

A large, stylized globe graphic made of a grid of small dots, showing the continents of Asia and Australia, positioned in the background on the right side of the slide.

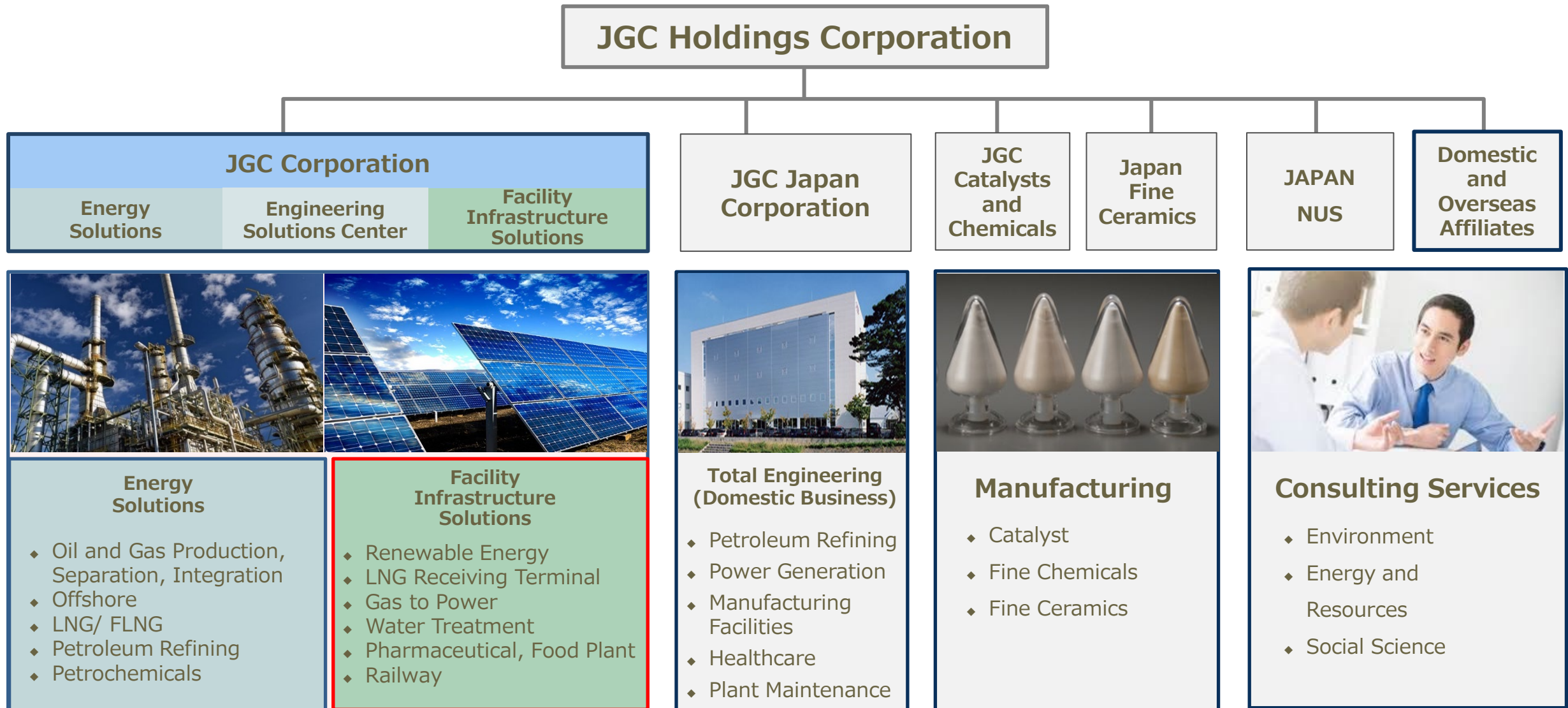
# Introduction of JGC Corporation for Philippines-Japan Environmental Week

Enhancing **planetary** health

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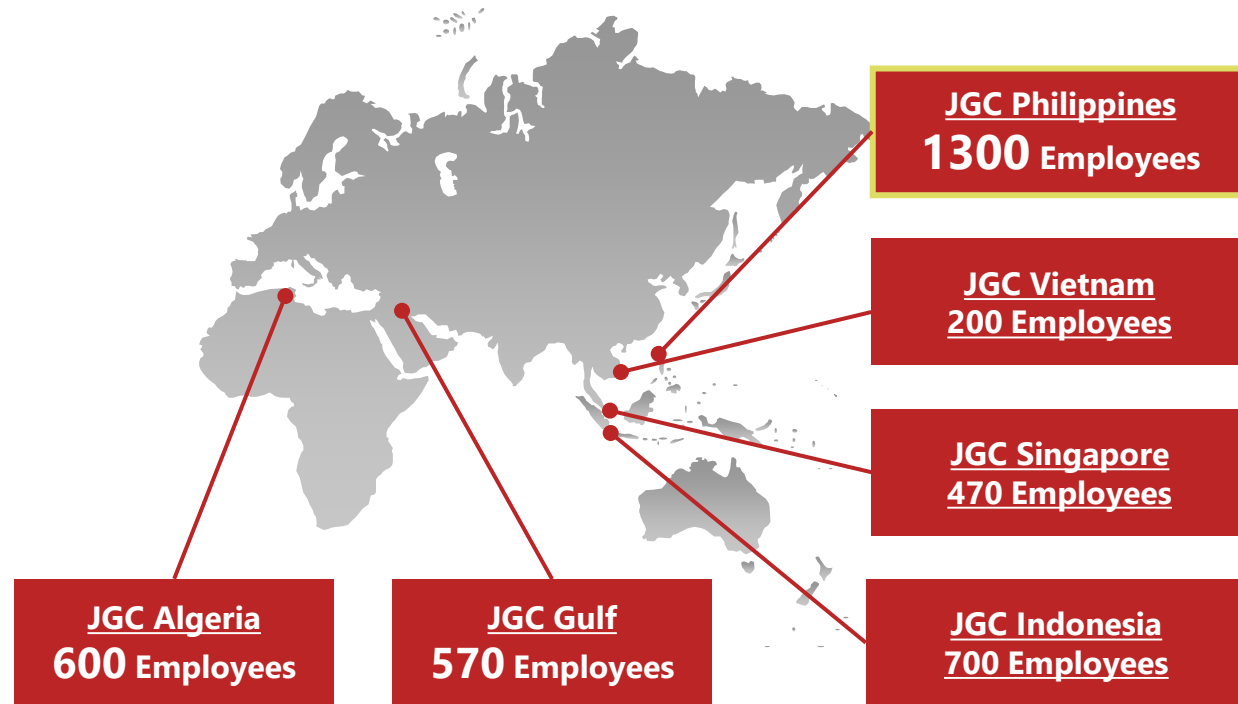
March 2022  
JGC Corporation

# JGC Group Structure



# Organizational Transformation: Worldwide Resources, Regional Execution

**Regional Execution:** JGC Group ensures global leading **engineering** and **project management capabilities** combined with **local cost competitiveness**.



- Closely focused on clients, identifying needs and creating project opportunities
- Focused on medium or small-sized projects
- Promoting delegation of authority and more agile operations



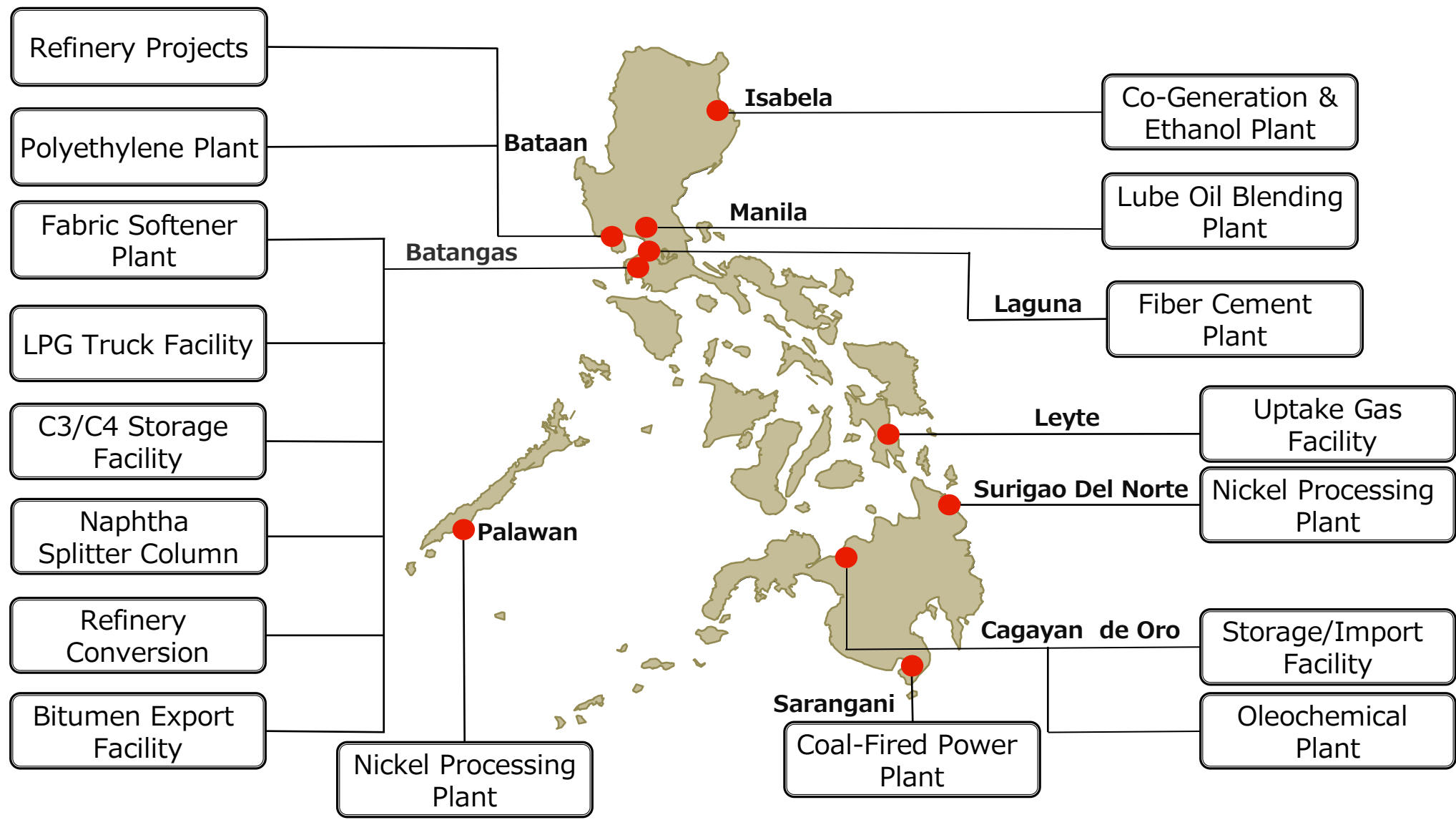
# Introduction of JGC Philippines, Inc.

## **JGC** JGC PHILIPPINES, INC.

- Established in 1989
- 100% Owned by JGC Holdings Corporation
- Capital Stock: PHP 1.3Billion (USD 26Million)
- Manpower: 1,300+
- Registered with PEZA (Philippine Economic Zone Authority)
- Licensed by PCAB (Philippine Contractors Accreditation Board) with highest Category “AAAA”
- Registered with AFAB (Authority of the Freeport Area of Bataan)
- One of the Biggest Engineering, Procurement and Construction (EPC) Company in the Philippines for Industrial Facilities



# Major Local Experience in the Philippines



# Various Experiences in FEED/EPC

## Oil and Gas Production



Gas Processing Plant for Sonatrach, Algeria

**>70**

**Major Projects**

## LNG



LNG Plant for Ichthys LNG, Australia

**>30%**

**48 Trains**

## Oil Refining



Refining and Petrochemical Complex Plant for Rabigh Refining and Petrochemical, Saudi Arabia

**>50**

**Major Projects**

## Ethylene



Ethylene Plant for Chevron Phillips Chemical, US

**>40**

**Major Projects**

## Solar Power



Solar Power Plant, Japan

Total **1,000**  
MW

## Bio Power Plant









Bio Power Plant for IHI, Japan

**4**

**EPC Projects**



# Various Experiences in FEED/EPC

Low Carbon Solution		Decarbonization		Carbon-Free Energy	
LNG	Bio	Recycling	CCS/CCU	Renewable Energy	Hydrogen
					
		Technology/Concept			
<ul style="list-style-type: none"> <li>◆ AIRLIZE LNG®</li> <li>◆ LNG Digital</li> <li>◆ MixGen®</li> <li>◆ LNG Fit</li> <li>◆ Decarbonized LNG</li> </ul>	<ul style="list-style-type: none"> <li>◆ BIO LNG</li> <li>◆ Green Chemical</li> <li>◆ Methane to Protein</li> </ul>	<ul style="list-style-type: none"> <li>◆ Waste Recycling</li> <li>- SAF (Sustainable Aviation Fuel)</li> <li>- Gasification of Plastic Waste</li> </ul>	<ul style="list-style-type: none"> <li>◆ DDR Membrane</li> <li>◆ HiPACT®</li> <li>◆ Mineral Carbonation</li> </ul>	<ul style="list-style-type: none"> <li>◆ Virtual Power Plant</li> <li>◆ PV SMOOTHER™</li> </ul>	<ul style="list-style-type: none"> <li>◆ CO<sub>2</sub> free ammonia</li> <li>◆ CO<sub>2</sub> free hydrogen</li> </ul>
		Experience			
<b>48</b> Trains Over 30% of world's total LNG production	<b>4</b> EPC projects (Biomass Power Plant)	Feasibility Studies	<b>3</b> EPC projects (Algeria, Australia, Japan)	<b>27</b> EPC projects (PV Total Approx. 1,000 MW)	Demonstration in Japan/ Feasibility Studies/ FEED

# Areas of EPC - Infrastructure



**Power Generation**



**LNG/LPG Terminal (Onshore)**



**LNG Terminal (FSRU)**



**Waste to Energy**



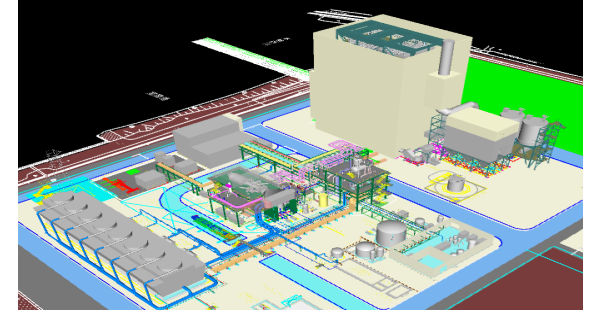
**Geothermal**



**Mega Solar**



**Wind Power**



**Biomass**



**Non-Ferrous Metals**



**Health Care & Hospital**



**Pharmaceutical**



**Food & Beverage**




# JGC Renewable Experiences

Power capacity of EPC in Total

**1.41 GW**

**Mongolia**


- PV (5MW)+BESS (3.6 MWh)

**Vietnam**


- Krong Pa PV (70MW)
- TTC No.1 PV (70 MW)
- TTC No.2 PV (50MW)
- TLIP-II PV(1.25 MW)
- Big-C PV (1.17 MW)
- R&D Center PV (0.25 MW)

**Indonesia**

- Rooftop Solar FS

**Japan**

- PV: 700 MW (in Total)
- Biomass Power: 262 MW (in Total)

**Taiwan**

- Mega-Solar FS (85 MW)
- Mega-Solar FS (8MW)

**Philippines**

- Mega-Solar EPC (95 MW)
- Bioethanol Plant+Biomass Power (19 MW) EPC
- Microgrid (PV+BESS) FS
- Floating PV FS (50 MW)

● EPC  
▲ FS  
★ JGC's Subsidiary Companies

# Project Experience Highlights: Mega Solar Krong Pa Project (Vietnam)

- **Owner:** Gia Lai Electricity Joint Stock Company
- **Location:** Krong Pa in Vietnam
- **Capacity:** 70 MW
- **Scope:** EPC
- **COD :** Dec, 2018

## Remarks:

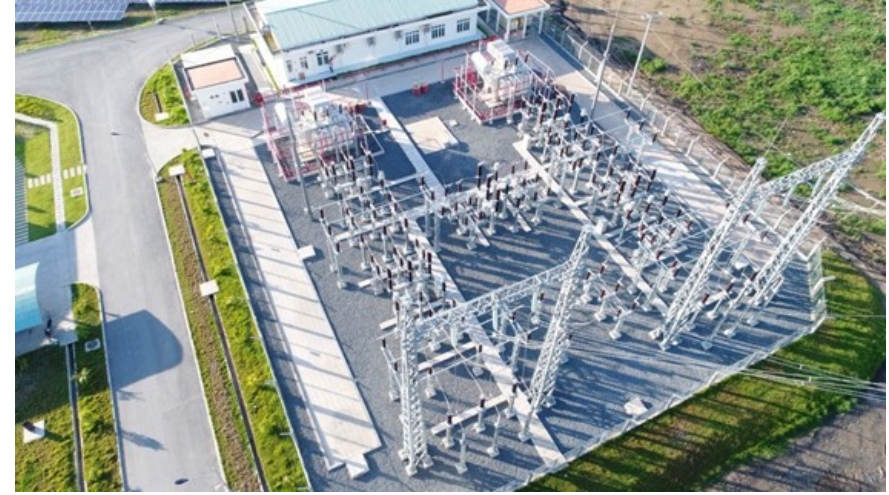
- JGC won the competitive bid against Chinese companies by optimized cost proposal reflecting local price level
- COD have been achieved within 8.5 months from EPC start, two weeks ahead of schedule





# Project Experience Highlights: Mega Solar TTC 1/2 Projects (Vietnam)

- **Owner:** TTC JSC
- **Location:** Tay Ninh in Vietnam
- **Capacity:** TTC – 1 PV (70MW)  
TTC – 2 PV (50MW)
- **Scope:** EPC
- **COD :** May, 2019



## Remarks:

- Utilized JGC Vietnam's experience of **local construction management**
- Overcame **difficult swampy site condition** with PV Plant handover completed **20 days ahead of schedule**



# Project Experience Highlights: Industrial Park Rooftop Solar Projects (Vietnam)

- **Owner:** N/A
- **Location:** Hung Yen province in Vietnam
- **Capacity:** 1.25 MW
- **Scope:** EPC
- **COD :** Mar, 2021



## Remarks:

- JGC provided **full scope** from **feasibility study** through to **EPC**
- **Successfully** completed without any delay under **COVID-19**
- JGC is currently supporting **Client's request** for **>15MW expansion**



# Project Experience Highlights: Mega Solar Sakuto Project (Japan)

- **Owner:** Japanese RE developer
- **Location:** Okayama in Japan
- **Capacity:** 257 MW
- **Scope:** EPC
- **COD :** Jan, 2020



## Remarks:

- Successful EPC execution for Japan's **largest** Solar PV Project
- Smoothly completed **site preparation** work at a **challenging site location**
- Successfully achieved mechanical completion **within 26 months**

# Project Experience Highlights: Mega Solar Cayanga-Bugallon Project (Philippines)

- **Owner:** AboitizPower
- **Location:** Cayanga, Bugallon, Pangasinan
- **Capacity:** 94-MWp
- **Scope:** EPC
- **COD :** 2022 Q4



## Remarks:

- JGC Philippine's first EPC award for a Solar PV Project
- Challenging site location in a mountainous location
- JGC won the competitive bid against Chinese companies by optimized cost proposal reflecting local price level



# Project Experience Highlights: Hybrid PV+BESS Project (Mongolia)

- **Owner:** Ministry of Energy, Mongolia
- **Location:** Uliastai
- **System:** 5MW Solar PV + 3.6MWh Battery Storage (BESS)
- **Scope:** EPC
- **COD:** March, 2022

## Remarks:

- The **first Mongolian Hybrid Solar PV/BESS PJ**
- Applied ADB fund including **Japan Funded-Joint Credit Mechanism(JF-JCM)**
- Successful **collaboration** with **Mongolian partner** and Japanese NAS battery supplier



# Project Experience Highlights: Microgrid Project (East south asia)

- **Location:** East south asia
- **System:** Diesel/Hydro Power + PV + BESS
- **Scope:** FS (PV+BESS)



Image photo

## Remarks:

- **Diesel consumption reduction** through introduction of renewable energy
- Stabilized microgrid with distributed power sources and energy storage
- Achieved competitive cost proposal through collaborating with JGC Philippines



# JGC Service Offerings



## Feasibility study (FS) / Technical Due Diligence

- Local survey utilizing overseas subsidiary offices
- Initial technical research / examination
- OME cost estimation / construction schedule review



## Basic / Detailed Design

- Local construction licensing survey
- Basic design considering EPC execution (CAPEX / OPEX minimum)
- Project execution support by Japanese partner companies



## EPC / Operation & Maintenance

- Achieve Japanese quality with competitive prices by working with overseas subsidiary offices
- Project management excellence to ensure on-time delivery



# *Thank you*

The JGC logo is a red square with the letters 'JGC' in white, bold, sans-serif font.

(Contact Information)

**JGC Corporation**

Ms. Nozomi Sakamoto

Unit Leader of Sales Unit 1, Sales Office, Facility Infrastructure Solutions

Email: [sakamoto.nozomi@jgc.com](mailto:sakamoto.nozomi@jgc.com)

Telephone No: +81-45-682-8062 Ext. 53237

**JGC Philippines, Inc.**

Mr. Oliver Sopp

Business Development Manager, Infrastructure Division

Email: [sopp.oliver@jgc.com](mailto:sopp.oliver@jgc.com)

Telephone No: +63-917-846-2978 Ext. 10711

