

Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City

Nineteenth Congress
First Regular Session

HOUSE BILL NO. 635



Introduced by **Representative JOEY SARTE SALCEDA**

**AN ACT
MODERNIZING THE NATIONAL MEASUREMENT SYSTEM (NMS)
OF THE PHILIPPINES, APPROPRIATING FUNDS THEREFOR,
AND FOR OTHER PURPOSES**

EXPLANATORY NOTE

This proposed legislation builds on Republic Act No. 9236, also known as “National Metrology Act of 2003”. In consonance with the objectives set forth under RA 9236, the State shall provide support to Research and Development (R&D) in Metrology covering the environment and climate change, public health and safety, transportation Information Communication Technology (ICT), Biotechnology / Genomics, Materials Science, Nanotechnology, Photonics, Metrology in Chemistry, Space Technology applications and other emerging and enabling technologies. This bill endeavors to facilitate progress in the national economy by encouraging the standardization and modernization of units and standards of measurements to adapt to the needs of times. It seeks to encourage the adoption of international best practices in measurements in response to future developments and requirements.

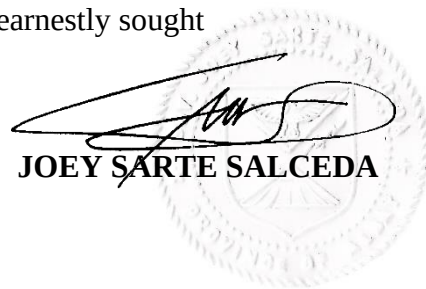
This bill supports the harmonization of national metrological standards with international standards, mutual recognition arrangements and statistical controls as envision in the ASEAN economic integration, the World Trade Organization (WTO) and international agreements and covenants resulting to globally competitive and quality products and services that conforms with national standards. In addition this bill will accord greater consumer protection, transparency and confidence in measurements.

For the purpose of strengthening the NMIS and to attain harmonization of metrology standards consistent with the ASEAN and other recognized international standards, the National Metrology Institute (NMI) is hereby created and shall be placed directly under the NMB. The NMI shall be headed by an Executive Director, and under the policy, technical, administrative supervision and control of the Department of Science and Technology.

The National Metrology Board under Section 5 of RA 9236, shall be strengthened to include the Secretary/Chairman or the duly authorized representative of the following agencies/offices:

- Department of Science and Technology (DOST)
- Department of Trade and Industry (DTI)
- Department of Environment and Natural Resources (DENR)
- Department of Health (DOH)
- Department of Energy (DOE)
- National Measurement Institute of the Philippines (NMIPhil)
- Union of Local Authorities of the Philippines (ULAP)
- One (1) representative each from the: manufacturing industry sector, local manufacturer of measuring instruments; and private calibration laboratories / professional metrology association of national membership

In view of the foregoing, the passage of this bill is earnestly sought



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Be it enacted by the Senate and House of Representatives of the Philippines in Congress assembled:

ARTICLE I
GENERAL PROVISIONS

SECTION 1. *Title.* – This Act shall be known as the “National Measurement System Modernization Act of 2022”.

SEC. 2. *Declaration of Policy.* – It is hereby declared to be the policy of the State to facilitate the development of scientific and technical knowledge and progress in the national economy by providing a modernized National Measurement System (NMS) that will ensure the integrity of measurements in the country, meet regional and international requirements, and provide support for the competitiveness of Philippine products and services.

The State shall support the undertaking of necessary activities to promote metrology, develop appropriate infrastructures, and sustain research and development in metrology for the purpose of:

- a) continuously improving the national measurement standards and their measurement uncertainties;
- b) developing novel measurement techniques and technologies aiming at Philippine industry take-up to stimulate industrial innovation; and
- c) addressing the measurement needs of Philippine society and industries, focusing on contributions for (i) energy efficiency, (ii) food security, (iii) environmental protection, and (iv) the health, security and economic well-being of Filipinos.

The State shall likewise undertake the harmonization of national requirements, including technical regulations, document standards and conformity assessment procedures, with international requirements as envisioned in the ASEAN Economic Community (AEC), World Trade Organization (WTO) and other international agreements and covenants, resulting to the free flow of goods and services, and a predictable trading environment.

Lastly, the State shall define the roles and responsibilities of the different instrumentalities of the national government and local government units as well as the contribution of the private sector and other non-government organizations.

SEC. 3. *Scope.* – This Act shall cover all agencies, institutions, entities involved in metrological activities and processes, both private and public.

SEC. 4. *Objectives.* – Pursuant to the foregoing policy, the Modernization of the National Measurement System shall have the following objectives:

- a) Enhance current capabilities and ensure that measurements in the country are reliable by upgrading physical resources and operational techniques through the acquisition and development of state-of-the-art instruments, equipment, facilities and systems;
- b) Strengthen and harmonize the country's measurement system in accordance with international best practices to support confidence in measurements for regulation, trade and manufacturing through research and development (R&D), and other similar activities;
- c) Implement legal metrological controls of measuring instruments in the country in the interest of fair trade, health, safety, law enforcement, and environmental protection;
- d) Disseminate knowledge on state-of-the-art calibration techniques and develop competencies on legal metrological controls through capacity building programs;
- e) Foster a metrology culture that will instill a keen appreciation of the metrology as a discipline through public information, advocacy and the integration of metrology courses in the educational system;
- f) Establish a national metrology institute with the appropriate organizational set-up and sufficient manpower complement; and
- g) Promote professionalism and commitment to public service through the provision of a more competitive base pay and other benefits for personnel.

SEC. 5. *Definition of Terms.* – For the purpose of harmonizing with international best practices, and utilizing the International Vocabulary of Metrology and International Vocabulary of Legal Metrology as references, the following terms are defined as follows:

- a) *Accreditation* refers to the process in which an authoritative body formally recognizes the competence, impartiality and capability of an organization to carry out specific activities, such as certification, testing, calibration and inspection;
- b) *ASEAN Common Requirements for Prepackaged Products* refers to a regionally-agreed document specifying the labelling requirements and allowed quantity deficiency in prepackaged products for ASEAN Member States;
- c) *Asia Pacific Legal Metrology Forum (APLMF)* refers to a grouping of legal metrology authorities from the Asia Pacific Economic Co-operation Member economies and other economies in the Pacific Rim for the development of legal metrology and promotion of free and open trade in the Asia Pacific region through harmonization and removal of technical or administrative barriers to trade in the field of legal metrology;
- d) *Asia Pacific Metrology Programme (APMP)* refers to a grouping of national metrology institutes from the Asia-Pacific region for the promotion and support of a measurement infrastructure in the Asia Pacific region that facilitates international trade, improves industrial efficiency and competitiveness, ensures equity in the marketplace, and enhances the quality of life and the environment through reliable measurements;
- e) *Calibration* refers to an operation that, under specified conditions, in a first step, establishes a relation between the quantity values with measurement uncertainties provided by measurement standards and corresponding indications with associated measurement uncertainties and, in a second step, uses this information to establish a relation for obtaining a measurement result from an indication;
- f) *Calibration laboratories* refer to public or private entities that perform tests and/or calibrations in a permanent, temporary, or remote location;
- g) *Certification* refers to a procedure where a third party provides written attestation that a product, process or service meets specified requirements;
- h) *Conformity assessment* refers to a set of processes that shows a product, service or system meets specified requirements. The main forms of conformity assessment are testing, certification, and inspection;
- i) *Designated Institutes* refer to government agencies or private organizations or entities appointed by the country's national metrology institute to hold, maintain, or provide specific measurement standards or services that are not covered by the national metrology institute;
- j) *Inspection* refers to the examination of a measuring instrument to ascertain all or some of the following: verification mark and/or certificate is valid, no sealing marks are damaged, after verification the instrument suffered no obvious modification, its errors do not exceed the maximum permissible in service errors. The inspection of a measuring instrument may be done only after verification;

- k) *International System of Units* or *Système International d'Unités (SI)*, in French, refers to a modern metric system establishing seven base units for base quantities, namely: metre for length, kilogram for mass, second for time, ampere for electric current, kelvin for thermodynamic temperature, mole for amount of substance and candela for luminous intensity. The derived units of the SI (e.g. metre per second, watt, newton, etc.) are then formed as products of powers of the base units, according to the algebraic relations that define the corresponding derived quantities in terms of the base quantities;
- l) *Legal metrological controls* refer to a series of evaluations and periodic checks performed on regulated measuring instruments throughout their lifetime to monitor if they are still suitable for their intended use. For prepackaged products, it refers to the checking of the quantities contained in the package with reference to the quantity indicated in the label;
- m) *Legal metrology* refers to the practice and process of applying regulatory structure and enforcement to measurements and measuring instruments to ensure trade and legal decisions are fair, and that the health, safety and interest of every citizen and his environment are protected against possible abuse related to wrong measurements;
- n) *Legal units of measurement* refer to units of measurement required or permitted by regulations;
- o) *Measurement standard* refers to a material measure, measuring instrument, reference material or measuring system intended to define, realize, conserve or reproduce a unit, or one or more values of a quantity to serve as a reference;
- p) *Measuring instrument* refers to a device used for making measurements, alone or in conjunction with one or more supplementary devices. This may be an indicating measuring instrument or a material measure;
- q) *Metre Convention* refers to a diplomatic treaty which established a permanent organizational structure for member governments to act in common accord on all matters relating to metrology;
- r) *Metrological traceability* refers to the property of a measurement result whereby the result can be related to a reference through a documented unbroken chain of calibrations, each contributing to the measurement uncertainty;
- s) *Metrology* refers to the science of measurement and its application. It includes all theoretical and practical aspects of measurement;
- t) *National accreditation body* refers to a national organization which attests to the competence and impartiality of conformity assessment bodies (testing and calibration laboratories, certification and inspection bodies), according to internationally accepted standards;

- u) *National measurement standards* refer to measurement standard recognized by national authority to serve as the basis for assigning quantity values to other measurement standards for the kind of quantity concerned in a state or economy;
- v) *National Measurement System (NMS)* refers to collective infrastructure of national measurement standards, expertise, knowledge and research, facilities, and the legal framework for reliable, consistent and internationally recognized measurement. The infrastructure encompasses essential elements of both the public and private sectors;
- w) *National metrology institutes* refer to bodies with the responsibility of maintaining the national measurement standards and disseminating the SI Units nationally, to provide metrological traceability;
- x) *National Regulatory Agencies* refer to national government departments, agencies, instrumentalities, or offices that promulgate measurement standards for specific products or services, conduct calibration activities for measuring instruments, and issue certificates of compliance to measurement standards?
- y) *International Organization for Legal Metrology or Organisation Internationale de Métrologie Légale (OIML)*, in French, refers to an intergovernmental organization that establishes the coordination and harmonization at the international level of the administrative and technical regulations applied to measurements and measuring instruments passed by different governments;
- z) *OIML Recommendations* refer to model regulations that establish the metrological characteristics required of certain measuring instruments and which specify methods and equipment for checking their conformity. These model regulations are concerned with the acceptable tolerances referred to as maximum permissible errors, within which regulated measurements and measuring instruments should operate despite variations in temperature and humidity, power supply and electromagnetic interference;
- aa) *Prepackaged products* refer to commodities that are enclosed in a container or wrapped in any manner, and for which their quantities have been determined and indicated on their labels prior to being offered for sale. The quantity contained cannot be changed without the prepackaged product being opened or doing a perceptible modification;
- bb) *Proficiency testing* refers to a comparison activity that determines the continuous performance of individual laboratories for specific tests or measurements for regular monitoring;
- cc) *Regional Metrology Laboratory* refers to a body under the Department of Science and Technology (DOST) Regional Office that is tasked to provide calibration and measurement services to stakeholders in the region;
- dd) *Regulated Areas* refer to field of endeavors or areas which are critical to citizens as they affect health, safety, welfare, physical conditions, trade and commerce, legal transactions, environment and other areas as may be determined by the Board;

- ee) *Traceability* refers to the property of a result of a measurement relating to appropriate standards, generally national or international through an unbroken chain of comparison; and
- ff) *Working measurement standard* refers to a measurement standard that is used routinely to calibrate or verify measuring instruments or measuring systems

ARTICLE II

THE NATIONAL MEASUREMENT SYSTEM

SEC. 6. *National Measurement System.* – The National Measurement System (NMS) is the collective infrastructure of national facilities, expertise, knowledge and research, and the legal framework for reliable, consistent and internationally recognized measurement, covering both the public and private sectors. It shall provide confidence in measurements used for regulation, trade, and manufacturing in the country.

The NMS shall cover the following:

- a) legal units of measurement;
- b) national measurement standards;
- c) hierarchy of measurement standards;
- d) legal metrological controls;
- e) metrological traceability for regulated and non-regulated areas;
- f) national legal metrology regulations for measurements and measuring instruments;
- g) certification system; and
- h) accreditation system.

SEC. 7. *Legal Units of Measurement.* – The International System of Units (SI) and combinations of those units shall be the mandatory legal units of measurement in the country, and to include non-SI units that are:

- a) accepted for use with the SI, such as, but not limited to, minute, hour, and day for time, hectare for area, tonne for mass, bar for pressure, angstrom for length, nautical mile for distance, decibel for sound level; and
- b) allowed by international agreements, such as, but not limited to, feet for altitude navigation and mmHg for blood pressure.

SEC. 8. *National Measurement Standards.* – The national measurement standards of the country shall be those measurement standards recognized by the National Measurement Institute of the Philippines (NMIPhil) which shall serve as the basis for assigning quantity values to other measurement standards for the concerned kind of quantity. The national measurement standards shall in all cases be those assumed to be the most accurate measurement standards of the country. The country's national measurement standards shall comply with international measurement standards.

The NMIPhil shall periodically undertake metrological activities, calibration, re-calibration and other related activities to effectively undertake its functions, duties and responsibilities, and comply with international standards.

Any equipment, instrument, artifact, and/or other National Measurement Standards used by NMIPhil that shall be subject to such activities, including proficiency testing, comparison measurements, preventive maintenance and repair, requiring foreign technical services; such processes shall be exempt from any taxes, dues, and other impositions by the Bureau of Customs, Bureau of Internal Revenue or by the Secretary of Finance. The implementing mechanism shall be included in the Implementing Rules and Regulations of this Act.

SEC. 9. Hierarchy of Measurement Standards and Their Application. – There shall be a hierarchy of measurement standards to be promulgated, recognized, or disseminated, as may be appropriate, by the NMIPhil. It shall include, but not limited to, the primary, secondary, reference, working, and intrinsic measurement standards.

The NMIPhil, or its Designated Institutes, as the case may be, shall maintain the national measurement standards for the legal units of measurement having the highest accuracy for the country.

The NMIPhil, or its Designate Institute, as the case may be, shall provide calibrations at appropriate levels of accuracy for the calibration laboratories, national regulatory agencies, and NMB-authorized public or private entities to disseminate the legal units of measurement.

Private and public calibration laboratories including the Regional Metrology Laboratories under the DOST Regional Offices shall, in turn, use working measurement standards that have been calibrated by the NMIPhil, or its Designated Institute, to provide lower-accuracy calibrations and measurements to industry and the community.

Similarly, national regulatory agencies, Local Government Units (LGUs) and entities authorized by the NMB shall use working measurement standards calibrated by the NMIPhil, or its Designated Institute, to provide legal metrological controls of measuring instruments and measurements

SEC. 10. Legal Metrological Controls. – Measuring instruments used in trade, health, safety, law enforcement and environmental protection and compliance with quantity and labelling requirements of prepackaged products, shall be subject legal metrological controls of national regulatory agencies, LGUs, and other NMB-authorized public and private entities based on the relevant OIML Recommendations, ASEAN Guidelines on Standards, Technical Regulations and Conformity Assessment Procedures, ASEAN Common Requirements of Prepackaged Products, and/or Board-authorized document standards.

For the effective implementation of this Section, national regulatory agencies, LGUS and public or private entities authorized to conduct legal metrological controls shall have the right of access to every establishment or commercial premise, where regulated measuring instruments are, or may be installed, kept or used. In the same manner, they shall also have the right of access to every premise or facility where prepackaged products are manufactured, or may be filled, packed, labeled, kept or offered for sale.

Any officer or agent of the establishments, commercial premises or other facilities who shall refuse the inspection shall be liable to the penalties imposed under Section 29 of this Act.

SEC. 11. *Metrological Traceability.* – Measurements in both the regulated and non-regulated areas shall be traceable to the realization of the SI and other accepted or allowed non-SI units through the national measurement standards maintained by the NMIPhil and its Designated Institutes to ensure international compatibility and acceptance of measurement results.

For traceability not provided through the NMIPhil and its Designated Institutes, is hereby authorized to recognize measurement standards of other ASEAN Member States and of other national metrology institutes provided they are internationally accepted by the global metrology community.

SEC. 12. *Registration of Regulated Measuring Instruments.* – To support and facilitate the implementation of legal metrological controls and for an efficient metrological traceability, a system of registration of measuring instruments is hereby mandated.

Measuring instruments used as working measurement standards by the national regulatory agencies, LGUs, and other NMB-authorized entities shall be registered with the NMIPhil.

All measuring instruments used in trade, health, safety, law enforcement and environmental protection with the relevant national regulatory agencies and LGUs.

The NMIPhil shall promulgate the guidelines for the adoption and implementation of the system of registration.

SEC. 13. *Certification System.* – The Department of Trade and Industry (DTI), in collaboration with the NMIPhil, and in consultation with the NMB, LGUs and other private entities involved in metrology, shall establish a certification system to ensure that legal metrological controls are carried out only by accredited certification bodies and laboratories, and competent personnel.

SEC. 14. *Accreditation System.* – The DTI, in collaboration with the NMIPhil, shall maintain an accreditation system to ensure the technical competence of calibration and testing laboratories in the performance of their services under the terms of ISO/IEC 17025 “General Requirements for the Competence of Testing and Calibration Laboratories” and other relevant international guidelines and standards.

The Philippine Accreditation Bureau (PAB), as the national accreditation body of the Philippines under the DTI, shall be responsible to accredit inspection, testing and certification bodies, and other bodies offering conformity assessment services.

ARTICLE III

GOVERNANCE STRUCTURE

SEC. 15. *National Measurement Institute of the Philippines.* – The National Metrology Division (NMD) of the Industrial Technology Development Institute of the Department of Science and Technology (DOST) is hereby transformed as the national metrology institute of the country, to be known as the National Measurement Institute of the Philippines (NMIPhil).

It shall be attached to the DOST for policy, program coordination and administrative supervision.

SEC. 16. *Mandates, Powers and Functions of the NMIPhil.* – The NMIPhil shall be responsible for establishing and maintaining the national measurement standards in physical quantities of the country. It shall:

- a) Maintain and continuously update the national measurement standards in all relevant fields and, as such, guarantee that all metrological laboratories, infrastructure, equipment, instruments, artifacts, reference standards and other similar articles are in good condition, internationally compliant, reliant and possess other qualities that may be required in the future;
- b) Provide metrological traceability to the realization of the International System of Units (SI) and other accepted or allowed non-SI units for measurements done in the country;
- c) Facilitate international harmonization and comparability of measurements, including participation in related international metrological activities, such as proficiency testing, peer review, and research and development;
- d) Carry out the type evaluation/approval activities of measuring instruments, or provide support to bodies designated to perform this function;
- e) Appoint competent laboratories as “Designated Institutes” for specific measurement fields of national interest it does not cover, or for measurement services it does not provide, such as ionizing radiation and time of the day;
- f) Engage and/or coordinate research and development work in metrology;
- g) Provide the necessary advice and technical support to the government, industry, commerce and the public in measurement related issues;
- h) Strengthen the collaboration with calibration laboratories in the areas of capacity building-and harmonization of measurement procedures;
- i) Perform calibration procedures at appropriate levels of accuracy for calibration laboratories, national regulatory agencies, LGUs and other NMB-authorized public or private entities to disseminate SI and other non-SI legal units of measurement;
- j) Disseminate knowledge and competencies in metrology through education and capacity building programs to relevant regulatory bodies and other entities responsible for the implementation of this Act;
- k) Coordinate with other local institutes/bodies having metrological responsibilities;
- l) Establish and maintain linkages with, and represent the Philippines’ interest in, international and regional metrology organizations, consultative committee meetings and working groups, including, but not limited to, the International Bureau of Weights and Measures (Bureau International des Poids et Mesures, BIPM), the

International Organization for Legal Metrology (OIML), the Asia Pacific Metrology Programme (APMP); and the Asia Pacific Legal Metrology Forum (APLMF);

- m) Strengthen and develop a human resource development program;
- n) Provide support to National Quality Infrastructure-related institutes, especially on aspects of standardization, accreditation and conformity assessments that are related to metrology;
- o) Serve as the technical and administrative secretariat of the National Metrology Board;
- p) Coordinate, implement, and monitor the programs and activities of the National Metrology Board; and
- q) Perform such other functions necessary to achieve the objectives of this Act.

SEC. 17. *Organizational Structure of the NMIPhil.* – The NMIPhil shall be headed by an Executive Director, to be appointed by the President upon the recommendation of the Secretary of the DOST and shall receive the benefits, privileges and emoluments equivalent to the rank of Undersecretary.

As the chief executive officer, the Executive Director shall be responsible for the promulgation and implementation of policies, rules and regulations, and in directing and controlling the activities of the different divisions and units, of the NMIPhil.

The Executive Director shall be assisted by three (3) Deputy Directors, for Scientific and Industrial Metrology, Legal Metrology and Quality Management System, and Finance and Administration, who shall likewise be appointed by the President.

The NMIPhil, in coordination with the Department of Budget and Management and the Civil Service Commission, shall determine the technical and administrative support complement necessary for its effective and efficient operations. It shall have, but not limited to, the following Divisions:

- a) Mass and Related Quantities Division;
- b) Metrology-In-Chemistry and Biometrology Division;
- c) Photometry and Radiometry Division;
- d) Thermometry and Hygrometry Division;
- e) Length and Dimensional Metrology Division;
- f) Electricity and Magnetism Division;
- g) Time and Frequency Division;
- h) Metrological Controls and Registration Division;
- i) National Regulators and Laboratories Liaison Division;
- j) Policy and Legislation Division
- k) National Metrology Training and Proficiency Testing Division;
- l) Finance and Administrative Division;
- m) Planning, Information Technology, and Quality Management Division; and
- n) Public Information and External Affairs Division.

There shall be established a National Metrology Training Center under the NMIPhil to undertake training on metrology for building the competence and capabilities of metrology-related entities and in implementing legal metrological controls in the country.

SEC. 18. *Main Office of the NMIPhil.* – The NMIPhil shall have its main office within the Clark Special Economic Zone in Pampanga and Tarlac. The Bases Conversion and Development Authority shall allocate at least thirty (30) hectares to be used exclusively for NMIPhil offices and research facilities. The NMIPhil may establish additional offices, research facilities, and launch sites in strategic areas of the country as it may deem necessary.

SEC. 19. *National Metrology Board.* – There is hereby established a National Metrology Board (NMB) which shall be responsible for standardizing, delineating and overseeing the implementation of legal metrological controls in the country through the coordination with other national regulatory agencies and LGUs, and other NMB-authorized public and private entities. The NMB shall prescribe the procedures in the conduct of legal metrological controls, in conformity with the relevant OIML Recommendations, ASEAN Guidelines on Standards, Technical Regulations and Conformity Assessment Procedures, ASEAN Common Requirements of Prepackaged Products, mandated national policies, and other international and regional agreements and guidelines.

A Regional Metrology Laboratory Network and Partnerships shall be institutionalized. This shall include establishment of a framework of cooperation between the NMI, existing regional metrology laboratories and other similar entities within the country to standardize the metrology protocols, guidelines in calibration, and among others.

In the exercise of its functions, duties and responsibilities, the Board is empowered to delegate authority to public and private entities to ensure that measurements and measuring instruments used in trade, health, safety, law enforcement and environmental protection are subjected to legal metrological controls and are complying with the relevant regulations.

The NMB shall be composed of the following:

- a) The Secretary of the DOST as Chair;
- b) The Secretary of the Department of Trade and Industry (DTI)
- c) The Secretary of the Department of Environment and Natural Resources (DENR)
- d) The Secretary of the Department of Health (DOH)
- e) The Secretary of the Department of Energy (DOE)
- f) The Executive Director of the National Measurement Institute of the Philippines (NMIPhil)
- g) The President of the Union of Local Authorities of the Philippines (ULAP)
- h) One (1) representative each from the:
 - 1) manufacturing industry sector;
 - 2) local manufacturer of measuring instruments; and
 - 3) private calibration laboratories /professional metrology association of national membership;

The Secretary of the DOST may designate an Undersecretary as alternate chair, and the Secretaries of the DTI, DENR, DOH, and DOE may designate at least a Director IV as alternate

member to the NMB. The President of ULAP may assign the Association's Executive Vice President or the Secretary-General to temporarily represent the Association.

The representatives of the private sector shall serve for a term of three (3) years, to be appointed by the Secretary of the DOST from nominees submitted by their respective organizations.

To achieve its mandates, the NMB may call upon and seek the assistance of national government departments and agencies, LGUs, and private institutions, such as the:

- a) Department of Agriculture (DA)
- b) Department of Justice (DOJ)
- c) Department of the Interior and Local Government (DILG)
- d) Department of National Defense (DND)
- e) Department of Information and Communications Technology (DICT)
- f) Department of Public Works and Highways (DPWH)
- g) Department of Transportation (DOTr)
- h) Bureau of Customs (BOC)
- i) Energy Regulatory Commission (ERC)
- j) Food and Drug Administration (FDA)
- k) Manila International Airport Authority (MIAA)
- l) Manila Electric Company (MERALCO)
- m) Manila Water Company, Inc.
- n) Maynilad Water Services, Inc.
- o) Metropolitan Manila Development Agency (MMDA)
- p) Metropolitan Waterworks and Sewerage System (MWSS)
- q) National Food Authority (NFA)
- r) National Meat Inspection Service (NMIS)
- s) National Telecommunications Commission (NTC)
- t) Oil Industry Management Bureau (OIMB)
- u) Philippine Drug Enforcement Agency (PDEA)
- v) Sugar Regulatory Authority (SRA)

The Board shall convene at least twice a year. Special meetings may be convened upon the request of the Chair or majority of the member of the NMB.

The Chair and Members of the NMB shall be entitled to per diems, allowances and other reimbursable expenses as prescribed by the Department of Budget and Management (DBM).

The NMIPhil shall provide technical and administrative secretariat support to the NMB.

ARTICLE IV

CAPACITY ENHANCEMENT AND CAPABILITY BUILD-UP OF NMIPhil

SEC. 20. Acquisition and Upgrading of Physical Resources and Operational Techniques. – To enhance the capability and capacity of the NMIPhil to continuously improve the national measurement standards and their measurement uncertainties, develop novel measurement techniques and technologies, and address the measurement needs of society and

industry, the acquisition and/or upgrade of state-of-the-art instruments, equipment, facilities and systems shall be pursued. This shall be complemented with technical capability building programs for NMIPhil personnel that are similar or comparable to those in other national metrology institutes and in accordance with international best practices in order to support confidence in measurements for regulation, trade and manufacturing.

SEC. 21. *Strengthening of Research and Development Capacity.* – This shall involve the enhancement of research and development capacity with focus on improvement of metrological activities such as but not limited to calibration, material testing, proficiency testing, and other related metrological activities to effectively implement this Act.

SEC. 22. *Human Resource Development Program.* – The NMIPhil shall formulate a continuing Human Resource Development Program to recruit and maintain a cadre of highly-proficient personnel on the different of metrology: scientific metrology, applied metrology, and legal metrology. It shall include:

- a) Scholarship and Financial Assistance – Not later than three (3) years from the enactment of this Act, scholarship and financial assistance grants shall be provided for undergraduate and graduate studies in metrology and related fields, as well as for specialized training programs, in coordination with the DOST, Commission on Higher Education (CHED), Technical Education and Skills Development Authority (TESDA), Higher Education Institutions (HEIs), and other entities providing support for metrology development in the country. Cooperation on human resources upgrading and capability enhancement with regional and international organizations shall also be undertaken; and
- b) New Salary Scale for NMIPhil Personnel - The Department of Budget and Management (DBM) shall develop a new salary scale for NMIPhil personnel in consonance with Republic Act No. 8439, as amended. or the “Magna Carta for Scientists, Engineers, Researchers and other Science Technology Personnel in Government” with the corresponding increase in the base pay, allowances and other benefits.

SEC. 23. *Capacity Enhancement Plan.* – Within six (6) months from the start of the effectivity of this Act, the DOST Secretary, and the Executive Director of the NMIPhil, in coordination with the Secretary of the Department of Budget and Management (DBM) and the Secretary of the National Economic and Development Authority (NEDA), shall formulate the NMIPhil Capacity Enhancement Plan and submit to the President for approval.

The Plan shall indicate among others:

- a) The objectives and key performance indicators;
- b) Requirements in terms of equipment, facilities and personnel necessary to attain the Plan’s objectives;
- c) The projects to be undertaken, which shall indicate the equipment and technology acquisitions, including major construction or upgrade of facility; and
- d) The schedules and estimated cost of each project.

SEC. 24. *NMIPhil Capacity Enhancement Fund.* – To fund the implementation of the enhancement of the capacity and capability of the NMIPhil to maintain and continuously improve the national measurement standards and support adherence to legal metrological control, there is hereby established the NMIPhil Capacity Enhancement Fund. The Fund shall be sourced from the following:

- a) The amount of three billion pesos (P3,000,000,000.00) to be taken from the share of the National Government in the gross income of the Philippine Amusement and Gaming Corporation (PAGCOR). For four (4) years from the start he effectivity of this Act, an amount of Seven Hundred Fifty Million Pesos (P750,000,000.00) per year shall be released to the NMIPhil. The entire amount, including any interest income thereon, shall be used exclusively for capital outlay.
- b) Eighty percent (80%) of the income of NMIPhil from fees and other charges collected for metrology-related works including, but not limited to, calibration and measurement services, technical trainings, proficiency testing services, and specialized products and services. This shall be used exclusively for the upkeep and modernization of measurement standards and facilities, purchase of measurement standards and equipment, promotion of metrology culture, awareness raising programs and advocacy campaigns.
- c) Loans, grants, bequests, and donations whether from local or foreign sources. The Secretary of the DOST, with the approval of the NEDA and subsequently the Department of Finance (DOF), is hereby granted the authority to enter into loan agreements with foreign financial institutions.

The Fund shall be administered by the Executive Director of the NMIPhil in accordance with existing government budgeting, accounting and auditing rules and regulations

SEC. 25. *Tax Exemptions.* – Any equipment, instrument, artifact, and/or other National Measurement Standards used by NMIPhil that shall be subject to, among others, proficiency testing, comparison measurements, preventive maintenance and repair, and requiring foreign technical services, shall be exempt from all taxes, dues, and other impositions by the Bureau of Customs, Bureau of Internal Revenue, or by the Secretary of Finance. The Department of Finance shall cause the promulgation of the necessary issuances to implement the provisions of this Section.

ARTICLE V

INFORMATION, ADVOCACY AND EDUCATION

SEC. 26. *Public Information and Advocacy.* – The NMIPhil, in collaboration with other concerned government agencies and stakeholders, shall engage in information campaigns and advocacy programs to increase the public’s awareness on metrology and instill greater appreciation of metrology by the public.

SEC. 27. *Education and Curriculum Development.* – The NMIPhil, Department of Education, CHED, TESDA and other concerned government agencies shall formulate the

design and details of a curriculum on metrology and its inclusion in all levels of the Philippines' education system.

ARTICLE VI PROHIBITED ACTS, AND FINES AND PENALTIES

SEC. 28. *Prohibited Acts.* – The following shall constitute prohibited acts of any person or juridical person and are hereby declared unlawful:

- a) To sell, offer, or expose for sale goods or products with a quantity less than the quantity represented;
- b) To represent the quantity in any manner or intending to mislead or in any way deceive another person;
- c) Failure to register regulated measuring instruments;
- d) Use of unregistered regulated measuring instruments;
- e) Hinder or obstruct any national regulatory agency, LGU, and NMB-authorized entities in the performance of their duties;
- f) Falsely represent a national regulatory agency, LGU, or NMB-authorized public and private entity;
- g) Affix fake or undue conformity marking or verification marks;
- h) Use of units other than the legal units of measurement in trade, commercial transactions, documentation and advertisements for products and services, publications, or training;
- i) Use of regulated measuring instruments which have not been submitted to legal metrological control;
- j) Use of regulated measuring instruments which have failed the legal metrological control and are giving false/wrong measurements;
- k) Affix false conformity markings or affix conformity markings illegally on measuring instruments;
- l) Falsification of documents relative to legal metrological control;
- m) Remove or tamper any tag, seal, or mark from any weight or measure or measuring instrument without being duly authorized by the proper authority; and
- n) Manipulate software and/or hardware of measuring instruments to give false measurements.

SEC. 29. *Penalties.* – Any person who violates any provision of this Act shall be penalized by imprisonment of not less than six (6) months but not more than five (5) years or fine of not less Fifty Thousand Pesos (Php 50,000.00) but not more than Five Hundred Thousand Pesos (Php 500,000.00), or both upon the discretion of the court: *Provided*, however, that if the violator is a corporation, firm, partnership or association, the penalty shall be imposed upon the president or the manager or any officer thereof who knows or ought to have known the commission of the offense: *Provided, finally*, That in case the offender is an alien engaged in business in the country, his license shall be revoked and shall be ipso facto deported after service of sentence without need of further proceedings.

ARTICLE VII MISCELLANEOUS PROVISIONS

SEC. 30. *Transitory Provisions.* – The transfer of functions, assets, funds, equipment, properties, transactions, and personnel of the affected agency, and the formulation of the internal organic structure, staffing pattern, operating system, and revised budget of NMIPhil, shall be completed within six (6) months from the effectivity of this Act.

The existing personnel of the National Metrology Division shall continue to assume their posts in holdover capacities until new appointments are issued. There shall be no diminution of rank and salaries, allowances and benefits of transferred employees.

SEC. 31. *Implementing Rules and Regulations.* – Within one hundred eighty (180) days from the start of the effectivity of this Act, the DOST, in consultation with the relevant national government departments and agencies, LGUs, the private sector, and other concerned organizations, shall issue the necessary implementing rules and regulations of this Act.

SEC. 32. *Progress Report.* – The Executive Director of the NMIPhil shall submit an annual report on the status of the implementation of this Act, through the Secretary of the DOST, to the President of the Philippines and to the Chairpersons of the Committees on Science and Technology of the Senate and the House of Representatives not later than June 30 of the succeeding year.

SEC. 33. *Appropriations.* – The amount necessary to carry out the provisions of this Act shall be initially charged against the current fiscal year appropriations of the DOST-Industrial Technology Development Institute (ITDI). Thereafter, the amount needed for the continued implementation of this Act shall be included in the General Appropriations Act.

SEC. 34. *Separability Clause.* – If for any reason, any provision of this Act is declared unconstitutional, the other sections or provisions hereof which are not affected shall continue to be in full force and effect.

SEC. 35. *Repealing Clause.* – All laws, decrees, orders, rules and regulations or portions thereof inconsistent with this Act are hereby repealed or modified accordingly.

SEC. 36. *Effectivity.* – This Act shall take effect fifteen (15) days after its complete publication in the Official Gazette or in at least two (2) newspapers of general circulation.

Approved,