# Build Better More: A Glimpse into the Philippines' Infrastructure Program

January 2023

# **Agency Contact Details**

# **Department of Energy**

https://www.doe.gov.ph (632)8479-2900 infocenter@doe.gov.ph

# **Department of Public Works and Highways**

https://www.dpwh.gov.ph (632)165-02 +639616847084

# **Department of Transportation**

https://dotr.gov.ph/ (632)726-4925 (632)790-8300

### **Public-Private Partnership Center**

https://ppp.gov.ph (632)8709-4146 Info@ppp.gov.ph

# Investor Relations Group – Bangko Sentral ng Pilipinas

https://www.bsp.gov.ph/Pages/IRO.aspx (632)8708-7487 iro-semu@bsp.gov.ph For more reference materials please use the link below:



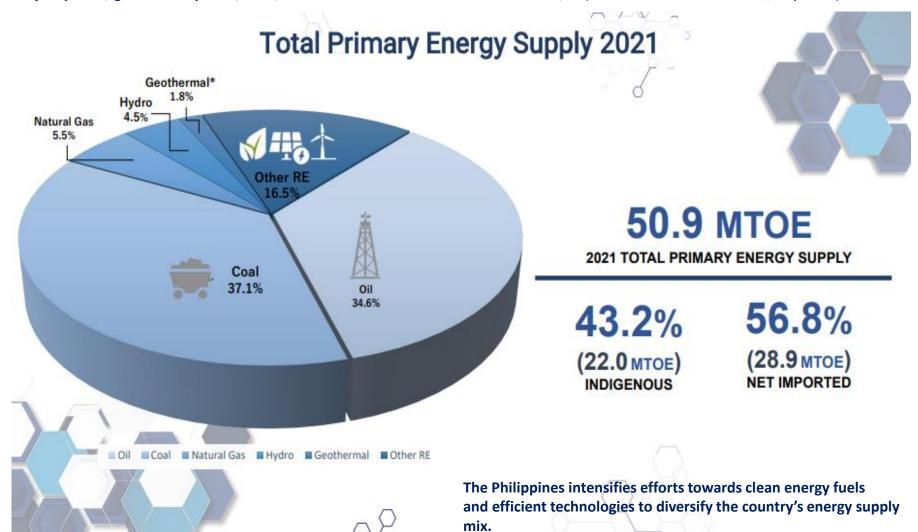
# **Table of Contents**

l.	Department of Energy	4
II.	Department of Public Works and Highways	10
III.	Department of Transportation	18
IV.	Public-Private Partnership Center	24
V.	Agency Contact Details	28

# **Department of Energy**

# The Philippines aims for a sustainable, stable, secure, sufficient, and accessible energy

"The use of renewable energy is at the top of our climate agenda. We will increase our use of renewable energy sources such as hydropower, geothermal power, solar, and wind." – President Ferdinand Marcos, Jr. (State of the Nation Address, July 2022)



The government is committed to enhance the country's renewable energy capacity and further increase its share in the current generation mix.

# **On-Grid Power Capacity and Generation Mix 2021**

# COAL



43% 11,669 MW INSTALLED CAPACITY

46%

10,913 MW
DEPENDABLE
CAPACITY

58%

62,052 GWh

# RENEWABLE ENERGY



7,914 MW

29%

7,005 MW
DEPENDABLE
CAPACITY

22%

23,771 GWH

# **OIL-BASED**



14%

3,847 MW INSTALLED CAPACITY

11%

2,650 MW

DEPENDABLE CAPACITY

2%

1,616 GWh

# **NATURAL GAS**



13% **3,453** мw

INSTALLED CAPACITY

14%

**3,286** мw

DEPENDABLE CAPACITY

18%

18,675 GWh



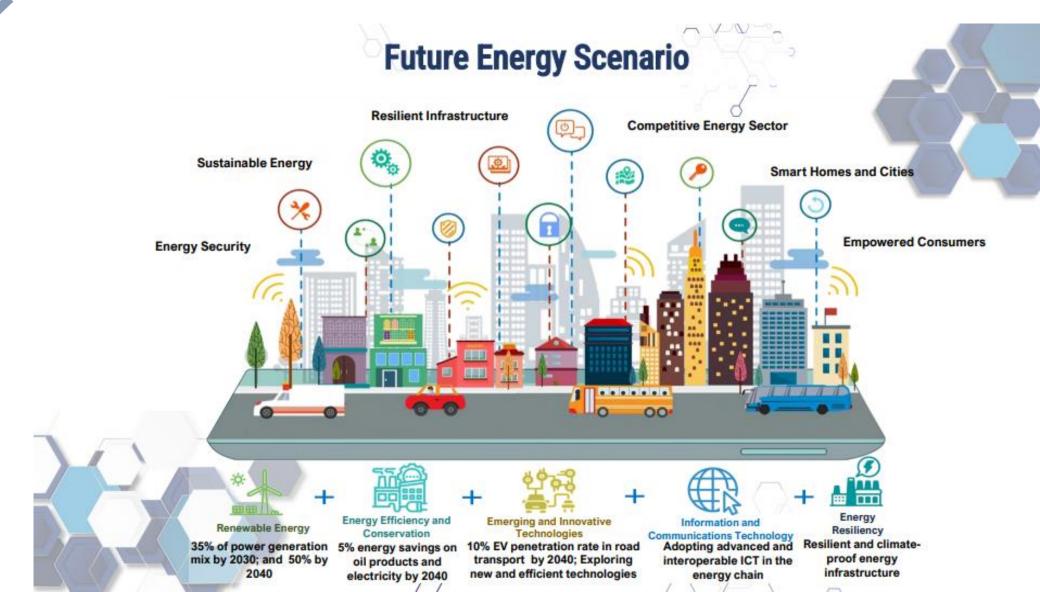
16,036 MW

LUZON: **11,640 MW**VISAYAS: **2,252 MW**MINDANAO: **2,144 MW** 

106,114<sub>GWh</sub>

Indigenous: 45.1% Imported: 54.9%

RE Share: 22% Fossil Share: 78% The realization of energy supply security in the long-term requires a harmonious interplay of the various energy sub-sectors and a well-coordinated energy value chain for stability, from resource development up to utilization.



As the government gradually shifts from fossil to cleaner and more sustainable energy technologies, the Department of Energy is moving fast to meet this transformational goal. The priority is on policies and regulatory framework that will mobilize and accelerate Renewable Energy (RE) deployment.

# **RE Policies and Programs**

# RENEWABLE PORTFOLIO STANDARDS (RPS) - GRID AND OFF- GRID

Requires all load-serving entitites to source or produce a specified portion of their supply from eligible RE facilities

#### RE MARKET (REM)

Serves as the venue for the transparent and fair trading of RE Certificates

#### PREFERENTIAL DISPATCH OF RE

All RE generating units are given preference in the Wholesale Electricity Spot Market dispatch schedule to ensure its maximum output injection in the grid.

#### ENHANCED NET-METERING PROGRAM

Allows end-users to generate electricity from REbased systems up to 100 kW for own use and sell their excess to the grid

## **GREEN ENERGY OPTION PROGRAM (GEOP)**

Provides end-users the option to choose RE resources as their source of energy



# GREEN ENERGY AUCTION PROGRAM (GEAP)

Intends to provide additional market for RE through a competitive electronic bidding of RE capacities

#### RE TRUST FUND

Pursuant to Section 28 of the RE Act, the RETF was established to promote the development and greater utilization of RE

## OMNIBUS GUIDELINES FOR RE CONTRACTS

Aims to harmonize and enhance existing guidelines governing the application and awarding of RE Contracts

### PRODUCTIVE USES OF RE (PURE)

Involve the utilization of RE for activities that enhance income and livelihood, and deliver social services, particularly in rural and off-grid areas.

### RE RESOURCE DEVELOPMENT

Geothermal Energy, Offshore Wind, Waste-to-Energy, Ocean and Tidal Energy, Expanded Rooftop Solar Program



Recognizing that the energy sector is a capital-intensive venture, the DOE envisages a more active private sector participation and public-private partnerships (PPP) to pour in the required investments over the planning period.

# **Energy Investment Requirements**





# **UPSTREAM**



# USD 10.05 Billion

Oil and Gas Exploration and Development



# USD 13.12 Billion

Coal Exploration and Production



# USD 510 Million

Renewable Energy (Pre-Development Activities)

# **DOWNSTREAM**



# USD 2.94 Billion

Oil Distribution Depots and Import Terminals



# USD 1.78 Billion

Liquefied Natural Gas (LNG) Terminals

USD 2.38 Billion Biofuels Production





USD 115.3 Billion

Construction of New Power Plants

Conventional: USD 21.0 Billion Renewable Energy: USD 94.3 Billion



USD 6.97 Billion

Transmission Projects



# Department of Public Works and Highways

# The government is committed to continue and further expand the "Build, Build, Build" program.

"I would like to reiterate the marching order of the President during his State of the Nation Address...the infrastructure development program will be pursued relentlessly" — Sec. Bonoan, DPWH



# DPWH STRATEGIC INFRASTRUCTURE PROGRAMS IN SUPPORT OF THE PRESIDENT'S 8-POINT SOCIOECONOMIC AGENDA

8-Point Socioeconomic Agenda	DPWH Key Priority Programs	Target Outcomes
Near-Term Agenda (Protect the Purchasing Power of Families)  Ensure Food Security Reduce Traffic and	Traffic Decongestion Program High Standard Highways and Expressways By-passes and diversion roads Flyovers, interchanges and underpasses Expansion / widening of national roads and bridges	Increase road network capacity     Expand the country's High Standard Highways / Expressways from 510 kilometers to 1,816 kilometers     Reduce travel time between Ilocos in the North and Bicol in the South from 20 hours to just 9 hours.
Logistic Costs  Reduce Energy Costs  Medium-Term Agenda	Integrated and Seamless Transport System Program  Improve Daang Maharlika Highway  Construct Inter-Island Linkage/Mega Bridge Program  Connect gaps along national roads  Improve roads leading to growth corridors in Mindanao	Improve Inter-Region and Inter-Island Connectivity for a seamless transport system
(Create more Jobs, Quality Jobs)  Improve Infrastructure Establish, Livable and	Rural Roads Convergence Program     Construct/upgrade access roads leading to designated tourism destinations, industry and trade corridors, RORO ports / seaports, railway stations and airports.     Construct Farm to Market/Farm to Mill Roads under the Agri-Infrastructure Support Program	Improve access to tourism destinations to increase tourism arrivals.     Improve access to industry corridors to lower transport costs.     Build FMRs based on FMR Masterplan to connect to national highways
Sustainable Communities	Livable, Sustainable & Resilient Communities  Flood Management Program  Integrated Water Resources Management Program  Bridges Seismic Improvement Program  Basic Social Infrastructure Support Program  (Evacuation Centers and School Facilities)  Infrastructure Support for Marginalized Sectors (i.e. physically challenged, elderly, women, children)  Active Transport Program (Bike lanes and Pedestrian Infrastructure)	Protect lives and properties from natural disasters     Build disaster-resilient structures especially in calamity-prone areas     Promote zero carbon footprint.

Bridges will be constructed in the area to provide alternative linkages between major thoroughfares and increase the number of usable roadways that would decongest traffic in EDSA and other major roads in Metro Manila



The government will continue to address traffic congestions along vital road networks in the country particularly in highly urbanized areas through projects under the Master Plan on High Standard Highway Network Development.



Expanding the country's highways and expressways network will alleviate overconcentration of population and development in the urban areas and will give way to regional development.



The Inter-Island Linkage / Mega Bridge Program will provide linkages among the various islands of the country through the construction of a series of short and long span bridges.



Government aims to modernize the country's infrastructure backbone to sustain rapid growth, attract investments and spread economic opportunities for all Filipinos.



# DPWH MAJOR INFRASTRUCTURE PROJECTS

#### CAVITE-LAGUNA EXPRESSWAY

45 km expressway connecting CAVITEX in Kawit, Cavite and SLEX-Mamplasan interchange in Biñan, Laguna Project Cost: P35.7 Billion Target Completion Date: December 2023 Status: 59% complete



8 km elevated expressway from the end of Seg. 10 in C3 Road, Caloocan City to PUP Sta. Mesa, Manila & connecting to the Skyway Stage 3 Project Cost: P23.2 Billion Target Completion: June 2023 Status: 67% complete

## CENTRAL LUZON LINK EXPRESSWAY 30 km. (Tarlac City - Cabanatuan City, Nueva Ecija)

Project Cost: P14.9 Billion
Target Completion Date: March 2023
Status: 97% complete. Aliaga Interchange to San Juan
Interchange Section proposed for inauguration in Feb.

2023





# FLOOD RISK MANAGEMENT PROJECT IN CAGAYAN DE ORO RIVER

Project Cost: P8.5 Billion
Target Completion Date: August 2023
Status: 98% complete. Contract Package 2 (Consolacion)
proposed for inauguration in Feb. 2023



#### SAMAR PACIFIC COASTAL ROAD

11.6 km (including 3 bridges)
Project Cost: P1.1 Billion
Target Completion Date: 2023
Status: 77% complete. Proposed for inauguration in
June 2023



# IMPROVING GROWTH CORRIDORS IN MINDANAO ROAD SECTOR PROJECT

151.96 kms, (7 road subprojects), Guicam Bridge and Taw-Tawi Bridges Project Cost: P25.3 Billion

Target Completion Date: 2024 Status: 10 sub-projects - 50% complete. 3 Sub-projects

proposed for inauguration in March 2023



The government aims to modernize the country's infrastructure backbone to sustain rapid growth, attract investments and spread economic opportunities for all Filipinos.



# DPWH MAJOR INFRASTRUCTURE PROJECTS

# ROAD NETWORK DEVELOPMENT PROJECT IN CONFLICT-AFFECTED AREAS IN MINDANAO

175 kms, access roads Project Cost: P12.9 Billion Target Completion Date: Dec. 2028 Status: 4 contract packages on-going. Proposed for inauguration in May 2023



#### LAGUNA LAKESHORE ROAD NETWORK

51 kilometer Road Network along Laguna Lakeshore Project Cost: P171.8 Billion Target Completion Date: 2026 Status: DED-70% complete.



#### BATAAN-CAVITE INTERLINK BRIDGE

32 km bridge connecting Mariveles, Bataan and Naic. Cavite

Project Cost: P175.6 Billion Target Completion Date: 2028 Status: DED-60% complete.



# PANGUIL BAY BRIDGE

3.17 km Bridge connecting Tangub City. Misamis Occidental to Tubod, Lango del Norte. Project Cost: P7.4 Billion Target Completion Date: December 2023 Status: 61% complete



#### SAMAL ISLAND-DAVAO CITY BRIDGE

Cable-stayed bridge (extradosed) with a total length of 3.98 km

Project Cost: P23.0 Billion

Target Completion Date: August 2027 Status: Ground Breaking Ceremony on October 27, 2022



# DAVAO CITY BYPASS CONSTRUCTION PROJECT

46 km highway including 2-2.3 km mountain tunnels
Project Cost: P46.8 Billion
Target Completion Date: January 2026
Status: 21% complete

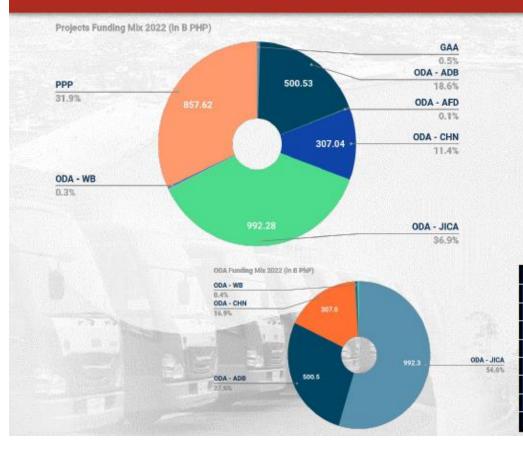


# **Department of Transportation**

The Department of Transportation (DOTr) provides the backbone for growth and enhances the country's competitive edge by providing effective and efficient transportation infrastructure systems that connect the country, its islands, and its people to the rest of the world.

# **DOTr will BUILD BETTER by...**

# **BROADENING AND DIVERSIFYING FUNDING STRATEGIES**



Projects Funding Mix	2022	% of Total
ODA - JICA	992.3	36.91%
PPP	857.6	31.90%
ODA - ADB	500.5	18.62%
ODA - CHN	307.0	11.42%
GAA	13.1	0.49%
ODA - WB	7.8	0.29%
ODA - AFD	3.2	0.12%
ODA - KEXIM	6.2	0.23%
DDA - ADB (ASEAN-IF)	0.8	0.03%
TOTAL	2688.5	100.00%

ODA Funding Mix	2022
ODA - JICA	54.59%
ODA - ADB	27.53%
ODA - CHN	16.89%
ODA - WB	0.43%
ODA - AFD	0.17%
ODA - KEXIM	0.34%
ODA - ADB (ASEAN-IF)	0.05%
TOTAL	100.00%

#### Legend:

ODA-Official Development Assistance
ADB-Asian Development Bank
CHN- China
WB- World Bank
AFD-Agence Française de Développement
KEXIM- Korea Eximbank

ASEAN-IF-ASEAN Infrastructure Fund JICA-Japan International Cooperation Agency

# The government will continue to implement the Build, Build, Build ("BBB") Program, with a more diversified funding strategy and strategic utilization of PPPs.

# Investment-Approved PPP Projects; Pre-Construction and Ongoing Construction

#### LIST OF PROJECTS (not exhaustive) Clark Int'l. Airport **Caticlan Airport LRT-1 Cavite** Taguig Integrated **PROJECT** MRT-7 **Expansion Project** Development Project Terminal Exchange Airport (Bulacan) Extension Indicative PHP 64,915 Billion PHP 5.20 Billion PHP 735.60 Billion PHP 12.55 Billion **PHP 77 Billion** PHP 2.506 Billion Cost (inc. ODA Component) (inc. access ramp & land cost) **PPP Structure** BOT CAOT BTO **BGTOM** BT **BTO** Cooperation 32 years 35 years 50 years 25 years 25 years None Period (inclusive of construction Region III Region III Region VI NCR, Region IV-A NCR, Region III NCR Location BCDA CAAP DOTr, LRTA DOTr DOTr **DOTr** San Miguel Megawide-GMR **Light Rail Manila SMC-Mass Rail ARCA South** Trans Aire **Construction Joint** Development Corporation Transit 7, Inc **Integrated Terminal** Aerocity Inc. **Holdings Corporation** Incorporated (ASITI) Venture, Inc. Private Proponent MIA MGCJV TRANS AIRE DEVELOPMENT

New Manila International Airport – Planned to be the largest airport in the Philippines with an initial capacity of 35 mn passengers, 100 mn passengers once fully completed annually. This new international gateway is positioned to serve Metro Manila as well as its neighboring regions

Clark International Airport Expansion Project —a new passenger terminal to double the capacity of Clark International Airport, one of the country's busiest gateways, to 8 mn passengers per year.

**Caticlan Airport Development Project** –to upgrade Caticlan Airport, nearest airport to Boracay Island

**LRT-1 Cavite Extension** - to increase the LRT-1's capacity from 500,000 to 800,000 daily and extend to highly populated city southwest of Manila. (This extension will reduce travel time between Baclaran, Paranaque and Bacoor, Cavite to 25 minutes, from one hour and 10 minutes.)

MRT-7 – The project involves the financing, design, construction, operation & maintenance of the 23-kilometer elevated railway line connecting the capital to a highly urbanized areas of Bulacan, an adjacent province.

**Taguig International Terminal Exchange** - A six-storey building on a 5.57 hectare property which would house a passenger concourse, centralized ticketing area and several business and retail establishments.

The government will implement a more holistic Build, Build, Build ("BBB") Program, including strategic utilization of PPPs.

# **Upcoming PPP Projects according to Project Preparation Partner**



#### PPP CENTER

Project Development and Monitoring Facility (PDMF)



# ASIAN DEV'T. BANK

Office of Public-Private Partnership (OPPP)



## WORLD BANK GROUP International Finance

Corporation (IFC)



## MaPaLLa Ferry

Capacity Expansion and Level of Service Improvement

# NAIA

Rehabilitation, Capacity Expansion, and O&M

Metro Manila Subway Project

# 9 Unsolicited Proposals for Regional Airports

New Bicol, New Bohol, Laguindingan, Iloilo, Puerto Princesa, Bacolod-Silay, Davao, Kalibo, and Siargao

#### Sangley Airport Redevelopment

Various Toll Roads Construction and O&M

# Seafarers Training Vessels

Acquisition and O&M

# North-South Commuter Railway

Solicited PPPs for Railway Projects North Long Haul, San Mateo Railway, Northern Mindanao Railway

# System

Solicited PPPs for Other Regional Airports

MRT-3

# Cebu Bus Rapid Transit\*

Bus Supply and O&M

# LTFRB IT

#### **NSCR EDSA Busway**

O&M, Capacity Expansion, and

Bike Sharing

# Air Traffic System (ATS)/

# Davao Public Transport Modernization Project

# **Philippine Automated Fare Collection System**

# Air Navigation System (ANS)

# **6 Unsolicited Proposals** for Railway Projects

LRT 6A, LRT 6B&C, C5 MRT 10, MRT 11 Fort Bonifacio Sky Train, Cebu Monorail North-South Commuter Railway (NSCR) -O&M of 163-kilometer urban rail transit

The Manila Bay-Pasig River-Laguna Lake

Manila and provide commuters an

Ninoy Aquino International Airport-

main international gateway to the

will decongest the capital's major

thoroughfare and expand the public

**Philippines** 

transport network

rehabilitation, capacity expansion and

operations and maintenance (O&M) of the

Metro Manila Subway Project- Operations

and Maintenance (O&M) of the subway that

alternative mode of transport

(MAPALLA) Ferry System Project- involves the development of a ferry system that would traverse the waterways in Mega

system allows greater connectivity between Central Luzon and Southern Luzon

MRT 3- O&M of an existing light rapid transit system line in Metro Manila

MRT 4- O&M of a railway project that will connect the capital to adjacent highly urbanized province

Sangley Airport- Construction of a new airport that will serve as an alternative to the NAIA

# **National Transportation Database**

# Addressing Economic Losses and Traffic Congestion in Key Urban Centers



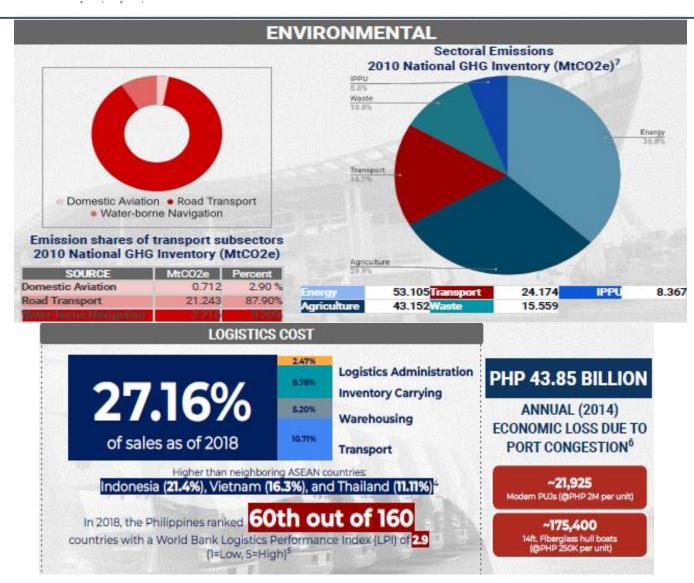


[1] Travel & Tourism Development Index 2021: Rebuilding for a Sustainable and Resilient Future Insight Report. World Economic Forum. May 2022.

<sup>[2]</sup> Roadmap for Transport Infrastructure Development for GCR (JICA 2019)

<sup>[3]</sup> Philippines's Road Safety Country Profile (World Bank - Global Road Safety Facility 2016)

# **Addressing Environmental and Logistical Challenges**



- [4] An Assessment of Logistics Performance of Manufacturing Firms in the Philippines (DTI and IFC (WB) 2018)
- [5] Travel & Tourism Development Index 2021: Rebuilding for a Sustainable and Resilient Future Insight Report. World Economic Forum. May 2022.
- [6] Philippine Institute of Development Studies (PIDS 2014)
- [7] 2010 Philippine National GHG Inventory (Climate Change Commission)

# **Public-Private Partnership Center**

Reconfiguring public – private partnerships (PPP) can help address cross-cutting issues of a weak competition environment and the digital divide, as well as boost the country's campaign to attract foreign investments.

"Public Private Partnerships or PPPs hold great potential for that expansion, for infrastructure development and for innovation."

— President Ferdinand Marcos, Jr.

# **PPP Center of the Philippines**



The PPP Center facilitates the implementation of the country's PPP Program. It serves as a central coordinating and monitoring agency for all PPP projects in the country.

Provide technical assistance in PROJECT DEVELOPMENT AND IMPLEMENTATION



Advocate for **POLICY** reforms to enhance enabling environment



Provide technical assistance in PROJECT MONITORING AND EVALUATION



Conduct CAPACITY
BUILDING activities to
improve skills of agencies



The government is creating a "more competitive and enabling environment" Public Private Partnerships (PPPs) to accelerate infrastructure development.

# **Summary of PPP projects**



**210** 

AWARDED PROJECTS

PHP 2,335 Billion

	No.	PhP (bn)	USD (bn)
National	88	2,156	39.58
Local	122	179	3.29

as of 31 December 2022

98

PROJECTS IN THE PIPELINE

PHP 3,044 Billion\*

	No.	PhP (bn)	USD (bn)
National	73	2,914	53.49
Local	25	130	2.39

1 USD = 55

<sup>\*</sup>Total cost does not include projects undergoing studies and with costs that are yet to be finalized



# The government has a robust pipeline of PPP projects across key sectors.

# PPP projects in the pipeline

# **TRANSPORTATION**

# **VERTICAL INFRASTRUCTURE**

# **DIGITAL CONNECTIVITY**

	No.	PhP (bn)	USD (bn)
N	55	1,378.63	25.30
L	4	69.23	1.27
	Total	1,447.86	26.57

	No.	PhP (bn)	USD (bn)
N	6	1,493.72	27.25
L	5	19.17	0.35
	Total	1,512.89	27.6

	No.	PhP (bn)	USD (bn)
N	4	0.41	0.0075
L	1	0.02	0.00036
	Total	0.43	0.00786

# **TOURISM**

	No.	PhP (bn)	USD (bn)
N	1	TBD	TBD
L	2	11.69	0.21
	Total	11.69	0.21

# **HEALTH**

	No.	PhP (bn)	USD (bn)
N	6	26.41	0.48

# **SOLID WASTE MANAGEMENT**

	No.	PhP (bn)	USD (bn)
L	3	22	0.39

# **POWER**

	No.	PhP (bn)	USD (bn)
L	3	TBD	TBD

# WATER SUPPLY AND SANITATION

	No.	PhP (bn)	USD (bn)
N	1	14.49	0.26
L	7	7.75	0.14
Total		22.24	0.40

# **Agency Contact Details**

# **Department of Energy**

https://www.doe.gov.ph (632)8479-2900 infocenter@doe.gov.ph

# **Department of Public Works and Highways**

https://www.dpwh.gov.ph (632)165-02 +639616847084

# **Department of Transportation**

https://dotr.gov.ph/ (632)726-4925 (632)790-8300

### **Public-Private Partnership Center**

https://ppp.gov.ph (632)8709-4146 Info@ppp.gov.ph

# Investor Relations Group – Bangko Sentral ng Pilipinas

https://www.bsp.gov.ph/Pages/IRO.aspx (632)8708-7487 iro-semu@bsp.gov.ph For more reference materials please use the link below:

