

Energy Projects in Region X

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Department of Energy*

Energy Investment Briefing – Region X

16 August 2018

Cagayan De Oro City, Misamis Oriental



Energy Projects in Northern Mindanao

Provinces	Capital
Camiguin	Mambajao
Bukidnon	Malaybalay
Misamis Oriental	Cagayan de Oro
Misamis Occidental	Oroquieta
Lanao del Norte	Tubod

Cities	
Cagayan de Oro	Highly Urbanized (Independent City)
Iligan	Highly Urbanized (Independent City)
Malayabalay	1 st Class City
Tubod	1 st Class City
Gingog	2 nd Class City
Valencia	2 nd Class City
Ozamis	3 rd Class City
Oroquieta	4 th Class City
Tangub	4 th Class City
El Salvador	6 th Class City



Source: 2015 Census



Energy Projects in Region X

Summary of Energy Projects Per Province

Province	<u>Bukidnon</u>		<u>Camiguin</u>		<u>Lanao del Norte</u>		<u>Misamis Oriental</u>		<u>Misamis Occidental</u>		Total	
	No.	Cap. (MW)	No.	Cap. (MW)	No.	Cap. (MW)	No.	Cap. (MW)	No.	Cap. (MW)	No.	Cap. (MW)
Coal					1	600	4	912	1	300	6	1,812.0
Hydro	28	338.14			12	1061.71	8	38.75	4	20.2	52	1,458.8
Solar	4	74.49			1	0.025	13	270.74			18	345.255
Geothermal							1	20			1	20.0
Biomass	5	77.8									5	77.8
Bunker / Diesel	4	28.7	1	4.1	2	129	6	113.03	1	15.6	14	290.43
Total	41	519.13	1	4.10	16	1,790.74	32	1,354.52	6	335.80	96	4,004.29

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Energy Projects in Region X

Bukidnon 519.13 MW

Capacity (MW)	Project Name	Company Name	Location	Status	Resource
0.50	Rio Verde Inline (Phase I) Hydroelectric Power Plant	Rio Verde Water Constortium, Inc.	Baungon	D	Hydro
7.0	Bubunawan	BPC Inc.	Baungon	O	Hydro
9	Tumalaong Hydroelectric Power Project	First Gen Mindanao Hydropower Corp.	Baungon	I	Hydro
23	Bubunawan Hydroelectric Power Project	First Gen Mindanao Hydropower Corp.	Baungon and Libona	C	Hydro
5	Napier Grass-Fired Biomass Power Plant Project	Pilipinas Joule Energy Corporation	Manolo Fortich	I	Biomass
12	Napier Grass-Fired Biomass Power Plant Project	Manolo Fortich Biomass Energy Corporation	Manolo Fortich	I	Biomass
6.2	Katipunan River Mini Hydro Power Project	Repower Energy Development	Cabanglasan	C	Hydro
70	Kitaotao 1	Hedcor Bukidnon, Inc.	Dancagan	I	Hydro
0.22	Panoon Hydroelectric Power Plant	Gerphil Renewable Energy, Inc.	Impasugong	O	Hydro
2.23	Gakaon Hydroelectric Power Project	LGU of Impasugong	Impasugong	PD	Hydro
2.40	Atugan 1 River Hydroelectric Power Project	Gerphil Renewable Energy, Inc.	Impasugong	O	Hydro

Power Plant Project : O – Operating I - Indicative C – Committed
 RE Service Contract: D – Development PD – Pre-Development *Off-grid

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Energy Projects in Region X

Bukidnon 519.13 MW

Capacity (MW)	Project Name	Company Name	Location	Status	Resource
39	Tagoloan	First Gen Mindanao Hydropower Corp.	Impasugong & Sumilao	C	Hydro
8.4	Maladugao (Upper Cascade) Hydroelectric Power Project	UHPC Bukidnon Hydro Power I Corporation	Kalilangan	C	Hydro
15.7	Lower Maladugao River Mini-Hydropower Project	Bukidnon Maladugao Hydro Power Corporation	Kalilangan and Wao	C	Hydro
10.5	Kibawe Solar	AsigaGreen Energy Corp	Brgy. Labuagon, Kibawe	O	Solar
2.50	Umalag 2 Hydroelectric Power Project	Meadowland Developers, Inc.	Libona	PD	Hydro
3.00	Middle Canayan Hydroelectric Power Project	Sta. Clara Power Corp.	Malaybalay	PD	Hydro
4.5	Sawaga River Mini Hydro Power Project	Repower Energy Development	Malaybalay	C	Hydro
10	Malay-balay Bio-Energy Corporation Multi Feedstock Generating Facility	Malaybalay Bio-Energy Corporation	Malaybalay	I	Biomass
3.29	Silo-o	Philnewriver Power Corp.	Malitbog	C	Hydro
3.4	Malitbog	Philnewriver Power Corp.	Malitbog	C	Hydro

Power Plant Project : O – Operating I - Indicative C – Committed
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Energy Projects in Region X

Bukidnon 519.13 MW

Capacity (MW)	Project Name	Company Name	Location	Status	Resource
1.6	Agusan	FG Bukidnon Power Corp.	Manolo Fortich	O	Hydro
10	Culaman Hydroelectric Power Project	Oriental Energy and Power Generation Corporation	Manolo Fortich	C	Hydro
10	Mangima Hydroelectric Power Project	Philnew Hydro Power Corporation	Manolo Fortich	C	Hydro
10.4	Peakpower Budiknon, Inc. Bunker Fired Power Plant	Peakpower Bukidnon, Inc.	Manolo Fortich	C	Oil Based
60.00	Manolo Fortich Solar Power Project	Pilipinas Crosthwait Energy Corp.	Manolo Fortich	PD	Solar
1.4	Maramag	Maramag Mini-Hydro Corp	Maramag	C	Hydro
10.00	Pulangui IV Hydroelectric Power Project	Repower Energy Development Corporation	Maramag	PD	Hydro
14.9	Bagasse-Fired Co-generation Power Plant	Crystal Sugar, Inc.	Maramag	I	Biomass
35.9	Crystal Sugar	Crystal Sugar Co., Inc.	Maramag	O	Biomass
	Purangi 4	NPC-Mindanao Generation	Maramag	O	Hydro
7.8	KEGI - Maramag	King Energy Generation Inc	Maramag	O	Oil Based

Power Plant Project : O – Operating I - Indicative C – Committed
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Energy Projects in Region X

Bukidnon 519.13 MW

Capacity (MW)	Project Name	Company Name	Location	Status	Resource
7.3	BPC DPP	Bukidnon Power Corporation (BPC)	Barangay Barandias, Pangantucan	O	Oil Based
25.4	Manolo Fortich 2	Hedcor Bukidnon, Inc.	Santiago	C	Hydro
43.4	Manolo Fortich I	Hedcor Bukidnon, Inc.	Santiago	C	Hydro
2	Sumilao Solar Power Project	Sunasia Energy, Inc.	San Vicente, Sumilao	I	Solar
2.00	Bukidnon Solar Power Project	SunAsia Energy Inc.	Sumilao	PD	Solar
12.00	Talakag 3 Hydroelectric Power Project	Markham Resources Corporation	Talakag	PD	Hydro
9	Manupali	Matic Hydropower Corp	Valencia City	C	Hydro
10.6	Pulanai	Repower Energy Development	Valencia City	C	Hydro
3.2	KEGI - Bukidnon	King Energy Generation Inc	Valencia City	O	Oil Based
4.4	Upper Manupali	Bukidnon II Electric Cooperative, Inc.	Valencia City	C	Hydro
519.13					

Power Plant Project : O – Operating I - Indicative C – Committed
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Energy Projects in Region X

Camiguin 4.10 MW

Capacity (MW)	Project Name	Company Name	Location	Status	Resource
4.1	KEGI - Camiguin	King Energy Generation Inc	Brgy. Maubog, Balbagon, Mambajao	O	Oil Based
4.1					

Power Plant Project : O – Operating I - Indicative C – Committed

RE Service Contract: D – Development PD – Pre-Development

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Energy Projects in Region X

Lanao del Norte 1,790.74 MW

Capacity (MW)	Project Name	Company Name	Location	Status	Resource
11.90	Liangan Hydroelectric Power Project	Liangan Power Corporation	Bacolod	PD	Hydro
158.1	AGUS 4	NPC-Mindanao Generation	Baloi	O	Hydro
17.81	Bayug	Euro Hydro Power (Asia) Holdings, Inc.	Iligan	C	Hydro
55.0	AGUS 5	NPC-Mindanao Generation	Buru-un, Iligan City	O	Hydro
219.0	AGUS 6	NPC-Mindanao Generation	Buru-un, Iligan City	O	Hydro
54.0	AGUS 7	NPC-Mindanao Generation	Buru-un, Iligan City	O	Hydro
150.00	Bulanog-Batang Hydroelectric Power Project	Bukidnon Hydro Energy Corporation	Iligan City	PD	Hydro
160.00	Cagayan 1N Hydroelectric Power Project	First Gen Mindanao Hydro Power Corp.	Iligan City	PD	Hydro
114.0	MPC - IDPP	Mapalad Power Corporation	Dalipuga, Iligan City	O	Oil Based
15.0	MEGC	Mapalad Energy Generation Corp.	Iligan City	O	Oil Based

Power Plant Project : O – Operating I - Indicative C – Committed
 RE Service Contract: D – Development PD – Pre-Development

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Energy Projects in Region X

Lanao del Norte 1,793.74 MW

Capacity (MW)	Project Name	Company Name	Location	Status	Resource
4.00	Lower Bayug Hydroelectric Power Project	Euro Hydro Power (Asia) Holdings, Inc.	Iligan City	PD	Hydro
3.30	Upper Bayug Hydroelectric Power Project	Euro Hydro Power (Asia) Holdings, Inc.	Iligan City	PD	Hydro
0.025	Iligan Solar Power Project	Hedcor Bukidnon, Inc.	Iligan City	PD	Solar
600	GNPower Kauswagan Clean Coal-Fired Power Plant	GN Power Kauswagan Ltd. Co.	Kauswagan	C	Coal
3.60	Titunod	Euro Hydro Power (Asia) Holdings, Inc.	Kolambogan	C	Hydro
225	Agus III	Maranao Energy Corporation	Pantar & Balo-I	C	Hydro
1,793.74					

Power Plant Project : O – Operating I - Indicative C – Committed
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Energy Projects in Region X

Misamis Occidental 335.80 MW

Capacity (MW)	Project Name	Company Name	Location	Status	Resource
5	Clarín	Philnew Hydro Power Corporation	Clarín	C	Hydro
6.20	Clarín Hydroelectric Power Project	Philnew Hydro Power Corp	Clarín	PD	Hydro
300	Ozamiz Coal Fired Power Plant	Ozamiz Power Generation, Inc. (wholly owned subsidiary of Avesco Marketing Corporation)	Ozamiz City	I	Coal
3.60	Langaran	Kaltimex Langaran Hydro, Inc.	Calamba	C	Hydro
15.6	KEGI - Panaon	King Energy Generation Inc	Ozamiz City	O	Oil Based
5.40	Oroquieta Hydroelectric Power Project	Aqua Dunamis Hydro Power Corp.	Oroquieta City	PD	Hydro
335.80					

Power Plant Project : O – Operating I - Indicative C – Committed
 RE Service Contract: D – Development PD – Pre-Development

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Energy Projects in Region X

Misamis Oriental 1,354.53 MW

Capacity (MW)	Project Name	Company Name	Location	Status	Resource
110	Balingasag Coal-Fired Power Plant	Minergy Coal Corporation	Balingasag	I	Coal
165.0	MPC Balingasag Power Station U1-3	Minergy Power Corporation	Balingasag	O	Coal
0.00	Misamis Oriental Solar Power Project	Astronergy Development Mindanao, Inc.	Balingasag	PD	Solar
20.00	Balatukan-Balingasag Geothermal Prospect	Energy Development Corporation	Talisayan, Medina, Gigoog City, Claveria, Impaus-ong, Malitbog, Villanueva, Jasaan, Balingasag, Logonglong, Salay, Sugbongcogon, Kinoguitan	PD	Geothermal
1.0	CEPALCO Solar PV	CEPALCO	Cagayan de Oro	O	Solar
1.6	Mat-i-2	Philnew Hydro Power Corporation	Cagayan de Oro	C	Hydro
3.25	Mat-i-3	Philnew Hydro Power Corporation	Cagayan de Oro	C	Hydro
9	Limbatangon Hydroelectric Power Project	Turbines Resource & Development Corp.	Cagayan de Oro City	I	Hydro
18.9	Mindanao Energy System 1	Mindanao Energy Systems	Cagayan de Oro City	O	Oil Based
27.5	Mindanao Energy System 2	Mindanao Energy Systems	Cagayan de Oro City	O	Oil Based
1.80	Umalag 1 Hydroelectric Power Project	Meadowland Developers, Inc.	Cagayan de Oro City	PD	Hydro

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As of December 31, 2017

Energy Projects in Region X

Misamis Oriental 1,354.53 MW

Capacity (MW)	Project Name	Company Name	Location	Status	Resource
0.50	Bulua Solar Power Project	Solar Pacific Citysun Corporation	Cagayan de Oro City	PD	Solar
0.50	Iponan Solar Power Project	Solar Pacific Citysun Corporation	Cagayan de Oro City	PD	Solar
8.0	CABULIG HEP	Mindanao Energy Systems	Claveria	O	Hydro
61.10	Claveria Solar Power Project	The Ark Green Dynamic Resources Corp.	Claveria	PD	Solar
4.85	Mat-i-I	Philnew Hydro Power Corporation	Claveria, Cagayan de Oro	C	Hydro
10.5	PACERM-1	PACERM-1 Energy Corporation	El Salvador City	O	Oil Based / Biomass
0.25	Odiongan River A Hydroelectric Power Project	JE Hydropower Ventures, Inc.	Gingoog City	PD	Hydro
10.00	Gingoog City Solar Power Project	Misamisstedelsol Inc.	Gingoog City	PD	Solar
10.6	KEGI – Misamis Oriental	King Energy Generating Inc.	Gingoong	O	Oil Based
10	Cabulig-2 Hydroelectric Power Plant Project	Mindanao Energy Systems, Inc.	Jasaan	I	Hydro
60	Jasaan Solar Power Project	Lohas and Soul Lighting, Inc.	Jasaan	I	Solar

Power Plant Project : O – Operating I - Indicative C – Committed

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Energy Projects in Region X

Misamis Oriental 1,354.53 MW

Capacity (MW)	Project Name	Company Name	Location	Status	Resource
8.433	MOPP 4 Diesel Power Plant	King Energy Generation Inc.	Jimenez	I	Oil Based
40.00	Laguindingan Solar Power Project	Centro Solar Energy Inc.	Laguindingan	PD	Solar
20.00	Laguindingan Solar Power Project	Liberty Solar Energy Corporation (formerly Cagayan Electric Power & Light Company, Inc.)	Laguindingan	PD	Solar
25	Opol Solar Power Project	Electra Ecoenergy Corporation	Opol	I	Solar
13.14	Tagoloan Solar Power Project	Solar Philippines Tagoloan Corporation (formerly Solar Philippines Commercial Rooftop Projects, Inc.)	Tagoloan	PD	Solar
27	Hayes Solar Power Project	Hayes Solar Energy Corporation	Villanueva	I	Solar
405.0	FDC Misamis U1-3	FDC Utilities, Inc.	Villanueva	O	Coal
232.0	Mindanao Coal U1-2	STEAG State Power Inc.	Villanueva	O	Coal
37.1	PSC	Phil. Sinter Corporation	Villanueva	O	Oil Based
12.5	Kirahon Solar	Kirahon Solar Energy Corporation	Villanueva	O	Solar
1,354.53					

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Downstream Oil

Total Number of Gasoline Stations

REGION	MAJORS	NEW PLAYERS		REGIONAL TOTAL
		w/ bulk supply / facilities	Independent*	
Region IX (Zamboanga Peninsula)	139	39	5	183
Region X (Northern Mindanao)	166	60	0	226
Region XI (Davao Region)	214	146	41	401
Region XII (SOCCSKSARGEN)	165	83	19	267
Region XIII (CARAGA)	82	24	17	123
Autonomous Mindanao (ARMM)Region of Muslim	40	12	1	53
Total Mindanao	806	364	83	1253

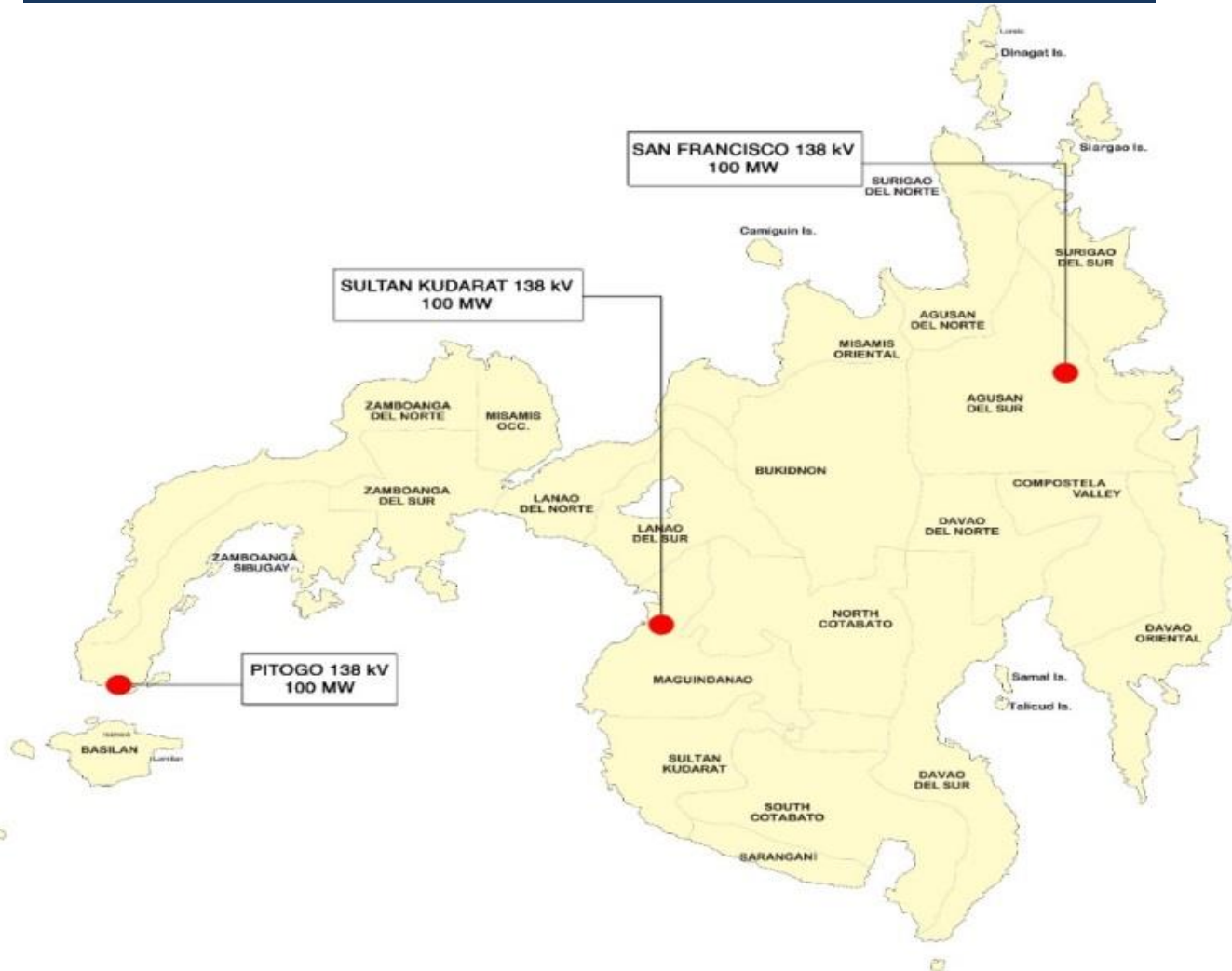


Potential Energy Projects



Power

Ideal Location of New Power Plants in Mindanao



Renewable Energy

National Renewable Energy Program

Renewable Energy Targets, 2010 - 2030		
Sector	Target Additional Capacity	Target Year
Biomass	277 MW	2015
Wind	2,345 MW	2022
Hydropower	5,398 MW	2023
Ocean Power	75 MW	2025
Geothermal	1,495 MW	2030
Solar	284 MW	2030
Total	9,874 MW	



Upstream Coal

Summary of Regional Coal Reserves (in Million Metric Tons)

QUEZON
Resource Potential - 2.00
In-situ Reserves - 0.09

MINDORO
Resource Potential - 100.00
In-situ Reserves - 1.44

SEMIRARA
Resource Potential - 570.00
In-situ Reserves - 112.32

NEGROS
Resource Potential - 4.50
In-situ Reserves - 2.01

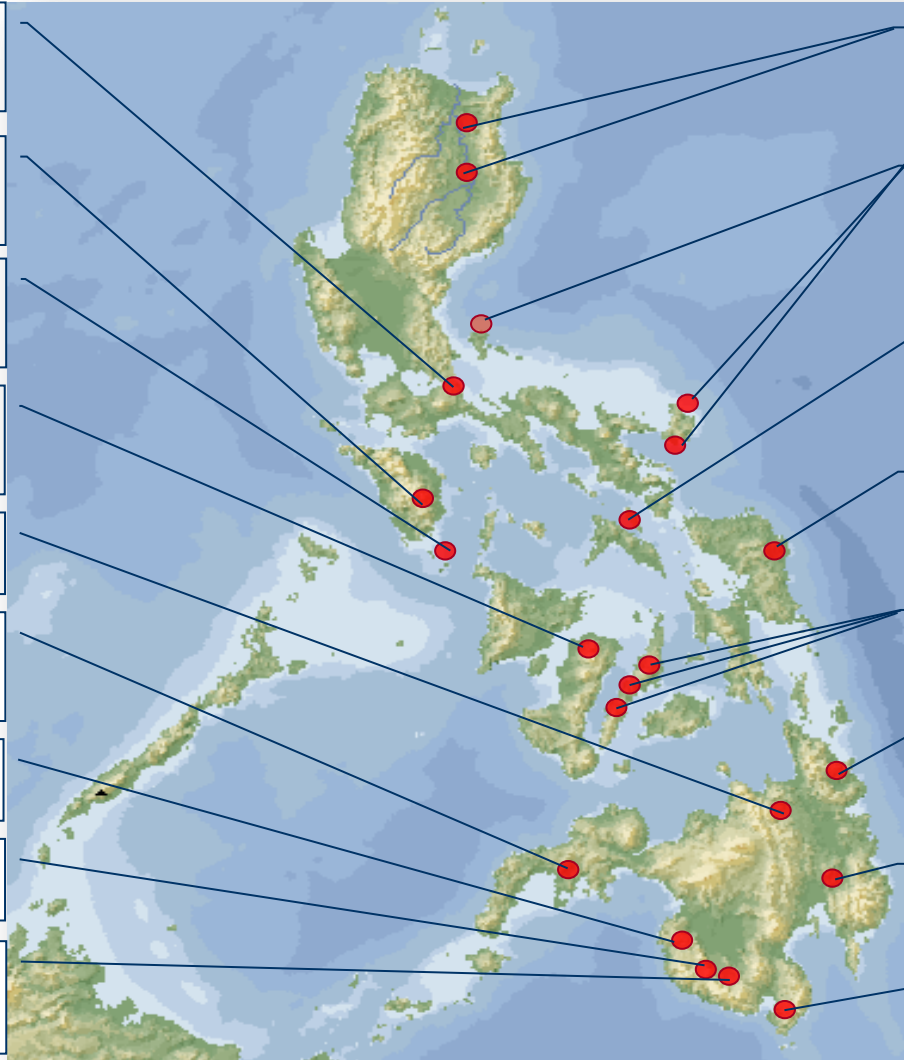
BUKIDNON
Resource Potential - 50.00

ZAMBOANGA
Resource Potential - 45.00
In-situ Reserves - 37.99

MAGUINDANAO
Resource Potential - 108.00

SULTAN KUDARAT
Resource Potential - 300.30

SOUTH COTABATO
Resource Potential - 230.40
In-situ Reserves - 81.07



CAGAYAN VALLEY
Resource Potential - 336.00
In-situ Reserves - 82.57

BATAN-POLILLO-CATANDUANES
Resource Potential - 17.00
In-situ Reserves - 6.02

MASBATE
Resource Potential - 2.50
In-situ Reserves - 0.08

SAMAR
Resource Potential - 27.00
In-situ Reserves - 8.59

CEBU
Resource Potential - 165.00
In-situ Reserves - 11.63

SURIGAO
Resource Potential - 209.00
In-situ Reserves - 69.55

DAVAO
Resource Potential - 100.00
In-situ Reserves - 0.21

SARANGANI
Resource Potential - 120.00



Upstream Coal

Coal Reserves – Region X

Bukidnon

Resource Potential: 50 million mt



The Philippine Conventional Energy Contracting Program (PCECP)

1. Adopting of a ***Nomination-Based*** Contracting / Licensing Scheme;
2. Compliance of ***milestone work commitments***;
3. Compliance of ***legal, technical and financial qualifications*** under a specific guideline of requirements and criteria;
4. Introduction of ***marginal field*** as part of the available areas for petroleum ; and
5. Implementation of an expeditious awarding process ***all-year-round***



Energy Efficiency

- Energy efficient appliances & equipment
- High efficiency motors
- Fuel efficient & low-carbon vehicles
 - Hybrid, electric, etc.
 - Charging stations
- Energy efficient building technologies
 - Green building
 - Building Energy Management Systems Design and Architecture
- Energy Service Companies
 - Currently have 26 accredited ESCOs
- Smart Technology
 - Smart Grid
 - Smart Meters



Thank you!

For inquiries, please contact

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