profitability (Annual)



### Profitability (Quarterly)



■ Revenue (Mn)

■ Profit (Mn)



# Hydro Plants

## Generation (MWh)

Project6	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Belihul Oya	9,988	3,552	6,695	9,893	8,002	7,098	8,778
Assupini Ella	16,657	4,622	14,249	14,009	13,206	13,268	14,840
Kadawala	14,015	11,635	14,306	12,713	10,451	10,854	12,317
Neluwa	5,878	4,277	4,910	5,874	5,581	5,720	6,124
Theberton	1,867	3,339	4,398	4,077	3,708	3,685	4,682
Campion	-	-	3,103	4,627	3,505	3,024	4,391
Bamabarapana	-	-	-	11,825	10,864	10,715	9,724



# WIND POWER PROJECTS

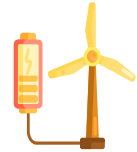
# Pawan Danavi

Pawan Danavi (Pvt) Ltd



Location

Kalpitiya,  
Puttalam  
district



Capacity

10.2 MW



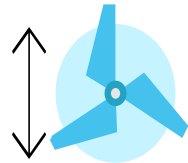
Turbines

12  
*Turbines*



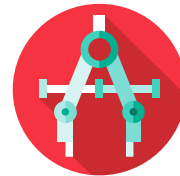
Average wind speed

7-7.5 m/s



Hub Height

65 m



Rotor Diameter

58 m



Equipment Supplier

Gamesa,  
Spain



Year of Commissioning

2012



PPA Expiry

2032



Ownership

40%



Investment

LKR 424 MN

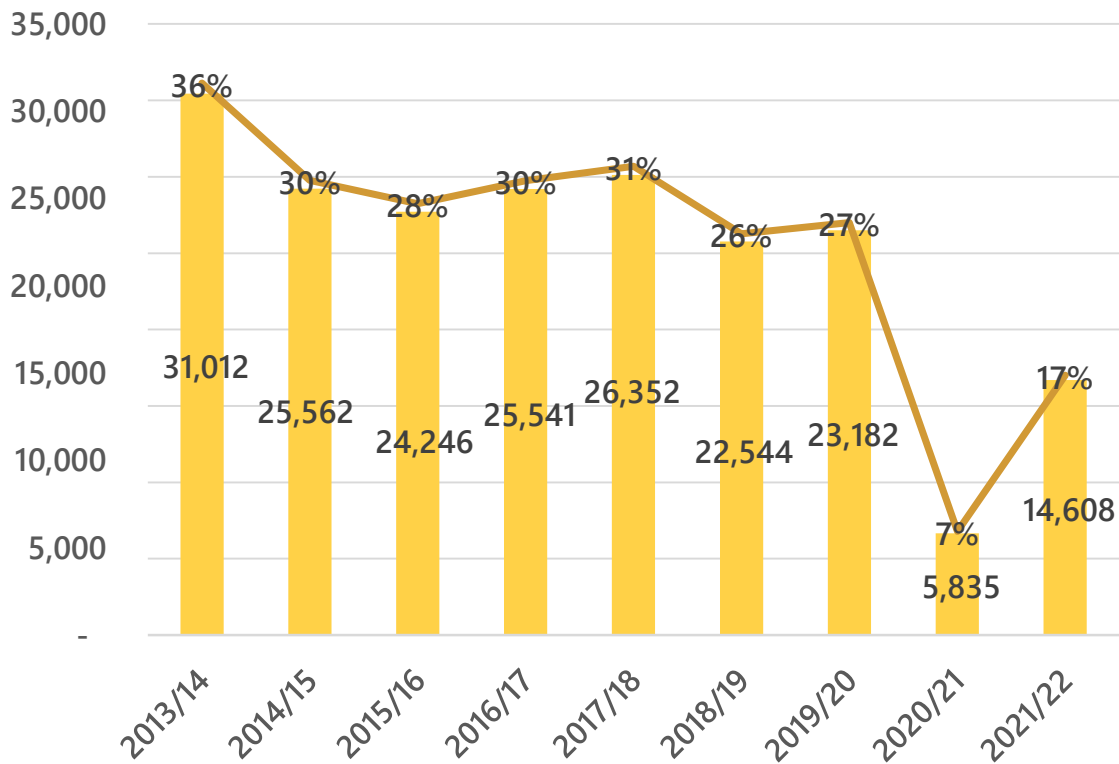


Project Partners

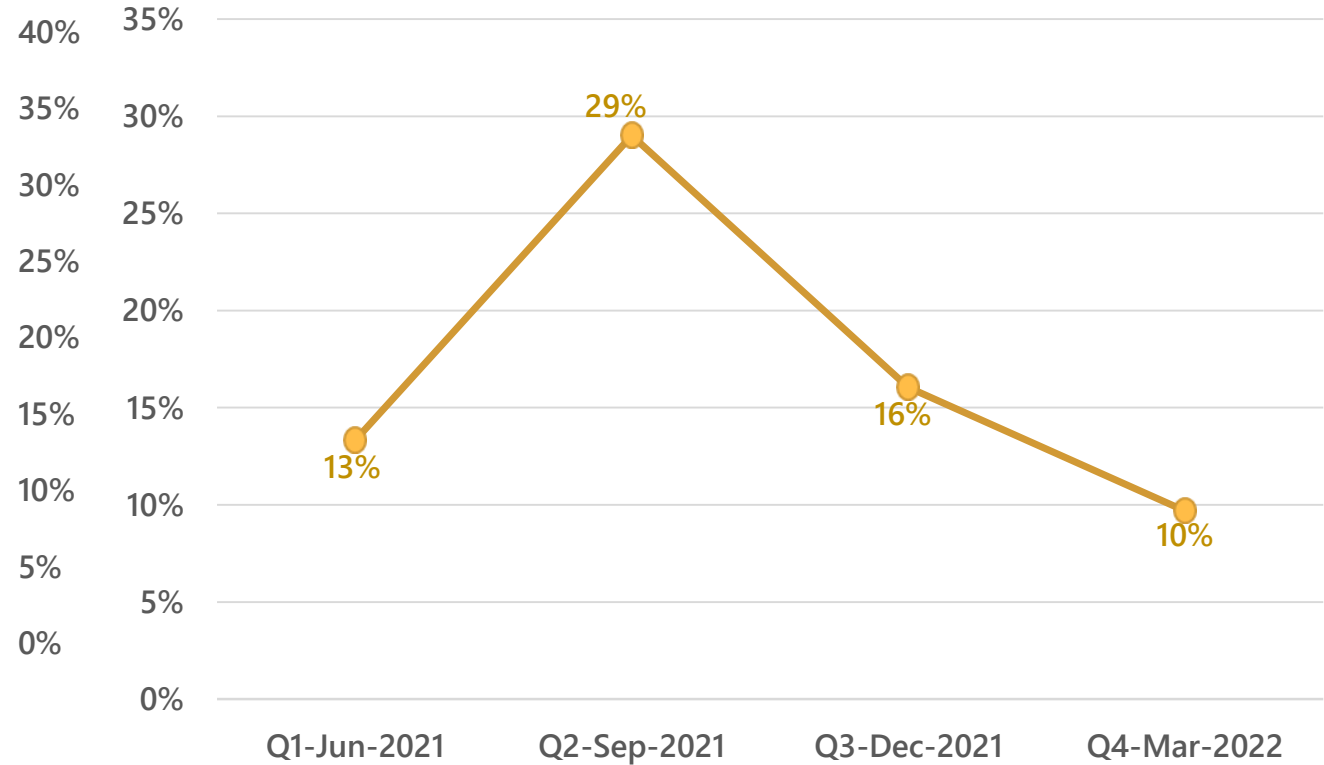
LTL Holdings (Pvt) Ltd



### Plant Factor (Annual)

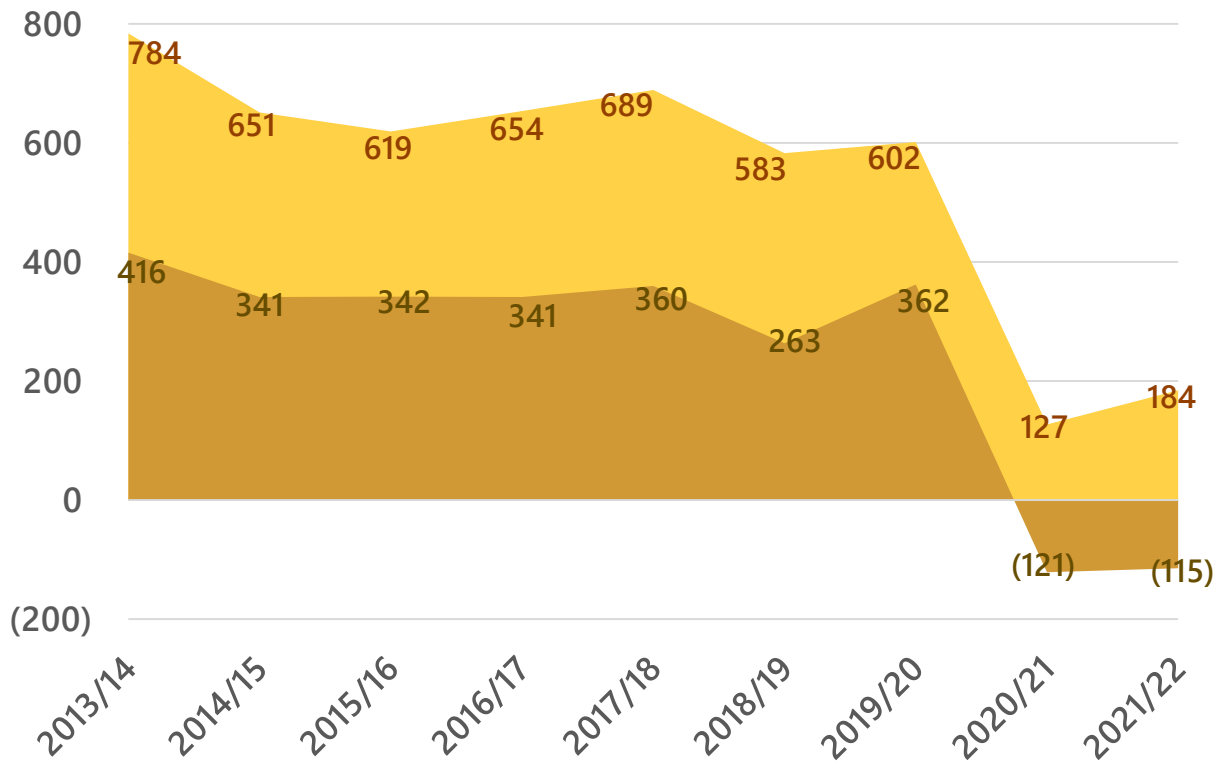


### Plant Factor (Quarterly)

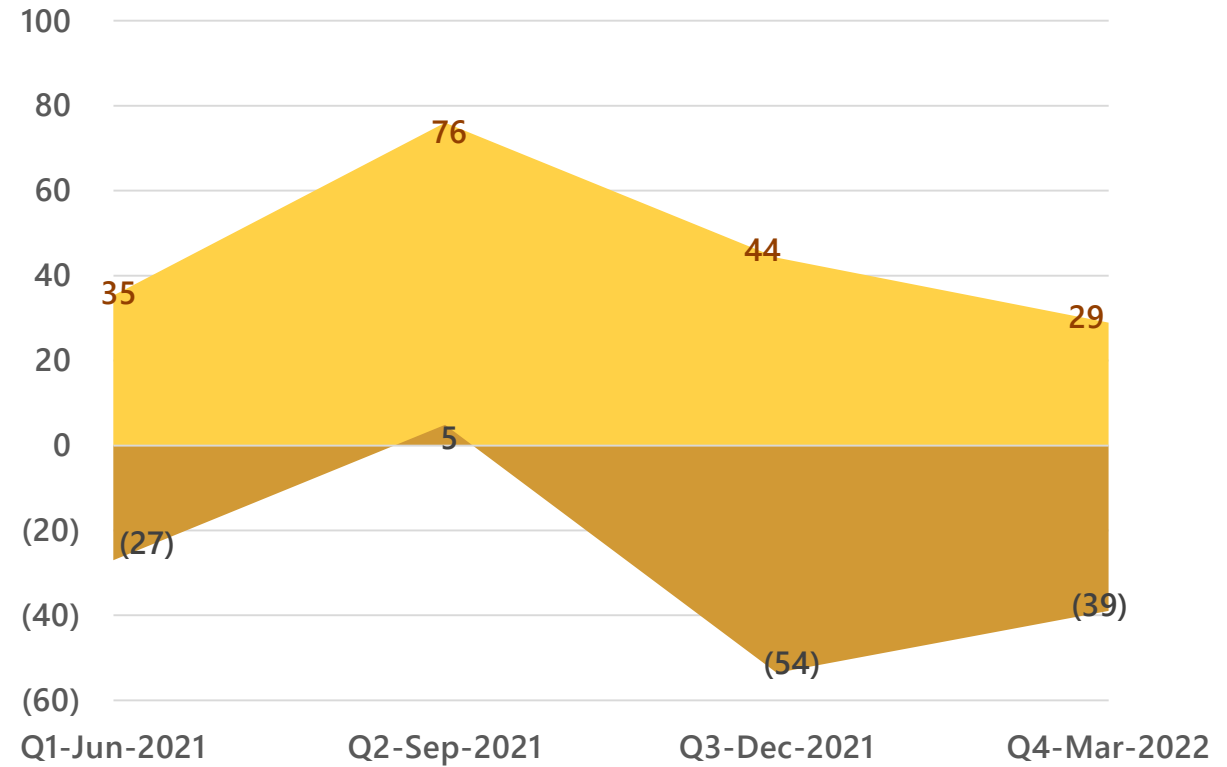


\*Due to an equipment failure at the Norochcholai grid substation the plant was unable to dispatch electricity to the grid. This failure was rectified on 23 August 2021 and the plant is fully operational since then.

### Profitability (Annual)



### Profitability (Quarterly)



■ Revenue (Mn)

■ Profit (Mn)



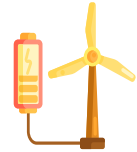
# Nala Danavi

Nala Danavi (Pvt) Ltd



Location

Erumbukkudal,  
Puttalam  
district



Capacity

5.1 MW



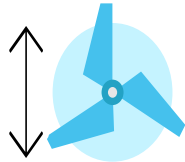
Turbines

6  
Turbines



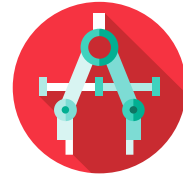
Average wind speed

7-7.5 m/s



Hub Height

65 m



Rotor Diameter

58 m



Equipment Supplier

Gamesa,  
Spain



Year of Commissioning

2013



PPA Expiry

2033



Ownership

49%



Investment

LKR 242.6  
MN

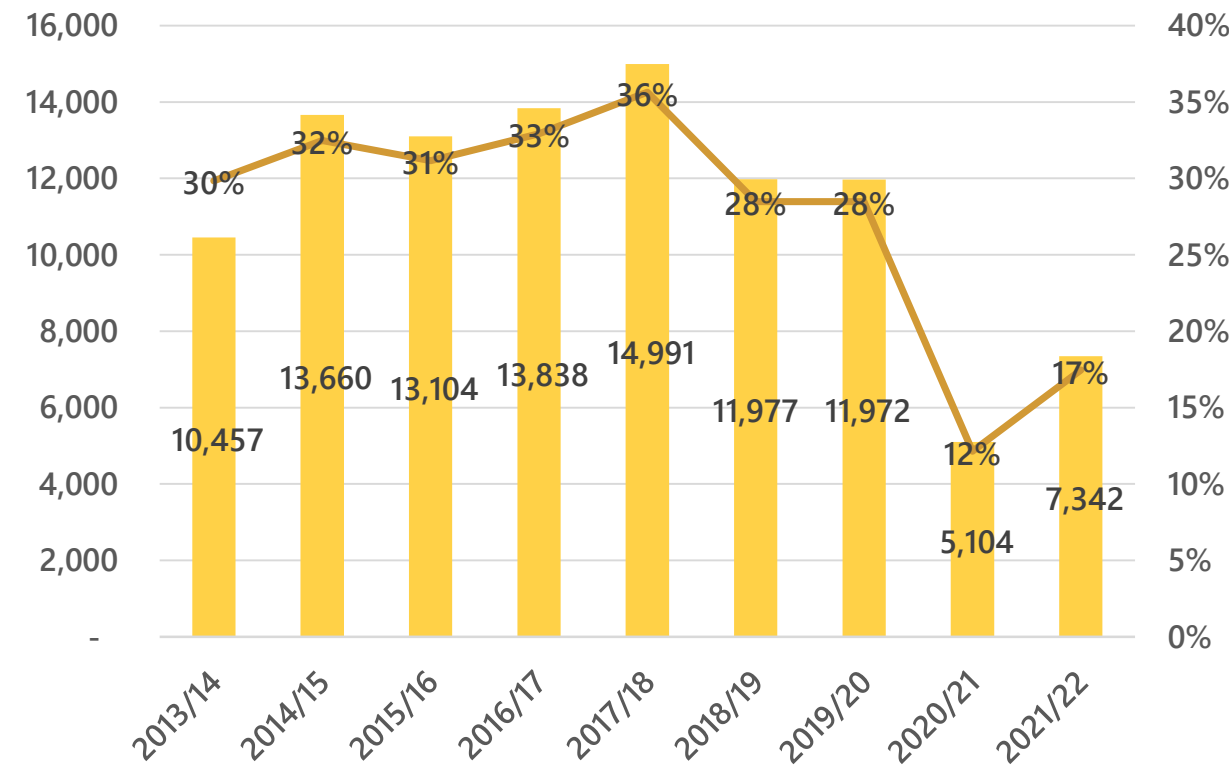


Project Partners

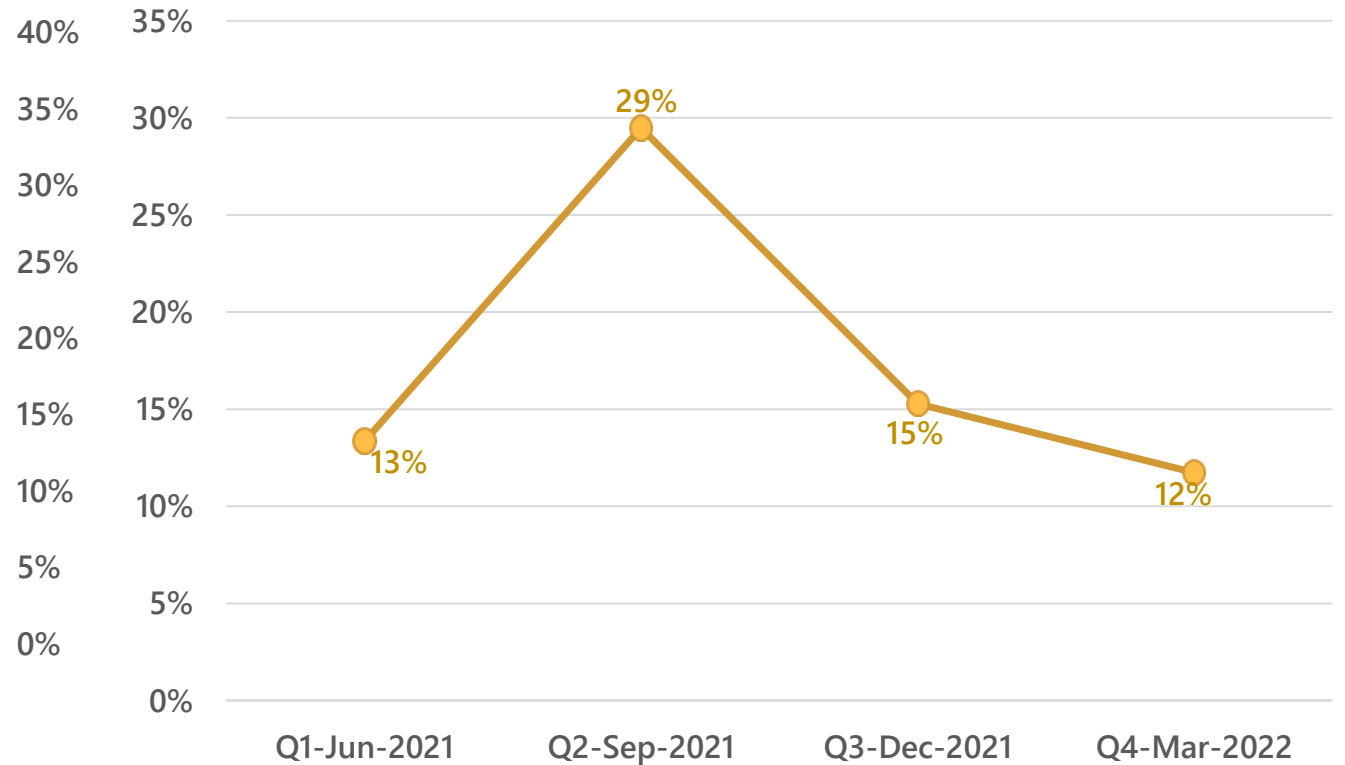
Ceylex Engineering  
(Pvt) Ltd



### Plant Factor (Annual)

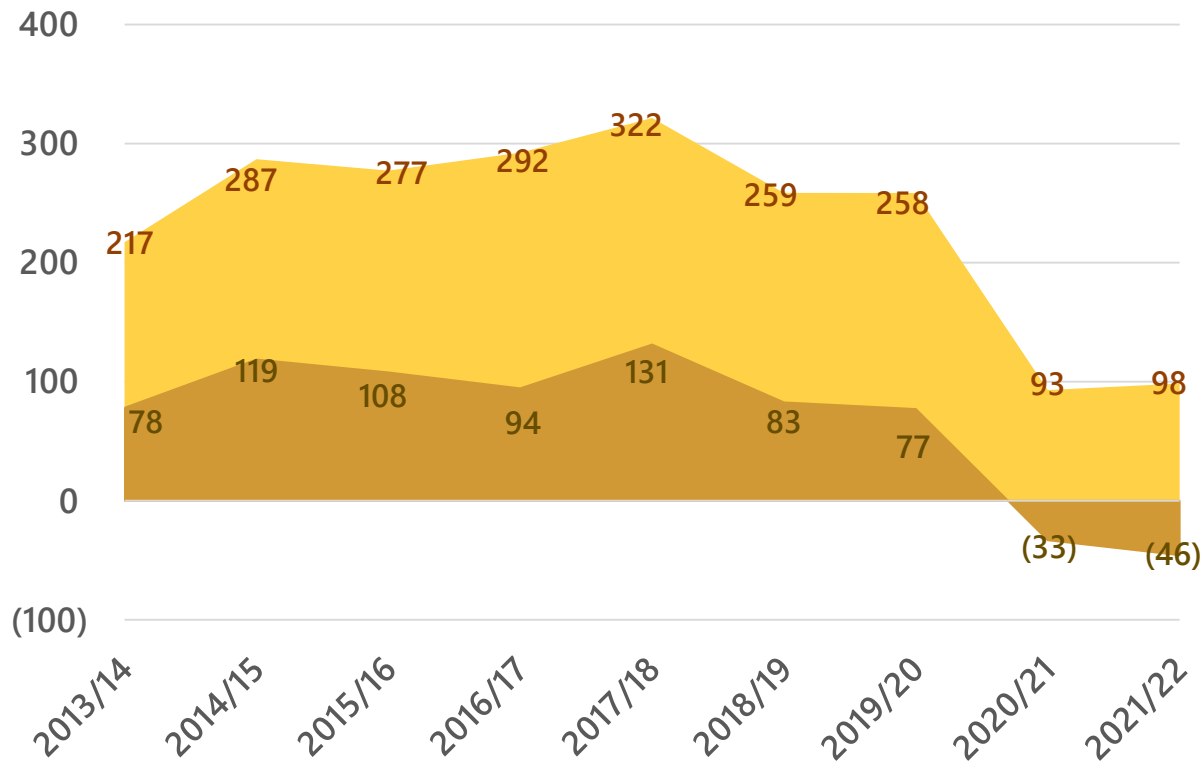


### Plant Factor (Quarterly)

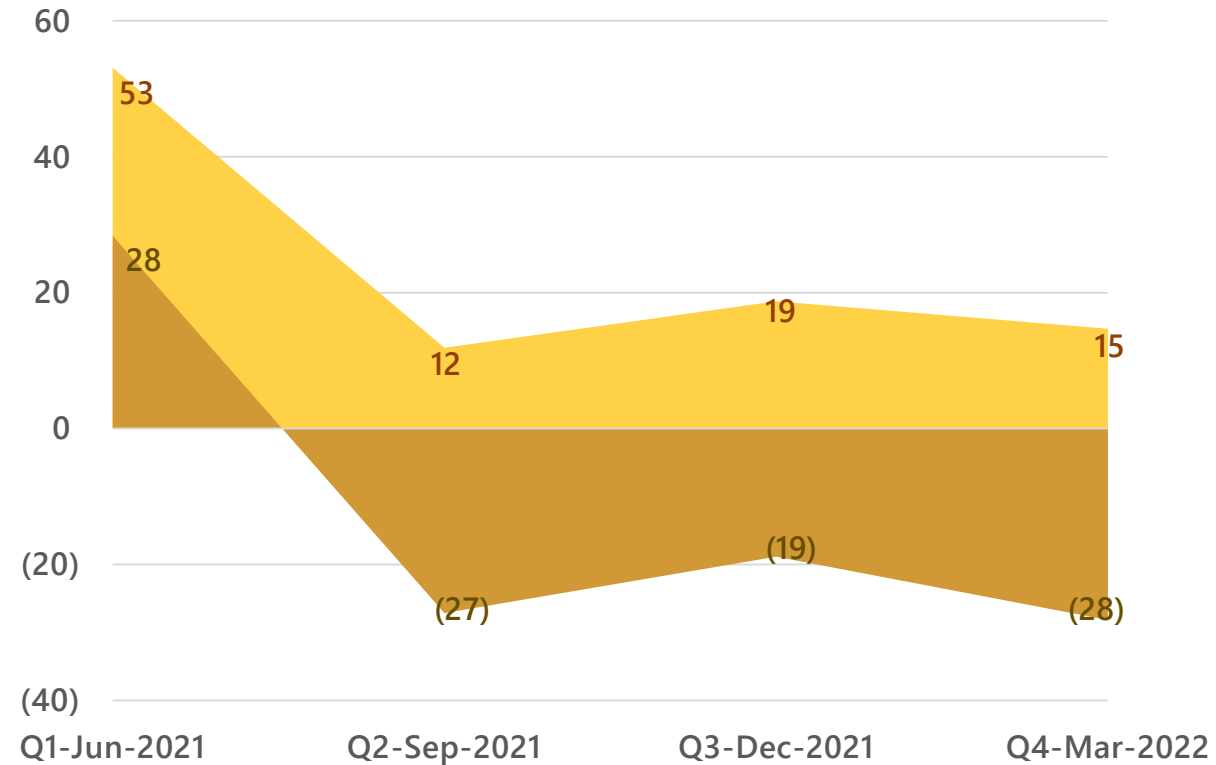


\*Nala Danavi also lost its connectivity to the grid due to the aforementioned equipment failure and the plant became fully operational after the repair in August 2021.

## Profitability (Annual)



## Profitability (Quarterly)



Revenue (Mn)

Profit (Mn)



# THERMAL POWER PROJECTS

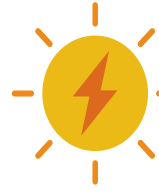
# Rajshahi

Raj Lanka Power Company Ltd



Location

Natore,  
Rajshahi district  
Bangladesh



Capacity

52.2 MW



Engines

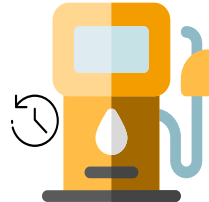
6

HFO / Gas based  
Reciprocating  
engines



Main Fuel

Heavy  
Furnace Oil



Backup Fuel

Diesel



Equipment Supplier

Wartsila,  
Finland



Year of Commissioning

2014



Tenure of PPA

15 years



Ownership

20.3%



Investment

LKR 386.5  
MN



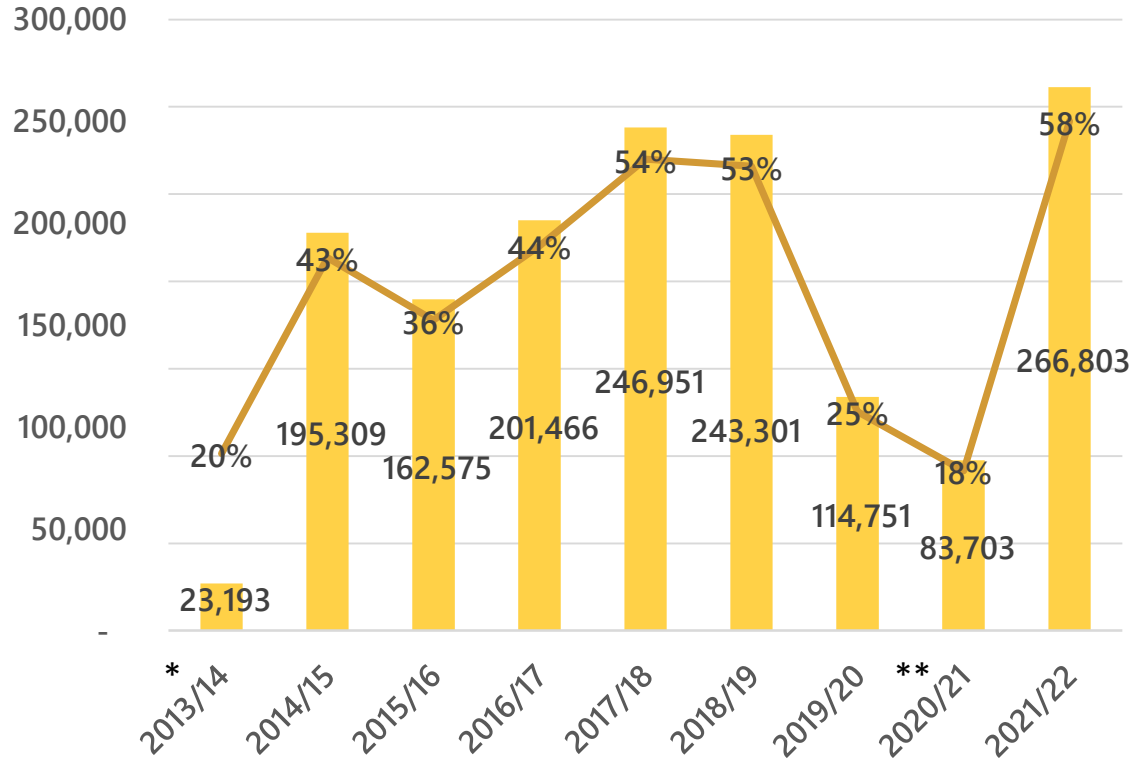
Project Partners

LTL Holdings (Pvt) Ltd

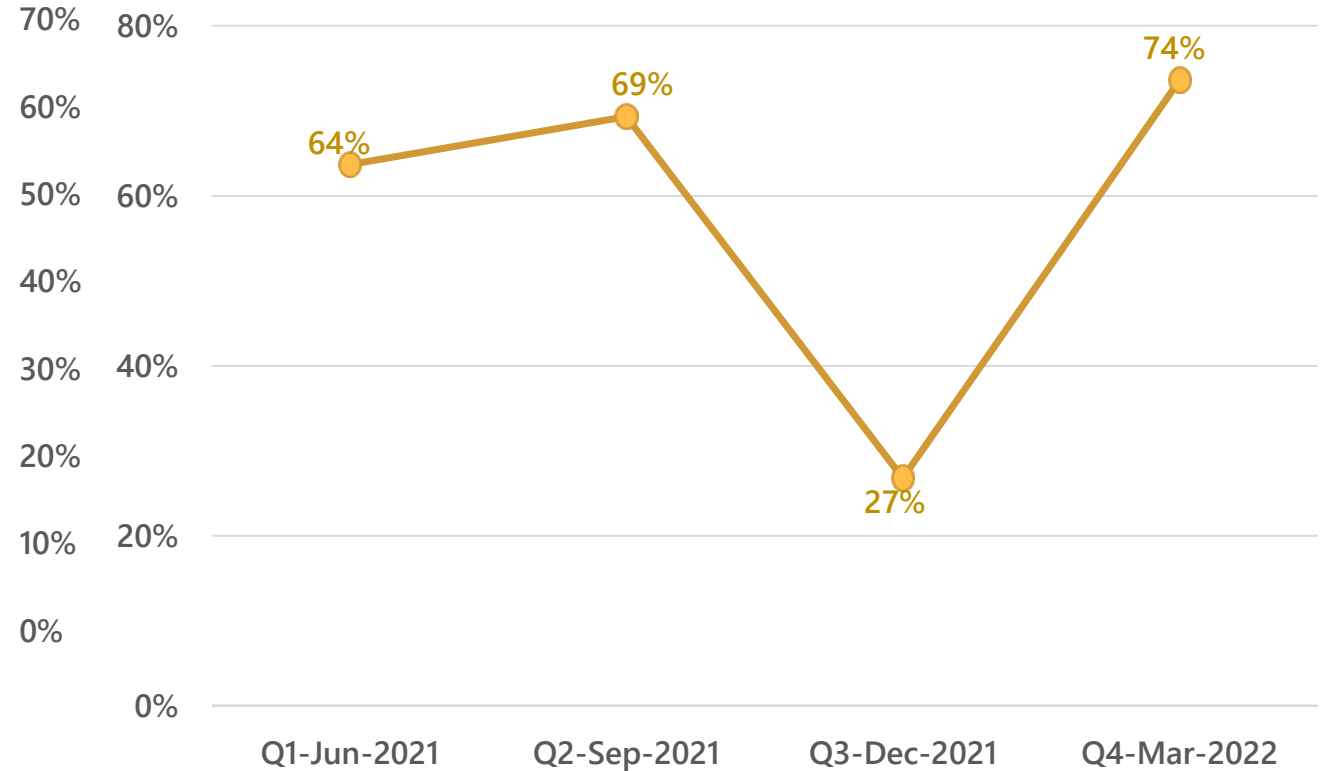




### Plant Factor (Annual)



### Plant Factor (Quarterly)

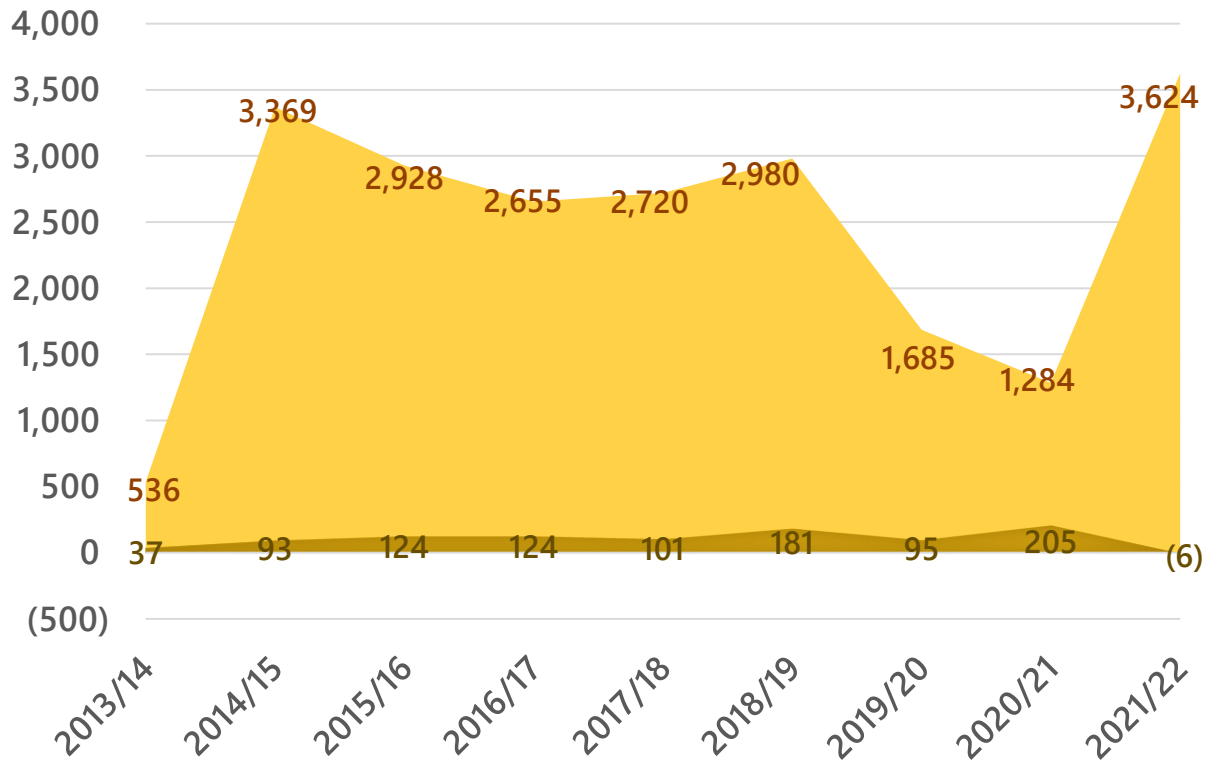


\* First year of commercial operation.

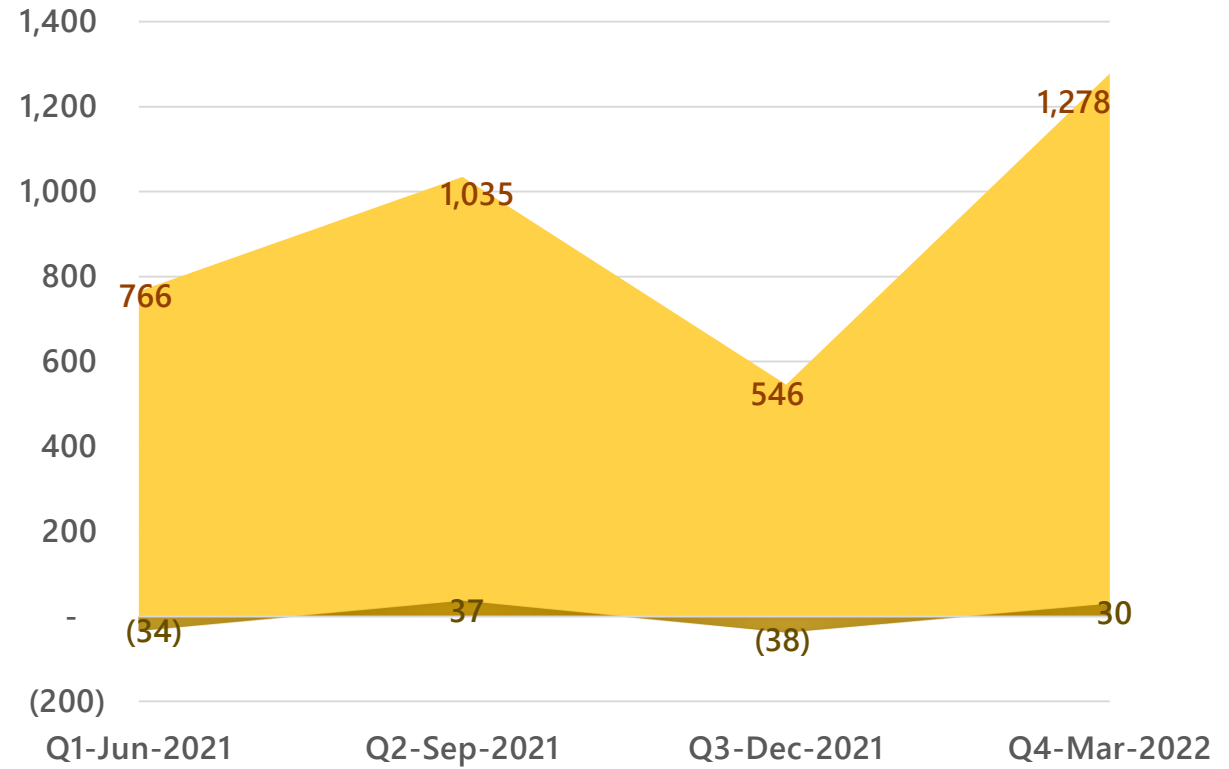
\*\* Generation has been low due to the lower demand from BPDP which is a result of the operations of new gas power plants in close proximity that have begun supplying to the BPDP.

Generation (MWh) Plant Factor

### Profitability (Annual)



### Profitability (Quarterly)



■ Revenue (BDT Mn) ■ Profit (BDT Mn)

# Comilla

Lakdhanavi Bangla Power Ltd



Location

Jangalia,  
Comilla district  
Bangladesh



Capacity

52.2 MW



Engines

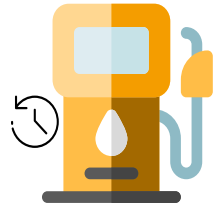
6

HFO / Gas based  
Reciprocating  
engines



Main Fuel

Heavy  
Furnace Oil



Backup Fuel

Diesel



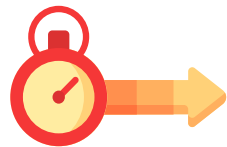
Equipment Supplier

Wartsila,  
Finland



Year of Commissioning

2015



Tenure of PPA

15 years



Ownership

33.2%



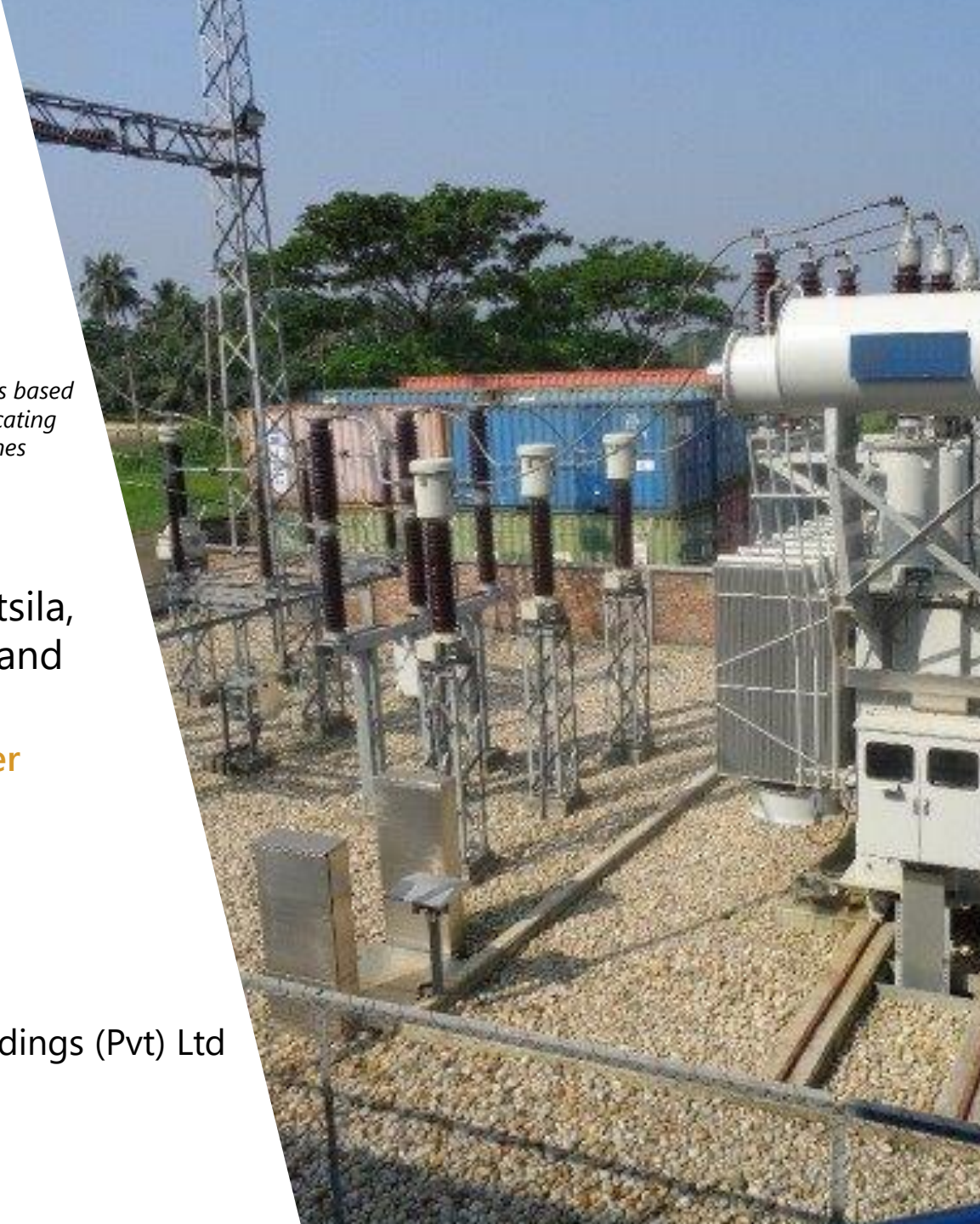
Investment

LKR 653 MN

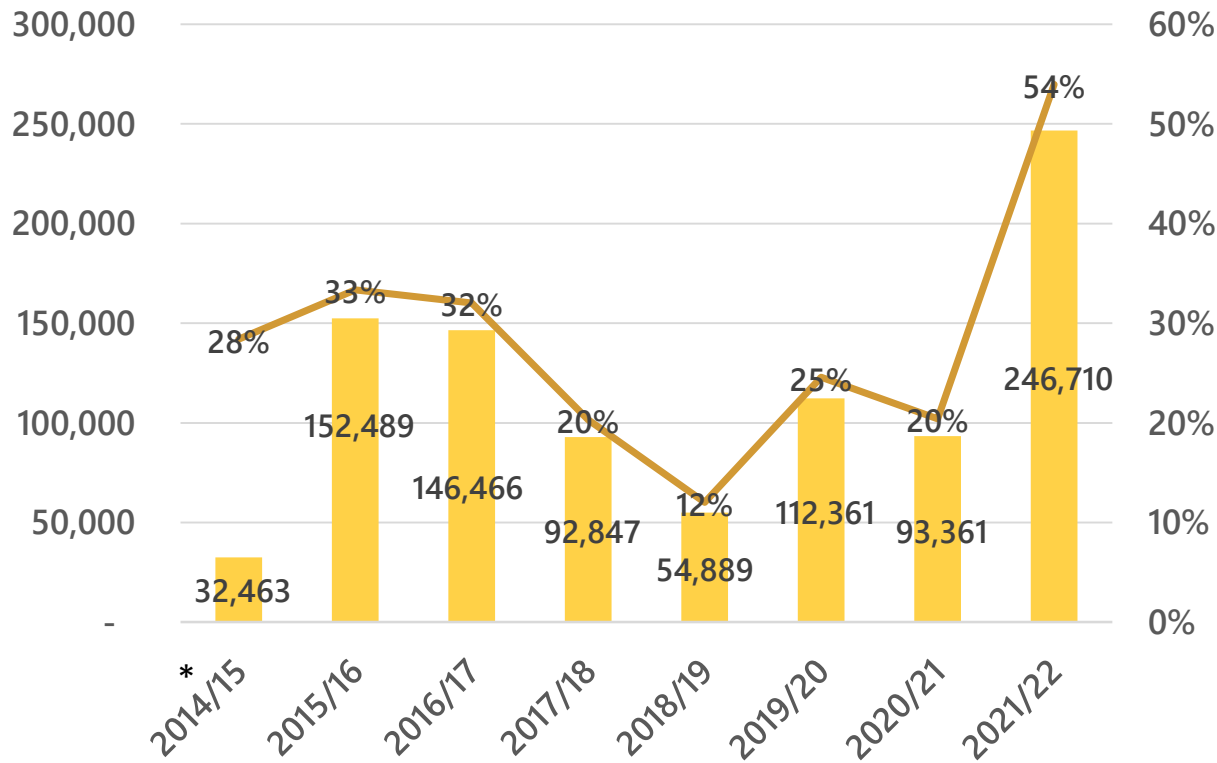


Project Partners

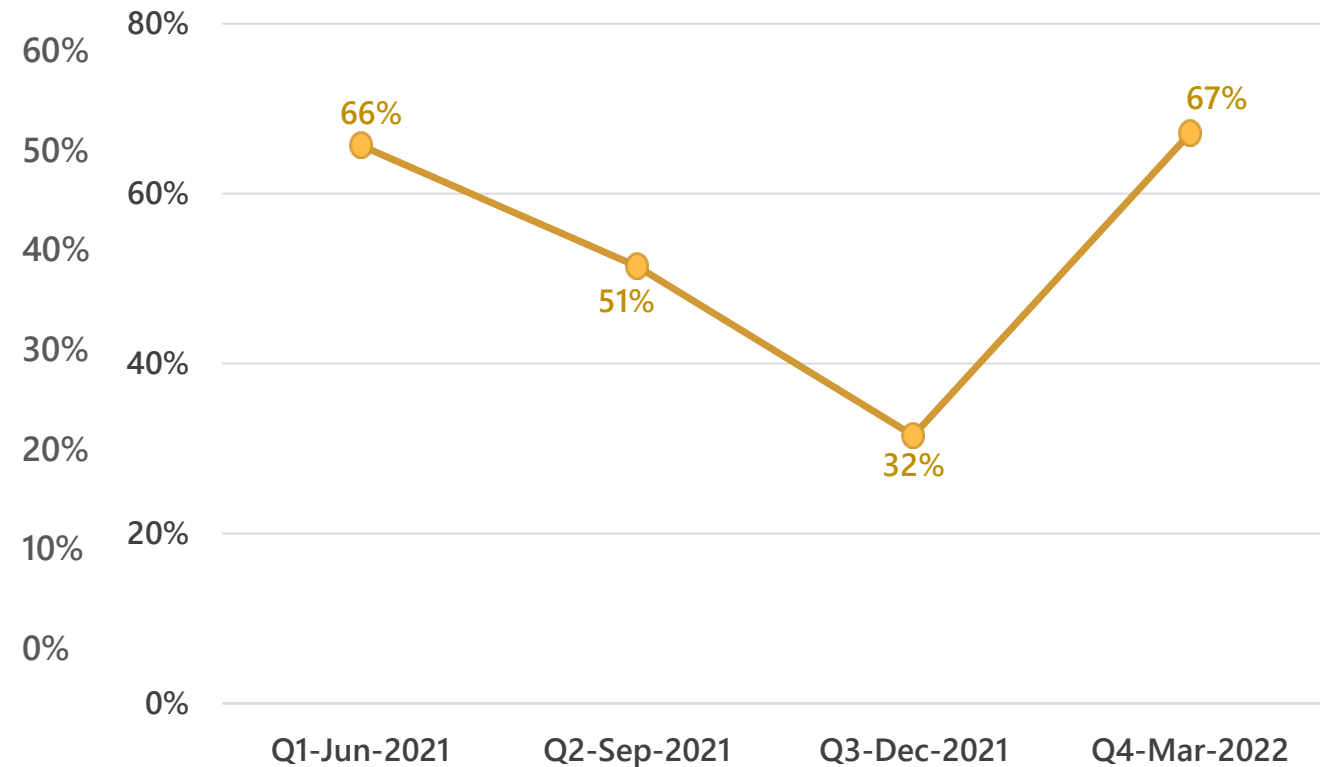
LTL Holdings (Pvt) Ltd



### Plant Factor (Annual)



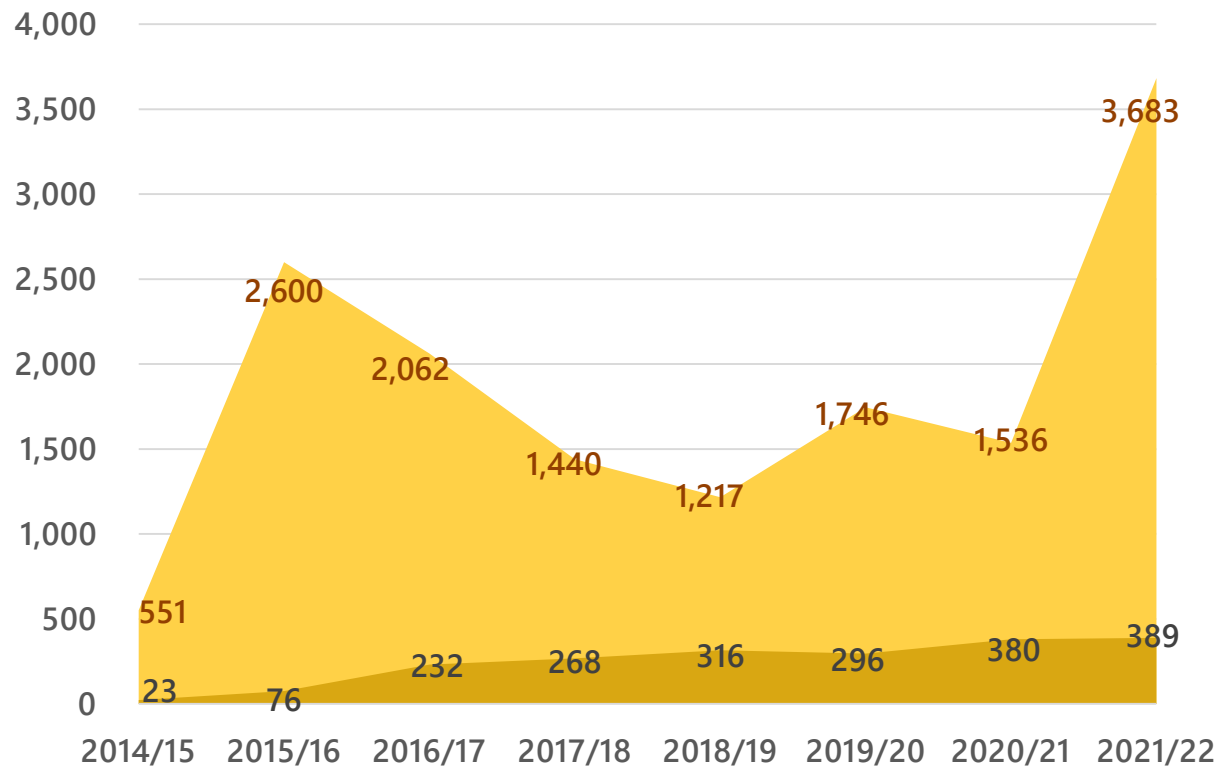
### Plant Factor (Quarterly)



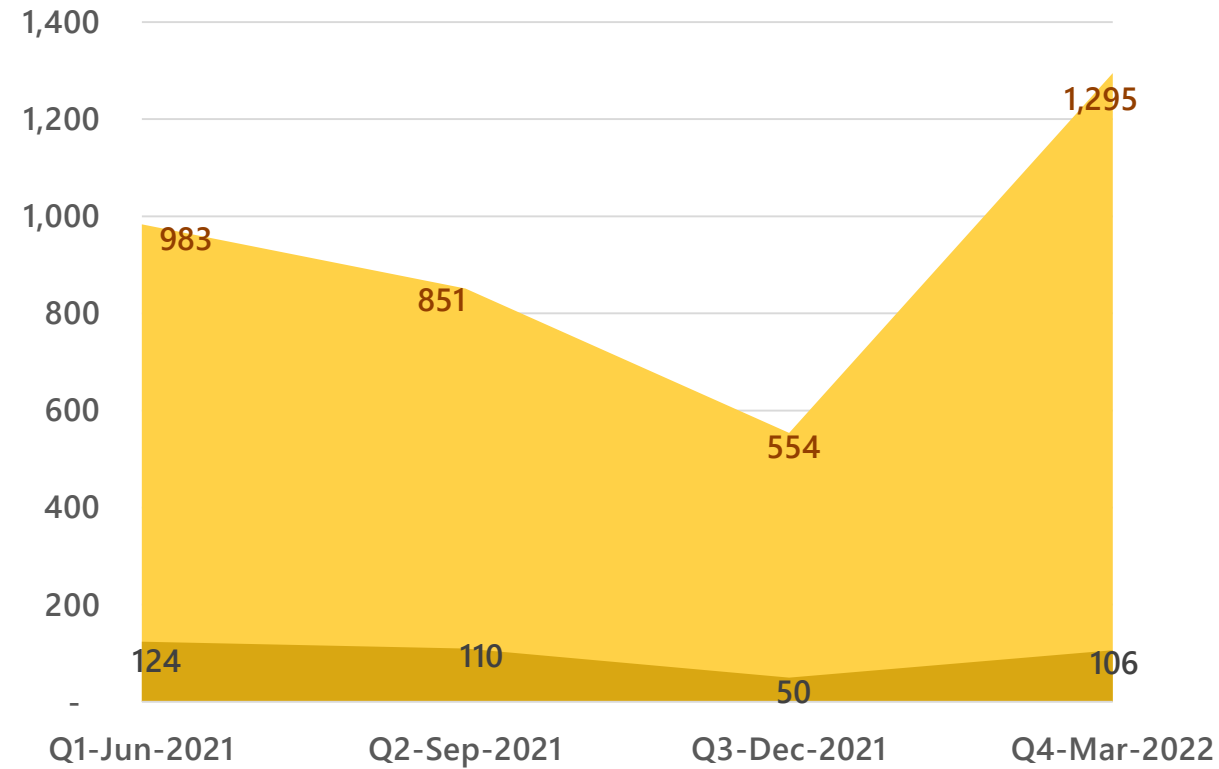
\* First year of commercial operation.

Generation (MWh) Plant Factor

## Profitability (Annual)



## Profitability (Quarterly)



■ Revenue (BDT Mn)

■ Profit (BDT Mn)



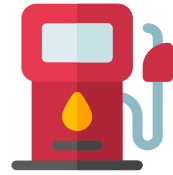
# Feni Lanka

## Feni Lanka Power Limited



Feni,  
Chittagong division  
*Bangladesh*

Location



Heavy Fuel Oil based  
power plant

Project



114 MW

Capacity



Six 18V50 and one 20V32  
Reciprocating engines

Engines



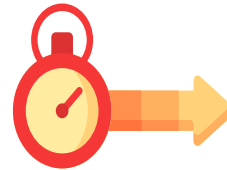
Wartsila,  
Finland

Equipment Supplier



2019

Year of Commissioning



15 years

Tenure of PPA



29.2%

Ownership



LKR 1,432.2  
MN

Investment

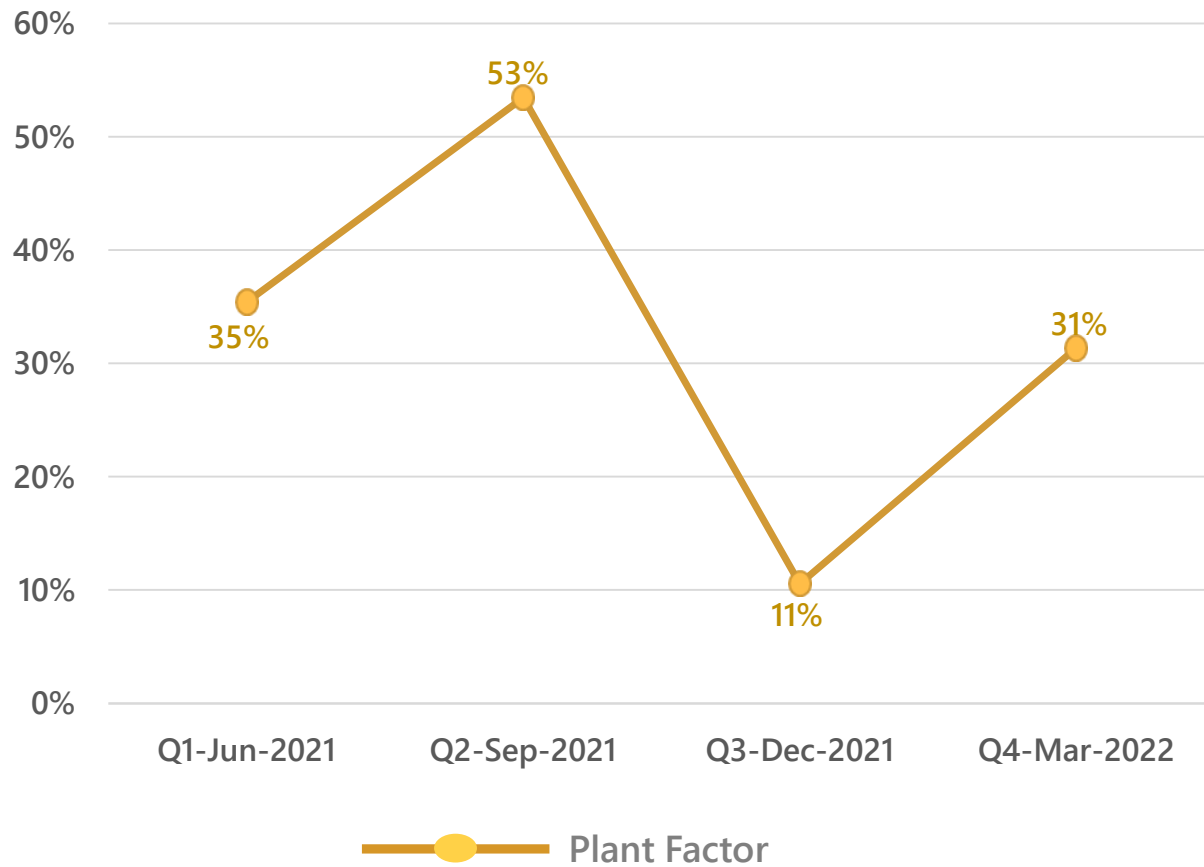


LTL Holdings (Pvt) Ltd

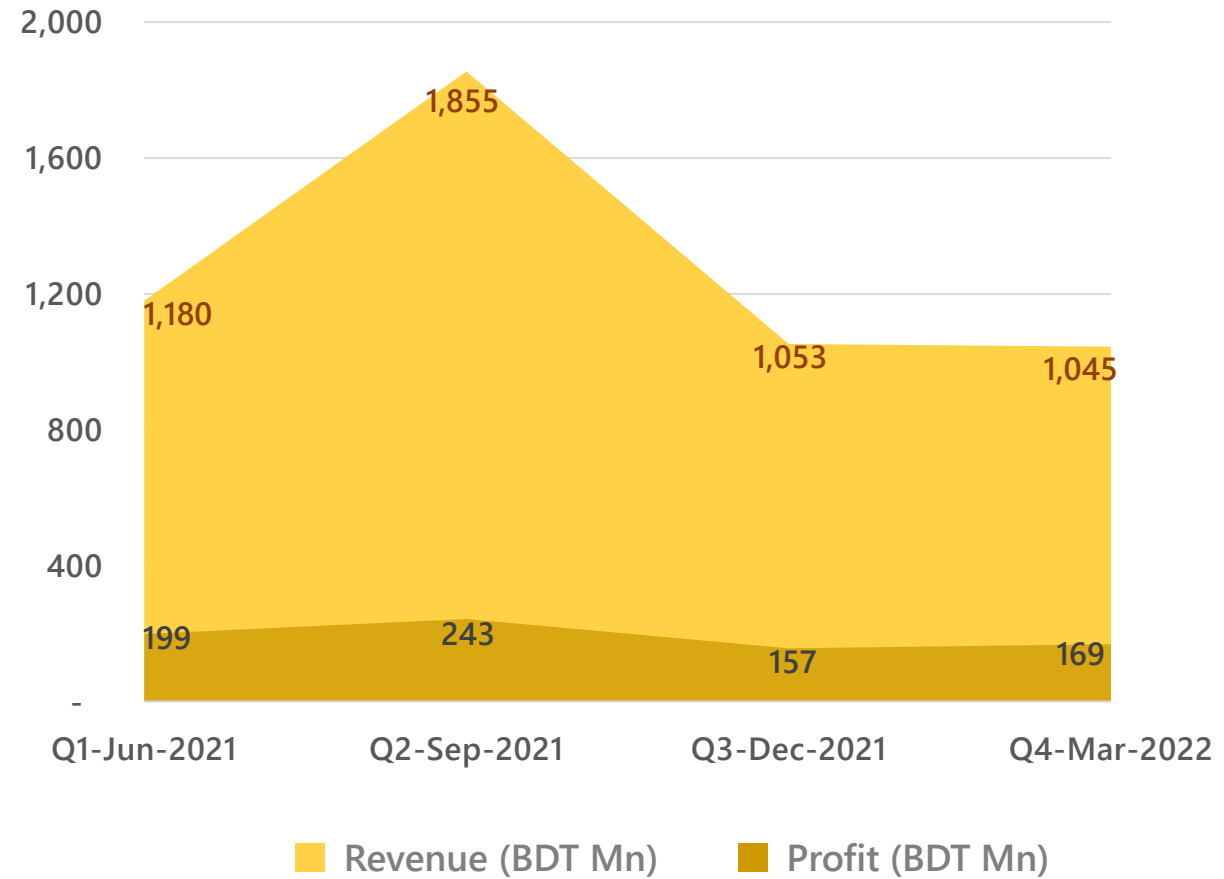
Project Partners



### Plant Factor (Quarterly)



### Profitability (Quarterly)





# SOLAR POWER PROJECTS



# Mathugama

SEI Mathuagama (Pvt) Ltd



Mathugama,  
Kaluthara district

Location



1 MW

Capacity



345 W

Panel Capacity



Equipment Supplier

Panels - Hanwha Q CELLS  
South Korea  
Invertor – Sungrow Power  
China



2021

Year of Commissioning



20 years

Tenure of PPA



77 %

Ownership



LKR 35.1 MN

Investment

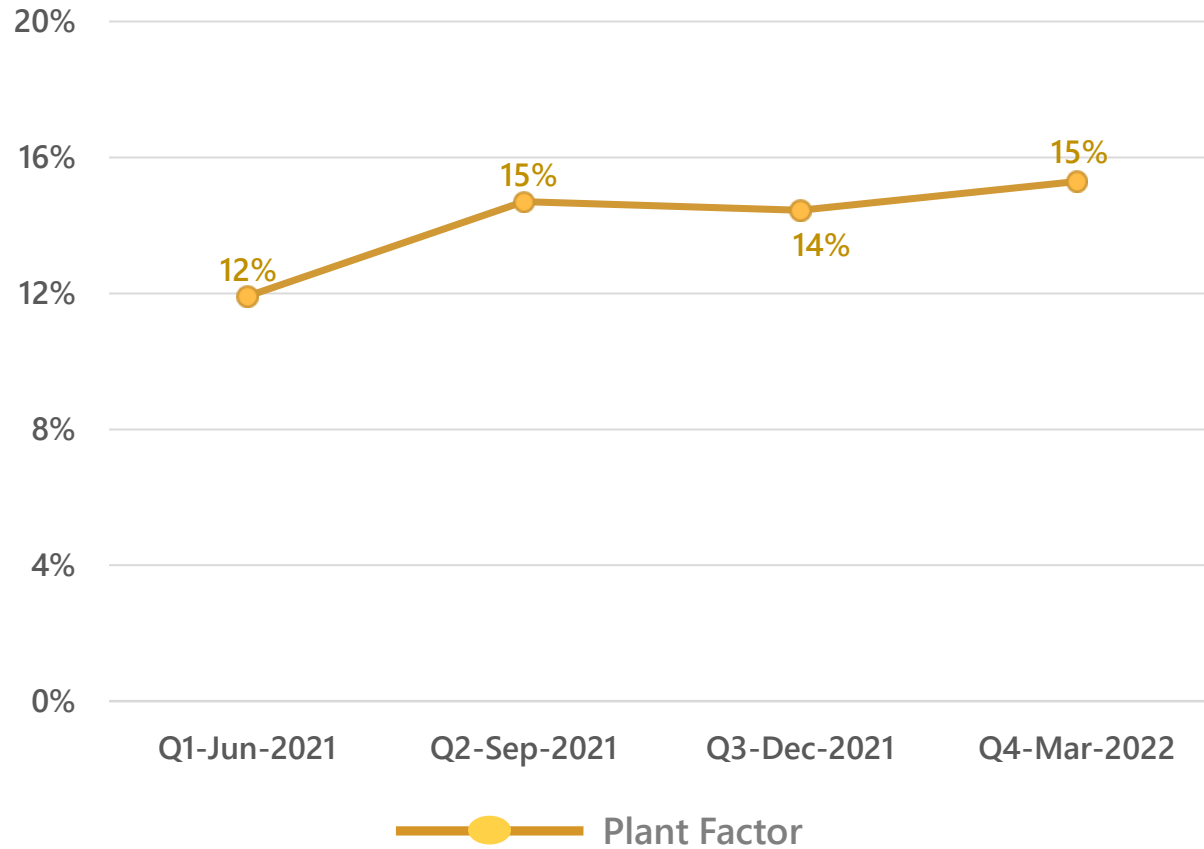


First Energy SL  
(Pvt) Ltd

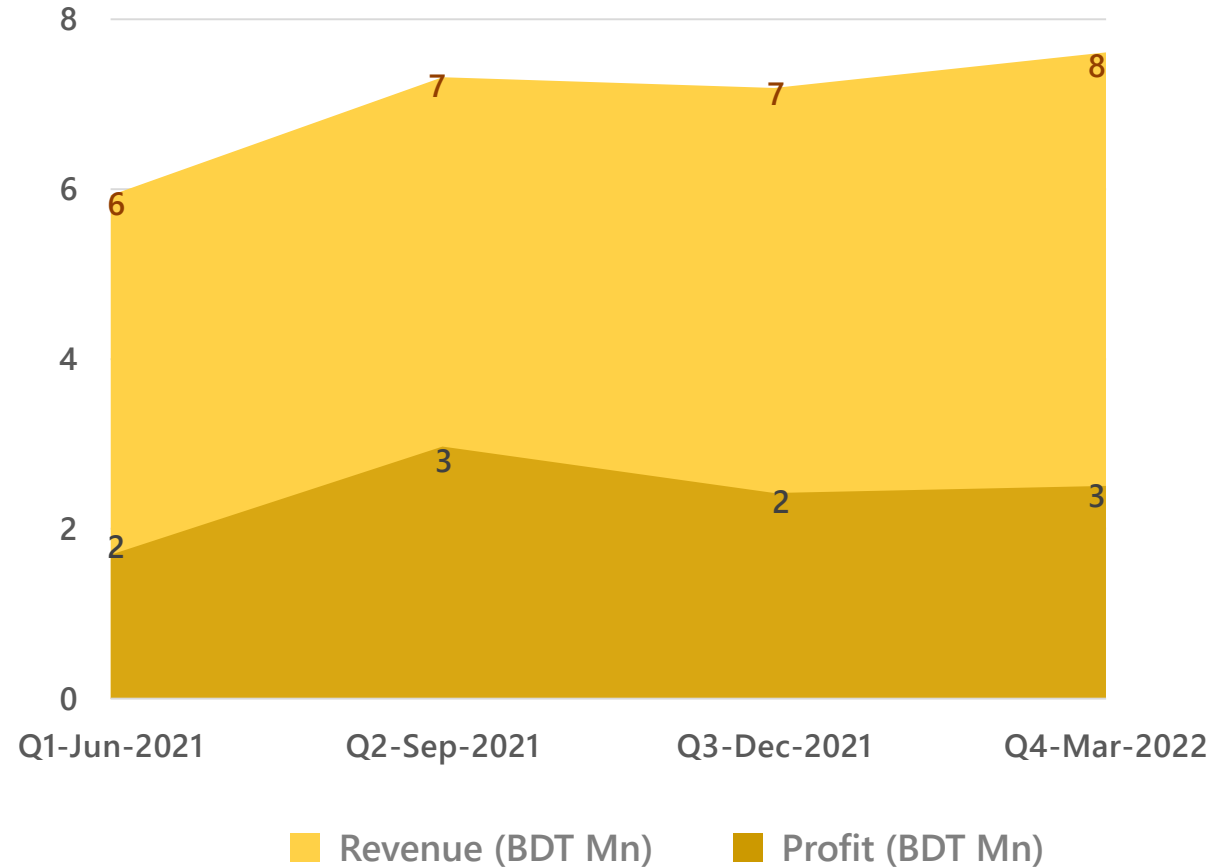
Project Partners



### Plant Factor (Quarterly)



### Profitability (Quarterly)





# Pallekele

## Solar Energy Investments Pallekele (Pvt) Ltd



Location

Pallekale  
Kandy district



Capacity

2 MW



Panel Capacity

535 W



Year of  
Commissioning

2022



Tenure of  
PPA

20 years



Equipment  
Supplier

Panels - J A Solar  
Invertor – Ingeteam



Ownership

82.5 %



Investment

LKR 73.4 MN



Project Partners

First Energy SL  
(Pvt) Ltd





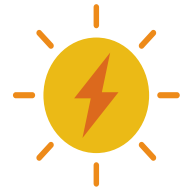
# Maho

SEI Maho (Pvt) Ltd



Location

Maho  
Kurunegala  
district



Capacity

3 MW



Panel Capacity

535 W



Year of  
Commissioning

2022



Tenure of  
PPA

20 years



Equipment  
Supplier

Panels - J A Solar  
Invertor - Ingeteam



Ownership

81 %



Investment

LKR 95.1 MN



Project Partners

First Energy SL  
(Pvt) Ltd

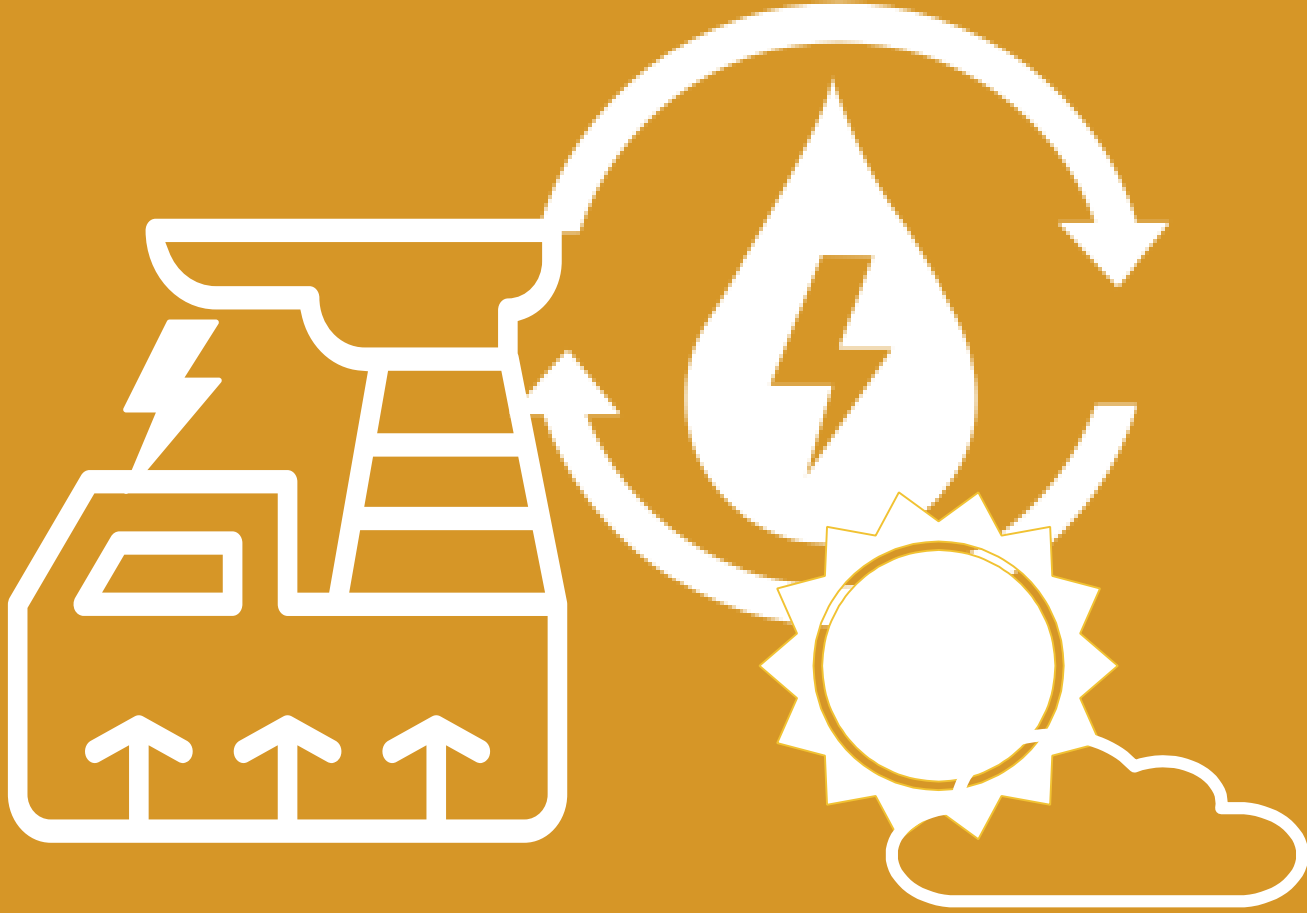




# FINANCIAL INDICATORS

# Financial Indicators (as at Financial YTD 31<sup>st</sup> March 2022)

		Ownership %	Investment(Mn)	Net Assets (Mn)	Revenue (Mn)	Profit (Mn)
<b>HYDRO POWER</b>						
Belihul Oya	SL	25%	120	309	79	34
Assupini Ella	SL	100% Owned by Nividhu		228	105	45
Kadawala	SL	55%	135	350	236	130
Neluwa	SL	49%	59	289	118	71
Theberton	SL	85%	143	219	84	42
Campion	SL	84%	118	182	78	31
Bambarapana	SL	40%	156	421	172	54
<b>WIND POWER</b>						
Pawan Dhanavi	SL	40%	424	1,192	184	(115)
Nala Dhanavi	SL	49%	243	689	98	(46)
<b>THERMAL POWER</b>						
Rajshahi	BN	20%	387	1,862 (BDT)	3,624 (BDT)	(6) (BDT)
Comilla	BN	33%	653	2,130 (BDT)	3,683 (BDT)	389 (BDT)
Feni	BN	29%	1,423	3,151 (BDT)	5,132 (BDT)	769 (BDT)
<b>SOLAR POWER</b>						
Mathugama	SL	77%	35	56	28	10



# New projects and developments in the pipeline

# Makari Gad Hydropower (Pvt) Ltd



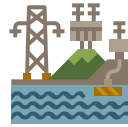
Location

Api Himal Rural Municipality,  
Darchula district  
Nepal



Capacity

10 MW



Gross Head

924 m



Design Flow

1.35 m<sup>3</sup>/s



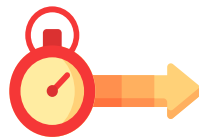
Energy Generation

69.8 GWh



Project Commencement

3Q 2022/23



Tenure of PPA

30 years



Ownership

41.6%



Investment

LKR 593.3  
MN



Project Partners

LTL Holdings  
(Pvt) Ltd

- In January 2019 LVL Energy Fund made its first equity disbursements of LKR 117.0 Mn in respect of Makari Gad.
- Further disbursements aggregating to LKR 476.3 Mn was carried out up to March 2022. Thereby, as at 31<sup>st</sup> March 2022 LVL Energy Fund have invested LKR 593.3 Mn in Makari Gad.
- The project is currently under construction. Despite the challenges faced due to Covid-19 pandemic the project is expected to commence commercial operations in December 2022.

THANK YOU