



# **CIEL & TERRE® REFERENCES BOOK**

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Our floating solar projects



<b>Our worldwide presence</b>	<b>3</b>
<b>Japan</b>	<b>4</b>
<b>Taiwan</b>	<b>13</b>
<b>ASEAN &amp; India</b>	<b>25</b>
<b>North &amp; Latin Americas</b>	<b>39</b>
<b>EMEA</b>	<b>45</b>
<b>Global Reference List</b>	<b>57</b>

# Our worldwide presence

**266**  
projects  
built

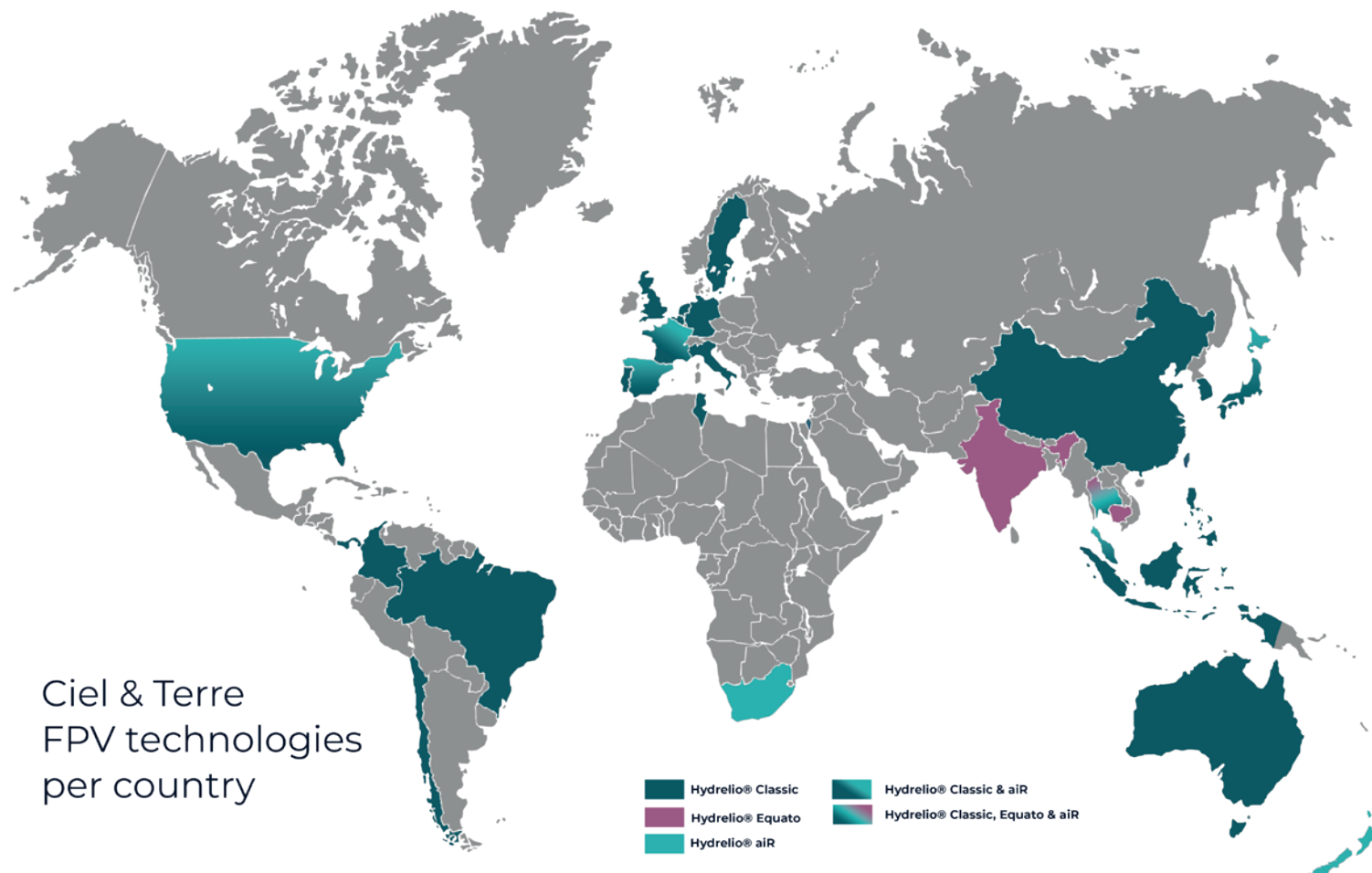
**735**  
MWp  
installed

**1.2 GWp**  
of projects  
installed and  
under construction

**On going:**

✕ 64 projects

✕ 480MWp



More on our website!







# Japan

**200**  
MWp  
installed

**30**  
MWp  
on going

**140+**  
projects

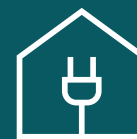
## FLAGSHIP PROJECT

### KAYAMANUMA | 2 604 kWp

- Post Yamakura project reflecting the new design concept, installed under COVID-19 harsh situation
- Operated by: Suiden Mizuumi
- Main benefit: Benchmark for the following project



**2 457MWh/year**  
Expected annual  
production



**546 homes**  
Electrical consumption  
equivalent



**1 240 tons**  
of CO2 emissions  
saved





# HIGAI NICHOU IKE



**1 229 kWp**

Grid injection



Nara,  
JAPAN  
Q3 2019



## Irrigation

Size:	1.66 ha
Water type:	Fresh
Maximum depth:	10 m
Level variation:	3 m

**1.16ha**

FPV Plant size

**70%**

Coverage ratio



Float System applied:	Hydrelia Classic
Configuration:	1-in-a-row
Number of PV modules	3 276
PV module brand	SUNTECH
PV module capacity	375 W   72-cell



Anchoring system:	Bottom
Type of anchors:	Screw



**258 households**

Equivalent in households



**586 tons**

Avoided emissions



## CIEL & TERRE'S SCOPE

- Project development
- Project engineering
- Supply & Procurement
- Construction
- Financing
- O&M



# HANAOKA IKE



**2 290 kWp**

Grid injection



Hyogo,  
JAPAN  
Q1 2020



## Irrigation

Size:	4.40 ha
Water type:	Fresh
Maximum depth:	10 m
Level variation:	3 m

**2.07ha**

FPV Plant size

**47%**

Coverage ratio



Float System applied:	Hydrelío Classic
Configuration:	1-in-a-row
Number of PV modules	6 104
PV module brand	SUNTECH
PV module capacity	375 W   72-cell



Anchoring system:	Bottom
Type of anchors:	Screw



**481 households**

Equivalent in households



**1 091 tons**

Avoided emissions



## CIEL & TERRE'S SCOPE

- Project development
- Project engineering
- Supply & Procurement
- Construction
- Financing
- O&M



# HYOSHIGA IKE



**2 703 kWp**

Grid injection



Hyogo,  
JAPAN  
Q1 2019



## Irrigation

Size:	6.07 ha
Water type:	Fresh
Maximum depth:	131 m
Level variation:	4 m

**2.75ha**

FPV Plant size

**45%**

Coverage ratio



Float System applied:	Hydrelia Classic
Configuration:	1-in-a-row
Number of PV modules	10 010
PV module brand	ASTROENERGY
PV module capacity	270 W   60-cell



Anchoring system:	Bottom
Type of anchors:	Plate



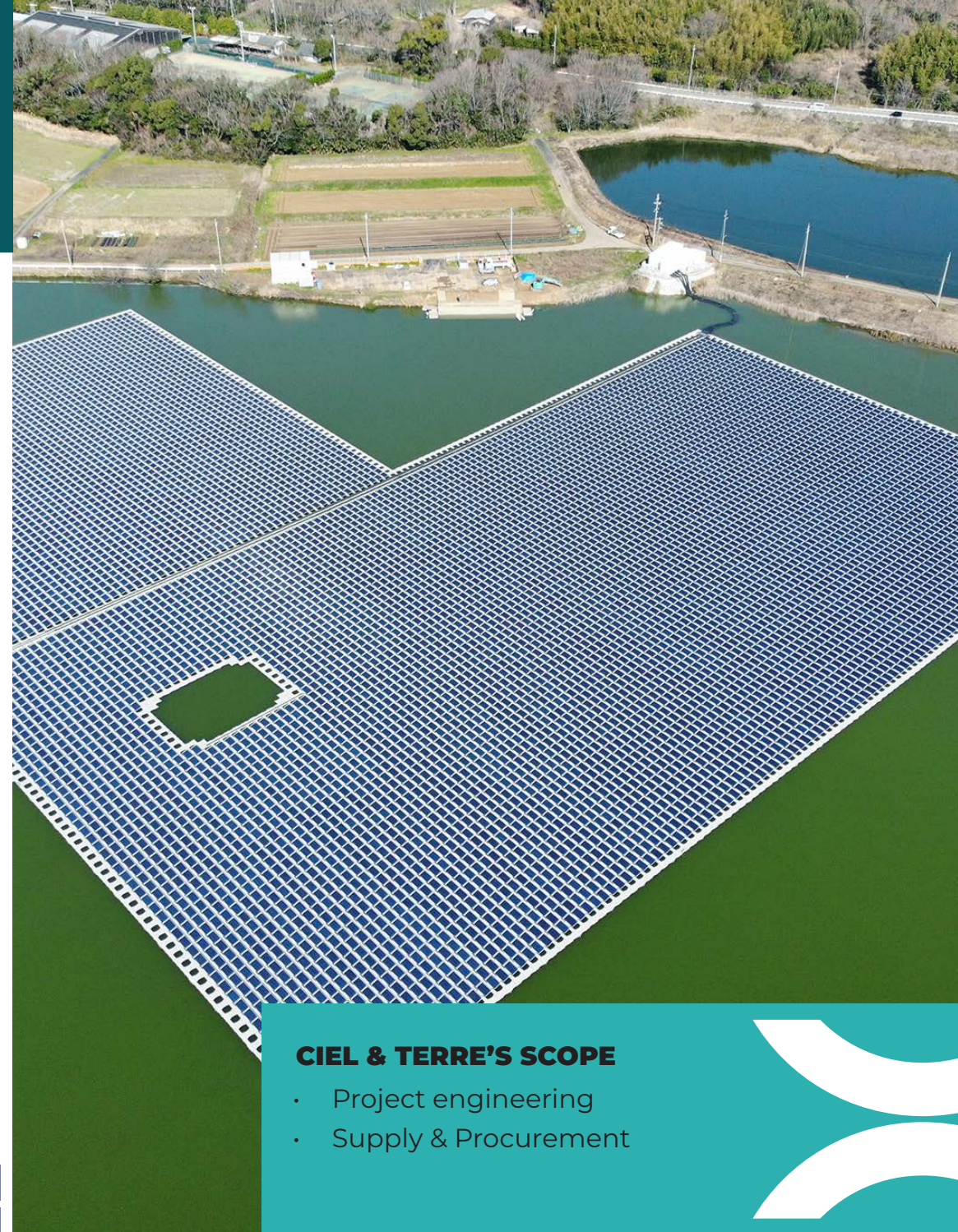
**488 households**

Equivalent in households



**1 107 tons**

Avoided emissions



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement



# IWANO IKE



**2 596 kWp**

Grid injection



Okayama,  
JAPAN  
Q2 2018



## Irrigation

Size:	4.87 ha
Water type:	Fresh
Maximum depth:	2 m
Level variation:	2 m

**2.36ha**

FPV Plant size

**48%**

Coverage ratio



Float System applied:	Hydrelia Classic
Configuration:	1-in-a-row
Number of PV modules	8 800
PV module brand	TRINA
PV module capacity	295 W   60-cell



Anchoring system:	Bottom
Type of anchors:	Plate



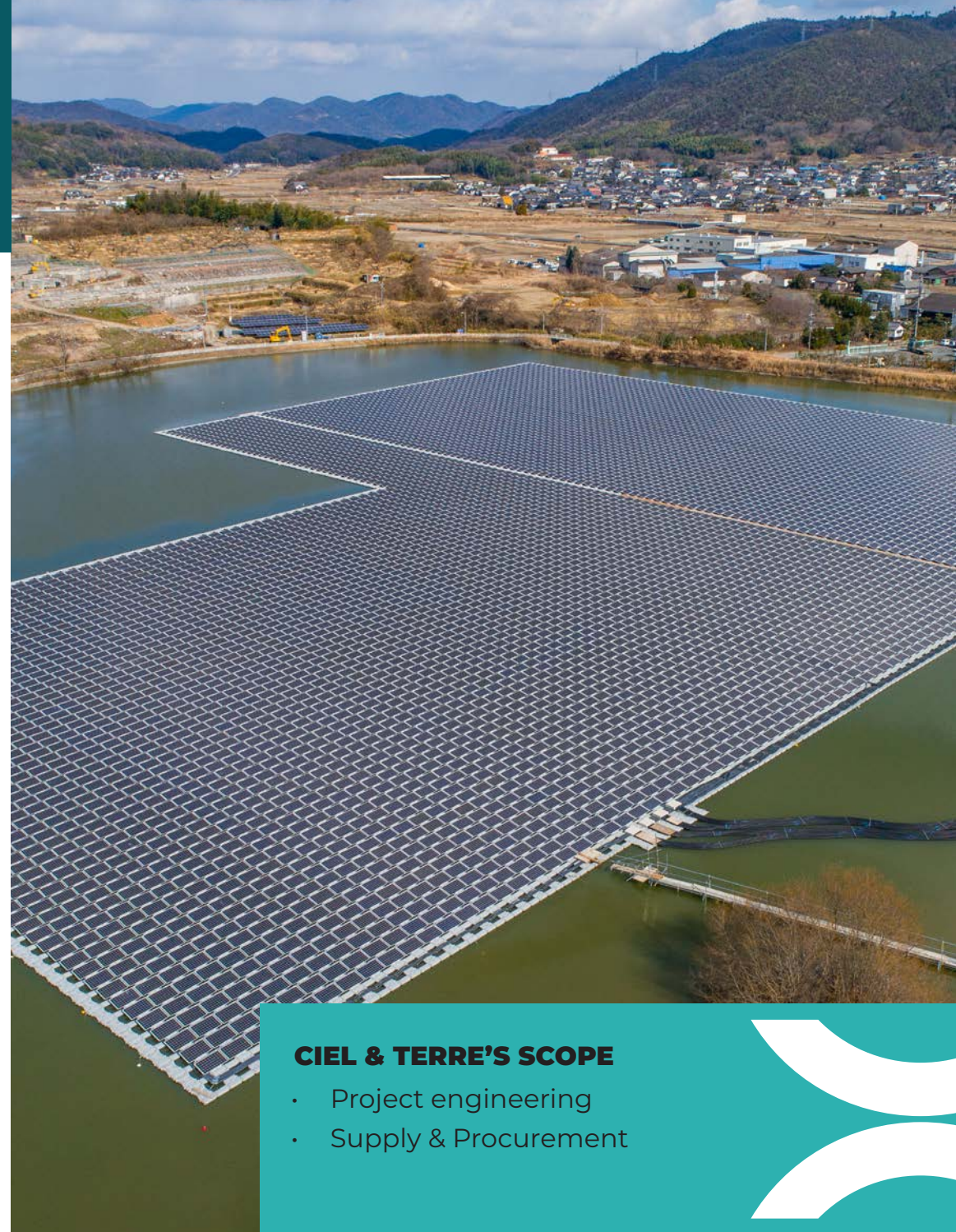
**527 households**

Equivalent in households



**1 196 tons**

Avoided emissions



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement



# TANO IKE



**2 548 kWp**

Grid injection



Mie,  
JAPAN  
Q2 2018



## Irrigation

Size:	5.70 ha
Water type:	Fresh
Maximum depth:	5 m
Level variation:	2 m

**2.50ha**

FPV Plant size

**44%**

Coverage ratio



Float System applied:	Hydrelio Classic
Configuration:	1-in-a-row
Number of PV modules	8 942
PV module brand	JINKO
PV module capacity	285 W   60-cell



Anchoring system:	Bottom
Type of anchors:	Plate



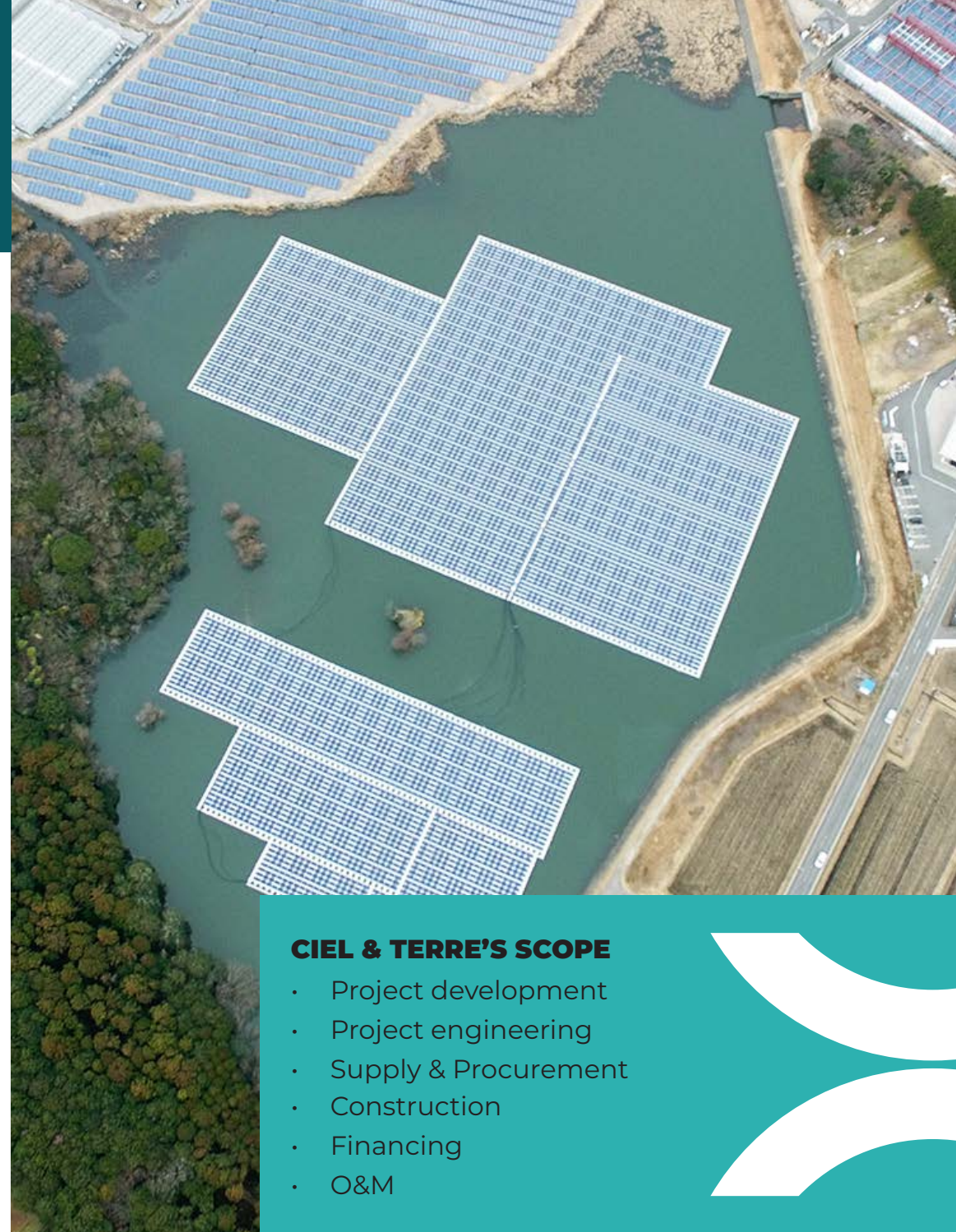
**536 households**

Equivalent in households



**1 218 tons**

Avoided emissions



## CIEL & TERRE'S SCOPE

- Project development
- Project engineering
- Supply & Procurement
- Construction
- Financing
- O&M





**7 550 kWp**

Grid injection



Saitama,  
JAPAN  
Q4 2015



## Irrigation

Size:	12.93 ha
Water type:	Fresh
Maximum depth:	6 m
Level variation:	6.90 m

**7.43ha**

FPV Plant size

**57%**

Coverage ratio



Float System applied:	Hydrelia Classic
Configuration:	1-in-a-row

Number of PV modules	27 456
PV module brand	YINGLI
PV module capacity	275 W   60-cell



Anchoring system:	Bottom
Type of anchors:	Plate



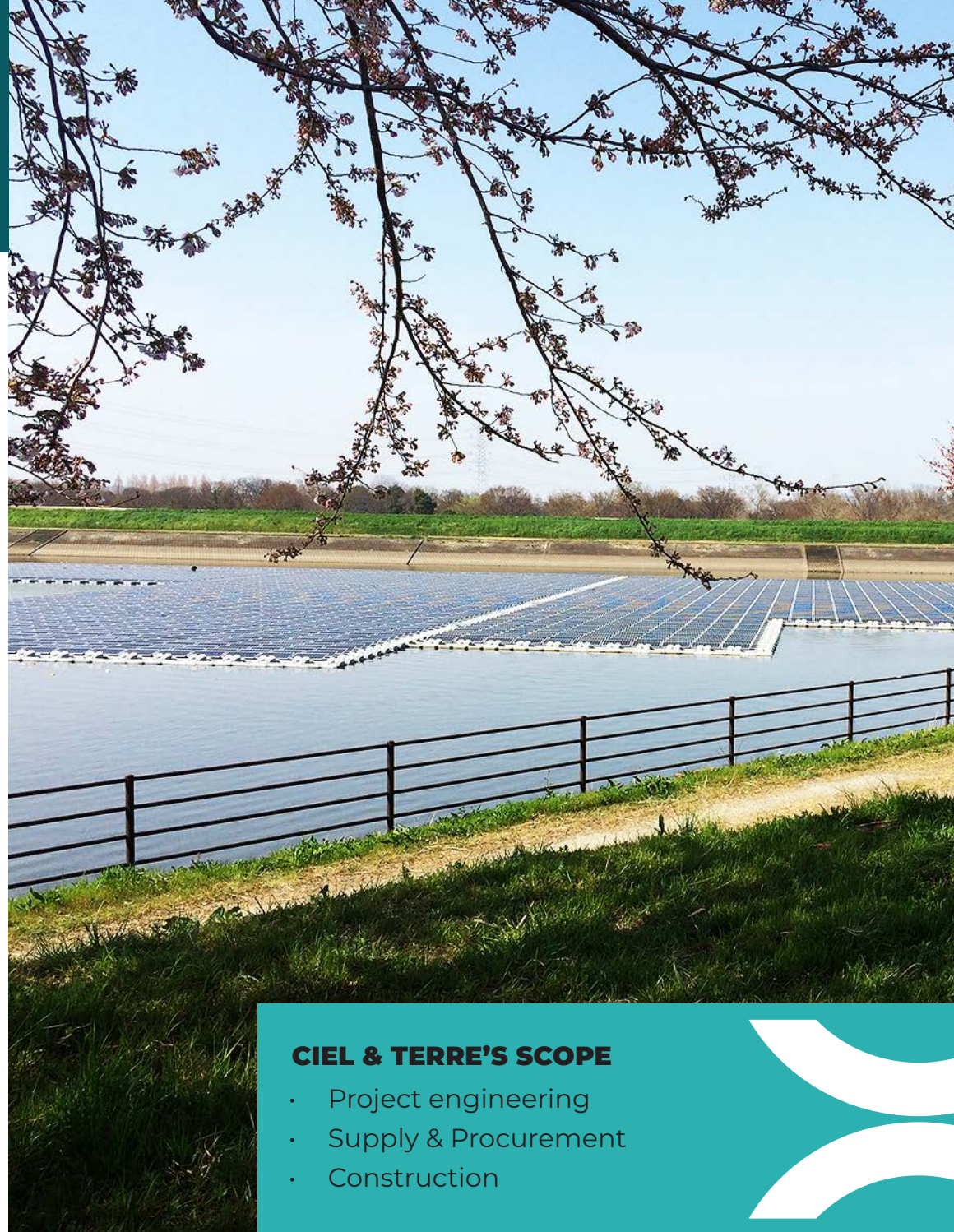
**1 533 households**

Equivalent in households



**3 479 tons**

Avoided emissions



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction





**1 180 kWp**

Grid injection



Saitama,  
JAPAN  
Q3 2013



## Water storage

Size:	3.07 ha
Water type:	Fresh
Maximum depth:	6 m
Level variation:	6 m

**1.16ha**

FPV Plant size

**38%**

Coverage ratio



Float System applied:	Hydrelia Classic
Configuration:	1-in-a-row

Number of PV modules	4 536
PV module brand	JA SOLAR
PV module capacity	260 W   60-cell



Anchoring system:	Bottom
Type of anchors:	Deadweight



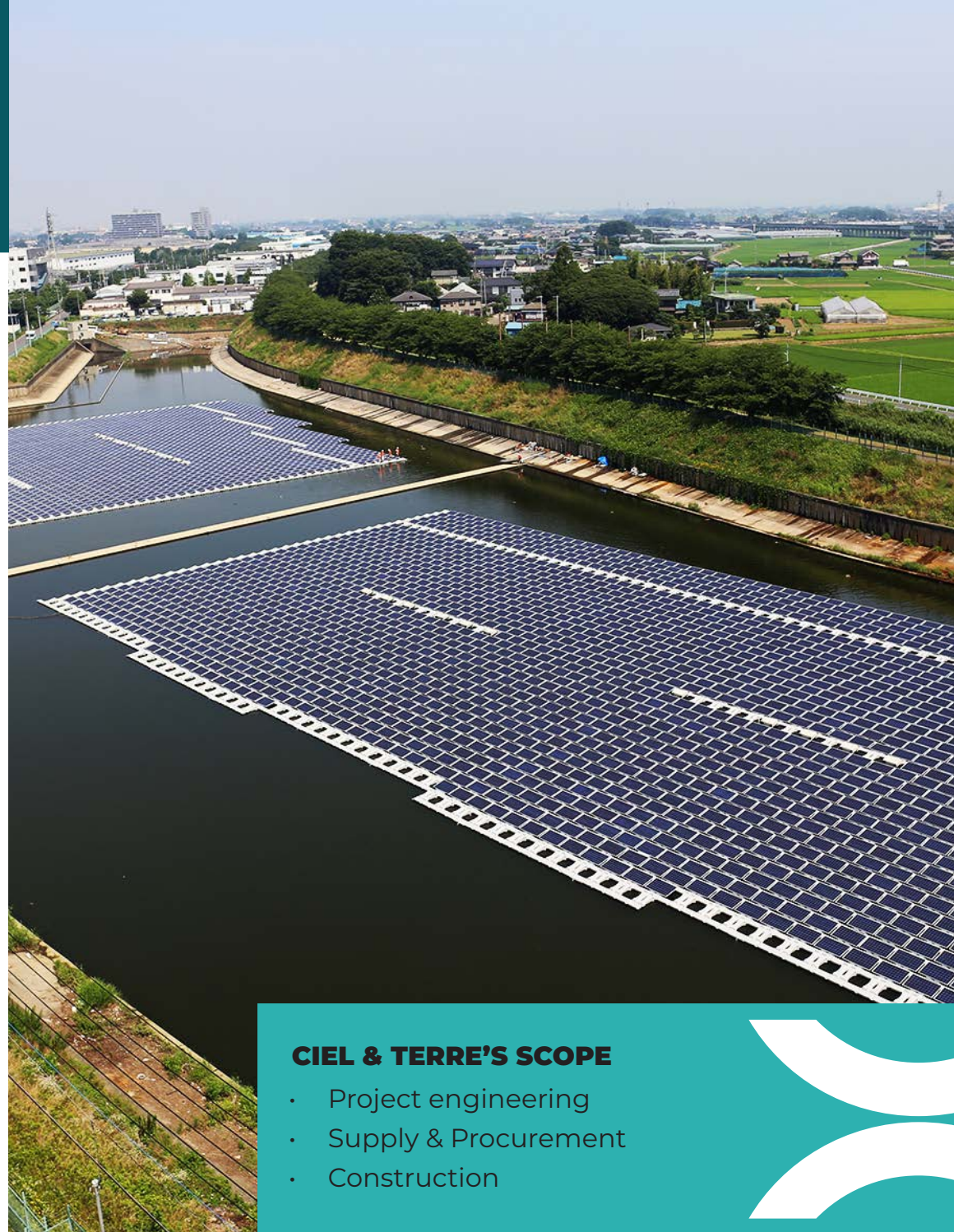
**240 households**

Equivalent in households



**544 tons**

Avoided emissions



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction

# NARAHAMACHI



**320 kWp**

Self consumption (partial)



Fukushima,  
JAPAN  
Q1 2019



## Water storage

Size:	0.77 ha
Water type:	Fresh
Maximum depth:	2.7 m
Level variation:	2.6 m

**0.35ha**

FPV Plant size

**45%**

Coverage ratio



Float System applied:	Hydrelia Classic
Configuration:	1-in-a-row
Number of PV modules	1 122
PV module brand	JAPAN SOLAR
PV module capacity	280 W   60-cell



Anchoring system:	Bottom
Type of anchors:	Plate



**65 households**

Equivalent in households



**174 tons**

Avoided emissions



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction





# Taiwan

**175**  
MWp  
installed

**205**  
MWp  
on going

**20+**  
projects

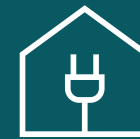
## FLAGSHIP PROJECT

### CHANGBING | 88 038 kWp

- The biggest project for Ciel & Terre Taiwan with salty water
- Operated by: Chenya Energy



**110 GWh/year**  
Expected annual  
production



**27 280 homes**  
Electrical consumption  
equivalent



**66 000 tons**  
of CO2 emissions  
saved







**9 994 kWp**

Grid injection



Kaohsiung,  
TAIWAN  
Q4 2018



## Water storage

Size:	405 ha
Water type:	Brackish
Maximum depth:	7.8 m
Level variation:	7.8 m

**9.19ha**

FPV Plant size

**2%**

Coverage ratio



Float System applied:	Hydrelia Classic
Configuration:	1-in-a-row

Number of PV modules	34 013
PV module brand	Ablytek
PV module capacity	290 W   60-cell



Anchoring system:	Hybrid
Type of anchors:	Deadweight



**3 099 households**  
Equivalent in households



**7 496 tons**  
Avoided emissions



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction

# SUGU #1



**4 023 kWp**

Grid injection



Tainan,  
TAIWAN  
Q4 2018



## Water treatment

Size:	8.81 ha
Water type:	Brackish
Maximum depth:	14 m
Level variation:	5 m

**3.66ha**

FPV Plant size

**15%**

Coverage ratio



Float System applied:	Hydrelío Classic
Configuration:	1-in-a-row
Number of PV modules	13 410
PV module brand	Ritek
PV module capacity	300 W   60-cell



Anchoring system:	Hybrid
Type of anchors:	Screw



**1 248 households**

Equivalent in households



**3 018 tons**

Avoided emissions



## CIEL & TERRE'S SCOPE

- Project development
- Project engineering
- Supply & Procurement
- Construction
- Financing
- O&M



# SUGU #2



**1 132 kWp**

Grid injection



Tainan,  
TAIWAN  
Q2 2018



## Water treatment

Size:	3.23 ha
Water type:	Brackish
Maximum depth:	3.6 m
Level variation:	2.4 m

**0.91ha**

FPV Plant size

**28%**

Coverage ratio



Float System applied:	Hydrelia Classic
Configuration:	2-in-a-row
Number of PV modules	3 840
PV module brand	AUO
PV module capacity	295 W   60-cell



Anchoring system:	Bank
Type of anchors:	Plate



**352 households**

Equivalent in households



**850 tons**

Avoided emissions



## CIEL & TERRE'S SCOPE

- Project development
- Project engineering
- Supply & Procurement
- Construction
- Financing
- O&M





# 1 251 kWp

Grid injection



Tainan,  
TAIWAN  
Q4 2020



## Other

Size:	1.65 ha
Water type:	Brackish
Maximum depth:	6 m
Level variation:	2.5 m

# 1.09ha

FPV Plant size

# 66%

Coverage ratio



Float System applied:	Hydrelia aiR
Configuration:	2-in-a-row

Number of PV modules	3 294
PV module brand	Anji
PV module capacity	380 W   72-cell



Anchoring system:	Hybrid
Type of anchors:	Screw



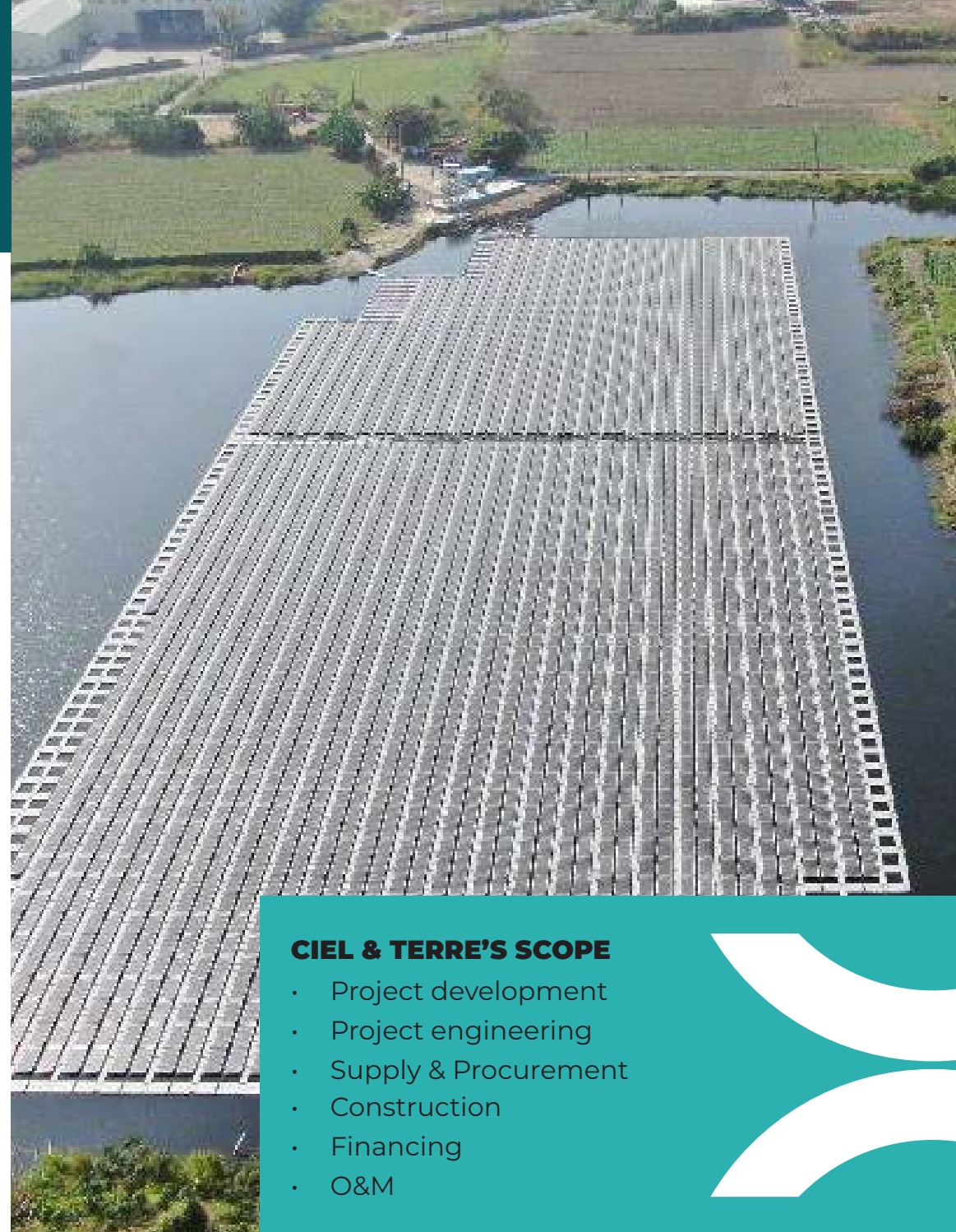
## 389 households

Equivalent in households



## 939 tons

Avoided emissions



## CIEL & TERRE'S SCOPE

- Project development
- Project engineering
- Supply & Procurement
- Construction
- Financing
- O&M

# CHANGBING



**88 038 kWp**

Grid injection



Changhua,  
TAIWAN  
Q4 2020



## Open-sea

Size:	86.16 ha
Water type:	Salty
Maximum depth:	5 m
Level variation:	4,25 m

**72.06ha**

FPV Plant size

**84%**

Coverage ratio



Float System applied:	Hydrelia aiR
Configuration:	2-in-a-row

Number of PV modules	279 488
PV module brand	Canadian Solar
PV module capacity	315 W   60-cell



Anchoring system:	Bottom
Type of anchors:	Deadweight



**27 293 households**  
Equivalent in households



**66 030 tons**  
Avoided emissions



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction





**4 363 kWp**

Grid injection



Chaiyi,  
TAIWAN  
Q4 2020



## Water treatment

Size:	6 ha
Water type:	Brackish
Maximum depth:	24 m
Level variation:	6 m

**3.72ha**

FPV Plant size

**62%**

Coverage ratio



Float System applied:	Hydrelia aiR
Configuration:	2-in-a-row

Number of PV modules	11 484
PV module brand	Canadian Solar
PV module capacity	380 W   72-cell



Anchoring system:	Hybrid
Type of anchors:	Screw



**1 353 households**

Equivalent in households



**3 273 tons**

Avoided emissions



## CIEL & TERRE'S SCOPE

- Supply & Procurement
- Construction

# DIANBAOXI



## 4 138 kWp

Grid injection



Kaohsiung,  
TAIWAN  
Q1 2021



### Water storage

Size:	8.7 ha
Water type:	Fresh
Maximum depth:	5,8 m
Level variation:	5,8 m

## 3.03ha

FPV Plant size

## 34%

Coverage ratio



Float System applied:	Hydrelia Classic
Configuration:	Dual Orientation

Number of PV modules	10 476
PV module brand	TSEC
PV module capacity	395 W   72-cell



Anchoring system:	Bank
Type of anchors:	Screw



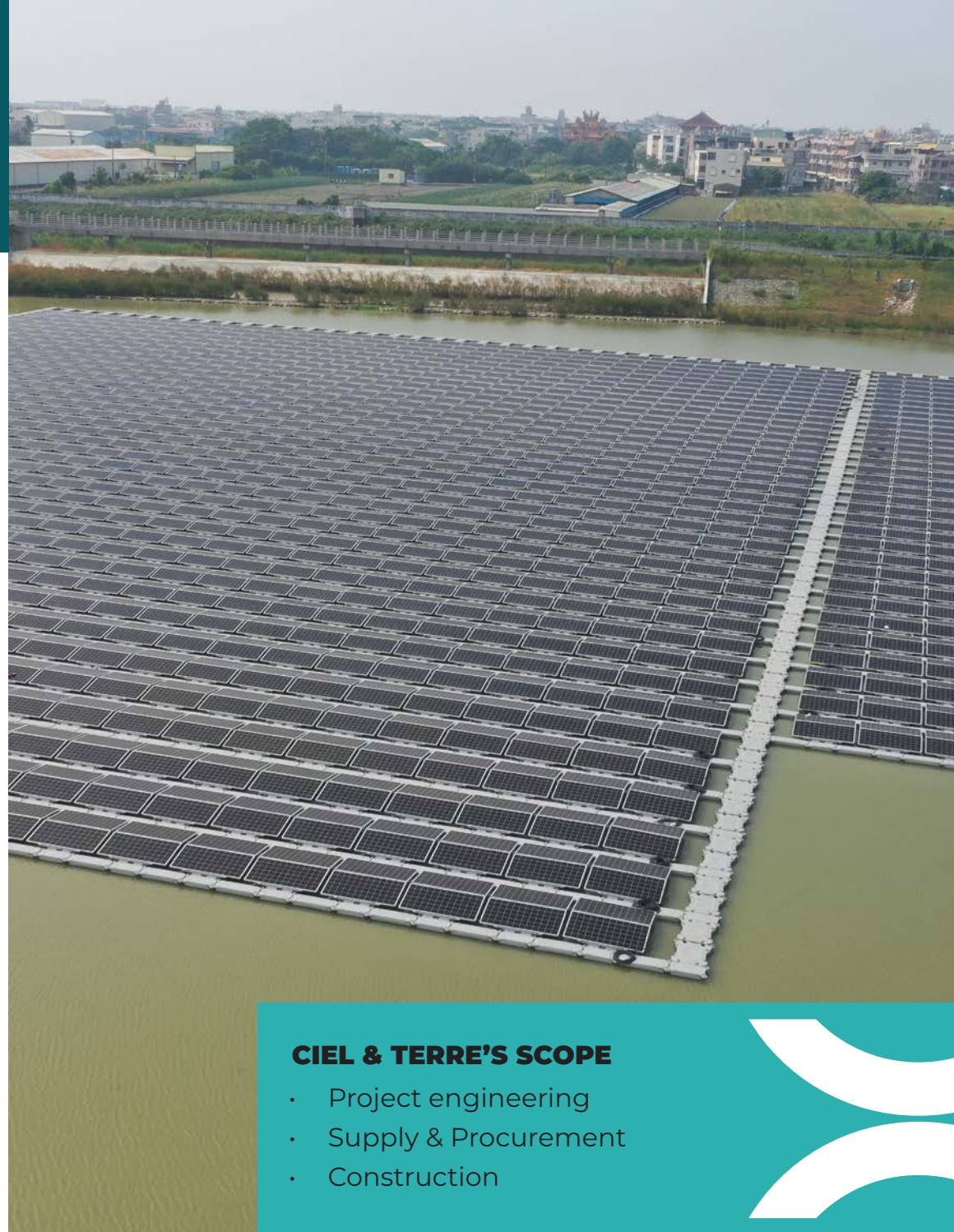
### 1 509 households

Equivalent in households



### 2 690,74 tons

Avoided emissions



### CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction





**21 571 kWp**

Grid injection



Chiayi,  
TAIWAN  
Q2 2021



## Water storage

Size:	30.7ha
Water type:	Fresh
Maximum depth:	4,5 m
Level variation:	5 m

**15.5ha**

FPV Plant size

**50%**

Coverage ratio



Float System applied:	Hydrelia Classic
Configuration:	Dual Orientation

Number of PV modules	54 612
PV module brand	TSEC
PV module capacity	395 W   72-cell



Anchoring system:	Hybrid
Type of anchors:	Screw



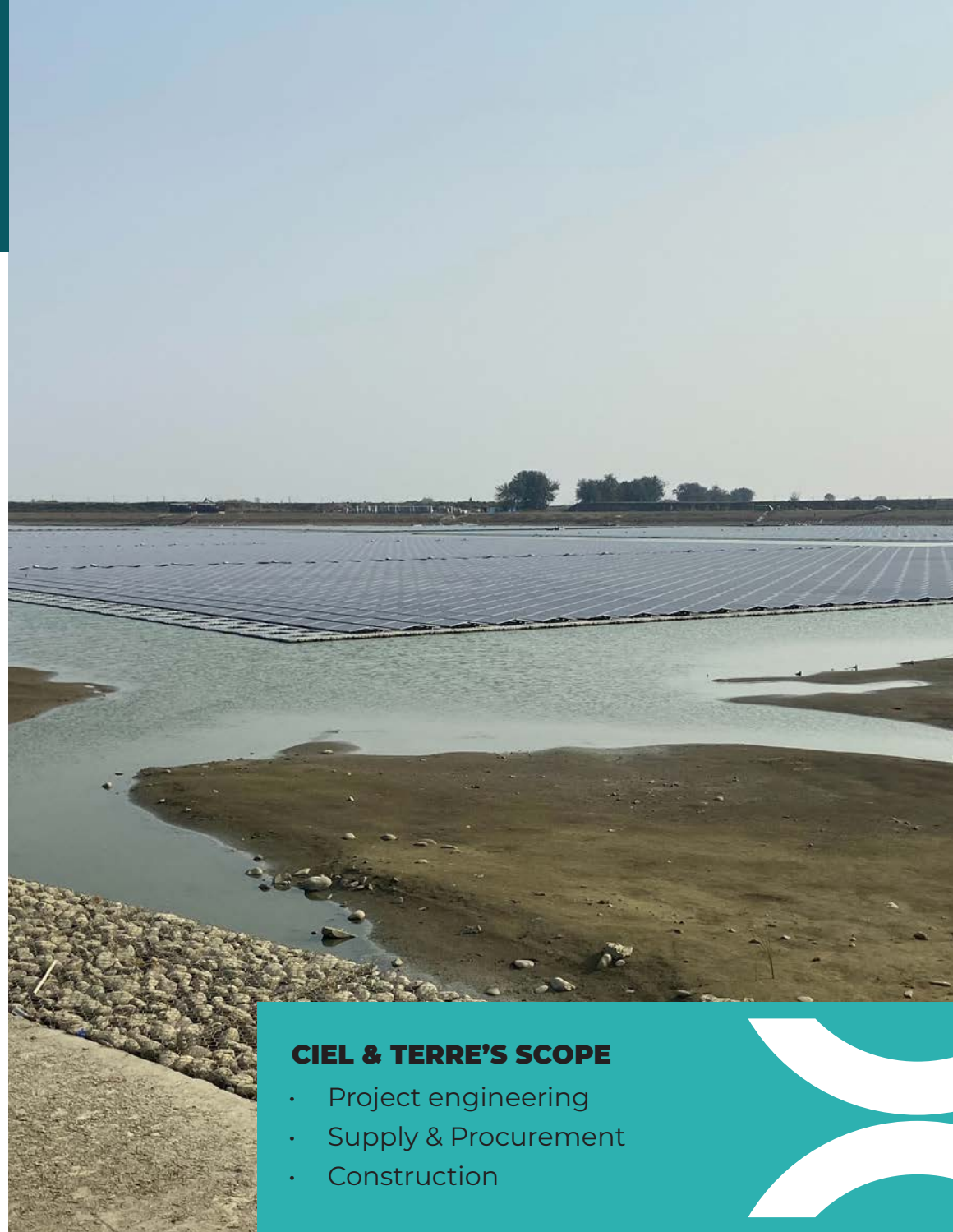
**7 865 households**

Equivalent in households



**14 026,97 tons**

Avoided emissions



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction

# 4TH WATER WAY



**10 266 kWp**

Grid injection



Changhua,  
TAIWAN  
Q2 2021



## Water storage

Size:	22.6ha
Water type:	Fresh
Maximum depth:	14,2 m
Level variation:	3,2 m

**8.6ha**

FPV Plant size

**38%**

Coverage ratio



Float System applied:	Hydrelia aiR
Configuration:	2-in-a-row
Number of PV modules	25 992
PV module brand	TSEC
PV module capacity	395 W   72-cell



Anchoring system:	Hybrid
Type of anchors:	Screw



**3 743 households**

Equivalent in households



**6 675,99 tons**

Avoided emissions



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction





**22 752 kWp**

Grid injection



Changhua,  
TAIWAN  
Q2 2021



## Water storage

Size:	29.7ha
Water type:	Fresh
Maximum depth:	12,3 m
Level variation:	3,4 m

**18.5ha**

FPV Plant size

**62%**

Coverage ratio



Float System applied:	Hydrelia aiR
Configuration:	2-in-a-row

Number of PV modules 57 600

PV module brand TSEC

PV module capacity 395 W | 72-cell



Anchoring system:	Hybrid
Type of anchors:	Screw



**8 295 households**

Equivalent in households



**14 794,43 tons**

Avoided emissions



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction



## 1 023 kWp

Grid injection



Yunlin,  
TAIWAN  
Q1 2022



### Fish Pond

Size:	1.9ha
Water type:	Salty
Maximum depth:	2,6 m
Level variation:	2,6 m

## 0.75ha

FPV Plant size

## 38%

Coverage ratio



Float System applied:	Hydrelia aiR
Configuration:	2-in-a-row

Number of PV modules	2 592
PV module brand	Anji
PV module capacity	395 W   72-cell



Anchoring system:	Bottom
Type of anchors:	Pillar anchors



### 373 households

Equivalent in households



### 665,75 tons

Avoided emissions



### CIEL & TERRE'S SCOPE

- Project development
- Project engineering
- Supply & Procurement
- Construction
- Financing
- O&M





# ASEAN & INDIA

**264**  
MWp  
installed

**70**  
MWp  
on going

**56**  
projects

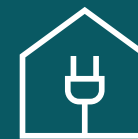
## FLAGSHIP PROJECT

**ANHUI CECEP | 70 005 kWp**

- Operated by: CECEP
- Main benefit: rehabilitate a former flooded coal mine



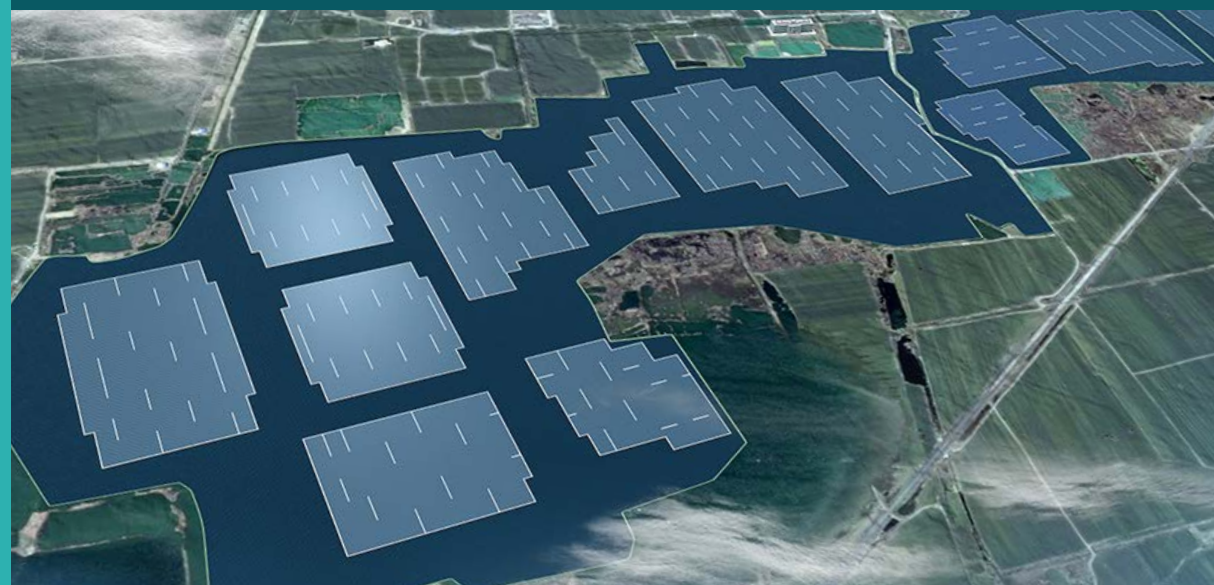
**82 GWh/year**  
Expected annual  
production



**20 910 homes**  
Electrical consumption  
equivalent



**66 000 tons**  
of CO2 emissions  
saved





**427 kWp**

Self consumption (partial)



Kerala,  
INDIA  
Q3 2019



## Recreation

Size:	1.46 ha
Water type:	Fresh
Maximum depth:	2,00 m
Level variation:	1,02 m

**0.40ha**

FPV Plant size

**28%**

Coverage ratio



Float System applied:	Hydrelia Equato
Configuration:	4-in-a-row
Number of PV modules	1 316
PV module brand	TRINA
PV module capacity	325 W   72-cell



Anchoring system:	Bank
Type of anchors:	Plate

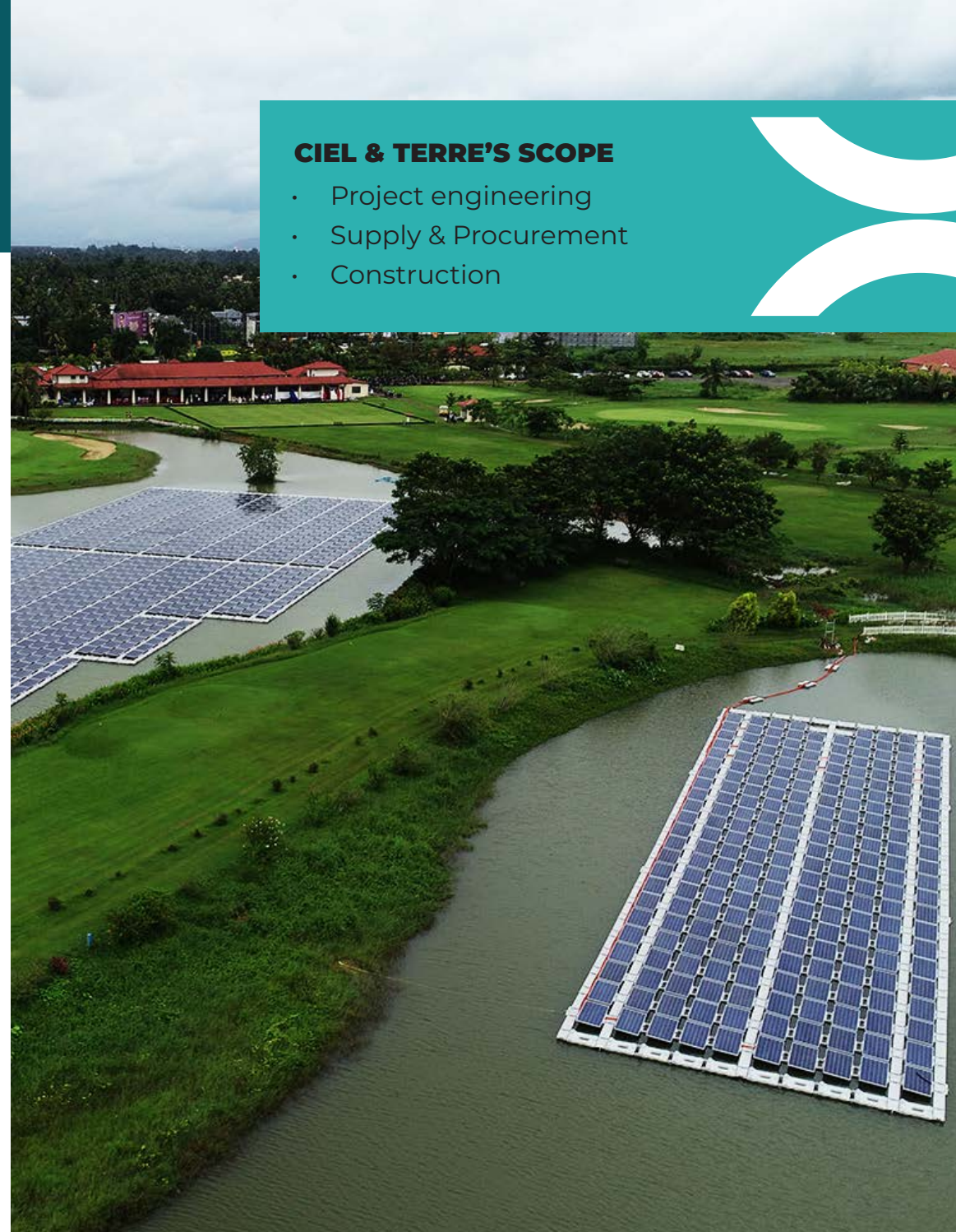


**547,321 tons**

Avoided emissions

## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction





# RAW WATER POND (SGTPP)



**5 500 kWp**

Self consumption (partial)



West Bengal,  
INDIA  
Q4 2020



## Water storage

Size:	10.22 ha
Water type:	Fresh
Maximum depth:	8 m
Level variation:	2 m

**5.19ha**

FPV Plant size

**51%**

Coverage ratio



Float System applied:	Hydrelia Equato
Configuration:	4-in-a-row

Number of PV modules	16 880
PV module brand	BHEL
PV module capacity	320 W   72-cell



Anchoring system:	Bank
Type of anchors:	Screw



**5837,773 tons**

Avoided emissions



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction

# THOOTHUKUDI (SPIC)



**14 800 kWp**

Self consumption (partial)



Tamilnadu,  
INDIA  
Q4 2020



## Water storage

Size:	15.60 ha
Water type:	Fresh
Maximum depth:	6 m
Level variation:	3 m

**12.86ha**

FPV Plant size

**71%**

Coverage ratio



Float System applied:	Hydrelío Equato
Configuration:	4-in-a-row
Number of PV modules	37 632
PV module brand	JINKO
PV module capacity	380 W   72-cell



Anchoring system:	Bank
Type of anchors:	Screw



**18685,792 tons**

Avoided emissions

## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction



# NTPC KAYAMKULAM



**73 400 kWp**

Grid injection



Kerala,  
INDIA  
Q2 2022



## Water storage

Size:	153.7 ha
Water type:	Brackish
Maximum depth:	8 m
Level variation:	4 m

**52.20ha**

FPV Plant size

**53%**

Coverage ratio



Float System applied:	Hydrelia aiR
Configuration:	4-in-a-row

Number of PV modules	147 042
PV module brand	TRINA
PV module capacity	490/495 W   72-cell



Anchoring system:	Bottom
Type of anchors:	Screw



**92 671 427tons**

Avoided emissions

## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction



# ROSEDALE



**1 039 kWp**

Self consumption (partial)



Auckland,  
NEW ZEALAND  
Q2 2020



## Water treatment

Size:	34.00 ha
Water type:	Fresh
Maximum depth:	39.30 m
Level variation:	3.30 m

**0.97ha**

FPV Plant size

**3%**

Coverage ratio

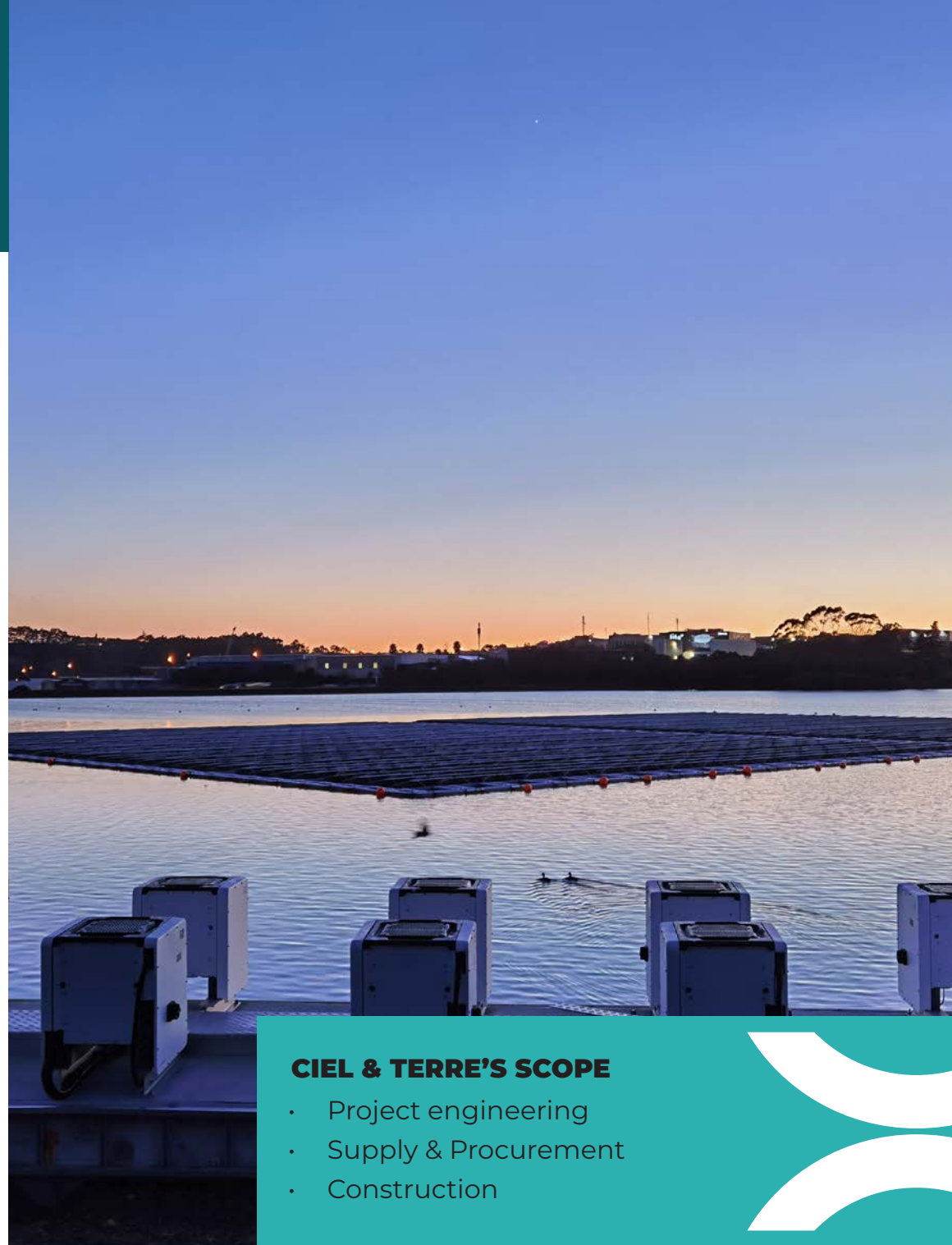


Float System applied:	Hydrelia aiR
Configuration:	4-in-a-row

Number of PV modules	2 736
PV module brand	JA SOLAR
PV module capacity	380 W   72-cell



Anchoring system:	Bottom
Type of anchors:	Deadweight



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction





**1 988 kWp**

Self consumption (full)



Ratchaburi,  
THAILAND  
Q2 2020



## Water treatment

Size:	4.80 ha
Water type:	Fresh
Maximum depth:	15.5 m
Level variation:	6 m

**2.06ha**

FPV Plant size

**43%**

Coverage ratio



Float System applied:	Hydrelia aiR
Configuration:	4-in-a-row

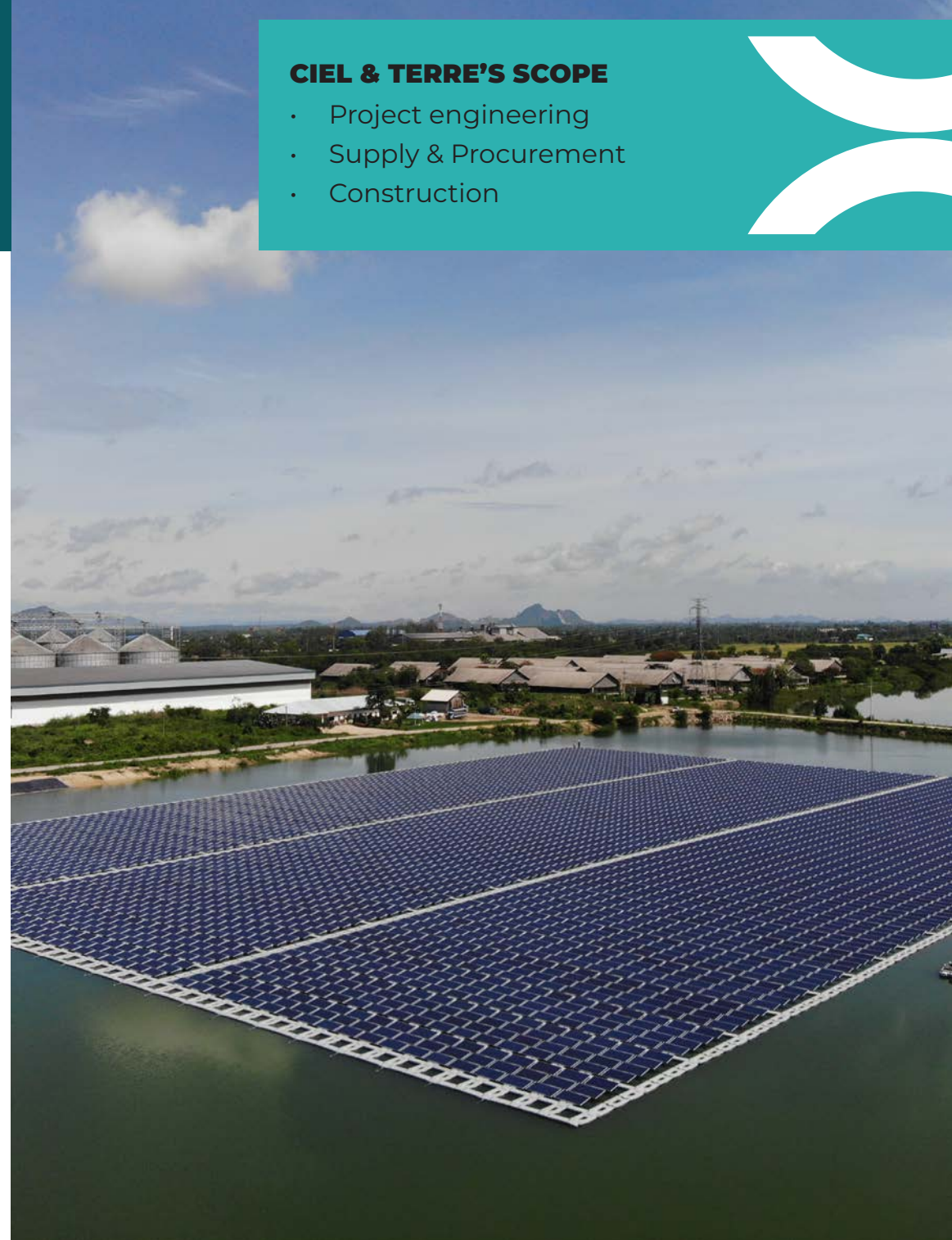
Number of PV modules	6 023
PV module brand	RISEN
PV module capacity	330 W   72-cell



Anchoring system:	Bank
Type of anchors:	Percussive driven earth anchors

## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction





# CMIC POND



**2 835 kWp**

Self consumption (full)



Kampot Province,  
CAMBODIA  
Q1 2019



## Water storage

Size:	3.25 ha
Water type:	Fresh
Maximum depth:	5.2 m
Level variation:	5.2 m

**2.43ha**

FPV Plant size

**74%**

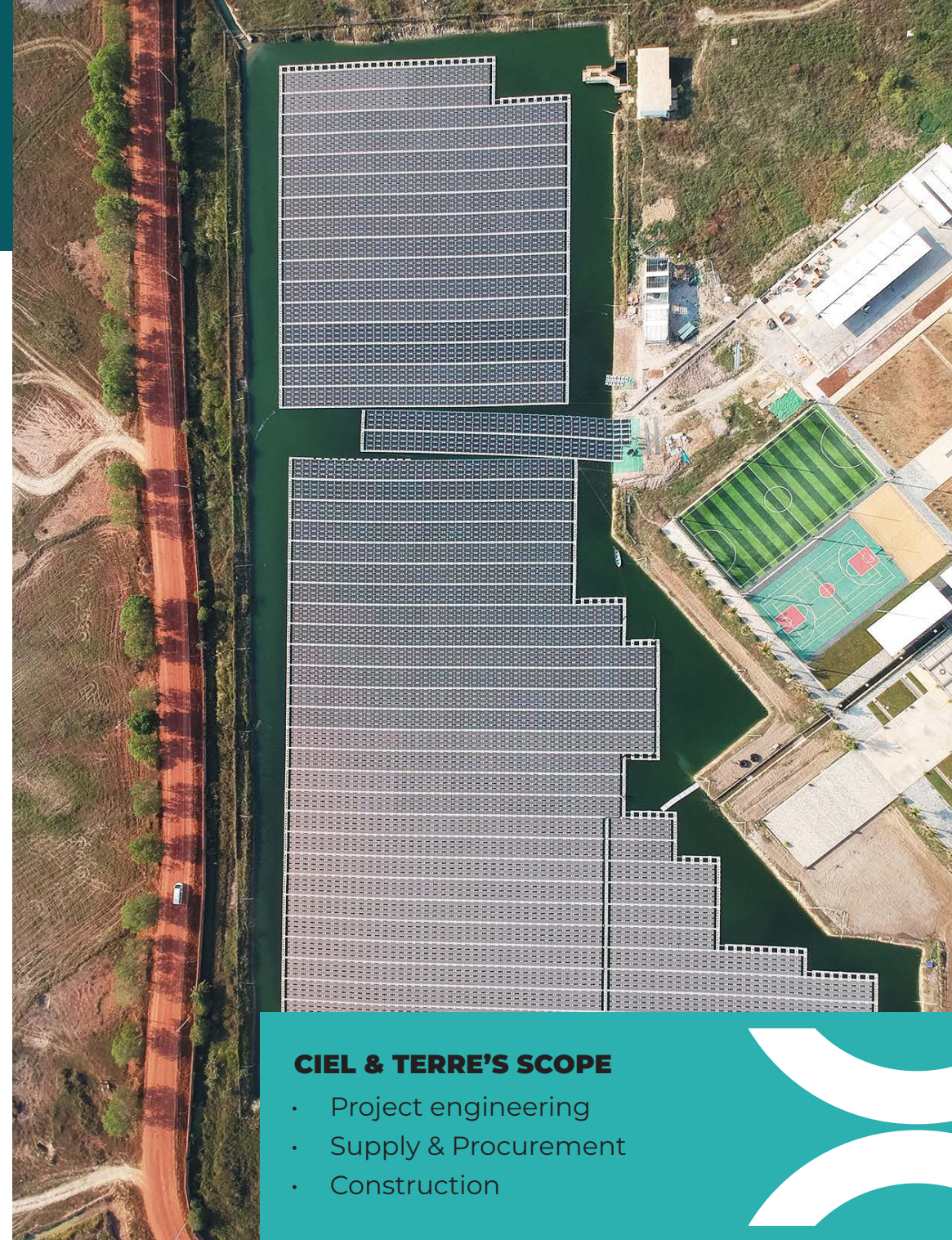
Coverage ratio



Float System applied:	Hydrelia Equato
Configuration:	4-in-a-row
Number of PV modules	7 768
PV module brand	JINKO
PV module capacity	365 W   72-cell



Anchoring system:	Bank
Type of anchors:	Screw



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction





**1 261 kWp**

Self consumption (full)



Phetchaburi,  
THAILAND  
Q4 2019



## Water treatment

Size:	2.62 ha
Water type:	Fresh
Maximum depth:	10 m
Level variation:	2 m

**1.11ha**

FPV Plant size

**43%**

Coverage ratio



Float System applied:	Hydrelia aiR
Configuration:	4-in-a-row

Number of PV modules	3 275
PV module brand	TRINA
PV module capacity	385 W   72-cell



Anchoring system:	Bank
Type of anchors:	Screw



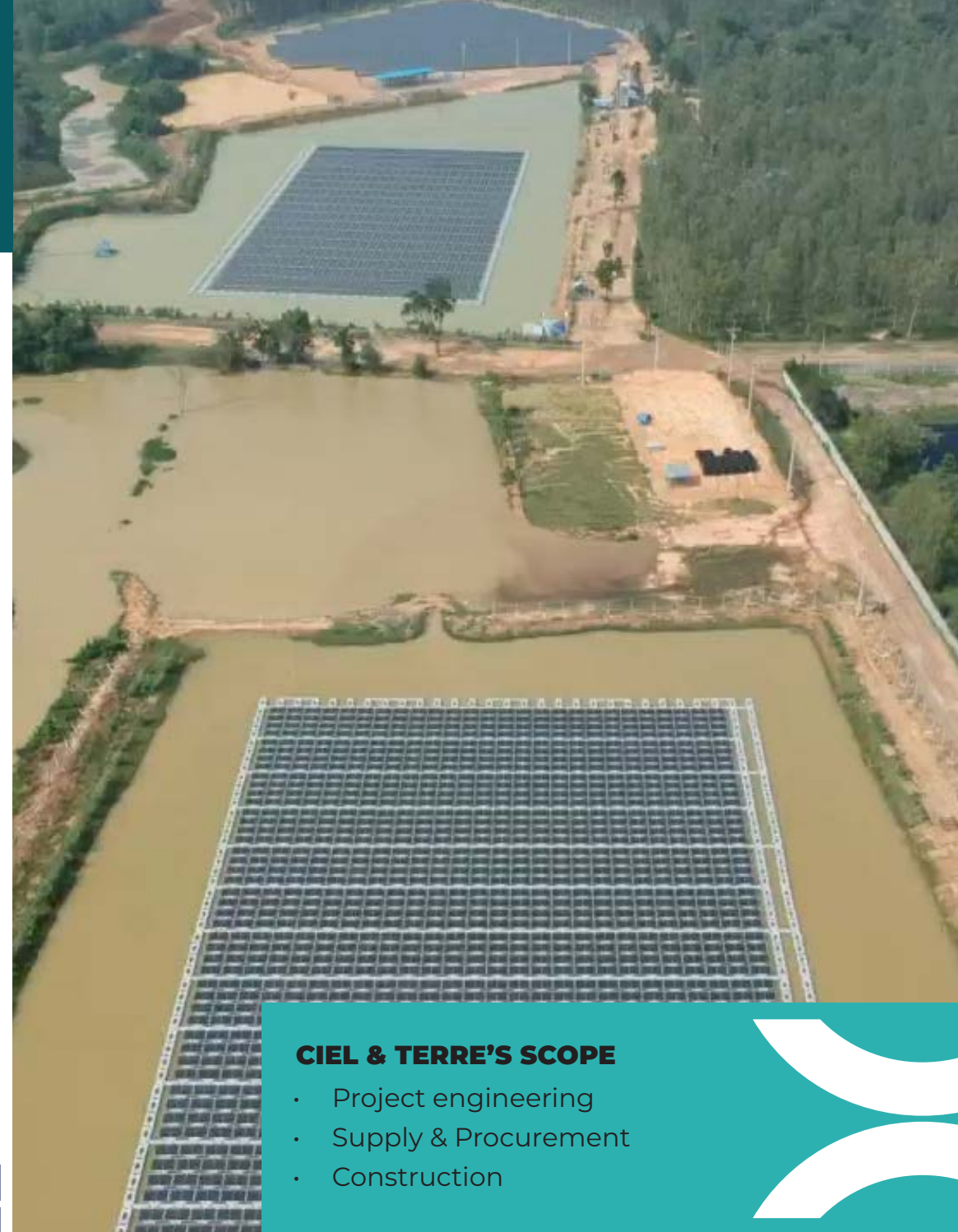
**XX households**

Equivalent in households



**XX tons**

Avoided emissions



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction



## 702 kWp

Self consumption (full)



Ratchaburi,  
THAILAND  
Q4 2019



### Water treatment

Size:	1.12 ha
Water type:	Fresh
Maximum depth:	4 m
Level variation:	1 m

## 0.62ha

FPV Plant size

## 55%

Coverage ratio



Float System applied:	Hydrelia aiR
Configuration:	2-in-a-row

Number of PV modules	1 872
PV module brand	REC
PV module capacity	375 W   72-cell



Anchoring system:	Bank
Type of anchors:	Percussive driven earth anchors



### CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction



# SCC OPEN PIT



**498 kWp**

Self consumption (partial)



Saraburi,  
THAILAND  
Q3 2019



## Quarry and mining

Size:	1.89 ha
Water type:	Fresh
Maximum depth:	87 m
Level variation:	15.62 m

**0.44ha**

FPV Plant size

**23%**

Coverage ratio

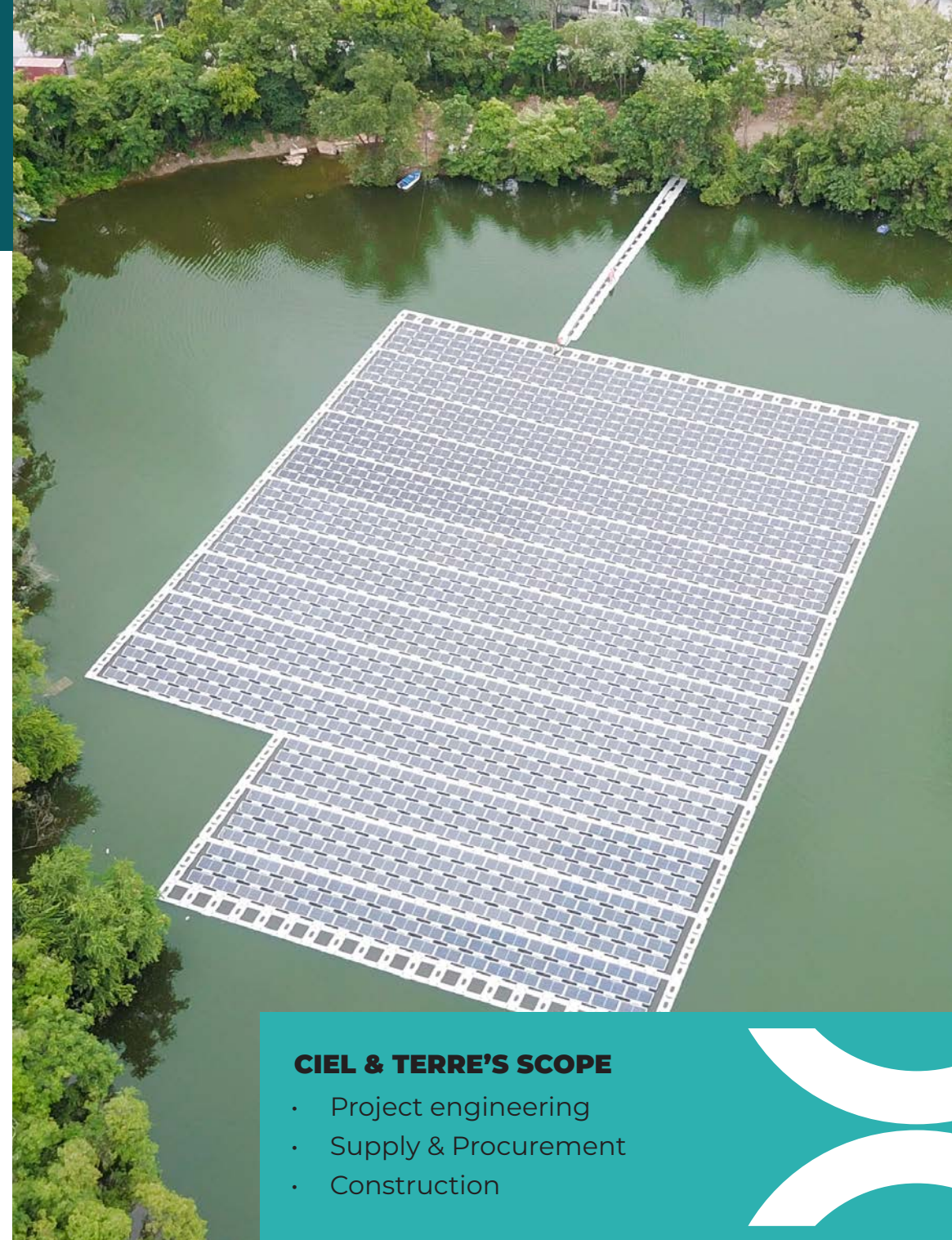


Float System applied:	Hydrelío aiR
Configuration:	4-in-a-row

Number of PV modules	1 277
PV module brand	JINKO
PV module capacity	390 W   72-cell



Anchoring system:	Bank
Type of anchors:	Screw



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction





## 70 005 kWp

Grid injection



Anhui,  
CHINA  
Q4 2018



### Quarry and mining

Size:	130 ha
Water type:	Fresh
Maximum depth:	14 m
Level variation:	3.9 m

## 63.58ha

FPV Plant size

## 45%

Coverage ratio



Float System applied:	Hydrelia Classic
Configuration:	1-in-a-row
Number of PV modules	194 731
PV module brand	Lerri Solar
PV module capacity	335/360 W   72-cell



Anchoring system:	Bottom
Type of anchors:	Screw



### 35 000 households

Equivalent in households

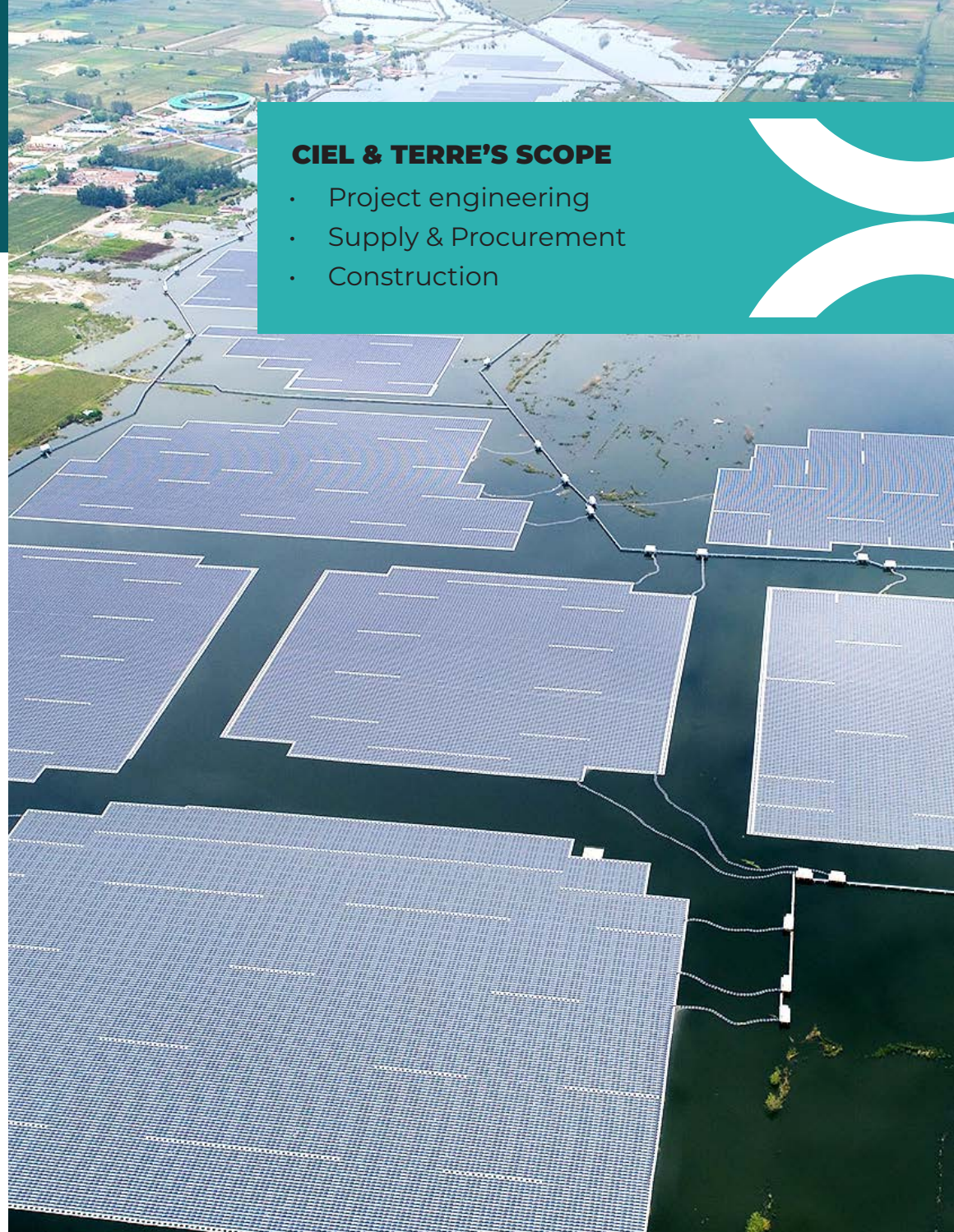


### 80 300 tons

Avoided emissions

### CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction







**6 776 kWp**

Grid injection



Shandong,  
CHINA  
Q2 2018



## Quarry and mining

Size:	70 ha
Water type:	Fresh
Maximum depth:	14 m
Level variation:	6.4 m

**6.89ha**

FPV Plant size

**10%**

Coverage ratio



Float System applied:	Hydrelia Classic
Configuration:	1-in-a-row

Number of PV modules	24 640
PV module brand	GCL
PV module capacity	275 W   60-cell



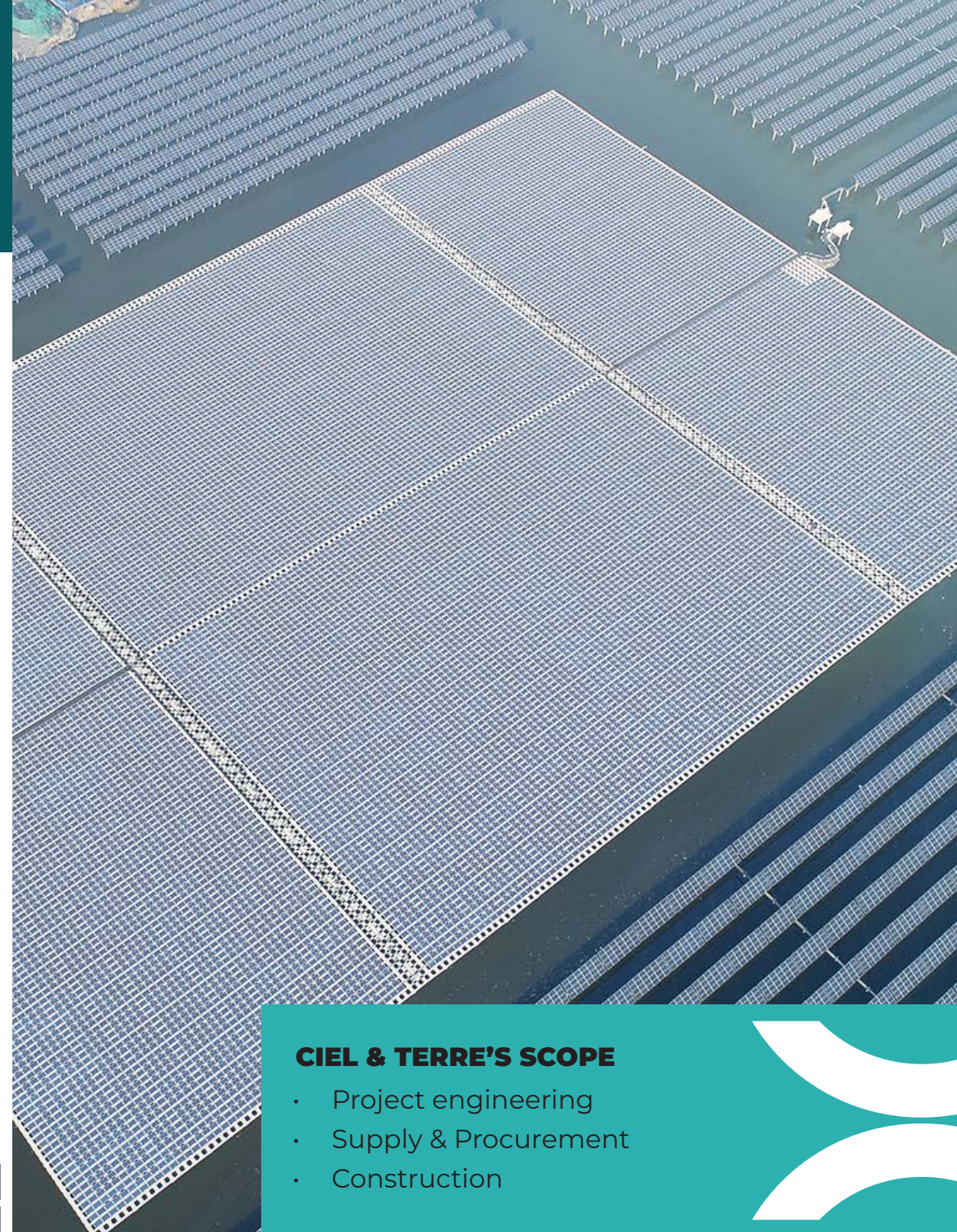
Anchoring system:	Bottom
Type of anchors:	Percussive driven earth anchors



**3 200 households**  
Equivalent in households



**7 760 tons**  
Avoided emissions



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction





**32 686 kWp**

Grid injection



Anhui,  
CHINA  
Q1 2018



## Quarry and mining

Size:	167 ha
Water type:	Fresh
Maximum depth:	12.5 m
Level variation:	4.8 m

**33.50ha**

FPV Plant size

**20%**

Coverage ratio



Float System applied:	Hydrelia Classic
Configuration:	1-in-a-row
Number of PV modules	116 736
PV module brand	GCL
PV module capacity	280 W   60-cell



Anchoring system:	Bottom
Type of anchors:	Screw



**15 800 households**

Equivalent in households



**37 800 tons**

Avoided emissions



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction



# PEI COUNTY



**9 982 kWp**

Grid injection



Jiangsu,  
CHINA  
Q3 2017



## Irrigation

Size:	35.60 ha
Water type:	Fresh
Maximum depth:	8 m
Level variation:	8 m

**10.35ha**

FPV Plant size

**29%**

Coverage ratio



Float System applied:	Hydrelio Classic
Configuration:	1-in-a-row

Number of PV modules	42 240
PV module brand	GCL
PV module capacity	260 W   60-cell



Anchoring system:	Bottom
Type of anchors:	Percussive driven earth anchors



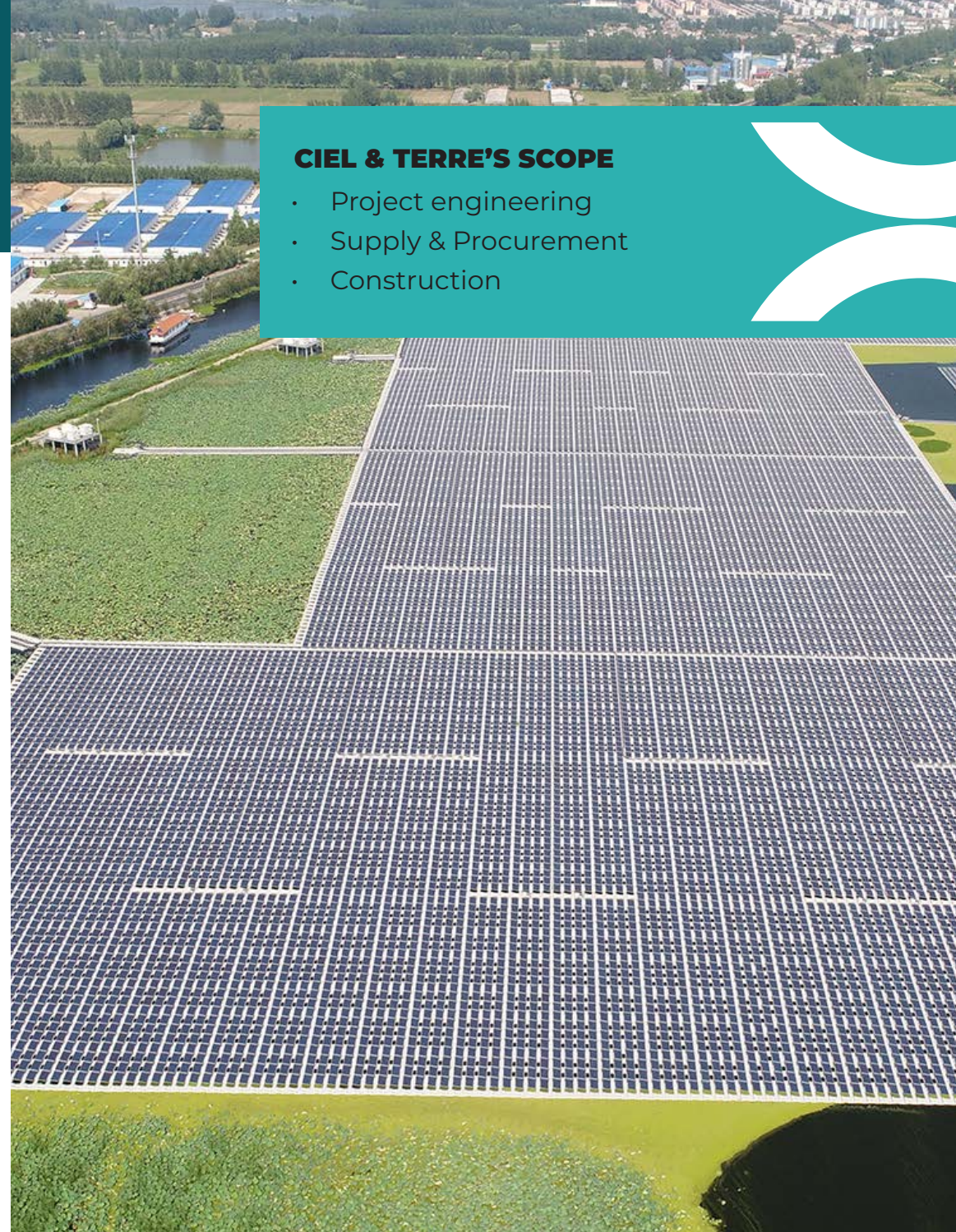
**5 270 households**  
Equivalent in households



**12 600 tons**  
Avoided emissions

## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction







# NORTH & LATIN AMERICAS

**29**  
MWp  
installed

**100**  
MWp  
on going

**32**  
projects

## FLAGSHIP PROJECT

### HEALDSBURG | 4 780 kWp

- Biggest floatting solar project in CA
- Project installed on two water treatment ponds





# ALTAMONTE SPRINGS



**962 kWp**

Self consumption (partial)



Florida,  
USA  
Q4 2020



## Water treatment

Size:	1.27 ha
Water type:	Fresh
Maximum depth:	3 m
Level variation:	1 m

**0.75ha**

FPV Plant size

**59%**

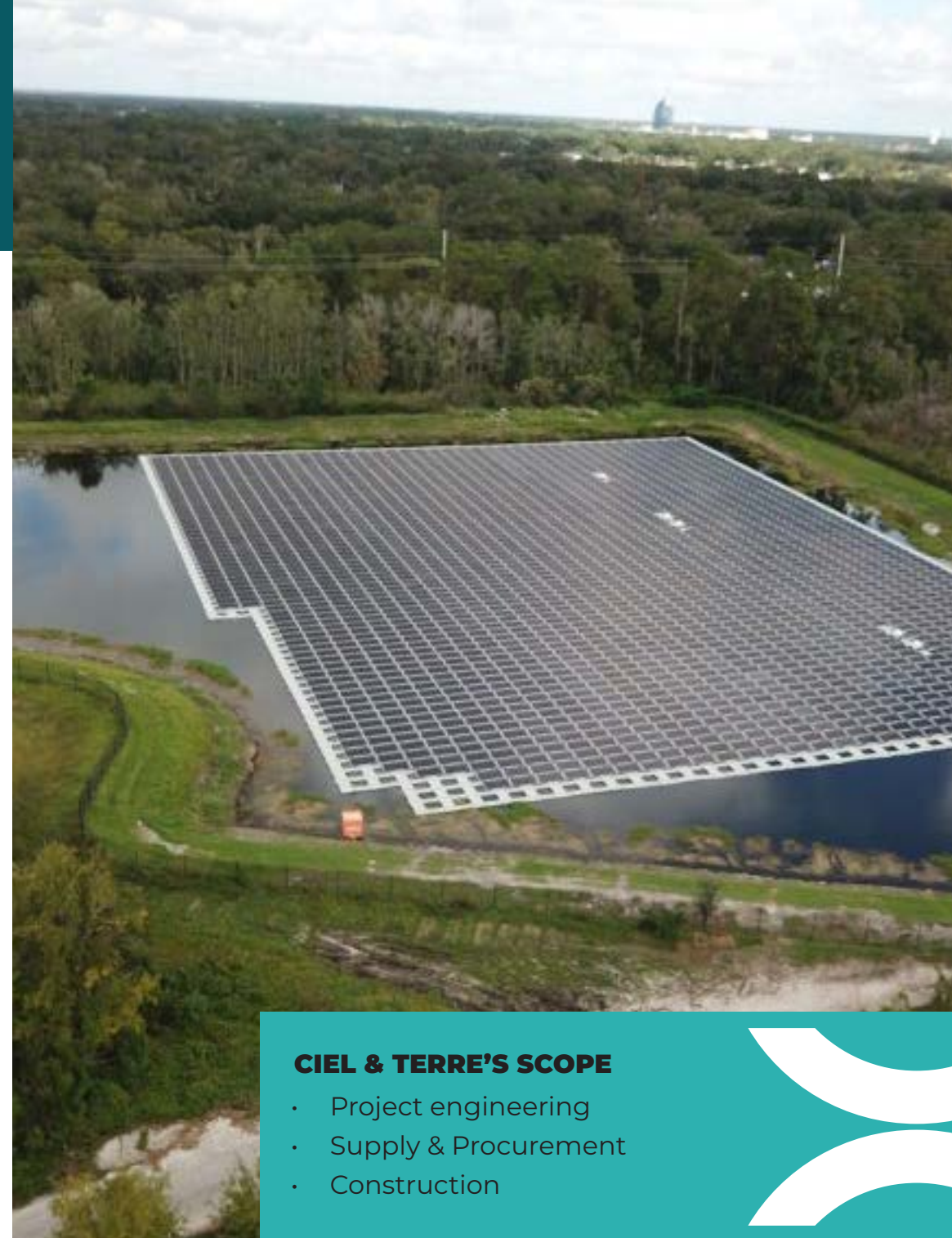
Coverage ratio



Float System applied:	Hydrelia Classic
Configuration:	1-in-a-row
Number of PV modules	2 437
PV module brand	Znshinesolar
PV module capacity	395 W   72-cell



Anchoring system:	Bank
Type of anchors:	Plate



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction



# SAYREVILLE



**4 402 kWp**

Self consumption (full)



New Jersey,  
USA  
Q4 2019



## Water treatment

Size: 19.66 ha

Water type: Brackish

Maximum depth: 4.1 m

Level variation: 0.9 m

**4.05ha**

FPV Plant size

**21%**

Coverage ratio



Float System applied: Hydrelío Classic

Configuration: 1-in-a-row

Number of PV modules 3 792

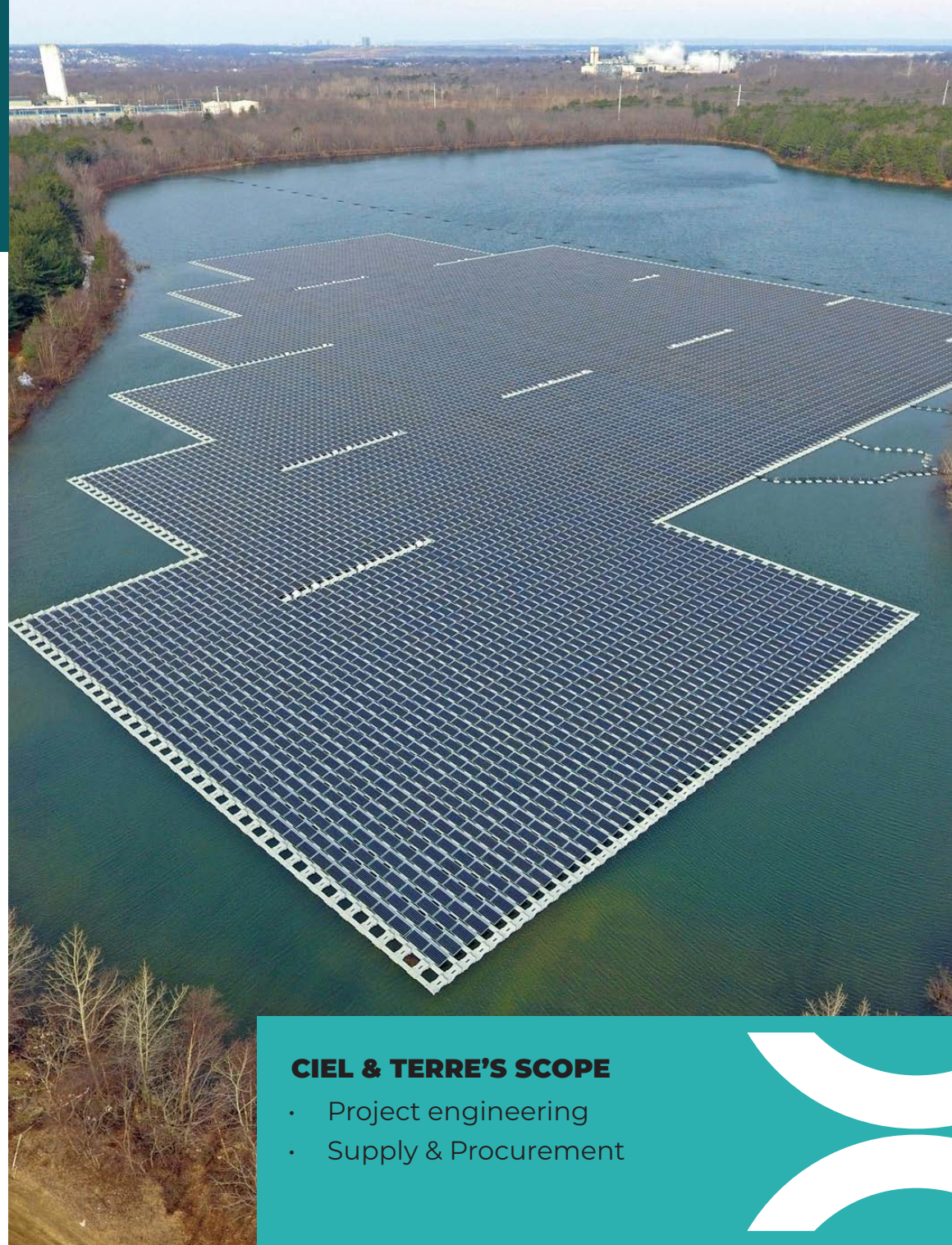
PV module brand CSUN

PV module capacity 345 W | 72-cell



Anchoring system: Hybrid

Type of anchors: Percussive driven earth anchors



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement



# ALTMAN PLANTS



**985 kWp**

Self consumption (full)



Texas,  
USA  
Q1 2021



## Irrigation

Size:	10.15 ha
Water type:	Fresh
Maximum depth:	8 m
Level variation:	8 m

**2.16ha**

FPV Plant size

**21%**

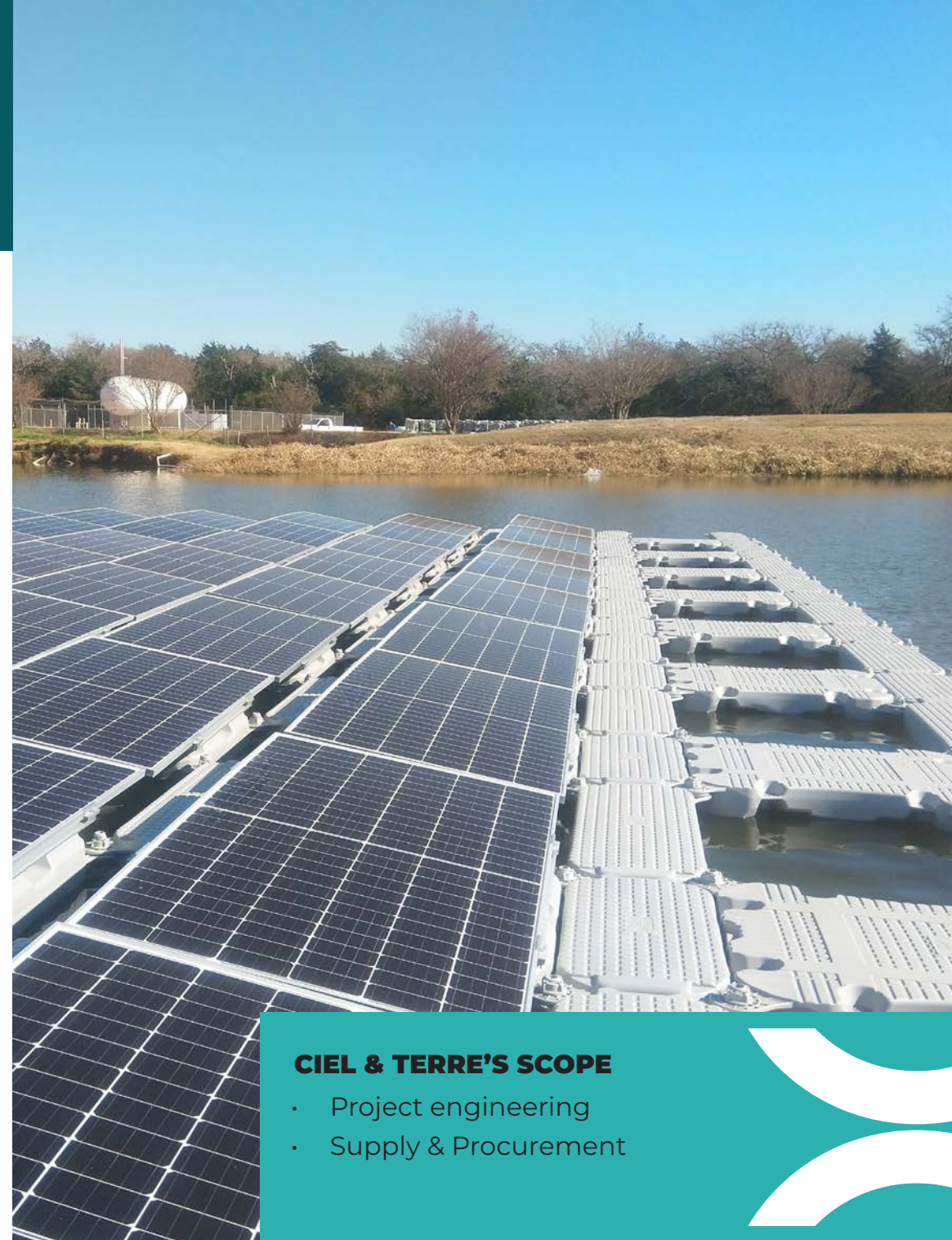
Coverage ratio



Float System applied:	Hydrelia Classic
Configuration:	1-in-a-row
Number of PV modules	2 592
PV module brand	REC Solar
PV module capacity	380 W   72-cell



Anchoring system:	Bank
Type of anchors:	Plate



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement

# HEALDSBURG



**4 780 kWp**

Grid injection



California,  
USA  
Q1 2021



## Water treatment

Size:	15.30 ha
Water type:	Fresh
Maximum depth:	10 m
Level variation:	10 m

**8ha**

FPV Plant size

**52%**

Coverage ratio



Float System applied:	Hydrelío Classic
Configuration:	1-in-a-row

Number of PV modules	11660
PV module brand	ET Solar
PV module capacity	410 W   72-cell



Anchoring system:	Bank
Type of anchors:	Plate



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement



# CLAYTON SAND



**3 304 kWp**

Onsite Grid connected



New Jersey,  
USA  
Nov, 2021



## Sand Quarry

Size:	21.5 ha
Water type:	Fresh
Maximum depth:	22.9 m
Level variation:	3.04 m

**2.8ha**

FPV Plant size

**13%**

Coverage ratio

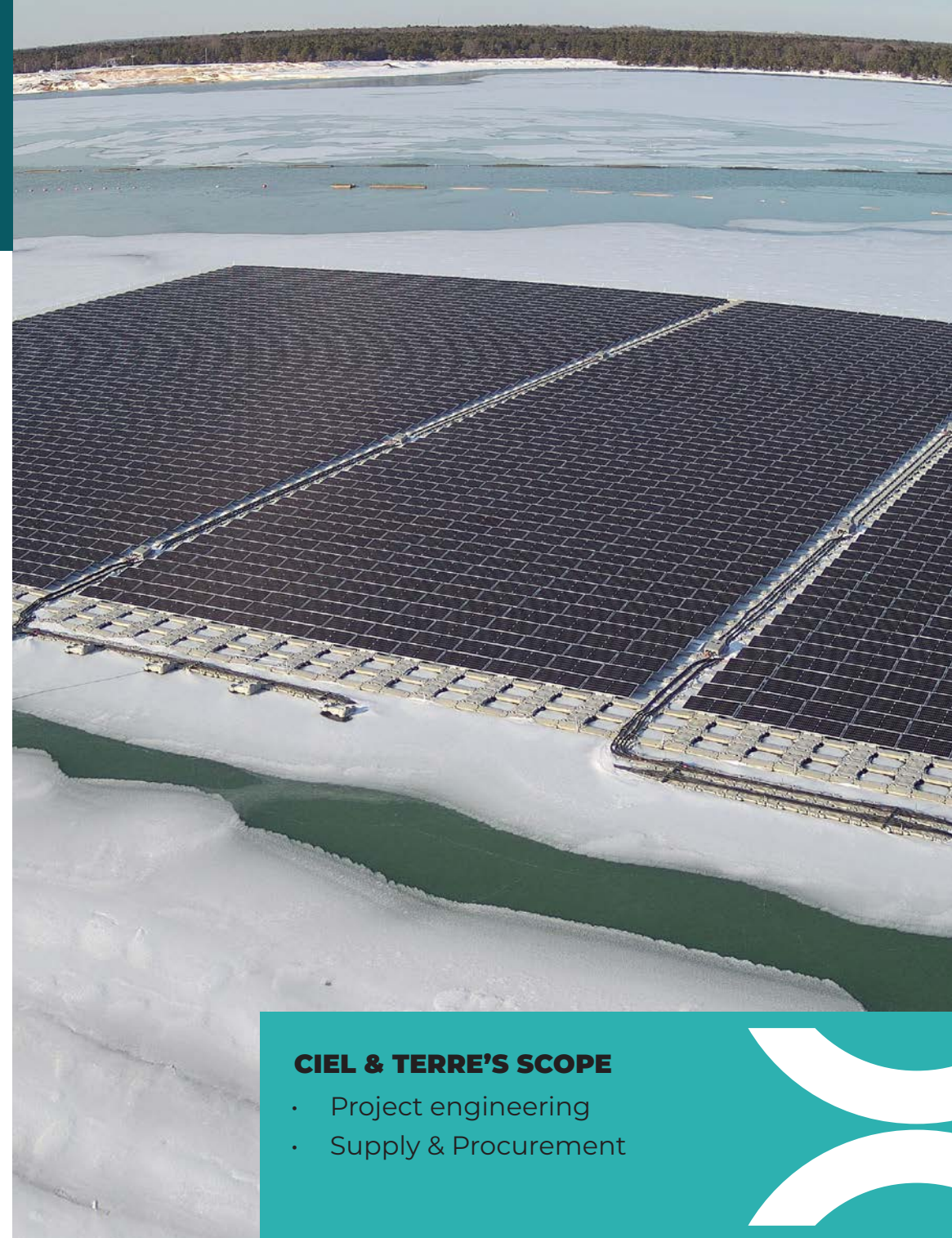


Float System applied:	Hydrelia Classic
Configuration:	Single row Eco

Number of PV modules	8 060
PV module brand	Trina Solar (FR)
PV module capacity	410 W   72 cells



Anchoring system:	Bank and Bottom
Type of anchors:	Helical anchors



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement



# EMEA

Europe | Middle-East | Africa

**64**  
MWp  
installed

**50+**  
MWp  
on going

**50+**  
projects

## FLAGSHIP PROJECT

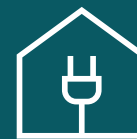
### QUEEN ELIZABETH II | 6 338 kWp

- Operated by: Lightsource Renewable Energy
- Main benefit: electricity used in self-consumption for water treatment activity



**5 750 MWh/year**

Expected annual  
production



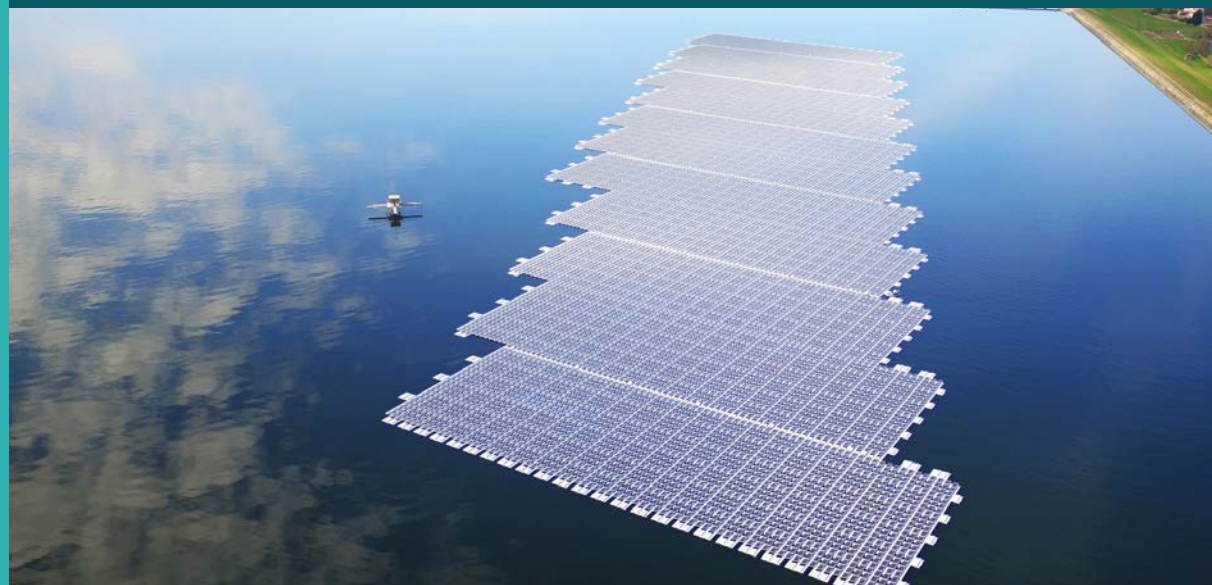
**1 800 homes**

Electrical consumption  
equivalent



**2 950 tons**

of CO2 emissions  
saved







**1 500 kWp**

Self consumption (partial)



Rhineland-Palatinate,  
GERMANY  
Q4 2020



## Quarry and mining

Size:	15.50 ha
Water type:	Fresh
Maximum depth:	20 m
Level variation:	1 m

**1.30ha**

FPV Plant size

**8%**

Coverage ratio



Float System applied:	Hydrelia aiR
Configuration:	4-in-a-row

Number of PV modules	4 165
PV module brand	Canadian Solar
PV module capacity	395 W   72-cell



Anchoring system:	Bottom
Type of anchors:	Deadweight



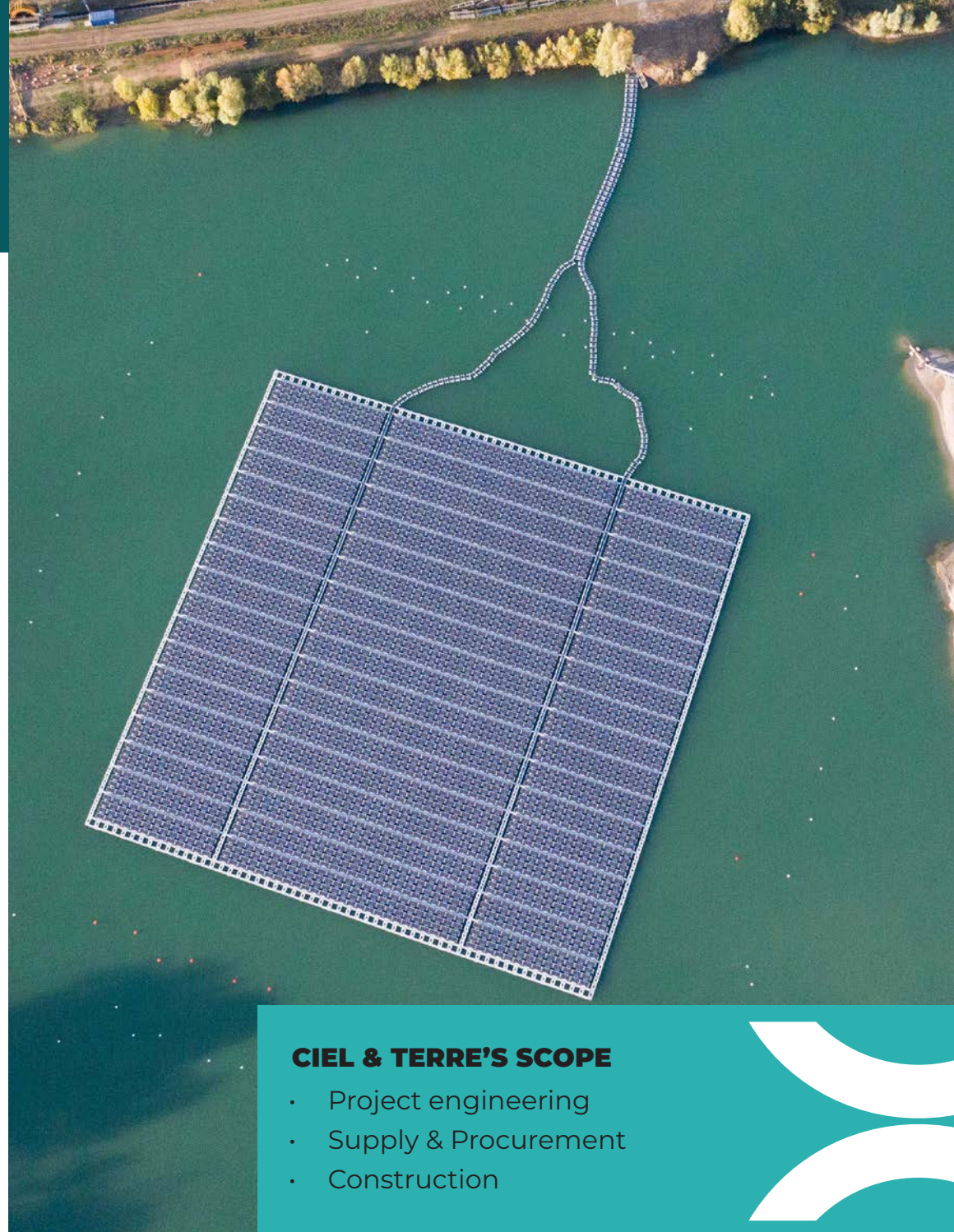
**526 households**

Equivalent in households



**548 tons**

Avoided emissions



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction



**749 kWp**

Self consumption (full)



Baden-Württemberg,  
GERMANY  
Q2 2019



## Quarry and mining

Size:	39.95 ha
Water type:	Fresh
Maximum depth:	58.8 m
Level variation:	2 m

**0.78ha**

FPV Plant size

**2%**

Coverage ratio



Float System applied:	Hydrelia Classic
Configuration:	1-in-a-row

Number of PV modules	2 304
PV module brand	SUNTECH
PV module capacity	325 W   72-cell



Anchoring system:	Hybrid
Type of anchors:	Parabolic



**266 households**

Equivalent in households



**280 tons**

Avoided emissions

## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction





# ALTO RABAGAO



**218 kWp**

Grid injection



Vila Real District,  
PORTUGAL  
Q4 2016



## Hydroelectricity

Size:	2 212 ha
Water type:	Fresh
Maximum depth:	90 m
Level variation:	30 m

**0.26ha**

FPV Plant size

**<0.01%**

Coverage ratio



Float System applied:	Hydrelío Classic
Configuration:	1-in-a-row
Number of PV modules	840
PV module brand	REC
PV module capacity	260 W   60-cell



Anchoring system:	Bottom
Type of anchors:	Screw



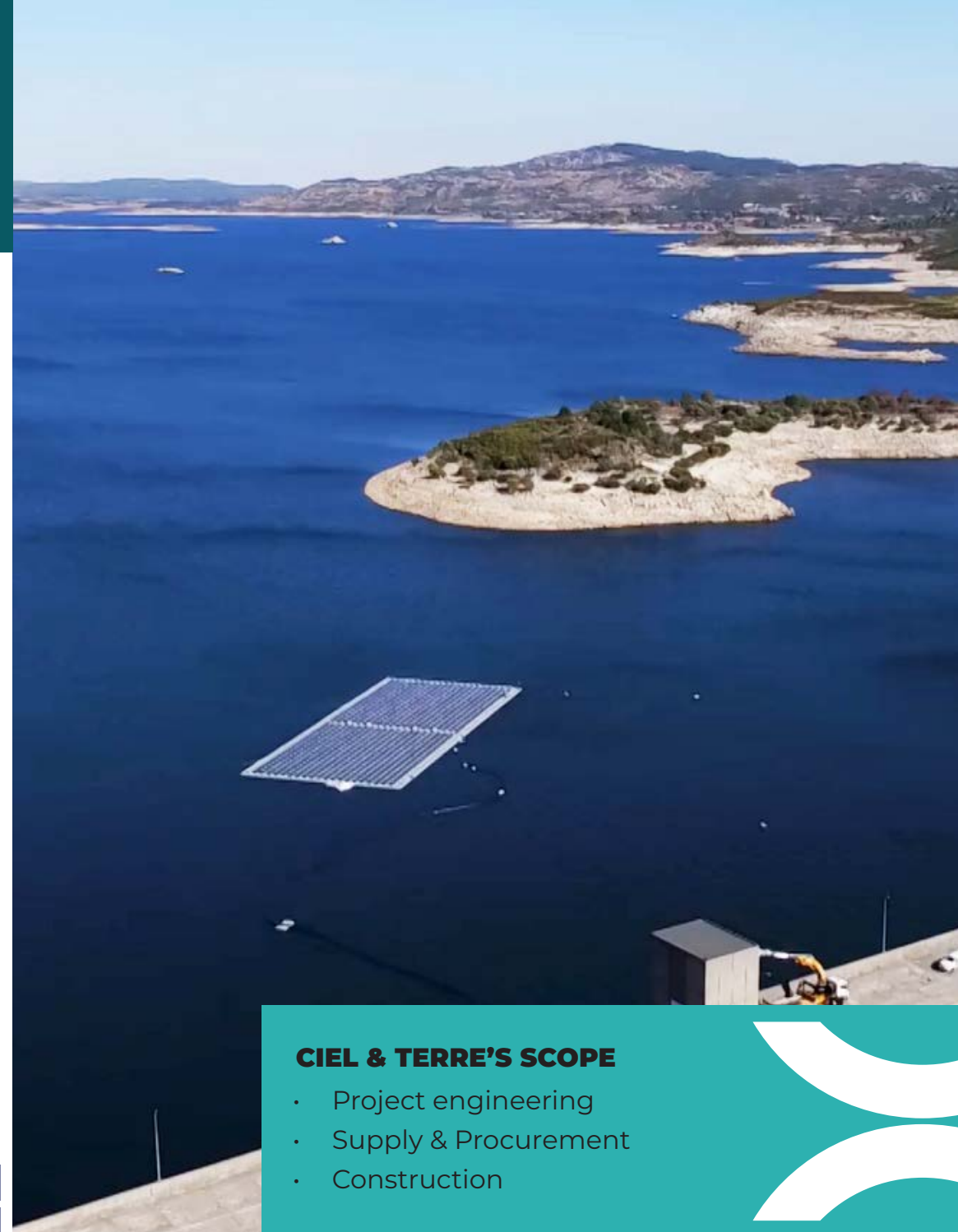
**100 households**

Equivalent in households



**111 tons**

Avoided emissions



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction

# KFAR HAMACCABI



**522 kWp**

Grid injection



Haifa District,  
ISRAEL  
Q4 2019



## Irrigation

Size:	7 ha
Water type:	Fresh
Maximum depth:	5 m
Level variation:	5 m

**0.51ha**

FPV Plant size

**7%**

Coverage ratio



Float System applied:	Hydrelia aiR
Configuration:	4-in-a-row
Number of PV modules	1 392
PV module brand	JINKO
PV module capacity	375 W   72-cell



Anchoring system:	Bank
Type of anchors:	Deadweight



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement



# AZALEALAAN



**1 845 kWp**

Grid injection



Gelderland,  
NETHERLANDS  
Q2 2018



## Irrigation

Size:	3.34 ha
Water type:	Fresh
Maximum depth:	15 m
Level variation:	2 m

**1.60ha**

FPV Plant size

**47%**

Coverage ratio



Float System applied:	Hydrelia Classic
Configuration:	1-in-a-row
Number of PV modules	6 150
PV module brand	Hanwha
PV module capacity	300 W   60-cell



Anchoring system:	Bank
Type of anchors:	Screw



**615 households**

Equivalent in households



**XX tons**

Avoided emissions



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction



# HESBAYE FROST



**998 kWp**

Self consumption (full)



Wallonia,  
BELGIUM  
Q4 2017



## Water storage

Size:	2.96 ha
Water type:	Fresh
Maximum depth:	4.5 m
Level variation:	3 m

**1.03ha**

FPV Plant size

**35%**

Coverage ratio



Float System applied:	Hydrelia Classic
Configuration:	1-in-a-row
Number of PV modules	3 120
PV module brand	BYD
PV module capacity	320 W   72-cell



Anchoring system:	Bank
Type of anchors:	Screw



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement




**6 338 kWp**

Grid injection


 Surrey,  
ENGLAND  
Q1 2016


### Water treatment

Size:	128 ha
Water type:	Drinking
Maximum depth:	18.4 m
Level variation:	18.4 m

**5.95ha**

FPV Plant size

**5%**

Coverage ratio



Float System applied:	Hydrelia Classic
Configuration:	1-in-a-row
Number of PV modules	23 046
PV module brand	SUNTECH
PV module capacity	275 W   60-cell



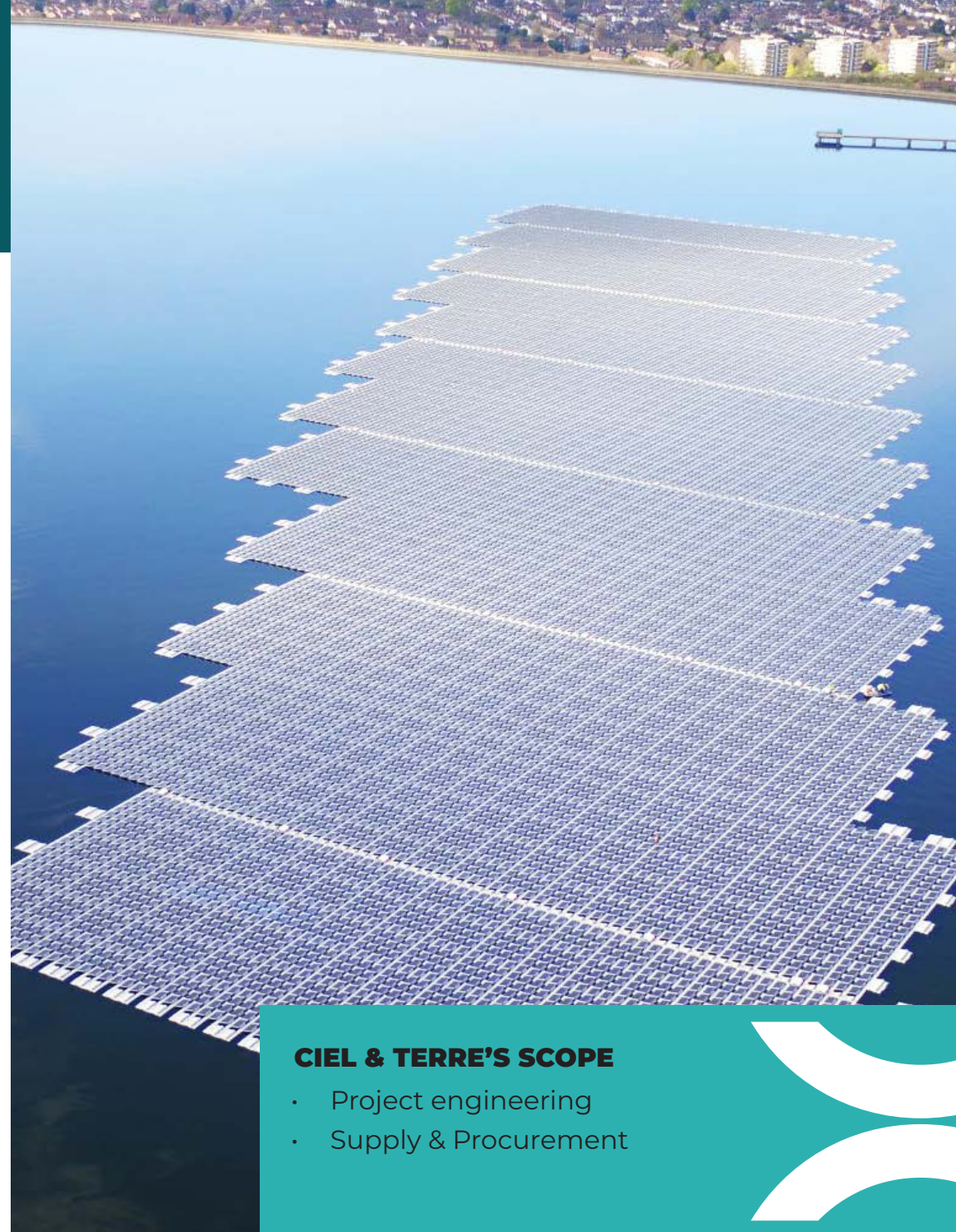
Anchoring system:	Bottom
Type of anchors:	Deadweight


**1 700 households**

Equivalent in households


**2 950 tons**

Avoided emissions



### CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement



# DIFFERDANGE



**3 049 kWp**



Differdange,  
LUXEMBOURG  
Q3 2021



## Industrial pond

Size:	5.4 ha
Water type:	Polluted
Maximum depth:	3 m
Level variation:	1.5 m

**2.53ha**

FPV Plant size

**46%**

Coverage ratio

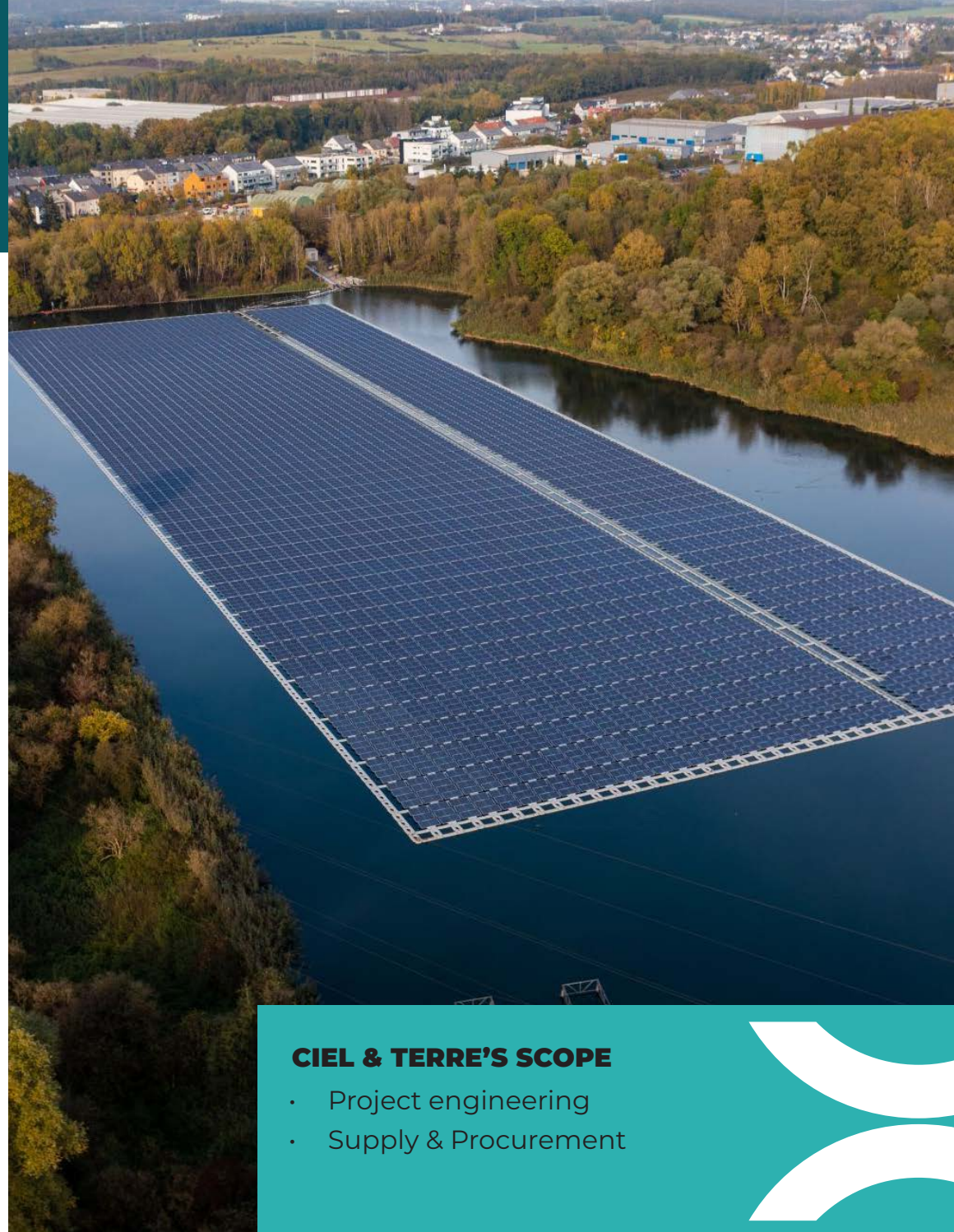


Float System applied:	Hydrelia aiR
Configuration:	4-in-a-row

Number of PV modules	6777
PV module brand	LONGI
PV module capacity	450 W W   73 cells



Anchoring system:	Bank
Type of anchors:	Screw anchors



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement





### Recreation (old quarry)

Size:	15.6 ha
Water type:	Fresh
Maximum depth:	10 m
Level variation:	1 m

## 0.9ha

FPV Plant size

## 5%

Coverage ratio



Float System applied:	Hydrelia aiR
Configuration:	4-in-a-row

Number of PV modules	2484
PV module brand	SUN TECH
PV module capacity	405 W W   72 cells



Anchoring system:	Bank and bottom
Type of anchors:	Helical anchors



### CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement

# SOBRADINHO



**1 005 kWp**



Bahia State,  
BRAZIL  
Q3 2019



## Hydroelectricity

Size:	421 400 ha
Water type:	Fresh
Maximum depth:	29.3 m
Level variation:	13 m

**1.09ha**

FPV Plant size

**>0.01%**

Coverage ratio



Float System applied:	Hydrelia Classic
Configuration:	1-in-a-row
Number of PV modules	3 792
PV module brand	Canadian Solar
PV module capacity	265 W   60-cell

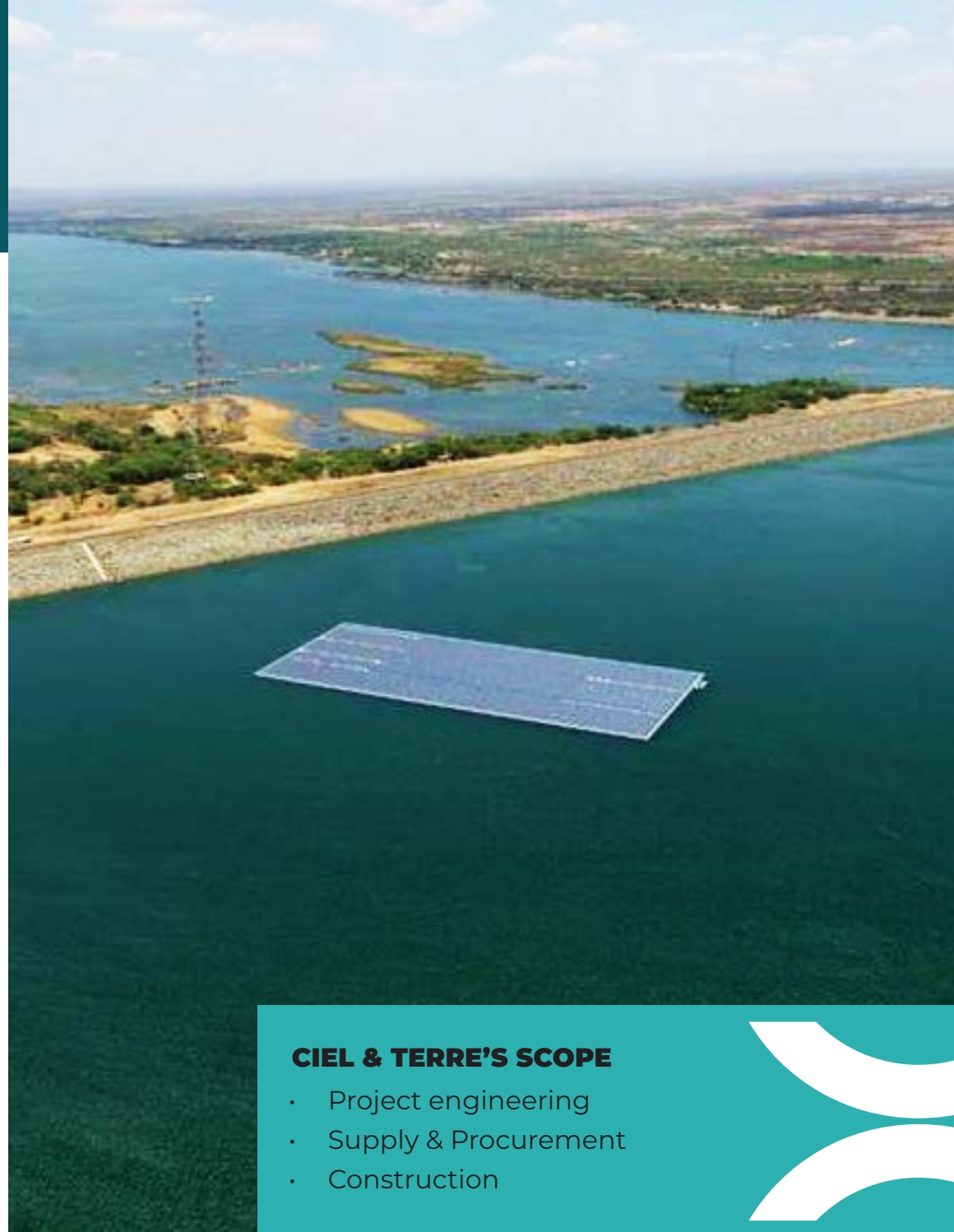


Anchoring system:	Bottom
Type of anchors:	Deadweight



**590 households**

Equivalent in households



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement
- Construction



# LAS TORTOLAS



**85 kWp**

Self consumption (full)



Santiago  
Metropolitan Region,  
CHILE  
Q1 2019



## Quarry and mining

Size:	140 ha
Water type:	Polluted
Maximum depth:	30 m
Level variation:	20 m

**0.11ha**

FPV Plant size

**<0,01%**

Coverage ratio



Float System applied:	Hydrelío Classic
Configuration:	1-in-a-row

Number of PV modules	256
PV module brand	JINKO
PV module capacity	330 W   72-cell



Anchoring system:	Bank
Type of anchors:	Deadweight



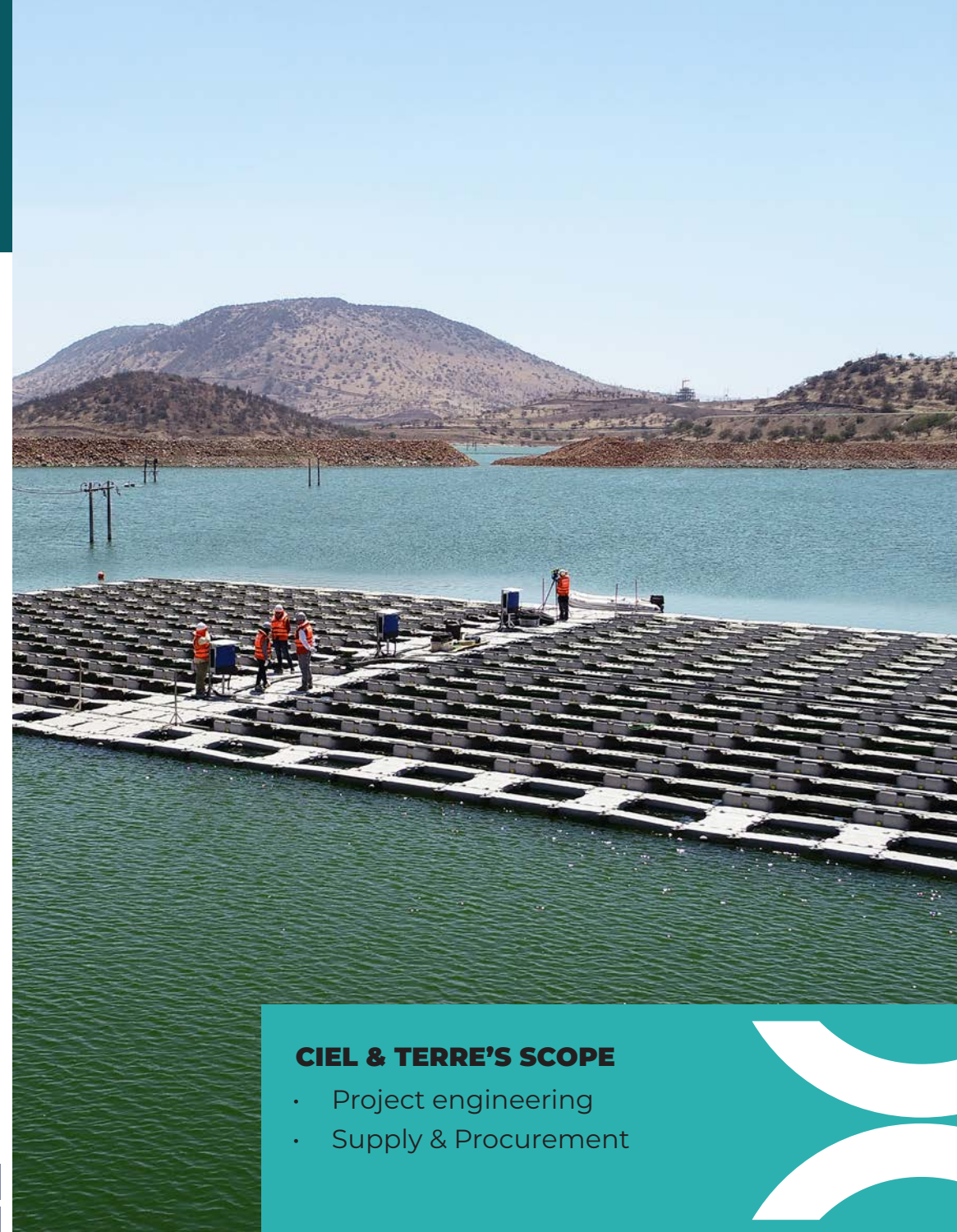
**70 households**

Equivalent in households



**58 tons**

Avoided emissions



## CIEL & TERRE'S SCOPE

- Project engineering
- Supply & Procurement



# Global reference list

## JAPAN

Okegawa	1,180 kWp	2013	Hikona	660 kWp		Shimodori Ike	1,210 kWp		Hotokedo Ike	838 kWp	
Kawagoe	696 kWp		Kyuhin	1,188 kWp		Narasu Ike	2,802 kWp		Yoshi Ike	1,768 kWp	
Maeno Ike	848 kWp	2014	Kire Ike	691 kWp		Higai Shin Ike	497 kWp		Hanaoka Ike	2,289 kWp	
Yasugi	1,098 kWp		Gojiga Ike	572 kWp		Musashicho Furu Ike	807 kWp	2018	Kiya Ike	1,417 kWp	
Kato-shi	2,870 kWp		Noma Ike	2,435 kWp		Musashicho Shin Ike	503 kWp		Higainichou Ike	1,229 kWp	
Sakasama Ike	2,313 kWp		Tachiai Oku Ike	835 kWp		Oda Ike	2,903 kWp		Aoki Ike	1,574 kWp	
Sawa Ike	1,008 kWp		Besso Ike	1,426 kWp		Sasakuacho UE	594 kWp		Ozaka Ike	2,660 kWp	
Fuku Ike	1,076 kWp		Yukimine Kami Ike	1,568 kWp	2017	Sakasama Shita	665 kWp		Kaya Manuma Ike	2,602 kWp	
Hirai Ike	1,125 kWp	2015	Shimoyama Ike	1,966 kWp		Sawahara	2,449 kWp		Tsuji Ike	906 kWp	2020
Hanamidai	1,153 kWp		Ootsuda Ike	973 kWp		Nakano Ike	1,204 kWp		Kimagase Ike	899 kWp	
Funatsu Osawa	1,485 kWp		Daikai Ike	300 kWp		Katakami Oike	2,602 kWp		Daido Ike	1,158 kWp	
Umenoki	7,550 kWp		Hirono Nigo Ike	1,261 kWp		Hyoshiga Ike	2,703 kWp		Kotori Babe Ike	2,686 kWp	
Kawarayama Ike	1,428 kWp		Sara Ike	1,176 kWp		Sakaya Tame Ike	633 kWp		Hotokedo Ike	838 kWp	
Toriga Ike	630 kWp		Hachigo Ike	2,402 kWp		Yokawacho Kami Ike	621 kWp	2019	Yoshi Ike	1,768 kWp	
Sakurashita Ike	809 kWp		Komaga	2,297 kWp		Kitsune Ike	2,861 kWp		Futamachi	200 kWp	
Juman Ike	490 kWp		Tano Ike	2,548 kWp		Hikuni Ike	1,308 kWp		Saiko Ike	1,277 kWp	
Sohara Ike	2,398 kWp		Osawa	2,449 kWp		Jodo Ike	2507 kWp		Hiruta Ike	525 kWp	
Naga Ike Nishi	1,078 kWp		Bessho Sara Ike	540 kWp		Kaneibara Ike	864 kWp		Shinno Ike	1,261 kWp	
Kasaoka	973 kWp		Naka Ota Ike	2,435 kWp		Hirono Ichigo Ike	1,634 kWp		Ichiban & Niban Ike	1,971 kWp	
Kobe Oike	1,212 kWp		Iwano Ike	2,596 kWp		Innan Kita Ike	1,830 kWp		Magase Ike	2,385 kWp	
Gono Ike	1,203 kWp		Watashi Ike	2,170 kWp		Hanaoka Ike	2,289 kWp		Hikita Ike	2,122 kWp	
Yakino Ike	1,714 kWp	2016	Yokota Cho Shiba/Kami	1,591 kWp		Kiya Ike	1,417 kWp		Oniga Shiro	768 kWp	
Hira Ike	1,260 kWp		Yokota Cho Shimo	853 kWp	2018	Higainichou Ike	1,229 kWp		Yakage Shin Ike	1623 kWp	2021
Tsuga Ike	2,449 kWp		Otori Babe like	2,495 kWp		Aoki Ike	1,574 kWp		Gotanda	729 kWp	
Hirono Shin Ike	1,751 kWp		Uwa Ike	637 kWp		Ozaka Ike	2,660 kWp	2020	Hirakawa School Pool	42.90 kWp	
Isawa Ike	631 kWp		Ishitani Ike	660 kWp		Kaya Manuma Ike	2,602 kWp		Yamakura Dam	11,355 kWp	
Naga Ike Higashi	2,156 kWp		Higashi Ota Ike	2,435 kWp		Tsuji Ike	906 kWp		Maruoka Ike	709 kWp	
Sayama Ootori Ike	2,502 kWp		Ichinomiya Ike	2,242 kWp		Kimagase Ike	899 kWp		Ota Ike (Okayama)	2,446 kWp	
Sayama Nigori Ike	280 kWp		Togawa Ike	2,358 kWp		Daido Ike	1,158 kWp		Nakashin Ike	1076 kWp	2022
Sakurakami Ike	1,992 kWp		Abe Ike	9,087 kWp		Kotori Babe Ike	2,686 kWp		Matsuotame ike	2,587 kWp	





# Global reference list

## ASIA & OCEANIA

Yothathikan pilot (TH)	5 kWp	2014	Wisewood (TH)	1,261 kWp	2019
O-Chang #1 (KR)	495 kWp	2015	Yonggyae (KR)	2,007 kWp	
Sungai Labu (MY)	108 kWp	2016	Bachyun (KR)	954 kWp	
Kas Green Energy (ID)	5 kWp		Kewpie (TH)	702 kWp	2020
Tengeh (SG)	3 x 100 kWp		Mahavajiralongkorn Hosp. (TH)	31 kWp	
Ulu Sepri (MY)	270 kWp		Don Sai (TH)	1,988 kWp	
Pirongji (KR)	706 kWp	2017	Gateway City (TH)	117 kWp	2021
Shek Pik (HK)	99 kWp		Saha Group Industrial Park (TH)	478 kWp	
Goyeon #1 (KR)	934 kWp		Rosedale (NZ)	1039 kWp	
Chuckdongjae (KR)	90 kWp		Raw Water Pond (IN)	5,403 kWp	
Heze City (CN)	600 kWp	2018	Thoothukudi (IN)	14,800 kWp	2022
Pei County (CN)	9,982 kWp		LK-Rich, Banpu (TH)	16,087 kWp	
Plover Cove (HK)	100 kWp		Ubon Bio Energy (TH)	1,443 kWp	
Tian Chang (CN)	1,000 kWp		NTPC Kayakulam (IN)	73,400 kWp	
Lismore (AU)	100 kWp	2019			
Anhui GCL (CN)	32,686 kWp				
GCL Jining (CN)	6,776 kWp				
Agongdian (TW)	9,994 kWp				
Sugu #1 (TW)	4,023 kWp	2018			
Beishipi (TW)	1,998 kWp				
Manun (KR)	2,007 kWp				
Gongam #2 (KR)	934 kWp				
Myeongun (KR)	2,007 kWp	2019			
Myeongwan (KR)	955 kWp				
Gasam (KR)	2,007 kWp				
Anhui CECEP (CN)	70,005 kWp				
CMIC (KH)	2,835 kWp	2019			
SCCC Open Pit (TH)	498 kWp				
O-Chang #2 (KR)	2,506 kWp				
Cial Golf Course (IN)	452 kWp				

## TAIWAN

Taoyuan	481 kWp	2017
Caogangwei	500 kWp	2018
Sugu #2	1,133 kWp	
Changhua Farm	1,996 kWp	
Sugu #1	4,023 kWp	2019
Agongdian	9,994 kWp	
Beishipi	1,998 kWp	
Shanjiding	842 kWp	2020
Gongguan	4,268 kWp	
Changbin	88,038 kWp	
Jiali	1,261 kWp	2021
Dianbaoxi D	4,102 kWp	
Xiqian	21,571 kWp	
4th Water Way	10,266 kWp	
Wanxing	22,752 kWp	2022
Taixi (fish pond)	1,023 kWp	



# Global reference list

## EMEA

Piolenc (FR)	15 kWp	2011	Madone (FR)	250 kWp	2020
Sheeplands (EN)	200 kWp	2014	Terhills (BE)	1,006 kWp	2021
Nofar (IL)	22 kWp	2015	Differdange (LU)	3043 kWp	
Bör (SE)	13 kWp		Agro Hispamer (ES)	968 kWp	
Ben Acre (EN)	3 x 100 kWp		K3 (NL)	2,391 kWp	
Polybell (EN)	471 kWp	2016	Goulette (TN)	198 kWp	2022
Reeders (EN)	50 kWp		Salzwedel extension (DE)	1800 kWp	
Godley (EN)	2,991 kWp				
Queen Elizabeth II (EN)	6,338 kWp				
Alto Rabagao (PT)	218 kWp	2017			
Maxima Bridge (NL)	57 kWp				
Pontecorvo (IT)	343 kWp				
Cegonha (PT)	11 kWp				
Kairouan pilot (TN)	5 kWp	2018			
Hesbaye Frost (BE)	998 kWp				
Engie Zaandam (NL)	26 kWp				
Engie Burgum (NL)	39 kWp				
Oosterhof Holfman (NL)	27 kWp	2019			
Azalealaan (NL)	1,845 kWp				
Ashdot (IL)	269 kWp				
Slufter (NL)	51 kWp				
Marlenique Farm (ZA)	59 kWp	2020			
Maiwald (DE)	749 kWp				
O'Mega 1 (FR)	17,015 kWp				
Cuba Este (PT)	998 kWp				
Kfar Hamaccabi (IL)	522 kWp	2020			
Salzwedel (DE)	750 kWp				
Veldhunten (NL)	1,191 kWp				
Groillons (FR)	2,974 kWp				
Leimersheim (DE)	1,498 kWp				

## USA

UCF Orlando (FL, USA)	5 kWp	2016
Kunde Winery (CA, USA)	10 kWp	2017
Orlando Utilities (FL, USA)	32 kWp	
Miraflores (PA)	24 kWp	
Goiás Farm - GO (BR)	305 kWp	2018
Peñol Guatape (CO)	99 kWp	
Kelseyville (CA, USA)	252 kWp	
SC Pond (CA, USA)	607 kWp	
Walden Pond (CO, USA)	74 kWp	2019
Las Tortolas (CL)	84 kWp	
Sobradinho - BA (BR)	1,005 kWp	
OR Tech (OR, USA)	5 kWp	
Sayreville WTP (NJ, USA)	4,403 kWp	2020
Santa Lucia (CA, USA)	53 kWp	
Windsor Rd Pond (CA, USA)	1,786 kWp	
Miami Airport (FL, USA)	157 kWp	
Gardenia (OUC)	32 kWp	2021
City of Altamonte Spring	962 kWp	
GOAA Orlando airport	216 kWp	
Universal Studio	250 kWp	
Healdsburg Pond	4,780 kWp	2022
Sievert Lake	984 kWp	
CFX Pond	9 kWp	
Fort Bragg	1,118 kWp	
Clayton Sand	3,305 kWp	
Santa Lucia C1 Pond	487 kWp	





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