Sitio Electrification Program (SEP) and Barangay Line Enhancement Program (BLEP)

A total of 3,335 SEP projects were completed/energized for the whole year exceeding the target of 3,150 by 185 (105%) with a total project cost of Php2.999 billion. As of December 31, 2016, the SEP has overall accomplishment of 34,209 sitios.

House connections have reached an initial 564,299 consumers. Potential consumers are working for various LGU and other required compliances for member-consumer prelude to connection.

For 2016, 181 BLEP projects were completed/energized exceeding the target of 176 by 5 barangays (103%) with a total project cost of Php1.033 billion. There are still 158 BLEP projects remaining for completion of the programmed 1,030 barangays for line enhancement.

Electrification of NHA Resettlement Sites

The national government had allocated Php1,054,050,000.00 to NEA for the construction of distribution lines which will serve as tapping point to energize the resettlement sites under the coverage area of 19 ECs intended for the families affected by Typhoon Yolanda.

As of December 31, 2016, 101 sites were completed/energized and with tapping point ready.

Electrification of School Building

In support to the Department of Education’s program for the electrification of public school buildings nationwide, the NEA-Accelerated Total Electrification Office (NEA-ATEO) through the electric cooperatives assisted DepEd in updating the database. Quarterly reports were submitted to DepEd on the following:

1. List of Energized Schools including benefitted by SEP/BLEP
2. List of Schools with access to electricity but with no application for connection yet
3. List of Unenergized Schools

Likewise, NEA-ATEO had evaluated the cost of electrifying the 10 schools which are located in the areas where there are no existing distribution line or where connection to grid thru SEP/BLEP is not possible at this time. The evaluation was transmitted to DepEd for funding allocation.

### YEAR TARGETS ACCOMPLISHMENTS Project Cost (PhpB) Initial House Connection (Cumulative)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>TARGETS</th>
<th>ACCOMPLISHMENTS</th>
<th>Project Cost (PhpB)</th>
<th>Initial House Connection (Cumulative)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yearly Cumulative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>1,410</td>
<td>1,520 0.76</td>
<td>14,366</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>6,007</td>
<td>6,163 3.15</td>
<td>53,688</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>5,831</td>
<td>5,983 2.06</td>
<td>73,960</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>7,073</td>
<td>7,150 4.42</td>
<td>138,529</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>7,092</td>
<td>7,292 7.08</td>
<td>233,726</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>3,150</td>
<td>3,335 3.00</td>
<td>564,299</td>
<td></td>
</tr>
</tbody>
</table>

Part of the BLEP accomplishments were the installation of submarine cable to the following islands: Lajala Island in Biselco, Illin Island in Omeco, Logbon Island and Alad Island in Romelco, Sipaway Island in Noneco, Gigantes Island in Ileco III and Mahanay Island in Boheco II.
Final Inspection and Acceptance

A series of final inspection and acceptance for SEP, BLEP and Yolanda Rehabilitation and Recovery Plan (YRRP) projects were conducted. Inspite of the challenges encountered during the trial implementation such as the absence of road network/unpassable road, mountainous terrain, inclemental weather, problems in peace and order situation, targets were still met, as follows:

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>TARGET</th>
<th>ACCOMPLISHMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEP</td>
<td>8,000</td>
<td>8,031</td>
</tr>
<tr>
<td>BLEP</td>
<td>100</td>
<td>156</td>
</tr>
<tr>
<td>YRRP</td>
<td>5</td>
<td>8</td>
</tr>
</tbody>
</table>

Citations and Recognitions

On June 2016, ATEO received two plaques of appreciations. One from Department of Education and from Office of the Presidential Adviser on the Peace Process – Payapa at Masaganang P a m a y a n a n (OPAPP-PAMANA) for electrifying unenergized schools, sitios and barangays in the conflict-stricken areas.

The ceremonies for the awarding of the plaques were held at the Meralco Multi-Purpose Hall, Ortigas Avenue, Pasig City and Crowne Plaza Hotel, Ortigas Center, Pasig City, respectively.

The connection of additional 550,560 consumers in 2016 represents 120% accomplishment based on the target of 460,000. At yearend, a total of 11,724,640 consumer connections have already been served with electricity bringing the level of energization to a high of 88% of the potential 13.34M. Breaking down into consumer type, 93% constitutes residential consumers, 5% commercial/industrial, and 2% public building/others.

On the regional level, Region III registered the highest number of energized connections with 1,366,964, followed by Region V with 974,128 and Region I with 958,253.
The main focus of the Institutional Development Department (IDD) was the provision of assistance for member-consumer-owners empowerment through livelihood programs in Batelec I and II, Multi-Sectoral Electric Advisory Council (MSEAC) Orientation in Zamcelco, Casureco II, Canoreco, Daneco, Laneco and Boheco II and effective Consumer Service in Neeco I, Canoreco and Moresco II and monitoring of Nationwide Intensification of Household Electrification (NIHE) in coordination with Department of Energy.

The Compendium of Electric Cooperatives on Conversion Issues was released; 54 information materials to ECs regarding RA 10531 were issued; conversion to keep the ECs abreast with the competitive market were conducted and other related energy saving tips and Amendments of the By-Laws of Moresco II, Capelco, Fibeco, Zamsureco II and Penelco were evaluated.

In its commitment to attain the objectives of the SEP, IDD monitored the number of households benefitted by SEP.

Likewise, the conduct of consultative conference/meetings on institutional feedbacking with ISD Managers concerning NEA-EC policies and industry development were undertaken in 49 ECs.

The following Institutional advisories/memoranda were formulated and issued to ECs in 2016:

<table>
<thead>
<tr>
<th>DATE OF ISSUANCE</th>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>COMELEC Resolution No. 10023 “Deputizing the National Electrification Administration, the National Power Corporation and the Local Electrification Cooperatives in Connection with the May 29, 2016 National and Local Elections”</td>
</tr>
<tr>
<td>8-Mar</td>
<td>“Amendment to Guidelines on the Conduct of District Elections - Member of Good Standing”</td>
</tr>
<tr>
<td>11-Apr</td>
<td>Institutional Advisory No. 25, Series of 2016 “Attendance to the 2017 National Rural Electric Cooperative Association (NRECA) Annual Meeting”</td>
</tr>
<tr>
<td>19-Oct</td>
<td>Advisory for all Category B and C ECs – “Priority Planning Conference for Category B and C ECs”</td>
</tr>
<tr>
<td>12-Dec</td>
<td>Advisory for all ECs on the “Conduct of EC Drug Tes</td>
</tr>
<tr>
<td>15-Dec</td>
<td>Advisory for all ECs on the Observance of Cost Reduction/Austerity Measures”</td>
</tr>
</tbody>
</table>


As part of EC human resource strengthening, evaluation of 96 EC personnel policies, 43 employees’ salary upgrading were done. Performance Evaluation System (PES) was held in nine (9) ECs and briefing/supervision on District Elections and related activities of five (5) ECs.

The process on the selection and hiring of an EC GM includes pre-screening, examinations, interview, and background investigation and performance validation. The latter is one of the most substantial functions of the department considering that the GM, as a key official of an EC, must be highly qualified and competent to lead the cooperative towards dynamic and sustainable operations. After undergoing the process, NEA confirmed probationary appointment of GMs of nine ECs under Performance Management Contract (PMC).

Meanwhile, permanent appointment of GMs of six ECs were confirmed. The designation of seven OICs and six NEA-designated PS/AGMs/NEA Representatives to the Board of Directors were also confirmed to provide additional assistance for the progress of the EC operation sustainability.

ECs requests for Salary Upgrading of 39 GMs were evaluated and approved by the NEA Administrator. Moreover, retirement/extension of service of 12 GMs were likewise processed and evaluated.

IDD’s accomplishments showed that 969 Board Resolutions were processed which includes EC incentives, allowances and other benefits, complaints/conflicts, clarifications, queries and communications from ECs, other government agencies, NGOs and other institutions.
Year 2016 was a crucial year for the Management Assistance Group (MAG). As the whole country braced itself for a change in leadership due to the national and local elections of 09 May 2016, MAG readied for a change in its organization.

Effective 15 June 2016, through the issuance of Office Order No. 2016-089, two NEA departments, namely: Institutional Development Department (IDD) and Office of Corporate and EC Training (OCET) were transferred to the MAG Sector. Further, pursuant to Office Order No. 2016-095 dated 17 June 2016, the MAG Sector was renamed Electric Cooperative Management Services (ECMS). This organizational shift was adopted by management in order to help facilitate the implementation of the Rural Electrification Program under the mandate of RA 10531 (NEA Reform Act) and to enhance and focus NEA’s core services to the ECs and other stakeholders, thus improve organizational productivity.

As the Lead Sector in the conceptualization of a strategic plan to review, assess, validate and render direct supervision to ECs, MAG designed and formulated the comprehensive and doable Operation Improvement Program (OIP) for ECs whose operational performances fall short of the parameters prescribed in Section 20 of the Implementing Rules and Regulations (IRR) of RA 10531, on “EC Classification”. MAG assisted the ECs not only in the preparation of their respective OIPs but also on the implementation and monitoring of their accomplishments.

Among the major initiatives undertaken by MAG for the ECs in 2016 were:

1. Regularly monitored the six parameters on EC Classification, namely: Collection Efficiency, System Loss, Payment to Power Supplier, Profitability, Net Worth and Cash General Fund versus One Month Working Capital;
2. Prepared Letter/Correspondence/Communication and Coordination as needed;
3. Invited the ECs for conferences/meetings/workshops and/or travels to ECs regarding preparation/submission of OIPs;
4. Provided assistance in the conduct of review/assessment of the submitted OIPs;
5. Conducted field visits;
6. Made hands-on supervision on the System Loss Reduction Program;
7. Conducted capacity building through Meter Reading, Billing, Collection and Disconnection Seminar-Workshop and Power Metering;
8. Conducted Inspection and Validation of Big Load Consumers consumption;
9. Validated disconnected consumers; and
10. Assisted ECs on the availment of loan with NEA.

As of December 2016, highlights of MAG accomplishments are as follows:

1. Significant turnaround of four ECs from Yellow 1 to Green Classification, namely: Cenpelco, Nuvelco, Biselco and Samelco I. These ECs were formerly classified as Yellow 1 in 2015. Green ECs complied with all six (6) parameters; Yellow 1 ECs met 3-5 parameters while Yellow 2 ECs complied with 1-2 parameters.
2. Conduct of successive Roundtable Discussions (Dec. 17, 2015 and Jan. 13-14, 2016) with Region V ECs under the Bicol Electric Cooperatives Association (BECA) spearheaded by NEA Administrator Edita S. Bueno and four Deputy Administrators together with Board Members Jose Victor E. Lobrigo and Victor G. Chiong successfully elicited/facilitated the submission of Operation Improvement Plans (OIPs) from the 11 ECs in the region. The OIPs covered a one-year projected cash flow statement including related activities, sources and application of funds.
3. Continuing Supervision and Management of several ECs to assist and ensure improved operational performance and delivery of service to consumers:

<table>
<thead>
<tr>
<th>ECs</th>
<th>TEAM</th>
<th>DESIGNATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. CASURECO II</td>
<td>Orlando M. Andres</td>
<td>Project Supervisor/Acting General Manager (PS/AGM)</td>
</tr>
<tr>
<td></td>
<td>Nelson A. Lalas</td>
<td>Assist on Technical</td>
</tr>
<tr>
<td></td>
<td>Bienvenida M. Tongol</td>
<td>Assist on Finance</td>
</tr>
<tr>
<td>b. CASURECO III</td>
<td>Eleno M. Desuyo, Jr.</td>
<td>PS/AGM</td>
</tr>
<tr>
<td>c. SORECO I</td>
<td>Cesar A. Fabelton</td>
<td>PS/AGM</td>
</tr>
<tr>
<td></td>
<td>Edgar C. Tizon</td>
<td>Assistant on Finance</td>
</tr>
<tr>
<td></td>
<td>Felipe R. Rade</td>
<td>Assistant on Technical</td>
</tr>
<tr>
<td>d. NORSAMELCO</td>
<td>Hector N. Tablima</td>
<td>PS/AGM</td>
</tr>
<tr>
<td></td>
<td>Romeo V. Acuesta</td>
<td>Assistant on Finance</td>
</tr>
<tr>
<td>e. LANEDCO</td>
<td>Sherwin C. Mahada</td>
<td>PS/AGM</td>
</tr>
<tr>
<td>f. DANECO</td>
<td>Jose Vicente P. Malaya</td>
<td>AGM</td>
</tr>
<tr>
<td></td>
<td>With Assistance from Other Departments</td>
<td></td>
</tr>
<tr>
<td>g. CANORECO</td>
<td>Wilfredo O. Bucit</td>
<td>PS/AGM</td>
</tr>
<tr>
<td>h. ZAMSURECO II</td>
<td>Chanto C. Mabatuan</td>
<td>PS/AGM</td>
</tr>
<tr>
<td></td>
<td>Rodolfo G. Pasciño</td>
<td>Assistant on Institutional</td>
</tr>
<tr>
<td></td>
<td>Catalino R. Mercado</td>
<td>Assistant on Information Technology</td>
</tr>
</tbody>
</table>

Throughout the year, MAG rose to the challenges hurled on its path and continuously persevered in assisting the ECs, supervising and monitoring their operations and strategic activities, with the diligence and determination.
With today’s globally competitive power industry, the need for trained officials and employees has never been greater. Pursuant to its mandate, NEA is committed on enhancing the skills of the agency as well as its partner ECs, and is ever striving to raise the standard of competency to ensure the delivery of quality service for the benefit of the member-consumer-owners (MCOs).

NEA concluded the year 2016 with the successful conduct of 71 certification and training programs attended by 3,578 officials and employees from the different ECs nationwide. Driving information dissemination on all sectors, NEA also organized fora, dialogues, and consultations together with concerned agencies which were attended by a total of 1,583 EC representatives.

Certified by and in partnership with the Technical Education and Skills Development Authority (TESDA), among the courses conducted by NEA were trainings for the enhancement of skills of 343 EC linemen further increasing the support for the development of rural electrification.

Likewise, NEA continually promoted the professional growth of the Agency’s internal human resources with the coordination of a total of 61 local and international trainings and scholarships for 811 NEA officials and employees.

**Ladderized Training Programs**

To ensure the ECs’ top management is up to par with the industry standards, NEA coordinated annual ladderized training programs to develop and upgrade the core competencies of Board of Directors and General Managers.

Two batches of the Cooperative Management Course I & III and Good Governance were conducted on 4-8 April 2016 and 10-15 October 2016 at the Cebeco III Compound, Toledo City with a total of 162 graduates from different ECs nationwide. Spearheaded by former NEA Administrator and Presidential Adviser Fr. Francisco G. Silva, the course is designed to prepare new leaders to understand the operation and management of ECs, and enhance their decision-making skills.

A total of 143 EC leadership representatives attended the Cooperative Management Course II in three batches. CMC II focuses on Entrepreneurial Management and is designed for the participants to further appreciate the importance of strategic planning in charting the course of the cooperative to provide better service to the MCOs. on 05-07 June 2016, 05-07 July 2016, and 20-22 September 2016 at the Penelco HQ, Bataan for the first two batches and Davao City for the third.

Aiming to further equip ECs’ chief management with the latest knowledge, relevant tools, and leadership skills, the Executive Series was successfully completed by 84 EC General Managers and OICs in attendance.

The Electric Power Industry Reform Act (EPIRA) Series, conducted in partnership with the University of the Philippines – National Engineering Center (UP-NEC) saw the participation and graduation of 659 EC leadership members. It aims to further equip the policy decision makers of ECs with the laws and trends in operations and management in the electric power industry.
International Trainings and Engagements

In partnership with foreign counterparts and organizations such as the Sustainable Energy Association of Singapore (SEAS), EU-Assisted Access to Sustainable Energy Programme Technical Assistance (EU ASEP TA), and The Institute of Energy Economics Japan (IEEJ), the Agency coordinated its attendance to 15 foreign trainings and conferences for the year.

This exposure to global arena is not only important for networking and boosting the brand awareness of the Agency and its partner ECs but is also an integral avenue for exchanging best practices with international organizations concerning rural electrification and how it may be applied on our local context.

**Foreign engagements of note**

Solar Roadmap Workshop for Policy Makers held at the Pan Pacific, Singapore on 01-05 August 2016

Philippines-Japan Small Scale Hydropower Workshop 2016 held at Takamatsu and Tokyo, Japan on 31 October – 4 November 2016

Training Programme on Developing Project Proposals on Climate Change Mitigation held at Pathumtani, Thailand on 12-16 December 2016

**Report on EC Safety Programs and Health Standards**

Based on the Memorandum to all ECs dated 09 October 2016 regarding the status of Safety Programs and Health Standards covering January 2012 to June 2015, the Agency came up with a report to determine and ensure EC compliance with the safety rules and regulations under NEA Bulletin No. 20, Presidential Decree 442, Book IV, Article 162 of the Labor Code of the Philippines Occupational Safety and Health Standards, R.A. 9136 – Power Industry Act, and the Philippine Distribution Code.

Data were gathered from 61 ECs who responded to the study. According to the report, all ECs who submitted their data were found aware and complying with the industry’s safety standards. However, there are still dangers that our EC personnel encounter on the field.

Based on the results, vehicular accidents had the most common occurrence with 273 instances reported within the period covered followed by electrical accidents and then risk of animal bites. Other incidents include the danger of falling objects, fire burns, slips, and mechanical accidents.

Recommendations and strategic plans through capacity building were included in the report to address the issues found on the survey. The report is slated as the first step towards realising a more comprehensive policy for EC personnel safety.
For the furtherance of NEA’s mandate of promoting sustainable development in rural areas through country electrification, the Engineering Department continued to take part, led and engaged in projects undertaken by NEA’s stakeholders. Vanguards in leading new development, the Engineering Department played a vital role in assessing and evaluating technical parameters describing the ECs’ technical operations, contributed in monitoring efforts, and collaborated with both government and private institutions in order to implement projects that benefitted the member consumers.

**Monitoring of EC Technical Parameters**

This year’s national system loss is 11% which is lower than the 13% cap for ECs set by the Energy Regulatory Commission (ERC). It is also lower than the 11.12% system loss posted by the ECs in 2015 target by the (NEA). This reduction in system loss reduced the pass-on charges by the ECs to the electricity consumers by PhP 26,772,661.13 nationwide.

For the 11 million-billed consumers served by the ECs, the System Average Interruption Frequency Index (SAIFI) is 13.71 interruptions per consumer per year which better compared to the standard of 25 interruptions per consumer per year.

The System Average Interruption Duration Index (SAIDI) is 1,121.23 minutes per consumer per customer per year which is better compared to the standard 2,700 minutes per consumer per year prescribed by the EC-DU Planning Manual.

The implication of the SAIFI and SAIDI values of ECs means frequency of brownouts is 44% lower and the duration of brownouts is 58% shorter compared to the reliability indices standards on the ERC Resolution No. 01, Series of 2013. Considering the ERC reliability indices standards, this translates to mitigating the EC revenue losses of PHP 50.3 per consumer per year.

The length of distribution lines supplying the member-consumers is recorded at 202,368 kilometers which supplies 11,724,640 homes in 36,051 barangays. The massive network of rural distribution lines supplies electricity to more than half of the 103 Million Filipinos nationwide majority of which belong to marginalized sectors which include those working in family workshops, indigenous people, public transportation drivers, rural workers like peasants, fisher folks and farmers.

The gradual, continuous and substantive increase of primary and secondary lines can be attributed to the aggressive electrification efforts of the previous administration and to the continuous support of the Duterte administration.

Total distribution substation rated capacity is 5,950 MVA, sufficient to meet the peak demand of 3,872 MW with a reserve capacity of 1,930 MVA.

Increase in capacity of substation means lesser stress to power transformers resulting to longer economic life and lesser number of interruptions. The reduction in the number of power interruptions is not only beneficial to ordinary folks but to commercial establishments who depend on a stable power supply. The creation of these commercial establishments leads to employment opportunities to people leading to improvement in their living conditions.

**Technical Assistance**

The Zamboanga Road to Rehabilitation and Recovery (Z3R) is an inter-agency initiative that aims for the development of infrastructure and recovery projects for the people affected by the military unrest known as the Zamboanga Siege in 2013. It is a concerted effort of the Local Government Unit, Department of Health, Department of Social Welfare and Development, Local Water Utilities Administration, National Housing Authority (NHA), etc. and is spearheaded by Department of Public Works and Highways (DPWH). Zamcelco with the assistance of NEA, handled the reconstruction of damaged distribution facilities located in thirty-six project sites in Barangays Sta.Catalina, Sta.Barbara, Mariki, Tulungatung, Taluksangay, and Rio Hondo in the EC’s franchise area. Construction is in progress.
The popularity of submarine distribution systems in ECs is growing. In January 2016, Esamelco’s 5.4km 13.2kV Single Phase XLPE Submarine System from Tubabao to Manicani Island was successfully energized and currently services four barangays. Submarine cable systems were funded using the subsidy funding mechanism of the Barangay Line Extension Program (BLEP) of the national government.

The government funded installation of 10MVA substation in Sto.Domingo, Albay within the coverage area of Aleco is in progress. In December 2016, a public bidding for the aforementioned project was concluded and was attended by prospective contractors. The Bids and Awards Committee (BAC) and Technical Working Group (TWG) are now in the process of post qualifying the Lowest Calculated and Responsive Bid.

The 10 MVA substation will improve voltage quality and increase capacity in the municipality of Sto. Domingo, Albay. This will promote social and economic development in the area. Ice plants, fishing store facilities, commercial establishments and micro-businesses will flourish because of sufficient and reliable electricity in the area.

Engineers also visited Laneco to conduct Macro Engineering Assistance Program (MEAP). A technical audit was conducted to determine the weaknesses in the engineering operations, capacitate the engineers and assist the cooperative in the reduction of its system loss, improve reliability, and voltage quality and other technical parameters.

In line with the department’s efforts to improve the quality of technical assistance offered to the ECs, various testing equipment for distribution line and substation maintenance were procured. These included winding insulation resistance testers, thermal scanners, oil insulation testers, transformer turns ratio tester, micro-ohmmeters, ultrasonic detectors, relay testers, and GPS devices. These testing equipment will be used in providing technical assistance and related activities to help financially strapped ECs who could use them for free. The absence of these equipment shall mean the ECs would resort to out-sourcing expensive services.

**Monitoring and Restoration Efforts**

In the event of typhoons, monitoring efforts were organized to collect data from the affected cooperatives for the information of concerned parties like the Department of Energy (DOE), National Disaster Risk Reduction and Management Council (NDRRMC), Office of the President (OP) and the press. Details on the extent and cost of damages, particularly on distribution facilities, were evaluated to determine the specifics of the technical and financial assistance which could be rendered to ECs. And, as the need arises, the department has been the main proponent in mobilizing Task Force Kapatid to help the calamity stricken ECs rehabilitate their damaged lines through the joint efforts of NEA, other non-affected ECs, as well as other private distribution utilities nationwide.

The Task Force Kapatid is a collaborative effort, under a presidential directive, to restore power in calamity affected areas in usually less than 30 days. It is a volunteer-based brotherhood of linemen and engineers from 121 electric cooperatives and private distribution utilities (PIOUS) around the country who toil 24/7 to restore power to household level.
The onslaught of Typhoon Nina in December 2016 disrupted the power situation in the provinces of CALABARZON, MIMAROPA, and Bicol. With the help of Task Force Kapatid Nina, comprising 1,332 linemen from 49 ECs and PIOUS, the damaged lines were repaired and power was restored in the following:

1. Quezelco I
2. ORMECO
3. Marelco
4. Casureco III
5. Casureco IV
6. ALECO
7. Ficelco

In October 2016, Typhoon Lawin left the provinces of Cagayan, Isabela, Abra, Kalinga, and portions of CAR devastated. Task Force Kapatid Lawin, consisting of 935 linemen from 56 ECs and PIOUS, was mobilized for rehabilitation works in the following ECs:

1. Cagelco I
2. ISELCO II
3. Abreco
4. Kaelco

Through the labours of volunteer linemen, Task Force Kapatid restored electricity to Typhoon Nina and Typhoon Lawin affected provinces and brought power to 1,089,600 households benefitting more than 5 Million people.

As a proactive measure by the electric cooperatives and NEA, the ECs’ Vulnerability and Risk Assessment (VRA) and Emergency Restoration Planning (ERP) was crafted with consultations with the ECs, stakeholders with the assistance from National Rural Electric Cooperative Association (NRECA) and was approved by the NEA Administrator on June 15, 2016.

The VRA serves as a decision support tool for identifying, quantifying and prioritizing the vulnerabilities associated with critical assets on an EC system in relation to identified threats. The ERP provides the efficient means to organize and utilities its resources to restore the system in the event of system wide outage resulting from natural disasters or other causes.

Mindanao Modular Genset Program

A loan facility was opened to ECs for the acquisition of modular diesel generator sets by virtue of Executive Order No. 137 Series of 2013 otherwise known as “The Mindanao Modular Genset Program”. Its principal objective was to augment the electricity supply during a deficit in the grid or unavailability of a bilateral contract. The program is funded by royalties from the Malampaya Deep Water Gas-to-Power project off Palawan.

The Engineering Department evaluated the Terms of Reference (TOR) prior bidding activities. The department ensured the TOR shall be compliant with existing local and international standards such as but not limited to fuel efficiency (liters/kWh), alternator/hydraulic details, voltage/frequency regulation and grid synchronization features. Negative experiences with previous TOR approvals was applied to new ones for the benefit of the electric cooperatives as they are new to purchasing generator sets. Strict adherence to the contract was used in the issuance of Certificate of Final Inspection and Acceptance such as the observance of penalty clauses for delayed delivery and commissioning of the generator.

Two projects under the program were completed in 2016. Daneco installed 3x1MW generator units at their main headquarters in Montevista, Province of Compostella Valley which were tested and commissioned in August 2016 and Zamcelco’s 8x2MW units also were installed at their headquarters in Zamboanga City and is expected to be in January 2017.

There are on-going constructions for Aneco’s 5x2MW and Morecco II’s 5x2MW Modular Generator Set Program.

Power Task Force Election

Engineering headed the NEA Team of the “Power Task Force Election” organized by the DOE consisted of various government and non-government offices in the power industry including NEA. The main objective of the collaboration was to ensure the readiness of the distribution systems of electricity for a stable and adequate supply during the May 9 national and local elections.

Japanese Grant

On January 25, 2016, 14 units Boom Trucks donated by the Japanese Government through Japan International Cooperation Agency (JICA) were turned over to four Region VIII ECs which were devastated by Typhoon Yolanda in 2013 namely:

1. LEYECO II
2. DORECO
3. ESAMELCO
4. SAMELCO I
5. SAMELCO II

These donations were covered by Grant Agreement No. 1361140 “Grant Agreement for the Program for Rehabilitation and Recovery from Typhoon Yolanda between JICA and the Government of the Republic of the Philippines dated May 12, 2014.

The Engineering Department provided assistance to JICA in the preparation of the Grant Project Study, participated in the bidding process conducted in Tokyo, facilitated the release of the boom trucks at the Bureau of Customs, and coordinated the safe transport and successful turnover of the boom trucks to the beneficiaries.

The turnover ceremony was attended by high ranking officials of NEA, Province of Leyte, EC beneficiaries and JICA.
Cobrador Island Solar PV Hybrid Power Plant

On 03 March 2016, the island of Cobrador in Romblon secured a round-the-clock electricity supply for the first time.

The NEA Office for Renewable Energy Development (NEA-ORED) provided technical assistance to the Romelco-initiated project with the support of the Asian Development Bank (ADB).

Cobrador is a small island and home to around 1,000 people. Before the project was implemented, only 110 out of 244 households were connected to the Romelco and received electricity service for just 8 hours a day.

Livelihood opportunities in the island were limited to fishing and small-scale agriculture. While the island is blessed with marble deposits, optimum development was hampered due to lack of electricity to power tools during the day. The island’s pristine beaches are also attractive for tourism but maximum potential cannot be realized for lack of power supply.

The pilot project showed that diesel generation facilities may be retrofitted or hybridized with renewable energy (RE) technologies based on the availability of RE resources in the target areas, increase services from 8 hours to 24 hours and lead to the improvement of livelihood of the local populace. The implementation of the project has also lowered the tariff that the households have been paying for electricity, thereby increasing their overall purchasing power for basic needs, such as food, clothing, medicine and education.

Thus, for Cobrador, this renewable energy hybridization project definitely contributed to inclusive rural development as it directly supports the livelihood and productive activities of the local community. The hybrid system is an economic, sustainable and environmentally-friendly way of providing and enhancing energy access to rural, remote, and isolated areas. This is one of the business models that can be implemented to increase energy access and further scale up renewable energy mini-grids not only in the Philippines.

22kWp Rooftop Solar PV System

In line with the government’s thrust of promoting the use of renewable energy technologies, the NEA, through ORED, initiated the installation of a 22kWp rooftop solar photovoltaic (PV) system in addition to the 5kWp rooftop solar PV system which was inaugurated on 02 December 2015.

The project was realized through a Build-Operate-Transfer agreement between NEA and ADON Renewables Philippines, Inc. with a cooperation period of 15 years.

Within the year, NEA has entered into a Net-Metering agreement with Meralco. From this initiative, the Agency was able to save PhP61,380.89 from February to December 2016 or an average of PhP5,50.00 per month. The solar PV systems, though, were not in operation in October and November because of maintenance check.

Aside from being an energy efficiency initiative, the project was intended to serve as an informative example for all electric cooperatives intending to put up their own solar PV systems.
Other Significant Activities

I. Renewable Energy Development Conferences

The demand for the use of renewable energy, has become a growing concern globally and ORED’s team members have been invited to attend and speak in a number of international conferences. Through these conferences, ORED was able to promote our government’s efforts and encourage foreign as well as local investors to participate in the deployment of renewable energy projects here in the Philippines.

The conferences attended in 2016 include:

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<tr>
<th>SEMINAR TITLE</th>
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<tbody>
<tr>
<td>1 Institute of Energy Economics Japan (IEEJ)</td>
<td>Tokyo, Japan</td>
<td>07-11 March</td>
<td>Participant/Attendee</td>
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<tr>
<td>2 Alliance for Rural Electrification Renewable Energy Cooperation Programme: ARE-RECP Off-Grid Investors Forum 2016</td>
<td>Amsterdam, Netherlands</td>
<td>11-16 April</td>
<td>Speaker</td>
</tr>
<tr>
<td>3 Solar Roadmap Workshop for Policy-Makers</td>
<td>Singapore</td>
<td>01-05 August</td>
<td>Participant/Attendee</td>
</tr>
<tr>
<td>4 International Conference on Solar Technologies and Hybrid Mini-Grids to Improve Energy Access</td>
<td>Germany</td>
<td>19-23 September</td>
<td>Speaker</td>
</tr>
<tr>
<td>5 3rd Annual Microgrid Global Innovations Forum 2016</td>
<td>Lisbon, Portugal</td>
<td>20-23 November</td>
<td>Speaker</td>
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Information, Education and Communication Campaigns (IECs)

As a continuation of ORED’s mission to promote the use and benefits of renewable energy (RE) technologies among the ECs through IECs, the team facilitated and conducted two seminar-workshops on Tendering of PV-Diesel Hybrid Mini Grids in cooperation with the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on 25-26 May 2016 and 27-28 September 2016 at the HESA, NEA Bldg., Quezon City.

The two-day seminar-workshop offered a guide from importance of renewable energy to the tendering process to selection of suppliers and to the development of terms of reference, for the benefit of our electric cooperatives and other electric distribution utilities, as well.

The workshops were attended by 241 participants comprising representatives from DOE (2), NPC (21), PNOC-RC (1), DBP (3), ERC (12), NEDA (2) NEA (24), electric cooperatives (146), and private companies (30).
The Electric Cooperatives’ Distribution Development Plan (DDP)

The Corporate Planning Office through the Rural Electrification Project Planning and Development Division (REPPDD) provided assistance to the Department of Energy (DOE) in the deliberations and workshops conducted nationwide. The DDP workshops were done in seven batches in the following venues: Iloilo City and Cebu City for the Visayas ECs; Cagayan de Oro and Zamboanga City for Mindanao ECs; and Baguio City and Mandaluyong City for Luzon ECs.

Biennial e-ICPM

In line with NEA’s supervisory and oversight functions based on the Implementing Rules and Regulations (IRR) of R.A. No. 10531, six e-ICPM workshops were held involving 13 regions and participated in by 71 ECs. Output of the workshops included the Annual Workplan of the ECs for Calendar Years 2017 and 2018.

In 2003, following the provisions of the Electric Power Industry Reform Act (EPIRA), NEA adopted reforms in improving the performance of the ECs, introducing among others, a computer software model known as the Integrated Computerized Planning Model (ICPM). This model harmonizes EC plans such as 1) Electrification Plan, 2) Long-Term Development Plan, 3) Financial Projections, 4) Institutional Development Plan, and 5) Distribution Development Plan.

The ICPM was further enhanced in 2010 in accordance with the Electric Cooperative Distribution Utility Planning Manual (EC-DUP) as approved and adopted as an integral part of ERC Resolution No. 26, s. 2009, Amending the Rules for approval of Regulated Entities’ Capital Expenditure (CAPEX) Projects” Henceforth, it is known as the enhanced-Integrated Computerized Planning Model (e-ICPM).

The e-ICPM provides guidance in determining an EC’s financial and technical requirements to help it compete under the deregulated electricity market.

Electrification of Sitio Makabilog through BuB

On October 25, 2016, the launching and energization of Sitio Electrification Program in Sitio Makabilog, Las Pinas, Peñaranda, Nueva Ecija was undertaken. It was organized jointly by the Municipality of Peñaranda, NEA, NEECO II-Area 2 and DILG. The occasion served as a forum for sharing information, voicing out concerns and consultations relative to future plans and services of government for members of the community.

The Bottom-up Planning and Budgeting (BuB) is a major component of the Empowerment of the Pro-Poor Program that will enable people at the grassroots level to strengthen their organizations to become vehicles for economic engagement and effective participation in the governance process. As a member of the Regional Poverty Reduction Action Team for electrification, the BuB requires NEA, as one of the implementing agencies through Electric Cooperatives, in partnership with the Local Government Units and Civil Society Organizations to come up with a list of priority projects which will be included for funding by the National Government Agencies.

Submission of ECs’ Reportorial Requirements

In compliance with ECs’ Reportorial Requirements pursuant to RA10531 and its IRR, the Total Electrification Plan (TEP) and Distribution Development Plan of the ECs were submitted to the Department of Energy, OPASS and Committee on Compliance for CY 2016.

Cascading the Governance Initiatives

NEA’s journey through the Performance Governance System (PGS) has put in place a strong governance framework characterized by a culture with harmonized systems and processes that sustain strategy execution and cultivate values of integrity, fairness and accountability leading to the attainment of milestones and breakthrough results.

NEA continued its advocacy of cascading its governance framework, and as such 46 ECs were able to adopt the Balanced Scorecard Model as their Performance Management framework, namely:

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<tr>
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<td>BILECO</td>
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<td>ESAMELCO</td>
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<td>PANELCO III</td>
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<td>MOELCI I</td>
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<td>NEECO II - Area2</td>
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Database Management

In the continuing effort to document ECs’ status of operation and to provide ready and reliable data and information, three major publications were released: Rural Electrification Chronicle 2013-2015, EC Yearbook of Awards 1985-2015 and Electric Cooperatives’ Historical Profile 2004-2015.

Along with these, the ECs’ 5-Year Historical Profile (2011-2015) and ECs’ Individual Fact Sheets (2015), various reports and information materials were generated and released to NEA offices and stakeholders as reference for planning, decision making and monitoring. Likewise, these information were translated into presentation modules, visuals and graphical presentations for conferences, exhibits and related activities.

On the area of total electrification, the updating of the databases on barangays and sitios was prioritized as these are vital sources of data for the next phases of the BLEP and SEP.

Records Management

The Records Management Unit (RMU) processed and distributed 43,177 incoming documents classified into 1,902 tracked documents and 30,074 non-tracked.

For the tracked documents, 905 or 48% were handled under the Fast Lane Service with a computed average response time of 20.58 hours. This is shorter by 12.42 hours compared to the corporate target of 33 hours. Under the Regular Lane, 997 documents were processed with a computed average response time of 49.83 hours. This is shorter by 35.17 hours compared to the corporate target of 85 hours.

Also in receipt were 11,201 various documents covering 7,014 under NEA's reportorial requirements and 4,187 other reports. In compliance with Chapter III, Section 12 of Republic Act No. 10531, two annual and five monthly reports were monitored by the RMU. A compliance level of 82% was registered with the submission of 6,162 reports within the deadline and 11% or 852 reports after the deadline. Said reports are vital sources of data and information to monitor and assess the ECs’ status of operation.

A total of 17,141 outgoing documents were processed and released, 14,122 through postal and private couriers, 2,678 by messengerial and 341 Memoranda, Guidelines and Advisories in e-copy via outlook and NEA Website. For documentation, 8 sets of 2015 Memoranda to ECs and NEA Office Orders were compiled and archived in book form.

As part of records management, the departmental Records Disposition Schedules (RDS) were re-visited through a series of consultations with the concerned departments. A pre-requisite for records disposal, an amended set of RDS was submitted to the National Archives of the Philippines (NAP) for review and approval.

WB Funded NEA Web Portal, Business Intelligence (BI) and Data Warehousing

The European Union through World Bank extended financial grant to the NEA for the development of Web Portal and Business Intelligence Project. The objectives are to create a standard and uniform report format via data entry facility, to build data repository for both NEA and the ECs, and to strengthen the Agency’s analytic capabilities under cloud-based application and services. The project will also ease submission of reports by the ECs and reduce multiple submission and redundant requests for data and information.

The system, which commenced in 2016, was developed by Indra, Philippines and will be implemented for two years, the system management will be turned-over to NEA on July 2019.

ITCSD as the lead Office for this project, assisted the developers the design, analysis-requirements and in the testing and data governance implementation.
Below is the conceptual framework for the collection of information from ECs. There will be 40 Data Entry templates, 20 Operational Reports and 51 Analytics views:

**NEA Windows Server and Exchange System Migration to a globally compliant environment platform**

The global end-of-life (EOL) of Windows Server 2003 Operating & Exchange System (email) led to the ICT system migration of NEA. The migration included the establishment of a new and compliant Network Active Directory (AD) system that will provide a global shared services platform for common services, such as authentication, messaging, collaboration, and global business applications. This platform integrates new organizations into the NEA ICT infrastructure, and supplies the prerequisite that will support large scale ICT & business project in cloud such as the implementation of the WB Funded NEA Web Portal, Business Intelligence (BI) & Data Warehousing in 2017. The services of Microsoft Premier Support Engineers/experts were engaged to help provide the globally compliant infrastructure and network system platform for NEA.

**ICT In-house System Upgrading and capacitating**

- New Wireless Access Points (NEA WIFI) system installation was supervised, tested and implemented in all floors to expand, modernize, control and authenticate the NEA's WIFI system. Said initiative is in the process of testing and is targeted to be implemented in the 2nd quarter of 2017. Additional 50 nodes were provided to the new workstations for integrated voice and data.
- Precision Airconditioning System (PACU), a specialized airconditioning unit was installed to provide precise, stable environment for the NEA Data Center which houses critical and highly sensitive electronics systems to operate optimally. This is one of ISO’s risk mitigation factor to maintain high availability of the NEA ICT infrastructure. Designed for close temperature and humidity control, the PACU system provides high reliability for year-round operation, with the ease of service, system flexibility and redundancy necessary to keep the technology room up and running 24 hours a day (24 X 7 X 365).
- The new compliant NEA Data Center obtained a commendable and positive remarks from ISO 9001-2015 professional Computer Information System Auditor (CISA). This was due to the use of Biometric for access and acquisition of security and Close Circuit Television (CCTV).
- In line with the enhancement of knowledge and competencies, the staff underwent on the job specialized training in basic AD System Migration, switch, router troubleshooting, ICT Technology Leadership deployment, Data Governance and Microsoft Azure specialized training in cloud & Project Management.

**Other major related ICT activities which generated high impact to the Core Business Systems of NEA, ECs & other stakeholders**

- Continued NEA Website development and enhancement to cater to the GCG, DBM's Transparency seal, other Government to Government (G2G), business to business (B2B) requirements, ECs and other stakeholders with the publication of 172 articles/news/ advisories & other useful information about rural electrification (R.E.).
- Processed/acted 34 various ECs’ ICT Board Resolutions, budget requests/ evaluation and assessment services off-site and on site to enhance the key operations, planning and acquisition, system integration and connectivity requirements of ECs.
- Provided 24 In-house developed system assistance to Human Resources and Finance departments, developed special videos for NEA and facilitated the provision of new two LED TV at the HESA for training.
- Conducted in-house semi-annual physical and logical maintenance of 420 assorted ICT equipment & 495 troubleshooting activities which generated savings to the agency (ISO-9001-2016)
- Assisted in the in-house procurement of 10 major ICT resource acquisition (ICTRA) through bidding such as application, software utilities, mandatory licenses, hardware, internet access management, other accessories and services based on the approved 2016 NEA’s Annual Procurement Plan (APP);
- Provided 206 various in-house service for communication repair, audio and video system assistance during corporate events
- Transmitted e-mail messages to 120 ECs and maintained/tracked in-house messages for the monthly EC reportorial in compliance with R.A. 10531 Reportorial requirements;
- Completed Fiber Optics Connectivity (FOC) with the Department of Information and Communication Technology (DICT) to prepare NEA’s connectivity with other government shared services and national interoperability projects.