Breakout Session 4: Power Sector

Enhancing Benefits to the Host Communities and Accelerating Country's Total Electrification Program

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Director-EPIMB

Energy Consumers and Stakeholder's Conference 2017

E-POWER MO!

12 July 2017

Philippine International Convention Center (PICC), Pasay City





A. Energy Regulations No. 1-94, As Amended

- 1. Background/Situationer
- 2. Non-Monetary Benefits to Host Communities
- 3. Implementing Prioritization of Load Dispatch (PLD)
- Implementing Annual Work Program by the Host Communities
- B. Total Electrification Program of the Government





ENERGY REGULATIONS NO. 1-94, AS AMENDED

(BENEFITS TO HOST COMMUNITIES)

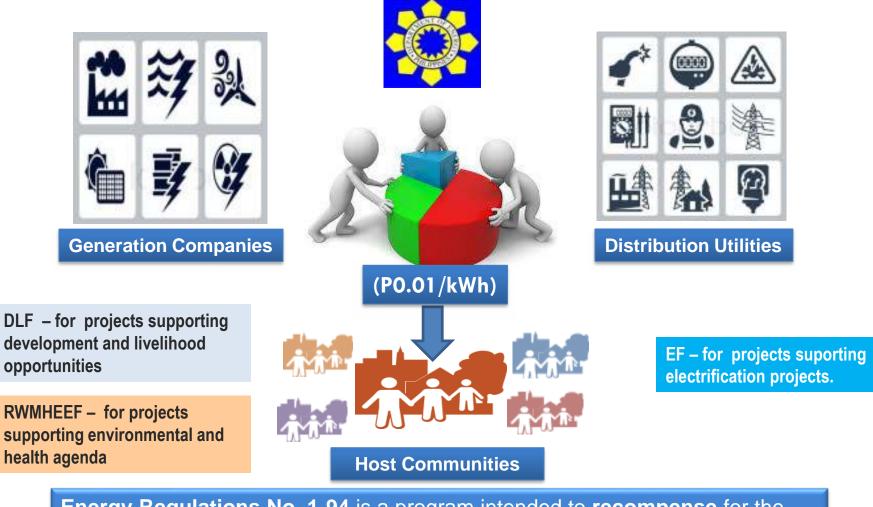




BACKGROUND AND STATUS OF IMPLEMENTATION



BENEFITS TO HOST COMMUNITIES



Energy Regulations No. 1-94 is a program intended to **recompense** for the contribution made by the communities hosting Energy Resources and/or Energy Generating Facilities.



Extending Electricity Access

3,903 Electrification Projects amounting to Php 3.420 Billion

7,000 ckt-kms of lines and 6,992 PV SHS

> Electrified at least 102,900 HH



Fostering Growth and Development ...













Caring for Lives and the Environment







Communal Public Toilet

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AVAILABLE FINANCIAL BENEFITS

Php4.12 Billion

for Electrification, Development & Livelihood, and Reforestation, Watershed Management, Heath and/or Environment Enhancement Projects



As of 30 June 2017









Non-Monetary Benefits Under ER No. 1-94

Section 6.a(2) and 6.b to d of IRR of Section 5(i) of RA7638 (Department of Energy Act of 1992)



Prioritization of Load Dispatch



Preference of Employment



<u>Skills</u> Development



Preference in Procurement of Local Supplies And Services









PRIORITIZATION OF LOAD DISPATCH

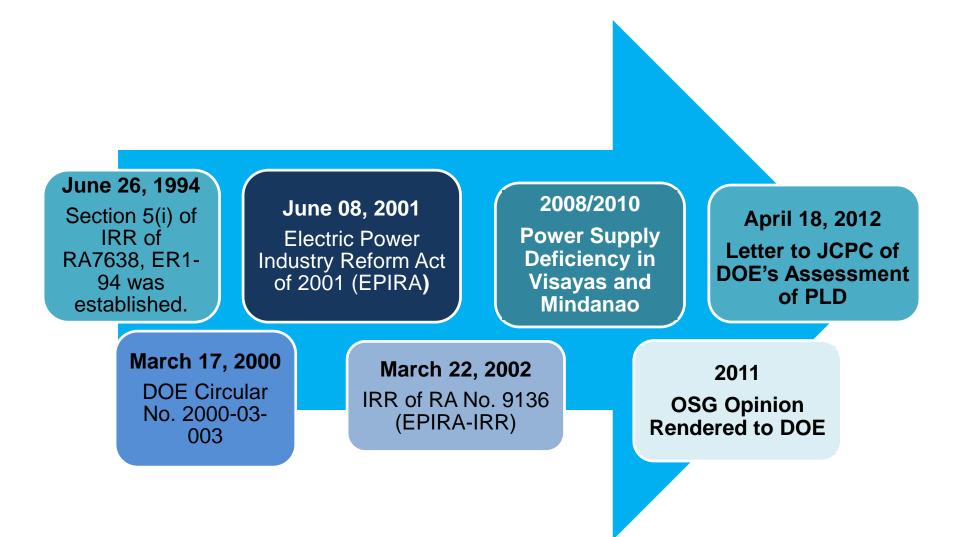
Under Section 6(a)(2) that, "the energy generating facility, relevant electric utility, and such other party that may be **contractually involved** with the generation, transmission, and distribution of power shall reach an **agreement** to ensure the implementation of this benefit (PLD), which agreement shall be approved by the DOE."

The NPC, unless another government owned and/or controlled corporation engaged in energy projects is designated by the Secretary of the DOE, shall effect the prioritization of load dispatch benefit in the absence of a power purchase agreement or arrangement between the power producer and the electric utility in the relevant resettlement/relocation sites or host LGU/s.



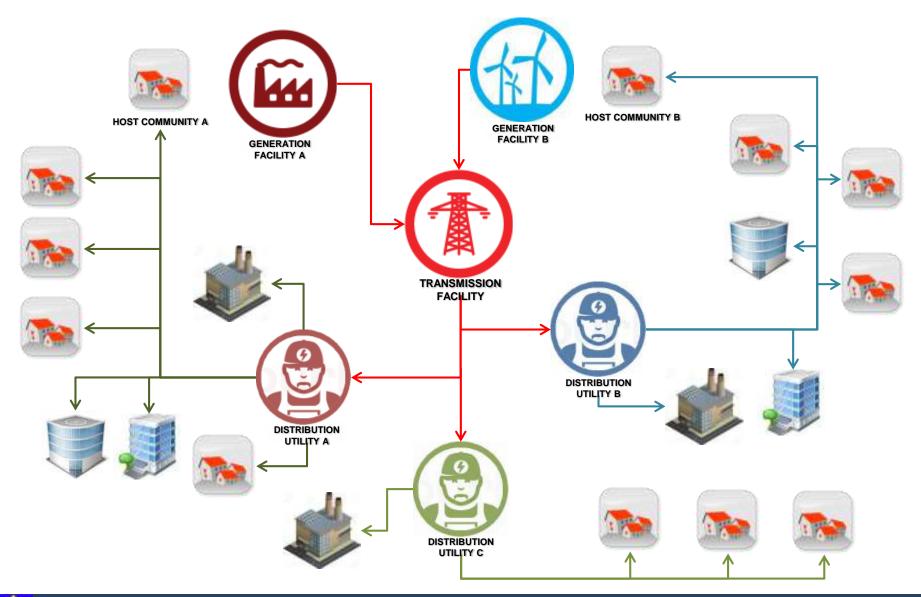


SIGNIFICANT EVENTS



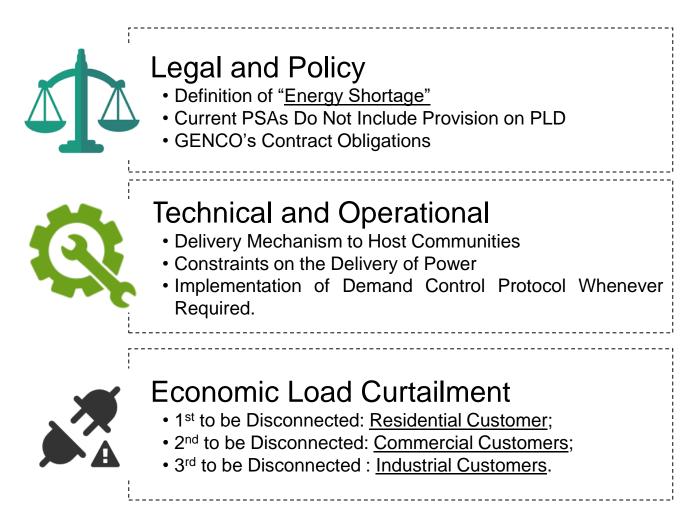


SCENARIO OF IMPLEMENTATION OF PLD





CHALLENGES AND CONSIDERATIONS





EFFORTS TO IMPLEMENT PLD



Conducted a 1st Consultation Workshop with Mindanao Generators and Distribution Utilities Last 25 April 2017.



HIGHLIGHTS AND RECOMMENDATION TO PLD

- Define Energy Shortage and Scope.
- Establish Clear Policy on the Implementation of PLD.
- Include PLD Provisions on Reviews of PSAs.
- Utilize ER 1-94 Electrification Fund to Enhance
 - Distribution System in PLD Implementation





Conduct Public Consultations in Luzon and Visayas

- Consult with the Regulator and Relevant Agencies
- Finalize and submit recommendation to the DOE Secretary





IMPLEMENTING ANNUAL WORK PROGRAM BY THE HOST COMMUNITIES



Section 6 of Rule 29(A) of IRR of RA 9136 (Electric Power Industry Reform Act of 2001)

The Host LGU shall be assisted by designated Community Relation Officer of Generation Company in the preparation of Annual Work Programs and shall be submitted to DOE every 15 March of the year.



IMPLEMENTING AWP

DRAFT DEPARTMENT CIRCULAR: IMPLEMENTING GUIDELINES ON THE PREPARATION AND DEVELOPMENT OF THE ANNUAL WORK PROGRAM ... CALL FOR COMMENTS:

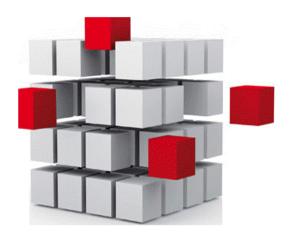
The Department of Energy (DOE) is hereby requesting all interested parties to submit their comments on the **Draft Department Circular: Implementing Guidelines on the Preparation and Development of the Annual Work Program Under Section 6(a), Rule 29 (A) of the Implementing Rules and Regulations of Republic Act No. 9136, Otherwise Known as "Electric Power Industry Reform Act of 2001".**

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https://www.doe.gov.ph/announcements/draft-department-circular-implementingguidelines-preparation-and-development-annual



SALIENT FEATURES ...



Streamline the review and coordination process through introduction of AWP;

- Mobilize and optimize ER 1-94 resources for sustainable local growth and development;
- Promote transparency and good governance in the determination of projects;
- Broadened and strengthened participation of all concerned stakeholders; and
- Complies with the requirements of EPIRA-IRR

PLANNED ACTIVITIES



- Conduct Semi-Annual/Annual Assembly of ER 1-94 Stakeholders
- 2. Develop Capacity Building Programs for Community Relations Officers (COMRELS), Local Government Units (LGUs) and Distribution Utilities (DUs), in the area of:

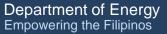


- Project Identification
- Preparation of Project Proposals
- Project Management and Documentation

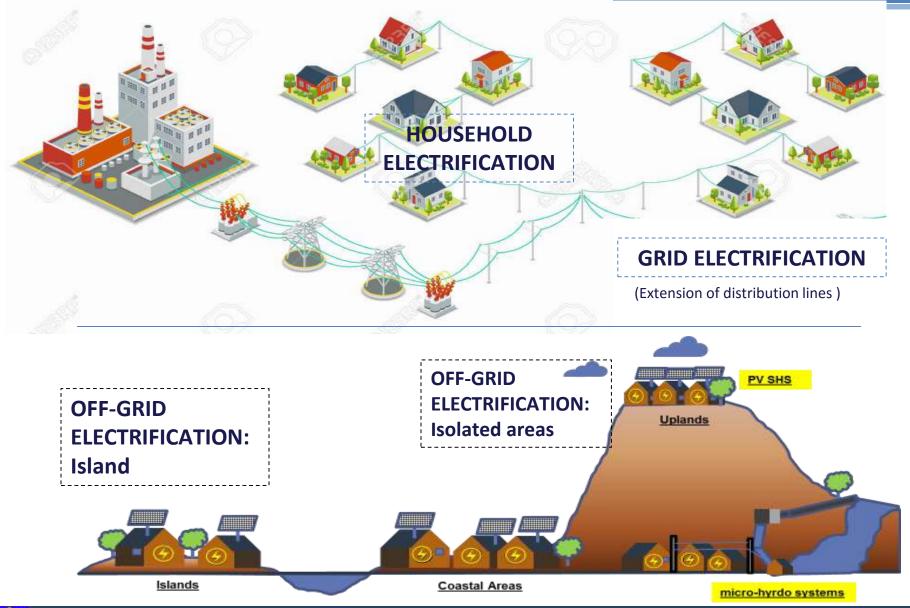








100% HOUSEHOLD ELECTRIFICATION BY 2022





Status of Household Electrification

As of 31 December 2016



20.5 Million Households have electricity

>2 Million Households to be electrified by 2022 based on 2015 Census





Status of Household Electrification

As of 31 December 2016

Provinces with Highest **Electrification Level**

Agusan Del Norte Marinduque **Oriental Mindoro** Bataan Pampanga

Tarlac Zambales Manila Aurora **Bulacan**

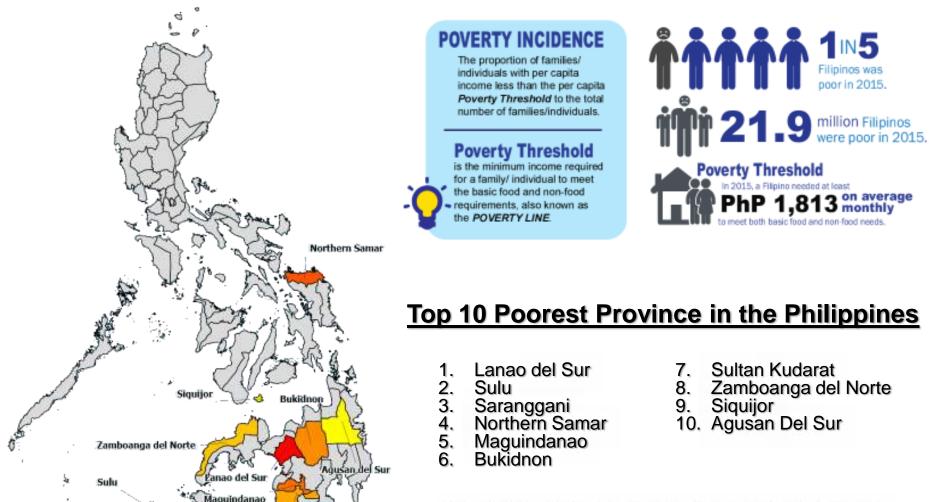


Provinces with Lowest Electrification Level

	Sulu	Sultan Kudarat
	Tawi-Tawi	Basilan
	Maguindanao	Palawan
	Sarangani	Masbate
è	Lanao Del Sur	Northern Samar



POVERTY SITUATION IN THE PHILIPPINES



Source: Philippine Statistics Authority Report on Country's Poverty Statistics for the 1st Semester of 2015



Sultan Kudarat

Sarangani

6.55

Potential Support to Total Electrification of Poorest Provinces

No Generation Facility situated in the Province **PROVINCE OF SIQUIJOR PROVINCE OF ZAMBOANGA DEL NORTE** Served by NORSAMELCO **3** Generation Facilities No Generation Facility situated in the 66.8% situated in Muns of Larena, Province out of 103,200 HHs Pop. Lazi and Siguijor Served by MOELCI I, ZAMSURECO II and ZANECO **PROVINCE OF AGUSAN DEL SUR** Served by PROSIELCO 72.6% 1 Generation Facility in 93.4% out of 168,000 HH Pop. Mun. of San Francisco out of 27,000 HHs Pop. **PROVINCE OF LANAO DEL SUR** Served by ASELCO 2 Generation Facilities situated in 97.3% the Muns. Of Marawi and Saguiran out of 146,600 HHs Pop. Served by LASURECO and FIBECO **PROVINCE OF BUKIDNON** 44.2% out of 137,081 HH Pop. 17 Generation Facilities in Muns. of Baungon, Impasug-ong, **PROVINCE OF MAGUINDANAO** Kalilangan, Kibawe, Libona, Manolo Fortich, Maramag, No Generation Facility situated in Pangantucan, Quezon, San Fernando, Sumilao and Valencia the Province Served by CLPC, MAGELCO and SUKELCO Served by BUSECO, FIBECO, MORESCO I 39.6% 82.9% out of 148,561 HHs Pop. **PROVINCE OF SULTAN KUDARAT** out of 284,000 HHs Pop. **PROVINCE OF SULU** 2 Generation Facilities situated **PROVINCE OF SARANGGANI** in Muns of Ezperanza and Lebak No Generation Facility situated in 4 Generation Facilities in Muns the Province aside from NPC SPUG Served by SOCOTECO I and SUKELCO of Maitum, Maasim and Alabel Served by BASELCO, SIASELCO and SULECO 39.6% Served by SOCOTECO II out of 148,561 HHs Pop. 30.3% 43.2% out of 102,700 HH Pop. out of 115,000 HHs Pop.

PROVINCE OF NORTHERN SAMAR

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Department of Energy Empowering the Filipinos

Rural Electrification:

- Geographical Location
- Right of Way (RoW) Provision
- Peace and Order Situation
- Rehabilitation and Upgrading of Distribution Lines
- Absorptive capacity of ECs

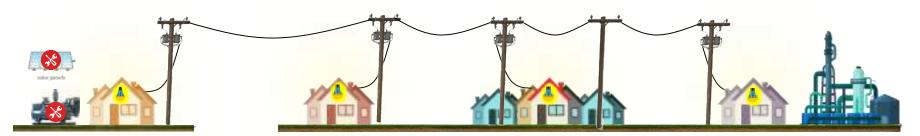
Household (HH) Electrification:

- Geographical Location
- Financial Capability of HH for
 - Service Connection
- Targeting of HH Beneficiaries
- Service Connection
 - Requirements (Fees and
 - Charges)



TOTAL ELECTRIFICATION PROGRAMS AND PROJECTS

GRID ELECTRIFICATION PROGRAMS



NEA- Barangay Line Enhancement Program (BLEP)

- Extension of DX lines to previous offgrid electrified areas, enhancement of lines and/or submarine cables

NEA- Sitio Electrification Program (SEP)

-Extension DX lines to far flung areas and sitios

Nationwide Intensification of Household Electrification (NIHE)

- Intensification of Household Electrification through grant housewiring subsidy

ER 1-94 Electrification Fund Program

-Provision of electrification projects leading to 100% electrification of to Host Communities

OFF-GRID ELECTRIFICATION PROGRAMS

DOE-PV Mainstreaming Program (PVM)

-Provision of individual PV SHS to off-grid/unviable areas

Qualified Third Program (QTP)

-Provision of Generation to Distribution services to areas deemed unviable and waived by the DUs



DOE- Household Electrification Program using RE System (HEP)

-Provision of individual PV SHS if a hydropower resource is available within a reasonable distance from the clustered household beneficiaries.

NPC Missionary Electrification Program (MEP)

-Provision of Generation Capacity to Off-grid Areas



PLANNED ACTIVITIES



CONSULTATION WORKSHOP

- ✓ Targeting for 100%
 Electrification by 2022 with
 NEA, NPC and DU
- ✓ Continue NIHE Program
- ✓ PVM Technical Workshop for ECs and Solar Business Units (SBU)
- ✓ QTP Consultation with Stakeholders



CONCLUSION ...

The efficient utilization of Financial Benefits to Host Communities and Total Electrification Program, ensure the reliability of supply of electricity and efficiency of services and shall achieve the ultimate goal of expanding energy access in the country, and uplift the lives of Filipino people.



IN CLOSING....

E-SECURE MO! E-SECURE NATIN! Mas Maganda at Mabilis na Serbisyo para sa Tao





Thank You!



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PRIORITIZATION OF LOAD DISPATCH

- Section 6 (a)(2) of IRR of Section 5(i) of RA7638 (Department of Energy Act of 1992), Prioritization of Load Dispatch (PLD) provides that <u>in times of energy shortage</u>, the Energy-Generating Facility shall prioritize:
 - Up to 25% of its contracted or available capacity (whichever is lower) which shall be delivered to the appropriate electric utility for distribution to the official resettlement/relocation sites of the community and people affected, and thereafter, to the relevant host LGU or host region in the <u>following order of</u> <u>radiating benefit</u>; and
 - 75% shall be dispatched to the grid for distribution to the municipalities, cities, provinces or regions of their energy requirements

Order of Radiating Benefit: <u>Power Circuits in Direct Contact with</u> (i) host barangay, (ii) host municipality or city, (iii) host province, and (iv) host region.



The Energy Developer and/or the Power Producer shall establish relevant training and skills development program for the host community which may include the development of skills pertinent to business of energy generation, reforestation and other agro-industrial skills.

The Energy Developer and/or the Power Producer could also help eradicate poverty amongst the community through sustainable means of livelihood through establishing skills development program. This is also done by providing employable skills, facilitating home-based income generating activities and developing market linkages.





Host Community shall be given preference in employment with the energy generating facility or energy development operation pursuant to RA 6685 "An act requiring private contractors to whom national, provincial, city and municipal public works projects have been awarded under contract to hire at least fifty percent of the unskilled and at least thirty percent of the skilled labor requirements to be taken from the available bona fide residents in the province, city or municipality in which the projects are to be undertaken, and penalizing those who fail to do so."



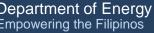


SUPPLIES AND SERVICES

All Energy Resource Developers and Power Producers shall **source their supplies and services requirements from within the host community** provided such supplies and services are available therein at competitive price, delivery/service schedule, quantity and quality.

Through this undertaking, Energy Resource Developers and Power Producers **could support the local business** and uplift the socio-economic status of the community.



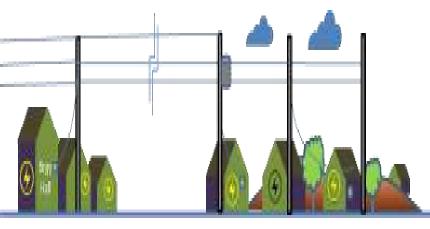




1. NEA - SITIO ELECTRIFICATION PROGRAM (SEP)

The programs aims to energized the sitios within the barangays through grid electrification.

The program offers also household connection up to maximum of 60 HH per sitio as beneficiaries of the program.



Barangay Proper

Sitio

<u>Sitio</u> refers to an administrative unit at the local level which is traditionally used to name the location of remote cluster of households living outside the barangay proper.

There is no official definition for a "sitio" as geographical boundary and there is no database of sitios officially released by the Government.

LVM	ТА	RGETS	COMPLETED		ENERGIZED	тота	L	HH CONNECTI ON
Luzon	1	,151		679	495	1174	4	4,427
Visayas	Ģ	959		408	523	931		8,034
Mindanao	1	,040		703	527	1,23	0	7,765
2016 Total	3,	,150	1	,790	1,545	3,33	5	20,226
LVM		TARG	ETS	PRO.	JECT COST (Pł	łP)	C	IOUSEHOLD ONNECTION *30 HH per Sitio
Luzon		82	5	611,129,755.3		36		24,750
Visayas		878	3	605,717,366.58		58		26,340
Mindana	0	707	7		600,252,878.06			21,210
2017 Tot	al	2,41	0	1,8	17,100,000	0.00		72,300

NEA's original target for 2017 is total of 6,321 Sitios for total project cost of Php5,958,430,872.90 [TEP 2016]



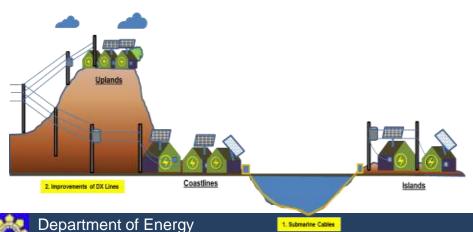


2. NEA - BARANGAY LINE ENHANCEMENT PROGRAM (BLEP)

The programs is defined as transformation of the connection strategy from off-grid (solar or small gensets) to grid (EC distribution lines) when grid extension is feasible.

The program target beneficiaries are those off-grid areas/barangays previously energized through off-grid technologies.

The intervention is to extend the dx line through a) Submarine cables, and b) Improvement of Tapping points (Upgrading the distribution lines to be able to further extend the distribution line)



Empowering the Filipinos

LVM	TARGET	STATUS [As of December 30, 2016]					
	BLEP	Under Const.	Completed	Energized			
Luzon	56	6	29	21			
Visayas	62	18	34	10			
Mindanao	58	6	18	34			
Total	176	30	81	65			

LVM	Submarine Cable	Improvemen t of TP	SPUG
Luzon	5	3	0
Visayas	3	0	0
Mindanao	1	11	6
Total	9	14	6

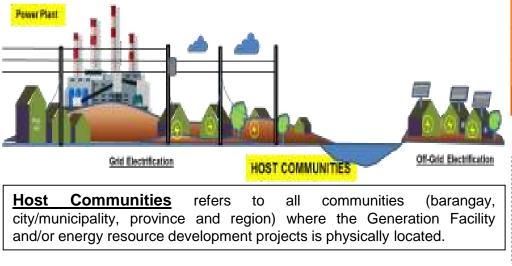
FUND Source: 2013, 2014 and 2015 BLEP Subsidy and 2013 PAMANA

Eunde						
LVM	TARGETS	LOCATION	PROJECT COST (PHP)			
Luzon	8 Submarine Cable Projects	BISELCO, MARELCO, LUBELCO	Php394,356,849.60			
Proposed for 2018 BLEP Subsidy						

3. DOE EPIMB - ENERGY REGULATIONS NO. 1-94 (ELECTRIFICATION FUNDS)

The programs aims to utilize of the 50% of the one centavo per kilowatt-hour (P0.01/kWh) of the total electricity sales of all generation facilities as financial benefits to host communities through the provision of electrification projects and implemented by the concern distribution utilities.

Under this program, DOE shall effectively administer ER 1-94 EF in bringing electricity to all households, prioritizing the host cities/municipalities by implementing both grid and off-grid electrification projects.



LVM	TARGETS (Area/Siti os)	PROJECT COST (PHP) /2	HOUSEH OLD CONNECT ION /1
GRID Elec	trificatio	n	
Luzon	329	Php304,250,653.67	12,186
Visayas	54	Php46,397,344.99	1,003
MIndanao	79	Php124,963,323.96	3,526
Total	462	Php475,611,322.62	16,715
OFF-GRID	Electrifica	tion	
Luzon	14	Php4,636,808.00	177
Visayas	8	Php6,729,690.00	534
Total	22	Php11,366,498.00	711
TOTAL	484	Php486,977,820.62	17,426

Farget of Total Electrification of Host Communities					
Luzon:	144 Host City/Municipalities				
Visayas:	53 Host City/Municipalities				
Mindanao:	62 Host City/Municipalities				
Total:	259 Host City/Municipalities in the Country				





4. DOE EPIMB - NATIONWIDE INTENSIFICATION OF HH ELECTRIFICATION (NIHE)

The program that aims to implement measures and grant assistance to intensify household electrification.

Technical assistance to be undertaken include:

- Streamlining of connection process,
- LGU-DU partnership for assistance in connection permits, and
- Policy support to address the issue of slum electrification and flying connections, among others.



- Provision of house-wiring subsidy amounting to Php3,750 to poor and qualified household situated to areas/sitios where the distribution line of the DU is physically available.
- The program will also help address illegal users to electricity within franchise area of DU

LVM	APPROVED under 2015 NIHE	PROJECT COST (PHP)
Luzon	3,693	13,848,750
Visayas	19,421	78,828,750
Mindanao	7,398	27,742,500
2015 Total	30,512	114,420,000

LVM	APPROVED under 2016 NIHE	PROJECT COST (PHP)
Luzon	26,104	97,890,000
Visayas	82,228	308,355,000
Mindanao	97,858	366,967,500
2016 Total	116,592	437,185,592
LVM	TARGETS	PROJECT COST (PHP)
Luzon	42,500	159,375,000
Visayas	34,000	127,500,000
Mindanao	106,500	399,375,000
2017 Target	183,000	686,250,000

120.000

2018 Target

600,000,000



PV SHS

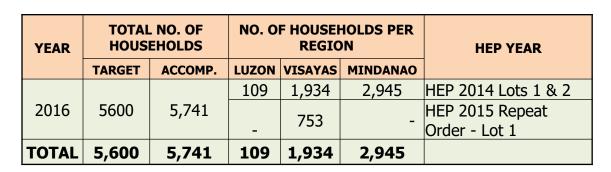
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5. DOE REMB - HOUSEHOLD ELECTRIFICATION PROGRAM USING RE SYSTEMS

The program involves the energization of off-grid households using:

- Mature renewable energy technologies such as photovoltaic solar home (PV SHS),
- Photovoltaic streetlights and M
- Micro-hydro systems (if a hydropower resource is available within a reasonable distance from the clustered household beneficiaries.

Coastal Areas



CY 2016 HEP ACCOMPLISHMENT AS OF DECEMBER 31, 2016

HEP TARGET IMPLEMENTATION OF FUNDED PV SHS PROJECTS

YEAR	TOTAL NO. OF HOUSEHOL	NO. C	OF HOUSEHO REGION	REMARKS	
	D	LUZON	VISAYAS	MINDANAO	
			3,664	6,738	HEP 2015 Lots 1 & 2
2017	29,807	-	-	4/h	HEP 2015 Repeat Order - Lot 2
			3,318	10,181	HEP 2016 Lots 1 & 2
2018	18,879	4,030	3,650	11,199	HEP 2017*
TOTAL	48,686	9,010	10,632	29,044	

Assumed 10% increase in HEP 2016 total number of household Note: beneficiaries





6. DOE EPIMB - PV MAINSTREAMING : ACCESS TO SUSTAINABLE ENERGY PROGRAMME (ASEP)

- This PVM project is co-financed by the EU-Philippines "Access to Sustainable Energy Programme (ASEP), DOE, participating Electric Cooperatives and the recipient households. It targets 40,500 households for the next three (3) years to be provided with solar PV electrification as a utility service offering by the Electric Cooperatives.
- To date, eight (8) ECs have committed to participate in the Project. Activities undertaken over the past months include
 - (a) market segmentation through remote sensing and geotagging of potential households beneficiaries,
 - (b) firming up the service packages and technical specifications of the products to be offered to the households; (c) establishing the PV supply chain; and
 - (d) creation of the Solar Business Unit (SBUs) within the ECs organizational structure.



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Department of Energy Empowering the Filipinos

PVM TARGET ECs							
Region	Name of EC	%HH Elec (June 2016)	Unser ved HH	PVM Target			
XII	COTELCO- PPALMA	60.4%	31,974	5,000			
XII	SOCOTECO II	59.2%	123,87 5	10,000			
XII	COTELCO	86.1%	23,185	5,000			
XII	SUKELCO	57.0%	77,705	5,000			
XI	DASURECO	76.5%	48,511	10,000			
іх	ZAMSURECO I	72.8%	44,641	5,500			
			Total	40,500			

- Group1 ECs: SOCOTECO II, COTELCO, SUKELCO, DASURECO (2,500 per DU = 10,000 SHS in First bidding window in 2017)
- Group 2 ECs: COTELCO-PPALMA, ZAMSURECO I, DASURECO, SOCOTECO II, COTELCO, SUKELCO (30,500 SHS in second bidding window in 2018)



7. UNVIABLE AREA ELECTRIFICATION BY QUALIFIED THIRD PARTIES

- Under Sec. 59 of EPIRA, areas deemed unviable and waived by the DUs may be offered to QTPs as part of the missionary electrification program
- There is now a growing interest among private sector to enter into QTP operations with the entry of the renewables in off-grid electrification. Said interest was generated by the various incentives offered to private sector among which is the cash generation based incentive per kWh generated, equivalent to 50% of the Universal Charge (UC) in the area where it operates.



PROJECT LOCATION	TECHNOLO GY	TARGET HHs	PROPO NENT	STATUS
Rio Tuba, Bataraza, Palawan	1.05 MW Diesel - Biomass	1744	PSPI	Operational, Authority to Operate (ATO) issued by ERC , 2010
Malapascua, Daan-Bantayan, Cebu	750 kW Diesel	771	PSPI	Operational, Permanent ATO issued by ERC, 2016
Sabang, Puerto Princesa City, Palawan	Hybrid : 1.4 MW Solar + 1.2 MW Diesel + 2.3 MWh Battery	683	SREC	ERC approved Authority to Operate (ATO) isseud on January 2017
Candawaga & Culasian, Rizal, Palawan	268 kW Diesel	998	PSPI	DOE Endorsed to ERC for issuance of ATO, 2015
Balut Island, Saranggani, Davao Occidental	690 kW Diesel	3570	PSPI	DOE Endorsed to ERC for issuance of ATO, 2015
Liminangcong, Taytay, Palawan	108 kW Diesel	709	PSPI	Provisional ATO issued by ERC, 2016

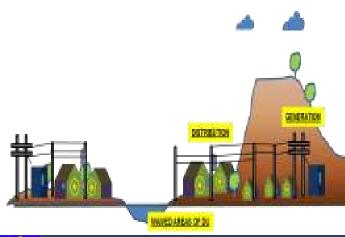






7. UNVIABLE AREA ELECTRIFICATION BY QUALIFIED THIRD PARTIES

 Hence, the program anticipates the future development of mini-grid and micro-grid electrification projects using solar, biomass, wind and other renewable energy sources by other proponents that may also adopt QTP approach.



PROJECT LOCATION	TECHNOL OGY	TARGE T HHs	PROPONE NT	STATUS
Semirara Island, Caluya, Antique	-	-	DMCI	For submission of final technical and financial proposal
Lahuy Island, Haponan Island in Municipality of Caramoan and Quinasalag Island in the Municipality of Garchitorena, Camarines Sur	-	-	-	Ongoing evaluation of application
Sixty Six Sitios in the Province of Apayao	-	-	-	Public Notice posted 2016
Saranggani Island, Davao Occidental	-	-	-	Public Notice posted 2014
Calayan and Camiguin Islands, Calayan, Cagayan	-	-	-	Public Notice posted 2014
Barangay Panobolon, Nueva Valencia; Barangay Guiwanon, Nueva Valencia; and Barangay Inampulugan, Sibunag	-	-	-	For verification by NEA
Coron, Busuanga, Culion, and Linapacan	-	-	-	For verification by NEA

