Mobilizing Clean Energy Finance and Investment to Support Energy Transition

Experiences in Financing Clean Energy Projects in Indonesia
PT Sarana Multi Infrastruktur (Persero)

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Director of Project Development and Advisory

23 June 2020

A leading catalyst in the acceleration on the national infrastructure development
01. About PT SMI

02. Sustainable Finance in PT SMI

03. Challenges in Clean Energy Financing in Indonesia

04. SDG Indonesia One Platform
About PT Sarana Multi Infrastruktur (Persero)

“Catalyst in Accelerating Infrastructure Development”

Non-Bank Financial Institution for Infrastructure Financing,
100% owned by Government of Republic of Indonesia through Ministry of Finance

Business Pillars & Strategic Partnership

Innovative, Unique & Flexible Financing Products in “closing the gap” and as complementary to other financing

- Senior Loan,
- Subordinate/Mezzanine,
- Equity,
- Municipal Finance,
- Sustainable Financing,
- Sharia Financing

Advisory & Project Development as enabler for infrastructure investment

- Financial/Transaction Advisory, Financing Arranger,
- PPP Development, Technical Assistance, Capacity Building,
- Renewable Energy Project Development, Geothermal Fund Management

Strategic Partners for domestic and international institutions in accelerating infrastructure development in Indonesia

- Ministries/Governmental Offices, Municipalities
- Private / State Owned Entities
- FI/Banks/Private Equity, Multilateral/Bilateral, Sovereign Wealth Fund
- Capital Market, Institutional Investors (Pension Fund, Insurance, Social Security Funds, Hajj Funds, etc)

Eligible Sectors

- Transportation
- Road
- Water System
- Telco
- Energy Efficiency
- Electricity
- Oil & Gas
- Waste water
- Drinking Water
- Rolling Stock
- Health
- Education Facility
- Correctional Institution
- Urban Facility
- Tourism
- Area
- Public Housing
- Informatics
- Water Resources & Irrigation
- Waste Management System
- Sport Facilities
- Art Facilities
- Renewable Energy

Performance by April 2020

AAA/Stable National Rating
Highest rating for local company

BBB/Stable International Rating
Similar with sovereign rating

USD 5.1 billion
Total Asset

USD 2.44 billion
Total Equity

USD 44.94 billion
Total Project Value

22.32 times
Multiplier effect To paid up capital

“unqualified opinion”
FS opinion for 10 consecutive years
PT SMI has demonstrated a commitment in renewable energy through financing for at least 10 projects with installed capacity more ~400 MW (4 financial close in 2019); with **total financing commitment** more than 2 Trillion IDR; mobilizing financing to contribute towards **climate change mitigation**.

### Clean Energy Portfolio in PT SMI

<table>
<thead>
<tr>
<th>No</th>
<th>Remarks</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PT Cipta Multi Listrik Nasional – PLTBm Deli Serdang 9.9 MW</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>PT Brantas Cakrawala Energi – PLTM Sako, Pesisir Sel 6.0 MW</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>PT Selo Kencana Energi – PLTM Lb. Gadang, Solok 8.0 MW</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td>PT Mega Hydro Energi – PLTM Tunggang, Bengkulu 9.9 MW</td>
<td>10</td>
</tr>
</tbody>
</table>

*Portfolio signing 2019*
### Example of Clean Energy Projects Financed by PT SMI

#### Project PLTBm Wapeco, Merauke
- **Capacity**: 3.5 MW
- **Commitment**: 60 billion IDR
- **Financing Scheme**: Project finance
- **Tenor**: 8.5 years
- **Key Factors**
  - ✓ All of project’s asset are guaranteed
  - ✓ PPA take-or-pay guaranteed
  - ✓ Sponsor Capacity
  - ✓ Sufficient study and feedstock contract
- **Milestone**: Comissioning

#### Project PLTM Lubuk Gadang, Solok Selatan
- **Capacity**: 8 MW
- **Commitment**: 155.5 billion IDR
- **Financing Scheme**: Project finance
- **Tenor**: 10 years
- **Key Factors**
  - ✓ All of project’s asset are guaranteed
  - ✓ PPA take-or-pay guaranteed
  - ✓ Sponsor Capacity
  - ✓ Robust mini hydro technology
- **Milestone**: Operational, Repayment

#### Project PLTP Dieng Small Scale, Central Java
- **Capacity**: 10 MW
- **Commitment**: USD 17.5 million
- **Financing Scheme**: Corporate Finance
- **Fiduciary**
  - • Project asset
  - • Machinery/tools fiduciary
  - • Electricity bill to PT PLN
  - • Account fiduciary
- **Schedule (tentative)**
  - • Construction in Q4 2019
  - • COD in Q1-Q2 2021
PT SMI Environmental and Social Safeguard

**Policy**
- Compliance of the Environmental and Social Rules and Regulations
- ESS Governance and Management System
- Risk Categories
- Biodiversity and Natural Resources Management
- Land Acquisition and Resettlement
- Indigenous People and Cultural Heritage
- Gender Policy
- Consultation and Grievance Handling Mechanism

**Procedures**
- Evaluating E&S Risk
  - Transaction Screening
  - Risk Identification
  - E&S Due Diligence
  - Conditions of Financing
- Monitoring E&S Risk
  - Reviewing Client/ E&S Performance
  - Managing non-Compliance

**Continuous capacity and capabilities improvement**

**Monitoring and Reporting**
PT SMI Green Bond Issuance

**Nominal IDR500 billion**
Green Bond Program with total facility IDR3 trillion

100% to finance Green Projects

1. Renewable Energy
2. Energy Efficiency
3. Pollution Management and Mitigation
4. Sustainable natural resources and land use.
5. Clean Transportation

### Green Bond Structure

<table>
<thead>
<tr>
<th></th>
<th>Seri A 3 years</th>
<th>Seri B 5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>IDR 251.5 billion</td>
<td>IDR 248.5 billion</td>
</tr>
<tr>
<td><strong>Coupon</strong></td>
<td>7.55%</td>
<td>7.80%</td>
</tr>
<tr>
<td><strong>Risk Premium</strong></td>
<td>47 bps</td>
<td>62 bps</td>
</tr>
</tbody>
</table>

*) above Government bonds with the same tenor

### Green Bond Investors** of PT SMI

- Insurance 2%
- Bank 9%
- Pension Funds 8%
- Corporates 5%
- Institutions 40%
- Mutual Fund 36%

- Green Bond IDR 500 billion
- **Investor:** Asing (22%) vs Domestik (78%)

**The first Indonesian corporate that issues Green Bond**

**Green Bond Structure**

**POJK No. 60/POJK.04/2017 about Green Bond Issuance**

**Additional Standards**

**Second Opinion:**

**Medium Green**

**The first corporate that issues Green Bond Impact Report in Indonesia**

**Institutional Investors**

**Corporates**

**Institutions**

**Mutual Funds**

**Bank**

**Insurance**

**Pension Funds**

**Green Bond IDR 500 billion**

**The first Indonesian corporate that issues Green Bond**
PT SMI Geothermal Financing

1. Geothermal Fund (PISP)
   Geothermal Fund Development – USD 250 mn
   - Activity 1: Loan Facility
   - Activity 2: Equity Investment for
     - Exploration
     - Exploitation & Development
     - Energy Generation
   - Activity 3: Data Provision for Exploration based on Government Assignment

2. Geothermal Energy Upstream Development Project (“GEUDP”)
   Government Exploration Drilling Program – Revolving Fund of USD 95mn
   - THE WORLD BANK
   - SMI
   - NEW ZEALAND Aid Programme
     - CTF Grant USD 49 Millions
     - GEF Grant USD 6.25 Millions
     - Co-financing USD 49 Millions
     - Technical Assistance NZD 2.13 Millions

3. Geothermal Resource Risk Mitigation (“GREM”)
   SOE and Private Sector Exploration Drilling Fund – USD 655mn
   - Public Window SOE
     - 50% De-risking PISP
     - 50% Blended Loan IBRD/GCF/CTF
   - Private Window Private
     - 50% Blended Loan IBRD/GCF/CTF
     - 50% Financial Instrument Reimbursable Grant GCF/CTF
PT SMI and Climate Fund Activities

PT SMI as the Green Climate Fund Accredited Entity

Eligible Sectors:
Climate Change Mitigation:
• Energy generation and access
• Transport
• Forest and land use
• Building, cities, industries and appliances
Climate Change Adaptation:
• Health, food and water security
• Livelihoods of people and communities
• Ecosystems and ecosystems services
• Infrastructure and built environment

All proposal require No Objection Letter (NOL) from Fiscal Policy Agency Ministry of Finance as NDA GCF Indonesia

Facility | Project Preparation Facility (PPF) | Funding Proposal (FP)
--- | --- | ---
Instrument | Grant | Grant, concessional loan
Function | Project preparation | Project implementation
Amount | Max. USD 1.5 million/project | Max. total project cost USD 50 million
Description | Project prepared by the PPF grant is expected to submit Funding Proposal within 2 years of the project preparation | Project which does not need PPF support can directly submit the Funding Proposal

TA Partnership with Climate Foundation

| SDG Partner | European Climate Foundation |
| Sector | Clean Energy |
| Beneficiaries | PT. SMI |

Supports to PT SMI

1. A partnership facilitate identification, preparation and/or co-financing of projects, targeting early stage investments
   TA for Clean Energy Investment Advisory: technical assistance to increase business development and origination of projects by PT SMI.
2. TA for Clean Energy Risk Management: technical assistance for development of updated risk assessment methodologies for clean energy projects, in cooperation with the Risk Management Division of PT SMI.
3. TA for Financial De-risking Instruments: technical assistance for development of de-risking instruments for clean energy project financing.
Challenges in Clean Energy Financing in Indonesia (1)

**CHALLENGES**

Lack of bankable projects due to inadequate preparation process (including risk allocation framework)

Limited resources and capability of the public sector in budgeting, planning, and preparation

Constraints caused by:
- Tariff policy
- Contract / business policies and governance
- Lack of equity from Project Sponsor

**PT SMI ROLES**

Offer consulting and project development services to improve the quality of infrastructure projects

Use of different and innovative funding strategies

Synergy and collaboration with relevant stakeholders and strategic partners
## Challenges in Clean Energy Financing in Indonesia (2)

<table>
<thead>
<tr>
<th>No</th>
<th><strong>Key Issue</strong></th>
<th><strong>Remarks</strong></th>
</tr>
</thead>
</table>
| 1  | Readiness of clean energy projects | ✓ The MEMR Regulation 50/2017 jo. 4/2020 related to renewable energy tariff is somewhat challenging towards the investment environment, many investors are considering to wait and see.  
✓ Differences of PPA/PJBTL in renewable energy projects causing creditor’s concerns in project bankability  
✓ Project documentations still required improvement – incl FS and DED/FEED  
✓ Imposing the new standard on ESIA, Procurement, Gender as required by the international financiers still take times  
✓ Licensing and Land Acquisition still become dominant factors |
| 2  | Sponsor capacity, project, and size for financing | ✓ Renewable energy projects <10 MW is dominated by small and medium scale developers which is associated with the capacity of sponsor/investor.  
✓ Clean energy projects are mainly using *project finance* scheme with small financing limit (mainly below Rp 250 billion IDR) which cause the number of loan facility of these projects are limited (dependent to project readiness and progress).  
✓ Lack of derisking instruments available, e.g: guarantee (first loss mechanism), viability support, interest subsidy, etc |
Blended Finance Platform:
SDG Indonesia One Provides End-to-End Financing Support to Project Development

Investor

- Donor (Philanthropist) and Impact/Climate Funds
- Contributions: Grant, Technical Assistance
- Objective: Pre-construction project development support

Contributions:
- Donor, Impact/Climate Funds and Development Banks
- Contributions: Concessional Loan, Grant
- Objective: Project de-risking (improving bankability)

Commercial Banks and Institutional Investors
- Contributions: Loan, Bond, Sukuk
- Objective: Construction / post-construction finance

Institutional Investor and Developer
- Contributions: Equity
- Objective: Investment in high impact / new frontier SDG sector

Product

SDG Development Facilities
- Grant (Project Preparation, Technical Assistance, Research)

SDG De-Risking Facilities
- Concessional Loan, First-Loss Facility, Interest Subsidy, Guarantee Premium Subsidy, VGF etc.

SDG Financing Facilities
- Senior Loan, Subordinated Loan

SDG Equity Fund
- Equity, Equity-Linked Investment

SDG Projects

SDG Indonesia One
(Managed by PT SMI)
**SDG Indonesia One Partners**
*(Status as of June 2020)*

<table>
<thead>
<tr>
<th>Development Facilities</th>
<th>De-Risking Facilities</th>
<th>Financing Facilities</th>
<th>Equity Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td>USD 2.32 Billion*</td>
<td>USD 10 Million</td>
<td>USD 490 Million</td>
<td>USD191 million</td>
</tr>
<tr>
<td>Grant (USD 24.6 Million)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concessional Loan (USD 2.3 Billion)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

USD 3.03 Billion* from 32 SDG Partners

SDG Indonesia One will follow up these commitments by actively channeling projects and program in the SDGs sector that need financing.

*Value will vary subject to exchange rate assumption*
SDG Indonesia One Highlight
As of 31 May 2020

SDG Indonesia One Commitment

Based on sector and no of program

<table>
<thead>
<tr>
<th>Multisectors</th>
<th>3</th>
<th>10</th>
<th>8</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>1</td>
<td>8</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Water</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Health</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Social infrastructures</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

SDG Indonesia One Achievements

1. Rehabilitation and Reconstruction Program after Natural Disaster In Central Sulawesi
2. RIDF Financing for RSUD & RSK Mata North Sulawesi
3. RIDF Financing for Traditional Market Banjar Baru City
4. Developing Project Concept Solar PV Rooftop in West Java
5. Technical Assistance FS PJU (“public street lighting”) Project Bengkulu
6. Technical Assistance FS W-t-E Plant Putri Cempo Solo

SDG Indonesia One Impacts

- Study of 5 MWp dan 7.48 MW for the renewable energy power plants with the potential saving of ±1.5 M / year;
- Emissions reduction potential ±5.867 tCO₂e p/ year
- Waste management potential ±365,000 ton / year
- 2,000 families get access to clean water
- 101 temporary shelters & 218 permanant shelters for 1,430 families (5,780 people)
- 550 beds and total area of hospital ±47,535 m²
- An increase in market area 15,400 m² and 172 kiosk; 1 worship place
- 100% Equity Financing
- 10% De-risking
- 20% Multisectors
- 30% Renewable Energy
- 40% Water
- 30% Health
- 20% Social Infrastructures

*) Based on USD currency exchange as of 31 May 2020
**SDG Indonesia One (Development Facilities): Capacity Building and Research Collaboration**

### Research for De-Risking Instruments
- **SDG Partners**: Global Green Growth Institute ("GGGI")
- **Beneficiaries**: PT SMI
  - Partnership Technical Assistance Grant of USD 200,000 for technical and research assistance to project proponents
  - Study of available de-risking instruments in Indonesia

### Capacity Building for Energy Efficiency
- **SDG Partners**: Climate Policy Initiatives (Supported by KIGALI Cooling Efficiency Program and the David and Lucile Packard Foundation)
- **Beneficiaries**: Ministry of Energy and Mineral Resources (MEMR), PT SMI
  - Energy Efficiency Market in Indonesia
  - Key Technologies in Energy Efficiency
  - Energy Efficiency Audit Level
  - Monitoring & verification (M&V)
  - Risk Mitigation

### Research on Guarantee Instrument Analysis
- **SDG Partners**: Climate Policy Initiatives ("CPI")
- **Beneficiaries**: PT SMI
  - CPI’s Technical assistance to PT SMI covered under a Cooperation Agreement on “Climate Change & Clean Energy Projects” to help accelerate Renewable Energy ("RE") development in Indonesia
- **Summary Findings**: Guarantee instrument as a de-risking instrument which can address investment barriers
  - Address security gap
  - Improve risk-return profile of an RE project
  - Increase access to long-term funding from local banks resulting from improved risk profile
  - Potential challenges:
    - Competition with shareholder/corporate guarantee
    - “First demand” feature
    - Limited involvement in recovery proceedings
    - Limited awareness about guarantee instruments
SDG Indonesia One (De-risking Facilities):
AFD Financing Facility to Support SDG Indonesia One

Collaborative Structure and Schemes

Concessional loan will be disbursed in stages. Grant will be provided in terms of Technical Assistance (TA) and investment grant.

Loan for Green Projects

Investment grant is intended as de-risking tools.

Funds are intended as support for project management, project preparation and capacity building.

Investment Grant: De-risking tools

Details of the Program

Credit Facility

US$ 150 million

Maturity

Up to 7 years including grace period

Grace Period

Up to 3 years on principal repayments only

Program Scope

• To finance low carbon and climate resilient projects
• Eligible projects including adaptation and mitigation activities with extension to health & education sectors up to max. 30% of total amount of the credit facility
• Technical assistance & grant:
  o AFD: EUR 600,000 for preparation & implementation of AFD contributions to SIO Development, De-Risking and Financing Facilities
  o EU: EUR 3 million for technical assistance & EUR 2 million as an investment grant for de-risking activities

Renewable energy
Lower-carbon & efficient energy generation
Energy efficiency
Agriculture, forestry and land-use
Non-energy GHG reductions

Water
Waste & Wastewater
Infrastructures & Urban Development
Transport
Low-carbon technologies
Other climate change adaptation & mitigation activities

Solar Panel Project

Biomass Project

Credit Facility

Maturity

Grace Period

Program Scope

Typical Projects:
SDG Indonesia One (De-risking Facilities):

**ADB Green Finance Facility (GFF)**

**Collaborative Structure and Schemes**

<table>
<thead>
<tr>
<th>ADB</th>
<th>Bilateral Donors</th>
<th>Green / Climate Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADB</td>
<td>GoI</td>
<td>Private, Institutional, Commercial Funds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SMI Commercial Funds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Local Government Funds</td>
</tr>
</tbody>
</table>

$ 600 m proposed loan funds from ADB

$ 5 m proposed grants

$ / IDR

**Details of the Program**

Waste to Energy

Mini Hydro

To Support Green Projects

- Credit Facility: Max. of US$ 600 million
- Grant: US$ 5 million for technical assistance
- Modality: Multi-tranche Financing Facility (MFF)
- Products:
  - Debt
  - Equity investment
  - Credit enhancements
- Eligible Sectors (Green Projects):
  - Energy
  - Energy Efficiency
  - Transport
  - Water
  - Waste Management
  - Land-use
  - Adaptation infrastructure

*Under development
Thank you,

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PT Sarana Multi Infrastruktur (Persero)

A leading catalyst in the acceleration on the national infrastructure development