Republic of the Philippines
ENERGY REGULATORY COMMISSION
San Miguel Avenue, Pasig City

IN THE MATTER OF THE PETITION TO ADOPT THE PROPOSED RULES TO GOVERN THE INSTALLATION AND USE OF SMART REVENUE METERS FOR ADVANCED METERING INFRASFACTURE (AMI) SYSTEM APPLICATION AND PERTINENT FUNCTIONALITIES,

ERC CASE NO. 2015-001 RM

VISAYAN ELECTRIC COMPANY, INC. (VECO),
Petitioner.
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NOTICE OF PROPOSED RULE-MAKING

TO ALL INTERESTED PARTIES:

Notice is hereby given that on March 16, 2015, Visayan Electric Company, Inc. (VECO) filed a petition to adopt the proposed rules to govern the installation and use of smart revenue meters for Advanced Metering Infrastructure System (AMI) system application and other related functionalities (Smart Meters).

In the said petition, VECO alleged, among others, that:

1. Pursuant to Rule 21 of the Rules of Practice and Procedure of the Commission (ERC Rules), the instant petition is being filed for the purpose of authorizing the use of smart revenue meters for AMI system application and Smart Meters;

2. It submits that the use of smart revenue meters has become imperative due to developments in the power

industry, particularly the declaration of Retail Competition and Open Access (RCOA), the imminent development of a national smart grid, as well as the issuance of rules on prepaid metering;

3. On December 17, 2012, the Commission issued Resolution No. 16, series of 2012,[1] A Resolution Adopting The Transitory Rules For The Implementation Of Open Access And Retail Competition, which fixed the Open Access Date as December 26, 2012 with a transitory period until June 27, 2013.[2] In order to meet the metering requirements of the RCOA, Distribution Utilities (DUs) have installed meters for their contestable customers with interval readings that can be read remotely;

4. On March 11, 2013, the Department of Energy issued Department Circular DC2013-03-0003, creating an inter-agency steering committee tasked to lead the development of a "National Smart Grid Policy Framework and Road Map". Once implementation of a national smart grid commences, the use of Smart Meters will be indispensable;

5. The Commission has already approved the use of smart meters for prepaid metering systems under Resolution No. 15, series of 2009 entitled "A Resolution Adopting The Rules For Prepaid Retail Electric Service Using Prepaid Metering System, issued on July 15, 2009. A number of DUs are already preparing plans to pilot smart prepaid systems;

6. As a consequence of these events, various means of communicating with meters and other devices are already being pilot tested. In addition to remote and interval reading features, the use of meters with remote switching, especially for elevated metering clusters (EMCs) are now also being tested by DUs;

7. The use of Smart Meters will also benefit customers since the remote switching function of Smart Meters will allow demand management. As such customers can easily access data regarding their consumption and receive

[1] Pursuant to Section 31 of Republic Act No. 9136, the Electric Power Industry Act (EPIRA) which provides that RCOA shall be implemented not later than three (3) years upon effectivity of said law, and the Department of Energy Department Circular DC 2012-005-005, Prescribing The General Policies For The Implementation Of The Retail Competition And Open Access.
[2] As amended by Resolution No. 11, series of 2013.

accurate billing information, hence conveniently and control their electric consumption;

8. The instant Petition also proposes the implementation of automated meter data management ("MDM") since the predicted prevalence of smart meters will generate an exponential increase in the number of meter data. The large amount of data will require the automated MDM which is integrated to billing systems;

9. Considering the foregoing circumstances, VECO respectfully proposes the attached Rules To Govern The Installation And Use Of Smart Revenue Meters For Advances Metering Infrastructure (AMI) System Application marked as Annex "A", as follows:

PROPOSED RULES TO GOVERN THE INSTALLATION AND USE OF SMART REVENUE METERS FOR ADVANCED METERING INFRASTRUCTURE (AMI) SYSTEM APPLICATION

ARTICLE I

GENERAL PROVISIONS

1.1. Objective

The objective of the Rules is to provide guidance to Distribution Utilities (DUs) in the installation and use of smart revenue meters for Advanced Metering Infrastructure (AMI) system application. This will allow DUs to take advantage of technological advances to promote efficiency in meter reading and other related features while ensuring their highest level of compliance with safety standards and adequate protection of the consumer's interest.

1.2. Guiding Principles

The DU shall ensure that the installation of smart revenue meters integrated through an AMI system conform with Republic Act No. 9136, other existing laws, rules, regulations and technical standards set by the ERC.

1.3. Scope

These Rules shall apply to all DUs whose revenue meters have features capable for AMI system application as may be specifically provided herein. Billing disputes resulting from the utilization of the smart revenue meters integrated through an AMI system shall be governed by the ERC Rules of Practice and Procedure.

1.4. Definition of Terms

Capitalized terms not defined under this Article shall have the definition provided in the PDC and the DSOAR.

"Smart revenue meter" or **"smart meter"** refers to an electronic device that records consumption of electric energy and enables two-way communication between the meter and the central system of the DU for monitoring, billing and other related features.

"AMI" or **"Advanced Metering Infrastructure"** is an integrated system of smart meters, communication networks, and data management systems that enables a two-way communication system between utilities and customers. The features of smart revenue meter for AMI application may include Remote Reading (kWh, kW, kVAR), Interval Reading, Outage Detection, theft detection, voltage quality detection, Remote Connection, Remote Disconnection, Demand Control and Home Area Network Interface.

"AMR" or **"Automatic Meter Reading"** refers to the technology of automatically collecting consumption, diagnostic, and status data from energy metering devices and transferring that data to a central database for billing, troubleshooting, and analysis.

"ANSI" shall refer to the American National Standards Institute.

"Customer" shall refer to any person or entity supplied with electric service under a contract with a DU.

"DU" or "Distribution Utility" shall refer to any electric cooperative, private corporation, government-owned utility or existing local government unit which has an exclusive franchise to operate a distribution system in accordance with its franchise and the Act.

"DSOAR" shall refer to the Distribution Services and Open Access Rules, including any amendments thereto.

"Elevated Metering Center" shall refer to the structure attached to DU's poles or other structures on which a cluster of meters is installed beyond the mounting height per Magna Carta and DSOAR provisions.

"Home Area Network (HAN) Interface" shall refer to an optional feature of a smart meter used to transmit information, including usage, price, and cost data, from the meter to one or more devices in the Consumer's home.

"IEC" shall refer to the International Electrotechnical Commission.

"Interval Reading" shall refer to an optional feature of a smart meter which is integrated to an AMI system for the recording of electricity consumption during fixed time intervals.

"Outage Detection" shall refer to the feature of a smart meter which gives information to the DU of any Customers experiencing power outage for the purpose of aiding restoration of power.

"PDC" shall refer to the Philippine Distribution Code and any amendments thereto.

"Magna Carta" shall refer to the Magna Carta for Residential Consumers including the Guidelines to Implement the Magna Carta issued by the ERC and any amendments thereto.

"Remote Connection" shall refer to the connection of a customer to the distribution system of a Distribution Utility using the automated features of a smart meter and without need to physically access the customer's premises.

"Remote Disconnection" shall refer to the Disconnection of a customer from the distribution system of a Distribution Utility using the automated features of a smart meter and without need to physically access the customer's premises.

"Remote Reading" shall refer to meter reading and recording using the automated features of a smart meter and without need to physically access the customer's premises.

"Demand Control" shall refer to the feature of a smart meter where the customer's demand is set in the meter based on the customer's applied connected load.

ARTICLE II

GENERAL CRITERIA

2.1. Philippine Distribution Code Requirement

In accordance with the PDC, the meter shall conform to the type of circuit of the distribution system where it is connected. The meter shall measure and locally display the kW, kWh, kVAR, KVARh, and cumulative demand with optional features of time-of-use, maintenance of records, and pulse output.

2.2. Use of Smart Revenue Meters for an AMI System

A DU may use smart meters for an AMI system with any of the following functionalities or a combination thereof: Remote Reading (kWh, kW, kVAR), Interval Reading, Outage Detection, theft detection, voltage quality detection, Remote Connection and Remote Disconnection, Demand Control and Home Area Network Interface.

ARTICLE III

REQUIREMENTS, PROCEDURES AND STANDARDS

3.1. Installation of Smart Meter

Smart meters shall be installed in standard elevation or Elevated Metering Centers, with or without customer interface. Mounting of smart meters may be DIN rail or plug-in type, socket type or bottom connected.

3.2. Meter Reading and Recording

In accordance with the PDC, meter reading recording shall be done by the authorized representative of the DU and witnessed by the authorized representative of the Customer on the date stipulated in a separate agreement. In case a smart meter for an AMI system is used by the DU, any communication platform, such as but not limited to General Packet Radio Service (GPRS), Radio Frequency (RF), Power Line Communication (PLC), Worldwide Interoperability for Microwave Access (WiMAX), Broadband Mesh Network (Mesh), and the like, may be used to communicate with the meter for remote reading and recording, provided, that, the appropriate license is secured by the DU when applicable.

3.3. Usage for Billing Purposes

The DU may use metering data from the smart meter integrated through an AMI system's Remote Reading feature thereof, for billing purposes.

The DU may use the AMI system or Meter Data Management (MDM) built-in algorithm to automatically validate, edit, and estimate remotely read consumption and such validated readings will be used for billing.

3.4. Remote Connection and Disconnection

If the smart meter through the DU's AMI system utilizes its Remote Disconnection features, the DU shall comply with all the requirements under the Magna Carta for Residential Electricity Customers, as may be amended from time to time. The Customer's Right to Tender Payment at the Point of Disconnection shall be deemed complied with in case of Remote Disconnection if a representative of the DU is sent to the Customer Premises to receive payment at least seventy-two (72) hours after the Notice of Disconnection is served. If no payment is received within such period, the DU may effect Remote Disconnection.

The DU shall fully utilize the Remote Connection feature of the smart meter to maximize service performance, efficiency and reliability.

3.5. Anti-Theft Provision or Function of a Smart Meter

The DU may use the automatic disconnection function of the smart meter to effect immediate disconnection of electric service in accordance with Republic Act No. 7832, otherwise known as the Anti-electricity and Electric Transmission Lines/Materials Pilferage Act, as may be amended from time to time.

3.6. Compliance with Standards

All smart meters shall comply with the requirements of the IEC or ANSI Standards or their equivalent national standards.

3.7. Utilization Per Customer Class

A DU opting to utilize smart meters should do so for the selected customer class or classes involved.

ARTICLE IV

TRANSITORY PROVISIONS

4.1. Separability Clause. If, for any reason, any provision of these Rules is declared unconstitutional or contrary to law, the other parts or provisions hereof which are not affected thereby shall continue to be in full force and effect.

4.2. Repealing Clause. Provisions of the Philippine Distribution Code, Distribution Services and Open Access Rules (DSOAR), Magna Carta for Residential Customers, Anti-electricity and Electric Transmission Lines/Materials Pilferage Act, rules, regulations, guidelines and other issuances not expressly revised by the Rules shall remain in full force and effect.

4.3. Effectivity. These Rules shall take effect on the fifteenth (15^{th}) day following its publication in a newspaper of general circulation in the country.

10. Considering that the increasing usage of Smart Meters due to technological and procedural developments in the power industry, VECO respectfully submits that there is an urgent need for the issuance of rules for to govern the use of said meters in this jurisdiction, particularly those submitted above; and

11. It prays that the Commission adopt the proposed Rules to Govern the Installation and Use of Smart Revenue Meters for Advance Metering Infrastructure (AMI) System Application.

The Commission has set the petition for public consultation on **July 27, 2015 (Monday) at two o'clock in the afternoon (2:00 P.M.) at the ERC Hearing Room, 15th Floor, Pacific Center Building, San Miguel Avenue, Pasig City.**

All interested parties may submit their comments on the said rules proposed by VECO on or before **July 17, 2015.** Electronic copies may be sent to **standards@erc.gov.ph**. Parties who have filed their written comments on or before the prescribed period shall be given priority during the above-scheduled public consultation. Copies of the said "Rules To Govern The Installation and Use of Smart Revenue Meters for Advanced Metering Infrastructure (AMI) System Application" may be downloaded from the ERC-administered website at www.erc.gov.ph or may be photocopied, at cost, during regular office hours at the ERC Main Office.

WITNESS, the Honorable Chairperson, **ZENAIDA G. CRUZ-DUCUT,** and the Honorable Commissioners, **ALFREDO J. NON, GLORIA VICTORIA C. YAP-TARUC, JOSEFINA PATRICIA A. MAGPALE-ASIRIT,** and **GERONIMO D. STA. ANA,** Energy Regulatory Commission, this 29th day of June, 2015 at Pasig City.

ATTY. FRANCIS SATURNINO C. JUAN
Executive Director III

LBB/NJS