

Our 2018 Review and a Look at What We Expect in 2019

"No one can change our yesterdays but all of us can change our tomorrows"

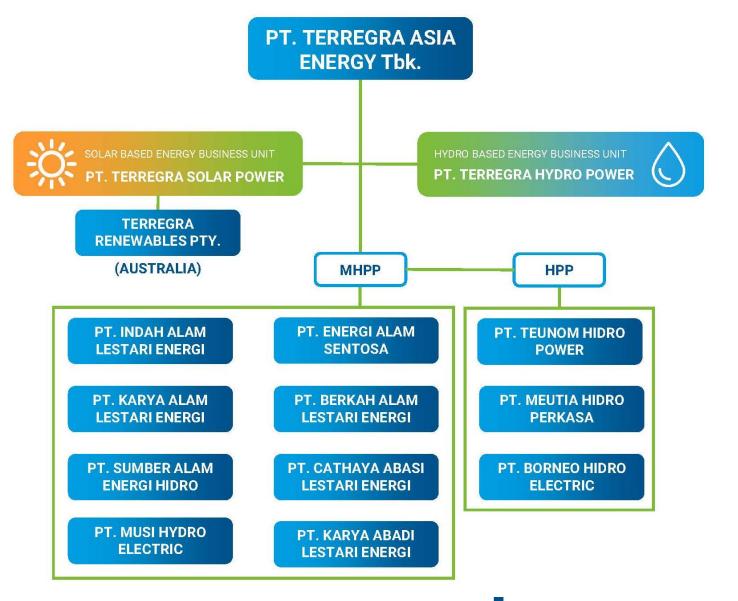


## OUR BUSINESS

Terregra generates Power from renewable sources. The company develops, builds, owns and operates generating plants that use water (hydro energy) or sunlight (photo-voltaic energy) to produce electricity. Our area of operation is principally in Indonesia but we are also creating a significant solar business in Australia.



### COMPANY STRUCTURE





## 2018 Operational Highlights - Indonesia

# In Indonesia 2018 was a year of significant progress for our young company. Among the highlights are:

- Signature EPC contract for 10 MW MHPP, Batang-Toru 3, Regency of Taratung, North Sumatra, with PT Barata Indonesia (Persero).
- Signature of EPC (early works) contract for the Simason MHPP, adjacent to the Batang-Toru 3 site, with PT Barata Indonesia (Persero) for infrastructure common with the Batang-Toru 3 project.
- Signature of the PPA with PLN for 10 MW MHPP at Sisira in North Sumatra.
- Contract signed for Detail Design for the Sisira MHPP with PT Barata and with PT Wahana.
- Signature of the PPA with PLN for our 10 MW MHPP Batang Toru 4 project.
- Signature of the Joint Development Agreement for Batang-Toru 3, Sisira and Simason MHPP projects with Mitsui Ltd. and Shikoku Electric, both of Japan.

- Completion of Pre-feasibility study for the Teunom 2 and Teunom 3 projects, North Ach, by Poyry Energy Ltd. (The results are positive, and the full feasibility is underway to be completed in August and September of 2019.) This cascade project, of approximately 400 MW, is Terregra's largest.
- Commercial operation achieved (COD) for Terregra's first Business-to-Business Solar Voltaic Power Project at Waterbom, Bali.
- Signature of an MoU for joint development opportunities with Hyundai Engineering in Seoul during President Jokowi's state visit in late 2018.



#### KEDAH KELANTAN Banda Aceh PENANG TERENGGANU ACEH PERAK RIAU ISLAN Medan Malaysia Pematangsiantar Kuala Lumpur NORTH SUMATRA Pulau Nias Singapore Pekanbaru RIAU Bukittinggi WEST SUMATRA Pulau Siberut Jambi **JAMBI** BANGKA Palembang SOUTH SUMATRA BENGKULU LAMPUNG Jakarta Bandung

# Location and Capacity of Terregra Hydro Projects

#### PROPINSI ACEH:

- PLTA TEUNOM 2 (240 MW) DPT/RUPTL
- PLTA TEUNOM 3 (135 MW) DPT

#### PROPINSI SUMATERA UTARA

- PLTM SISIRA (9.8 MW) PPA
- PLTM BATANG TORU 3 (10 MW) PPA
- PLTM BATANG TORU 4 (10 MW) PPA
- PLTM BATANG TORU SIMASOM (5.6 MW)
- PLTM BATANG TORU SIMATANIARI (5.6 MW)
- PLTM RAISAN NAGA TIMBUL (7 MW) PPA
- PLTM RAISAN HUTA DOLOK (7 MW) PPA
- PLTM SIMBELIN 2 (7 MW)









# Batang Toru 3 MHPP Project Features (Under Construction)

- Project type : Run of River
- Volume flow rate of water:
   19.498 m3/s
- Net Head: 61.11 m
- Turbine capacity: 10 MW (2 x 5 MW)
- Dam height: 5m
- Waterway length: 2,200 m
- Penstock length: 143.85 m
- Capacity factor: 87.037 %
- Annual energy output : 76.968 GWh







# Update Update











# Update

# \*terregra Power of Nature













# Update

# \*terregra Power of Nature













# Sisira MHPP Project Features (Under Design/ Construction)

- Project type : Run of River
- Volume flow rate of water: 4.225 m3/s
- Net Head: 270.14 m
- Turbine capacity: 9.80 MW (2x4.9 MW)
- Dam height: 3m
- Waterway length: 2,005 m
- Penstock length: 987 m
- Capacity factor: 80.117 %
- Annual energy output : 68.575 GWh



## 2018 Operational Highlights - Australia

Terregra Renewables Pty was incorporated in Adelaide, South Australia in early 2018 to develop utility-scale, ground-mounted SVPP's. Although we are now to Australia, we have made good strides towards achieving our goals to develop, build, own and operate a small but significant fleet of SVPP's. We want to profitably deploy capital and develop a self-sustaining business in Australia.

We expect to begin receiving dividends from our Australian business in late 2019.

#### Highlights for 2018 are:

- Incorporation of 3 Special Purpose Vehicle's for individual SVPP's in South Australia.
- Receipt of full permits from Government of South Australia, from Local Council and a grid connection offer from South Australia Power Networks for Mobilong 1 project, near Murray Bridge – a 5 MW, ground-mounted, single-axis tracker SVPP project.
- Receipt of full permits and a grid connection offer for our Moyhall 1 project, near Naracoorte, South Australia, for a 5 MW, ground mounted, single-axis tracker SVPP project.

- Long-term land leases secured for Moyhall 2 and Moyhall 3 SVPP's, each 5 MW, adjacent to Moyhall 1 site. Full permits (and grid connection offer) expected by late 2019.
- Signature of EPC contract for the Mobilong 1 SVPP with Balance Utility Solutions Pty, COD scheduled for mid-2019.



## Mobilong SVPP, South Australia, Update









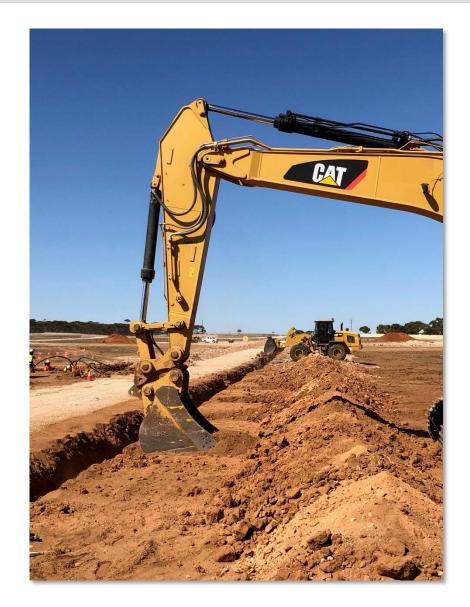






## Mobilong SVPP, South Australia, Update













## 2018 TAE Financial Highlights

- Total assets increased to IDR 470B increase of 20% over 2017.
- Profit increased from IDR 640m (2017) to IDR 2.37B (2018)
- 2018 Earnings Per Share increased 140% over 2017
- Because of heavy capital investments, cash and cash equivalents at the end of 2018 were substantially lower than at the end of 2017, before our construction program began. We regard this as positive and have advised our shareholders of this since our initial offering.



### 2019 – Looking Forward in Indonesia

As we look to the end of 2019 and the following years, we are optimistic about the direction your company is taking.

#### Terregra Hydro Power:

- We track Indonesian Government energy policy closely.
- We seek to move all THP projects forward with PLN and local/regional Governments.
- We expect additional PPA's to be signed for several more MHPP projects in 2019.
- We are also focused on achieving significant progress on our large (400 MW) HPP on the Teunom River in North Aceh.

#### Terregra Solar Power:

- Continue to focus on B2B opportunities, principally roof-top.
- Tracking Government policy and PLN regulations closely so we can react to opportunities when the expected momentum shift to solar in Indonesia takes place.



## 2019 – Looking Forward in Australia

#### Australian initiative:

- Opportunity for invaluable experience in development / permitting and EPC in the solar space.
- Deployment of capital to our Australian projects expected to deliver equity IRR returns in excess of 10%.
- Target: 20 to 25 MW operational by end 2021.
- Australian business will generate enough profit by the end of 2020 to fund further developments in that country.
- By 2021 Terregra Renewables Pty (Australia) will begin paying dividends to its parent, Terregra Asia Energy.





