



# Private Sector Infrastructure Finance Division 2 East Asia, Southeast Asia, and the Pacific (PSIF2)

22 October 2020

Presented by Jackie B. Surtani, Director, PSOD/PSIF2

# Infrastructure Finance Division 2

## Team and Unit Heads



Jackie B. Surtani  
Director, PSIF2

**40** colleagues across Manila, Bangkok, Beijing, Jakarta and Sydney  
**15** nationalities  
**27** IS/NS positions  
    41% female  
    48% outposted  
**5** operations assistants  
**4** consultants, **2** secondees, **2** YPs  
**4** Unit Heads  
**One team!**

Unit Head, East Asia



Hisaka Kimura  
Advisor

Unit Head,  
Greater Mekong Region



Daniel Wiedmer  
Principal Investment Specialist

Unit Head, INO and MAL



Yuichiro Yoi  
Principal Investment Specialist

Unit Head, PHI and Pacific



Alix Burrell  
Principal Investment Specialist

# PSIF2 Operations

Deals signed in East Asia, Southeast Asia, and the Pacific between 2010-2020

**70 signed projects**  
**\$7b of direct ADB assistance**  
**\$14.6b of cofinancing\***  
**5 equity investments**  
**4 green bonds**

## Myanmar

- (Yoma) Connectivity infrastructure Project
- (Irrawaddy Towers) Telecommunication Towers Infrastructure
- (Sembcorp) Myingyan Natural Gas Power Plant
- (Ooredoo) Nationwide Telecommunications
- (Yoma, Mitsubishi) Yangon Urban Renewal and District Cooling
- (Ooredoo) Nationwide Data Connectivity

## Thailand

- (BCPG) Bangkok Solar Power
- (DGA, EGCO, CLP) Solar Power Project (NED)
- (Gulf, JPower) Nong Saeng Natural Gas-fired Power
- (Gulf, JPower) Ayuthaya Natural Gas-fired Power
- (BCPG) Provincial Solar
- (EGCO) Theppana Wind
- (EGCO) Central Thailand Solar
- (EGCO) Subyai Wind
- (B. Grimm) ASEAN Distributed Power Project Phase 1
- (Gulf) Southern Thailand Waste-to-Energy
- (Gulf) Cornerstone Investment in Leading IPP
- (BTS) Bangkok MRT Pink and Yellow Lines
- (Gulf, Mitsui) GSRC Chonburi Natural Gas Power
- (B. Grimm) Thailand Green Bond
- (Energy Absolute) Energy Absolute Green Bond for Wind Power
- (Gulf, Mitsui) Eastern Economic Corridor Independent Power
- (BCPG) Southern Thailand Wind and Battery Energy Storage

## Indonesia

- (HSBC) Tangguh LNG Expansion
- (Sarulla, PT Medco Geopower) Sarulla Geothermal
- (PT. Supreme Energy) Rantau Dedap Geothermal (Phase 1 & 2)
- (PT. Supreme Energy) Muara Laboh Geothermal
- (Equis Group) Eastern Indonesia Renewable Energy Project (Phase 1 & 2)
- (Energy Absolute) Energy Absolute Green Bond for Wind Power
- (Jawa Satu) Jawa-1 LNG to Power
- (PT Medco Ratch) Riau Natural Gas Power

## Mongolia

- (Sermang) Sermang Khushig Khundii Solar Project

## People's Republic of China

- (Sanchuan) Small Hydropower Development Project
- (China Gas) Natural gas for transport
- (Zhongran) Municipal Natural Gas Infrastructure Development Project 2
- (TXWP) Jilin Wind
- (LJEP) Songhua River Basin
- (CWA, CIL) Municipal Water (CWA)
- (CEBEIL, CEEL) Agricultural and Municipal WTE
- (Dynagreen) Dynagreen WTE
- (Long Jiang Group) Songhua River Basin Phase 2
- (Tedahang) Tianjin Cold Chain Development
- (CWA) Urban-rural water integration
- (BEWG) Wastewater Reuse Project
- (Le Ga Ga) Greenhouse Development
- (Sound Global) Rural Smart Wastewater
- (CTEG) SME Industrial Wastewater
- (Beijing Capital) Western Counties Water
- (Xinkai Water, China Water Envi. Group) Integrated Wastewater
- (Gold Tact/China Water Affairs) Integrated Urban Water Management Project
- (CEB Greentech) China Everbright Renewable Energy
- (SGE) Geothermal District Heating
- (Shanghai SUS) Eco-Industrial Park Waste-to-Energy Project
- (China Gas) COVID-19 Emergency Energy Supply Project

## Viet Nam

- (CEIL) Municipal WTE
- (DHD) Floating Solar PV Energy
- (Gulf) Vietnam Gulf Solar Power
- (B.Grimm) Viet Nam Solar Power - Phu Yen

## Regional

- (Cofely) SE Asia Energy Efficiency
- (Fluidic) Distributed Energy Storage
- (Clifford Capital) Asian Sustainable Infrastructure Mobilization Project
- (AC Energy) Green Bond

## Pacific

- (Bemobile) Bemobile Expansion
- (Sun Pacific Energy) Samoa Solar Power Development
- (Kacific) Asia-Pacific Remote Broadband Internet Satellite Project

## Philippines

- (GMCAC) Mactan-Cebu Airport
- (EBWPC) Burgos Wind Power
- (AP Renewables) Tiwi-MakBan Geothermal Green Bonds
- (Kepco) Visayas Base-Load Power Development Project

## Cambodia

- (Sunseap) Cambodia Solar Power

## Sector Legend

- Renewables/Efficiency
- Water/Sanitation
- Conventional Energy
- Social Infrastructure
- Telecom/ICT
- Agribusiness
- Urban/Transport
- Multi-sector

\* Includes B loans, guarantees, parallel loans or equity, and risk transfers

# PRC: COVID-19 Emergency Energy Supply Project

## Case Study 1

### Key Features

- The proceeds of this loan will be used to help ensure natural gas and liquefied petroleum gas supplies to households, hospitals, industry and other key services to support business continuity in Wuhan City and Hubei Province amidst the coronavirus disease 2019 (COVID-19) epidemic, and post-epidemic recovery. The loan will enhance the resilience of cities through the sustenance of uninterrupted energy supplies to meet basic human needs and support economic activity in these affected areas.
- CGCM, incorporated in the British Virgin Islands, is a wholly owned financing platform of China Gas Holdings (CGH), the sponsor and guarantor. CGH is the largest integrated gas distribution company in the PRC. Additional business lines include gas terminals, transmission lines, vehicular compressed natural gas and LNG, and gas logistics systems.

### ADB's Value Addition

- Catalytic in mobilizing further commercial bank loans.
- Increase the gender responsiveness of CGH's community activities in Hubei Province and extract lessons from the epidemic response.
- Contributes to the global response to maintain basic services while containing a growing global health emergency that has affected ADB's DMCs in Asia and the Pacific.

Client	China Gas Holdings
Signing Date	31 March 2020
Sector	Energy
Financing Modality	Direct loan
Amount	\$20m



# MON: Sermsang Khushig Khundii Solar Project

## Case Study 2

### Transaction Highlights

- ADB provided a 10-year loan to an international consortium to support a landmark 15MW utility-scale solar power project in Mongolia.

### Development Impacts

- The project will generate clean electricity totaling 22.3 gigawatt-hours annually and reduce carbon dioxide emissions by 26,400 tons per year.
- The project will provide affordable, sustainable power to Ulaanbaatar and the International Airport of Ulaanbaatar.

Client	Sermsang, Sharp, and Tenuun Gerel
Signing	March 2019
Sector	Clean Energy (Solar)
Modality	A+B loan, Technical Assistance
ADB	\$9.6 million
B loan	\$9.1 million



# THA: Bangkok Mass Rapid Transit Project

## Case Study 3

### Transaction Highlights

- The project will construct and operate two mass rapid transit monorail lines, the Pink Line and Yellow Line.
- Funded through a PPP scheme with ridership risk following a 10-year government subsidy.
- ADB will provide a loan with longer tenor (“ridership ramp-up tranche”) to mitigate the ridership risk following the expiry of a government subsidy.

### Development Impacts

- Supports low-carbon mass rapid public transport in one of Southeast Asia’s largest cities.
- Demonstration effect for development of private sector mass rapid transport projects under new PPP structures.

Client	BTS
Signing	June 2018
Sector	Transportation
Modality	A loan
ADB	\$310 million in baht equivalent





# THA: Southern Thailand Wind Power and Battery Energy Storage Project

## Case Study 4

### Transaction Highlights

- The first wind farm with battery energy storage in Thailand.
- 10 MW of wind power capacity with an integrated 1.88 MWh pilot battery energy storage system (BESS).

### Development Impacts

- Mobilize financing package, including concessional finance from the clean technology fund (CTF), that makes the project bankable on a nonrecourse basis.
- Provided longer tenor than the participating commercial bank to help improve debt service coverage ratios and improve the project's financial viability.
- Set a precedent in Thailand for financing wind power projects with an integrated BESS.

Client	BCPG
Signing	May 2020
Sector	Clean energy (wind with BESS)
Modality	A loan; CTF
ADB	B235.55 million (about \$7.7m); \$4.75m



# INO: Geothermal Projects in Indonesia

## Case Study 5

### Project Highlights

- Support for three landmark private sector geothermal projects in Sumatra, Indonesia over several years:
  - 330 MW Sarulla
  - 80 MW Muarah Laboh
  - 92 MW Rantau Dedap
- Nearly \$500 million of ADB OCR assistance.
- Mobilised \$170 million of concessional donor funds and \$20 million from LEAP parallel, and \$1.5 billion of commercial cofinancing.

### Development Impacts

- Large scale, base load renewable energy source to support Indonesia's economic growth.
- Demonstration effect for development of private sector geothermal projects under new PPP/PPA structures.

Client	Various
Signing	2014,2017,2018
Sector	Clean Energy (Geothermal)
Modality	A loan; CTF; CFPS; LEAP
ADB	Nearly \$500 million
CTF, CFPS, LEAP	CTF: \$150m; CFPS: \$20m; LEAP: \$20m;





# REG: Asia-Pacific Remote Broadband Internet Satellite Project

## Case Study 6

### Transaction Highlights

- Project finance (non-recourse) loans for the construction and operation of a shared geostationary, high-throughput satellite.
- Connectivity for remote areas of Asia and the Pacific that are hard to reach otherwise.
- Kacific aims to provide low-cost, high-speed, and easily accessible broadband internet.

### Development Impacts

- Greatly enhances regional telecommunications infrastructure.
- Will help increase access to education and medical care.

Client	Kacific Broadband Satellites Pte. Ltd.
Signing	November 2019
Countries	Indonesia, Philippines, and the Pacific
Sector	Telecommunications and IT
Modality	A loan; LEAP
ADB	\$25 million; \$25 million



# REG: AC Energy Green Bond Project

## Case Study 7

### Transaction Highlights

- ADB acted as an anchor investor in AC Energy's maiden green bond issuance.
- Unlocking over 2GW of solar and wind.
- First listed certified climate bond in Southeast Asia.
- Successful follow-on perpetual offering.

### Development Impacts

- Ensure that bonds will comply with the Green Bond Principles and the Climate Bonds Standard.
- Helped to make green bonds and climate bonds better known in the region.
- Helps demonstrate support for alternatives to project loan markets for financing clean energy projects.

Client	AC Energy
Countries	Philippines, Indonesia, Viet Nam
Signing	January 2019
Sector	Clean Energy (solar and wind)
Modality	A loan
ADB	\$20 million



# REG: Pacific Renewable Energy Program

## Case Study 8

### Program Highlights

- Focused on long-standing barriers to private sector investment into energy projects in the Pacific.
- Flexibility to draw on a variety of assistance:
  - Direct loans;
  - Partial credit guarantees for payment risk;
  - Political risk guarantees for contract risk;
  - Technical assistance for project preparation.

### Development Impacts

- Helps to create an enabling environment and address key investment risks to promote private sector investment.
- Encourages greater transparency and governance through technical assistance.

Client(s)	Various
Countries	Fiji, Palau, Samoa, Tonga
Signing	2021 onwards (first IC approval in Sept 2020)
Sector	Clean Energy (solar, energy storage, wind)
Modality	A loan; PRG; PCG
ADB	\$100 million



# VIE: Floating Solar Energy Project (DHD)

## Case Study 9

### Transaction Highlights

- 47.5 MW of floating solar photovoltaic power generation panels on the reservoir of DHD's existing 175 MW Da Mi hydropower plant.
- One of the first utility-scale, solar projects in Viet Nam and one of the largest floating solar projects outside the PRC.
- Provides long term dollar financing not readily available in Viet Nam.

### Development Impacts

- Will demonstrate viability of floating solar power projects in Viet Nam and the region.
- Ensure DHD's compliance with environmental and social safeguard standards.

Client(s)	DHD (EVN genco subsidiary)
Signing	Sept 2019
Sector	Clean Energy (floating solar)
Modality	A loan; CFPSII; CFPSI; LEAP
ADB	\$17.6 million
CFPSII; CFPSI; LEAP	\$4 million; \$11 million; \$4.4 million



# REG: Asian Sustainable Infrastructure Mobilization Project

## Case Study 10

### Transaction Highlights

- \$95 million equity investment to support Clifford Capital Holdings' expansion of sustainable infrastructure across developing Asia.
- ADB's first investment in a Singapore entity since the opening of ADB's Singapore office in March 2020.
- ADB will be Clifford Capital's first multilateral investor.

### Development Impacts





- Support sustainable and inclusive growth as a strategic shareholder.
- Boost mobilization of private sector capital.
- Strengthen environmental and social safeguards and capacity building.
- Improve gender inclusivity at Clifford Capital.

<b>Client</b>	Clifford Capital Holdings
<b>Signing</b>	September 2020
<b>Countries</b>	Regional
<b>Sector</b>	Infrastructure
<b>Modality</b>	OCR Equity; LEAP parallel equity
<b>ADB / LEAP</b>	\$50 million; \$45 million





# 2019 Awards for PSIF2 transactions

	Asia-Pacific Remote Broadband Internet Satellite Project (Regional)		Asia Pacific Telecoms Deal of the Year
	Floating Solar Energy Project (Viet Nam)		Asia Pacific Innovation Deal of the Year
	Eastern Economic Corridor Independent Power Project (Thailand)		Asia Pacific Power Deal of the Year
	Jawa-1 Liquefied Natural Gas-to-Power Project (Indonesia)		Natural Gas-Fired Power Project of the Year (Gold)
	Rantau Dedap Geothermal Power Project (Indonesia)		Geothermal Power Project of the Year (Gold)
	Southern Thailand Waste-to-Energy Project (Thailand)		Biomass Power Project of the Year (Gold)
	Thailand Green Bond Project (Thailand)		Solar Power Project of the Year

	Energy Absolute Green Bond for Wind Power Project (Thailand)		Project Finance International (PFI Awards 2019)	Local Currency Deal of the Year
	Eastern Economic Corridor Independent Power Project (Thailand)		Project Finance International (PFI Awards 2019)	Asia Pacific Power Deal of the Year
	Jawa-1 Liquefied Natural Gas-to-Power Project (Indonesia)		Infrastructure Awards 2019	Power Deal of the Year/ PPP Project of the Year
	Eastern Indonesia Renewable Energy Project (Indonesia)		Infrastructure Awards 2019	Renewable Energy Deal of the Year - Solar and Wind
	Rantua Dedap Geothermal Power Project (Indonesia)		Infrastructure Awards 2019	Renewable Energy Deal of the Year - Geothermal
	Thailand Green Bond Project (Thailand)		Infrastructure Awards 2019	Green Financing of the Year

# ADB Ventures supports and invests in early-stage technology companies solving big problems in emerging Asia

## ADB VENTURES

The venture capital arm of the Asian Development Bank

## OUR FOCUS

Provide funding and support to early-stage technology companies with significant potential to solve big problems in emerging Asia

## OUR APPROACH

Leverages ADB's unique public and private sector networks across Asia to de-risk and accelerate market access and scale-up

## OUR VISION

To crowd in more than \$1 billion of venture risk capital towards achieving the SDGs by 2030

### ADB Ventures Investment Fund 1

- \$60m venture capital fund
- Pre-Series A / Series A
- Typically \$500k to \$3m (up to \$4m) for initial investments
- About 7-8 investment per year
- Tech-enabled solutions and business models
- Cleantech / Agritech / Fintech / Healthtech
- Focus on South / Southeast Asian markets
- Businesses can be domiciled anywhere
- Targeting commercial returns
- Co-investing with leading early-stage investors
- Climate and gender investment lens
- Opportunity for ADB to add direct value
- Operational from August 2020

### ADB Ventures Seed Program

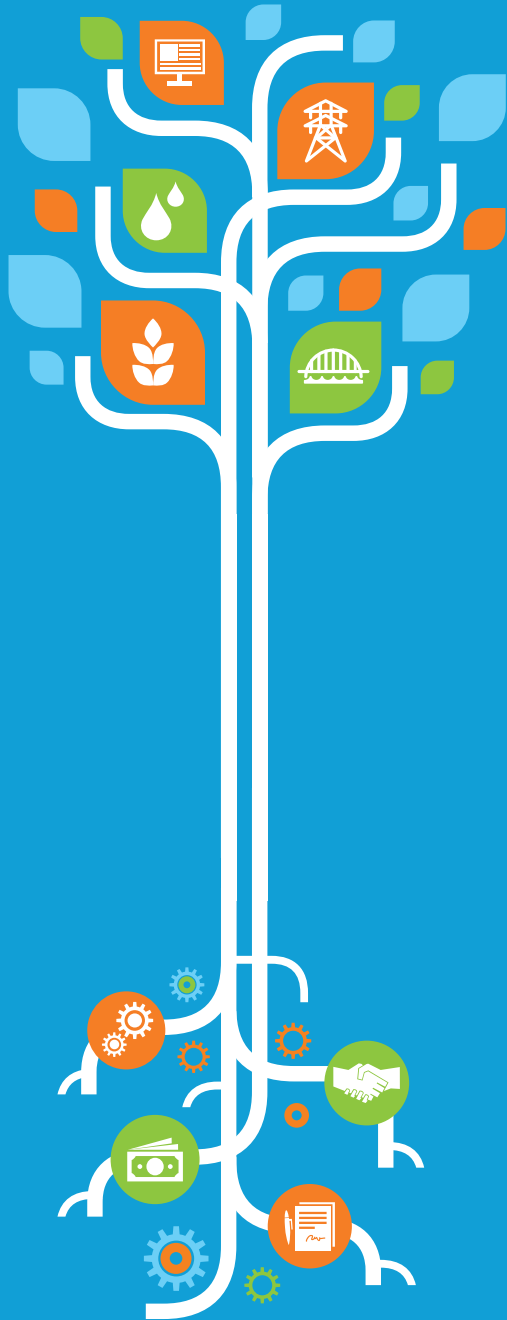
- Typically \$50-\$150k (up to 200k)
- Pre-Series A / Series A
- Validate and access emerging Asian markets
- Reimbursable grants with investment rights
- Simplified, fast due diligence process
- About 8-12 reimbursable grants per year

### ADB Ventures Labs

- De-risk market entry and accelerate market access by matching technologies with large customers (corporate, government)
- Partnering with leading tech accelerators
- 2020 Labs: Energy (building) Lab, Water Lab and Sustainable Travel Lab.

Visit <https://ventures.adb.org/> for further details.





# THANK YOU!

JACKIE B. SURTANI  
Director, PSOD/PSIF2  
[jsurtani@adb.org](mailto:jsurtani@adb.org)