

Industry Profile

Currently, the country has an installed capacity of 3,400 MW for hydro resources. Luzon generates 2,346 MW, Visayas 13 MW and Mindanao 1,040 MW. The latest hydro power plant installed is the 42 MW Sibulan in Davao del Sur.

In 2010, two (2) projects of Sunwest Water and Electric Company (SUWELCO), Inc. were inaugurated namely, 2.10 MW Solong Hydropower Project and 1.50 MW Hitoma 1 Hydropower Project in Catanduanes.

In 2009, 58 contracts were awarded with or converted to Hydropower Service Contracts with a total potential capacity of 572.62 MW. While in 2010, 67 contracts were awarded or converted for an additional potential capacity of 364.20 MW as shown in Table 29.

Table 29. Hydropower Service Contracts Awarded in 2010

NAME OF PROJECT	LOCATION	CAPACITY (MW)
Aklan River Lower East Tributary	Libacao, Aklan	3
Aklan River Middle West Tributary	Libacao, Aklan	2.4
Aklan River Upper West Tributary	Libacao, Aklan	2.4
Alag Hydroelectric Power Project	San Teodoro, Oriental Mindoro	20
Ambangal Hydroelectric Power Plant	Kiangan, Ifugao	0.2
Amlan (Plant A) Hydroelectric Power Project	Amlan, Negros Oriental	3.2
Amlan (Plant B) Hydroelectric Power Project	Amlan, Negros Oriental	1.5
Amlan (Plant C) Hydroelectric Power Project	Amlan, Negros Oriental	0.8
Barit Irrigation Discharge	Buhi, Camarines Sur	0.4
Basak II Hydroelectric Power Project	Basak, Badian, Cebu	0.5
Batang-Batang Hydroelectric Power Project	Narra, Palawan	3.5
Bongabong Hydroelectric Power Project	Bongabong, Oriental Mindoro	10
Cagayan de Oro Hydroelectric Power Project	Baungon, Bukidnon	8
Cantakoy Hydroelectric Power Project	Naujan, Oriental Mindoro	8
Caro-an Hydroelectric Power Project	Sebaste, Antique	1
Catuiran (Upper Cascade) Hydroelectric Power Project	Naujan, Oriental Mindoro	8
Catuiran Hydroelectric Power Project	Naujan, Oriental Mindoro	8
Clarín Hydroelectric Power Project	Clarín, Misamis Occidental	5
Commonal-Uddiawan Hydroelectric Power Project	Solano, Nueva Vizcaya	1.8
Coyaoyao (Lower Cascade) Hydroelectric Power Project	Sagnay, Camarines Sur	0.4
Coyaoyao (Middle Cascade) Hydroelectric Power Project	Sagnay, Camarines Sur	0.7
Coyaoyao (Upper Cascade) Hydroelectric Power Project	Sagnay, Camarines Sur	0.2
Culaman Hydroelectric Power Project	Manolo Fortich Bukidnon	10
Cumagingking Falls Hydroelectric Power Project	Malinao, Albay	0.2
Dalanas Hydroelectric Power Project	Barbaza, Antique	3
Davildavilan Hydroelectric Power Project	Dingalan, Aurora	1
Dummon River Lower Cascade Hydroelectric Power Project	Gattaran, Cagayan	2
Dummon River Upper Cascade Hydroelectric Power Project	Gattaran, Cagayan	2
Dupinga Hydroelectric Power Project	Gabalton, Nueva Ecija	3
Guiamon San Ramon Hydroelectric Power Plant	Laua-an, Antique	2
Hitoma 1 Hydroelectric Power Plant	Caramoran, Catanduanes	1.5
Ibulao Hydroelectric Power Project	Lagawe, Ifugao	4.5
Iglanggam Hydroelectric Power Project	Sagay City, Negros Occidental	2
Inabasan Hydroelectric Power Project	San Teodoro, Oriental Mindoro	10
Ipayo Hydroelectric Power Project	Sebaste, Antique	1.3

Kapangan I Hydroelectric Power Project	Kapangan, Benguet	19.9
Kapangan II Hydroelectric Power Project	Kapangan, Benguet	38.4
Kapipian Hydroelectric Power Project	San Miguel, Catanduanes	2.4
Langogan Hydroelectric Power Project	Puerto Princesa, Palawan	6.8
Lanon Hydroelectric Power Project	Lake Sebu, South Cotabato	21
Linao-Cawayan (Lower Cascade) Hydroelectric Power Plant	Baco, Oriental Mindoro	2.1
Linao-Cawayan (Upper Cascade) Hydroelectric Power Plant	Baco, Oriental Mindoro	2.1
Loboc Hydroelectric Power Plant	Loboc, Bohol	1.2
Main Aklan Hydroelectric Power Project	Libacao, Aklan	15
Malugo Hydroelectric Power Plant	Silay City, Negros Occidental	5
Manupali Hydroelectric Power Project	Valencia City, Bukidnon	9
Mat-i 1 Hydroelectric Power Project	Claveria, Cagayan de Oro	2
Matuno Hydroelectric Power Project	Bambang, Nueva Vizcaya	8
Odiongan (Lower Cascade) Hydroelectric Power Plant	Gingooog City, Misamis Oriental	9
Odiongan (Middle Cascade) Hydroelectric Power Plant	Gingooog City, Misamis Oriental	10
Odiongan (Upper Cascade) Hydroelectric Power Plant	Gingooog City, Misamis Oriental	3
Palali Falls, Hydroelectric Power Project	Malinao, Albay	0.2
Pallan Hydroelectric Power Project	Jimenez, Misamis Occidental	1.1
Pasonanca (Upstream) Hydroelectric Power Project	Zamboanga City	1
Pasonanca Hydroelectric Power Project	Zamboanga City	0.5
Pinacanauan River Hydroelectric Power Project	Peñablanca, Cagayan	8
Solong Hydroelectric Power Plant	San Miguel, Catanduanes	2.1
Tibiao Hydroelectric Power Project	Culasi, Antique	2.1
Tinoc 1 Hydroelectric Power Project	Tinoc, Ifugao	3
Tinoc 2 Hydroelectric Power Project	Tinoc, Ifugao	6.5
Tinoc 3 Hydroelectric Power Project	Tinoc, Ifugao	5
Tinoc 4 Hydroelectric Power Project	Tinoc, Ifugao	10
Tumauini Hydroelectric Power Project (Lower Cascade)	Tumauini, Isabela	6
Tumauini Hydroelectric Power Project (Upper Cascade)	Tumauini, Isabela	14
Upper Tabuk Hydroelectric Power Project	Tabuk, Kalinga	10
Vera Falls Hydroelectric Power Project	Malinao, Albay	0.3
Villasiga Hydroelectric Power Plant	Bugasong, Antique	8
Total		364.2

Investment Opportunities

For the planning period 2011 – 2030, the NREP indicates that the target hydropower capacity addition would be 5,358.30 MW. With this target, 182 MW would come from the indicative projects and the remaining 5,176.30 MW would come from the potential projects.

Table 30 provides information on the hydropower potential projects for the planning period. These 304 projects will have a total investment requirement of PhP 654.98 billion.

Luzon hosts 186 sites or more than half of the total number of potential hydropower sites. These sites could generate additional 3,701.7 MW which takes 71.51% share of the total potential capacity addition from potential hydropower projects. Luzon would need a total investment of PhP 474.22 billion

Region	No.	Capacity (MW)	Investment Requirement (Million PhP)
Luzon	186	3,701.7	474,221.25
NCR	7	12.1	1361.25
CAR	69	1,355.00	169,965.00
I	11	115.00	12,937.50
II	31	608.40	77,265.00
III	21	1,284.90	172,113.75
IV-A	16	208.80	27,360.00
IV-B	14	100.40	11,295.00
V	17	17.10	1,923.75
Visayas	47	258.70	28,769.25
VI	35	163.50	18,393.75
VII	11	92.20	10,372.50
VIII	1	3.00	3.00
Mindanao	71	1,215.90	151,998.75
IX	4	5.70	843.75
X	36	679.50	86,793.75
XI	15	143.10	16,098.75
XII	8	285.00	37,012.50
XIII	7	79.60	8,662.50
ARMM	1	23.00	2,587.50
Total	304	5,176.30	654,989.25

for the development of these projects. CAR and Region III both have big contributions in the potential capacity addition at 1,355 MW and 1,284.90 MW respectively in the potential hydropower capacity addition at the regional level while the 800 MW Angat Pump Station Project in Norzagaray, Bulacan is the biggest potential hydropower project identified in the entire planning period.

Forty-seven (47) projects are lined-up in Visayas with a total potential capacity of 258.70 MW which would entail a total investment of PhP 28.76 billion. Mindanao, on the other hand, needs an additional investment of PhP 151.99 billion for its seventy-one (71) potential sites that are expected to generate additional 1,215.90 MW.

Moreover, three (3) hydropower projects were identified under the indicative status. These are the 20 MW Tagoloan Hydropower Project in Bukidnon, Tamugan Hydropower Project in Davao, and 150 MW Kanan River Hydropower Project in Quezon. These projects are estimated to come onstream by 2016, 2018 and 2020, respectively.

Further, two (2) projects having a combined capacity of 16 MW are committed to start commercial operation on December 2012. These are the 8 MW Villasiga HEP of SUWECO in Sibalom, Antique and the 8 MW Cabulig Mini-Hydro Power Plant of Mindanao Energy Systems, Incorporated in Plaridel, Jasaan, Misamis Oriental.

Table 31 shows a list of frontier hydropower projects that are also included in the PPP Program. These are areas with resource potentials but without sufficient available technical data as determined by the DOE and are not ready for immediate development and utilization. These areas however, are free and are open to private investors.

PROJECT NAME	LOCATION	ESTIMATED CAPACITY (MW)	ESTIMATED PROJECT COST, USD (Million)
LUZON		311.10	777.75
Amburayan River Hydropower Prospect	Atok, Benguet	33.8	84.50
Ilaguen Hydropower Prospect	San Mariano, Isabela	25	62.50
Quirino Hydropower Prospect	Quirino, Ilocos Sur	10	25.00
Binongan Hydropower Prospect	Tineg, Abra	175	437.50
Addalam Hydropower Prospect	Aglipay, Quirino	46	115.00
Hubo hydropower Prospect	San Agustin, Surigao del Sur	10	25.00
Asiga River Hydropower Prospect	Santiago, Agusan del Norte	11.3	28.25
MINDANAO		384.20	960.50
Cateel E Hydropower Prospect	Davao del Norte	17.5	43.75
Tran AC River Hydropower Prospect	Lebak, Maguindanao	30.6	76.50
Lake Mainit River Hydropower Prospect	Jabonga, Agusan del Norte	25	62.50
Total		384.20	960.50