

PRIVATE SECTOR INITIATED POWER PROJECTS (LUZON)

COMMITTED

As of 31 October 2019

Committed/ Indicative	Name of the Project	Project Proponent	Location	Rated Capacity (MW)	Project Status	Target Testing & Commissioning	Target Commercial Operation
	COAL			3436			
Committed	Masinloc Expansion Project	AES Masinloc Power Partners Co., Inc.	Zambales	300	<p>FEASIBILITY STUDY:</p> <ul style="list-style-type: none"> Completed February 2011 <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND:</p> <ul style="list-style-type: none"> No additional land will be acquired as the expansion will be inside the existing Masinloc Power Plant Complex. NPC/PSALM, however, is still continuing the titling process and land registration for some parcels of land <p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> Grid Impact Studies obtained on 7 January 2011 ECC Amendment was released by DENR on April 23, 2012 The amended DOE Certificate of Endorsement for BOI was released on May 7, 2012 <ul style="list-style-type: none"> Secured CoE for ERC on September 2011 On-going processing of Certificate of Precondition from NCIP <ul style="list-style-type: none"> SAPA amendment is still pending with DENR <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> Provided bank certification for financial closing status to DOE dated 24 August 2016; <ul style="list-style-type: none"> Project cost is Php49.45B <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> POSCO Engineering and Construction Co. Ltd, Korea (Offshore - Engineering Procurement); Ventanas Philippines Construction Inc. (Onshore Construction Main Contractor) <p>COMMENCEMENT OF CONSTRUCTION:</p> <ul style="list-style-type: none"> 2nd Qtr 2014 	Unit 3 - September 2019 (commissioning test)	December 2019 (Target Testing and Commissioning)
Committed	RPEI Coal-Fired Power Plant	Redondo Peninsula Energy, Inc.	Sitio Naglatore, Cawag, Subic Bay Freeport Zone	600	<p>FEASIBILITY STUDY: Completed</p> <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND:</p> <ul style="list-style-type: none"> Project Site secured and under possession of RPE <p>MARKETING OF GENERATING CAPACITIES:</p> <ul style="list-style-type: none"> Started discussions with the Manila Electric Company for sale of power <ul style="list-style-type: none"> 52% owned by Meralco PowerGen Corp. (MPGC) 225 MW PSA with Meralco & 75 MW with Aboitiz Energy Services Inc. Awaiting ERC approval of the PSA - Techno-commercial evaluation completed. <p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> Amended ECC (3rd Amendment) secured last 15 November 2012 The Connection Agreement has been executed last October 24, 2014. Execution after completion of NGCP's review of the revised System Impact Study and Facilities Study prepared by RPE NGCP's application to ERC for approval of Transmission Asset has been completed and is currently awaiting decision. <ul style="list-style-type: none"> RPE's application to the ERC for the Connection Asset has been deemed sufficient in form and substance <ul style="list-style-type: none"> Revised System Impact GIS review by NGCP completed 10 May 2012 Any further development dependent on Supreme Court decision on Writ of Kalikasan case; <ul style="list-style-type: none"> Public consultations conducted in Subic on 29 June 2012 <ul style="list-style-type: none"> Site Preparation completed in 2013; Target Commencement of Construction will be Dependent on Supreme Court decision on Writ of Kalikasan Case <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> Project cost Php50B / \$1.2B; Financing agreements executed as of Decemebr 2016. Currently under suspension due to ERC delay in PSA Approval <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> EPC contract lapsed in January 2018 due to long delay in obtaining PSA approval. 	Unit I - 2020 Unit II - 2021 (Target Commencement of Construction will be 43 months after NTP)	Unit I - December 2020 Unit II - December 2021
					<p>FEASIBILITY STUDY:</p> <ul style="list-style-type: none"> Completed <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND:</p> <ul style="list-style-type: none"> GNPD has secured the rights over the project site. <p>MARKETING OF GENERATING CAPACITIES:</p> <p>Signed contracts with a group of electric cooperatives and retail electricity supplier (RESs); On going sales and marketing to electric cooperatives, private distribution utilities, RESs and large end-users in the Luzon and Visayas grids.</p> <p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> Construction-related permits for the project have been obtained. 		

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Committed	GNPower Dinginin Supercritical Coal-Fired Power Plant	GNPower Dinginin Coal Plant Ltd. Co.	Mariveles, Bataan	1336	<p>ESTIMATED NUMBER OF JOBS GENERATED:</p> <ul style="list-style-type: none"> • During construction: around 5,060 jobs <p>GROUND BREAKING SCHEDULES:</p> <ul style="list-style-type: none"> • GNPD signed an INTP with the EPC Contractor in May 2016 and began ground clearing operations thereafter. Formal NTP was issued on September 6, 2016. <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> • Aside from the \$670 million and Php7.5 Billion loan facilities, GNPD signed an additional Php22 billion loan facility on December 6, 2017, which is allocated to fund the construction of Unit 2. This represents 70.6% of the total project cost. <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • The plant and equipment is subcontracted through the EPC contractor to numerous Philippine and Chinese companies. <p>COMMENCEMENT OF CONSTRUCTION:</p> <ul style="list-style-type: none"> • The onshore and offshore Notice to proceed were issued in September 2016; construction is currently on-going. <p>ISSUES ENCOUNTERED RE PROJECT DEVELOPMENT:</p> <p>Numerous technical and construction-related matters have been encountered and dealt with, as normal, during the construction program.</p> <p>PROJECT PROGRESS PERCENTAGE:</p> <p>The overall project progress percentage as of May 31, 2019 is 73.49%</p>	First line commissioning activities targeted to commence by the first quarter of 2020.	Unit I - June 2020 Unit II - September 2020
Committed	AOE Coal-Fired Power Plant	Atimonan One Energy	Atimonan, Quezon	1200	<p>FEASIBILITY STUDY:</p> <ul style="list-style-type: none"> • Completed <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND:</p> <ul style="list-style-type: none"> • Completed <p>MARKETING OF GENERATING CAPACITIES:</p> <ul style="list-style-type: none"> • AE1 continues is an Energy Project of National Significance, as awarded by the DOE; • Meralco has issued a competitive selection process for 1,200 MW with a 2024 COD last July 15, 2019. A1E will participate in this CSP with Bid submission expected on September 10, 2019. PENDING. <p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Completed <p>GROUND BREAKING SCHEDULES:</p> <ul style="list-style-type: none"> • Early site preparation activities ongoing while waiting for main construction to start, subject to securing PSA/s for its capacity. <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> • Completed <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Completed <p>COMMENCEMENT OF CONSTRUCTION:</p> <ul style="list-style-type: none"> • Securing PSA/s (with ERC approval/s) is key to being able to proceed with the full-swing construction of the plant. PENDING. • However, early site preparation works have started to help preserve target schedule- River Culverting and Mountain Cutting ongoing. Engineering design and review for the boiler and turbine has started. <p>ISSUES ENCOUNTERED RE PROJECT DEVELOPMENT:</p> <ul style="list-style-type: none"> • Delays in securing regulatory-approved PSA/s (more than 2 years), including Supreme Court decision which effectively nullified A1E's previously negotiated PSA, contributing further to the delay. PENDING. 	Unit 1 - early Q4 2023 Unit 2 - TBD	Unit 1 - 2nd Quarter 2024 Unit 2 - TBD

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	OIL-BASED			300			
Committed	Ingrid Pililia Diesel Power Plant	Ingrid Power Holdings, Inc. (Formerly AC Energy Devco, Inc.)	Pililia, Rizal	300	<p>FEASIBILITY STUDY</p> <ul style="list-style-type: none"> Completed <p>ARRANGEMENT FOR SECURING THE REQUIRED LAND</p> <ul style="list-style-type: none"> Site Lease Agreement was signed March 23, 2018 – Effective starting April 1, 2018 <p>MARKETING OF GENERATING FACILITIES</p> <ul style="list-style-type: none"> AC Energy RES and/or NGCP Ancillary Service <p>PERMITS AND REGULATORY REQUIREMENTS</p> <ul style="list-style-type: none"> SIS- clearance from DOE issued on 1 Aug 2017 under AC Energy System Impact Study completed and approved on 24 Jan 2019 Facility Study completed and submitted to NGCP for approval 29 Jan 2019 <p>FINANCING ARRANGEMENTS</p> <ul style="list-style-type: none"> 100% Equity Project Cost Php1.5 Billion 	December 2019	June 2020

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	NATURAL GAS			650			
Committed	EWC CCGT Power Plant	Energy World Corporation	Brgy. Ibabang Polo, Grande Island, Pagbilao, Quezon	650	<p>FEASIBILITY STUDY:</p> <ul style="list-style-type: none"> Completed <p>'ARRANGEMENT FOR SECURING THE REQUIRED LAND:</p> <ul style="list-style-type: none"> Land is already secured with a long lease entered into since 2007 <p>MARKETING OF GENERATING CAPACITIES:</p> <ul style="list-style-type: none"> No specific off taker yet but already have a discussion with Federation of Philippine Industries, intended to supply power into the Wholesale Electricity Spot Market but is also open to discussing potential off take arrangements as well <ul style="list-style-type: none"> 100% WESM <p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> GIS for 300MW issued by NGCP on 8 August 2013 and revised on 3 July 2013 for 600MW <ul style="list-style-type: none"> Issued DOE Endorsement for Revised Capacity on 3 July 2013; Revised DOE clearance for GIS submitted to NGCP on January 2014 GIS from NGCP for the 600MW was released on August 2014; Several Resolutions has been issued on May 2014 (Sangguniang Barangay Resolution, Sangguniang Bayan Resolution and Sangguniang Panlalawigan Resolution) interposing no objection for the construction of a 600 MW Liquefied Natural Gas (LNG) Power Plant; <ul style="list-style-type: none"> On-going processing of ECC for power plant <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> Financial Arrangement Secured <ul style="list-style-type: none"> Syndicated Loan Project Cost:\$300M Signing of loan agreement last 18 Sep 2015 The project has been fully funded by equity up to this point. <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> Two units of 200MW Siemens Gas Turbine, Generator and Ancillary has been installed, and are substantially complete. The foundation for the 250MW steam turbine is built and the equipment has been manufactured. <p>COMMENCEMENT OF CONSTRUCTION:</p> <ul style="list-style-type: none"> December 2013 Completed 	December 2021	December 2021
	GEOTHERMAL			31			
Committed	Bacman 3 (Tanawon) Geothermal Project	Energy Development Corporation	Guinlajan, Sorsogon	31	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> DOE Service Contract within GRESC # 2009-10-003; <ul style="list-style-type: none"> LGU endorsement Land Use Permits, <ul style="list-style-type: none"> DENR-ECC Water Rights obtained; Turnkey Contract pending result of feasibility study under negotiation; Submitted Declaration of Commerciality (DOC) on 17 June 2014, evaluation by DOE of the DOC is still on-going; <p>FINANCING ARRANGEMENTS:</p> <ul style="list-style-type: none"> Project to be finance by EDC; Project cost estimated \$140M-180M 	November 2022	December 2022
	HYDROPOWER			20.4			
Committed	Biyao	AV Garcia Power Systems Corp.	Balbalan, Kalinga	0.8	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> Issued Confirmation of Commerciality on 01 August 2014 Submission of lacking requirements e.g. permits in progress <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> Construction Progress (Pre-construction - 0%, Construction-0%, Interconnection-0%) completed as of 30 September 2014 <ul style="list-style-type: none"> Ongoing construction 	November 2019	December 2019
Committed	Colasi	Colasi Mini Hydro Electric Power Plant Corporation	Mercedes, Camarines Norte	1	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> Submission of lacking requirements e.g. permits in progress Clearance to Undertake GIS from DOE issued on 3 December 2012 <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> On-going rehabilitation 	November 2019	December 2019

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Committed	Labayat River (Upper Cascade)	Repower Energy Development Corporation	Real, Quezon	3	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of Commerciality on 8 January 2016 <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Ongoing pre-construction activities 	November 2019	December 2019
Committed	Man-Asok	Benguet Electric Cooperative	Buguias, Benguet	3	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of commerciality on 22 September 2015; <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Pending submission of requirements for under development stage 	November 2020	December 2020
Committed	Laguio Malaki 1	Enervantage Suppliers Co., Inc.	Mauban, Quezon	1.6	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of commerciality on 9 October 2015; <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Pending submission of requirements for under development stage 	November 2020	December 2020
Committed	Matuno	Epower Technologies Corporation	Bambang, Nueva Ecija	8	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of commerciality on 24 June 2015; <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Pending submission of requirements for construction 	November 2020	December 2020
Committed	Tubao	Tubao Mini-Hydro Electric Corporation	Tubao, La Union	1.5	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued Confirmation of Commerciality on 19 March 2015 <p>GROUNDBREAKING SCHEDULES:</p> <ul style="list-style-type: none"> • Ground breaking held on 8 November 2014 <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Pending submission of requirements for construction 	November 2021	December 2021
Committed	Rangas	Clean and Green Energy Solutions, Inc.	Goa & Tigaon, Camarines Sur	1.5	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Submission of lacking requirements e.g. permits in progress 	November 2021	December 2021

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	BIOMASS			66.2			
Committed	FQBC Biogas Power Plant Project	First Quezon Biogas Corporation	Quezon	1.2	CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • On-going construction	November 2019	December 2019
Committed	GGREC Napier Grass-Fired Biomass Power Plant	Grass Gold Renewable Energy Corp	Nueva Ecija	12	FEASIBILITY STUDY: • Technical and Financial FS submitted on 29 September 2017 ARRANGEMENT FOR SECURING THE REQUIRED LAND: • Acquired MARKETING OF GENERATING CAPACITIES: • FIT-RATE Php 6.5969/kWh • Capacity: 10.8 MW PERMITS AND REGULATORY REQUIREMENTS: • ECC: ECC-RO3-1410-0504, 22 Nov 2016 • BOI: 2016-097, 23 May 2016 • SIS: NetAccess-KAP-RRA-2017-03-205, 15 March 2017 • FS: Net-Access-KAP-RRA- • Connection Agreement: NetAccess-KAP-RRA-2018-06-105, 14 June 2018 ESTIMATED NUMBER OG JOBS GENERATED: • During Construction: 350 • During Operation: 40-50	August 2019	December 2019
Committed	Isabela La Suerte Rice Husk-Fired Power Project	Isabela La Suerte Rice Mill Corporation	Camarines Sur	5	FINANCING ARRANGEMENTS: Closed CONSTRUCTION: • On-going testing and commissioning • Interconnection Issue	November 2019	December 2019
Committed	VSGPC Multi-Feedstock Biomass Power Plant Project	V.S. Grial Power Corporation	Nueva Ecija	6	PERMITS AND OTHER REGULATORY REQUIREMENTS: • Secured GIS on 1 August 2017 (DOE-EPIMB-SIS No. 2017-07-007) CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • Construction on-going at 28%	November 2019	December 2019
Committed	HEC Rice Husk-Fired Biomass Power Plant Project	Hypergreen Energy Corporation	Bulacan	12	CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT: • Construction on-going at 20 %	November 2019	December 2019
Committed	Cleangreen Energy Biomass Power Plant Project	Cleangreen Energy Corporation	Orani, Bataan	12	FINANCING ARRANGEMENT: -Total Project Cost: US\$27 Million (approximately) MARKETING AND GENERATING CAPACITIES: -FIT -EPC Contractor: ISGEC -O&M Contractor: REURASIA PERMITS AND OTHER REGULATORY REQUIREMENTS: -DOE BREOC -BOI Certificate -DENR-EMC ECC	September 2019	December 2019

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Committed	Green Innovations Biomass Power Plant	Green Innovations for Tomorrow Corp.	Bacal 2, Talavera, Nueva Ecija	18	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Issued with GIS on 23 October 2018 (DOE-EPIMB RE-SIS No. 2018-10-006) <p>CONSTRUCTION CONTRACTS FOR PLANTS AND EQUIPMENT:</p> <ul style="list-style-type: none"> • Construction on-going at 30 % 	November 2019	December 2019
	SOLAR			215			
Committed	ELPI Pasuquin Solar Power Plant Project	Energy Logics Philippines, Inc. (ELPI)	Pasuquin, Ilocos Norte	100	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • SIS from NGCP • Certificate of Financial Closing 	December 2019	February 2020
Committed	Concepcion 1 Solar Power Project	Solar Philippines Tarlac Corporation	Concepcion, Tarlac	115	<p>PERMITS AND OTHER REGULATORY REQUIREMENTS:</p> <ul style="list-style-type: none"> • Awarded with RE Service Contract (SERC No. 2017-07-442-AF1) on 15 Aug 2017 • Certificate of Commerciality No. SCC-2017-11-062 dated 06 Dec 2017 • ERC granted interim relief of the PSA between MERALCO and SPTC (PHP 2.9999 per kWh - without escalation) 	December 2020	December 2021
	WIND			0			

Total Committed Rated Capacity **4,718.6**

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SUMMARY - COMMITTED PROJECTS (LUZON)

	MW	% Share
COAL	3,436.0	72.8%
OIL-BASED	300.0	6.4%
NATURAL GAS	650.0	13.8%
RENEWABLE ENERGY	332.6	7.0%
<i>GEOHERMAL</i>	31.0	0.7%
<i>HYDROPOWER</i>	20.4	0.4%
<i>BIOMASS</i>	66.2	1.4%
<i>SOLAR</i>	215.0	4.6%
<i>WIND</i>	0.0	0.0%
	0.0	0.0%
TOTAL	4,718.6	
*BESS	0.0	