

Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City

TWENTIETH CONGRESS
First Regular Session

HOUSE BILL NO. 5706



Introduced by: **REP. JULIO A. LEDESMA IV**

**“AN ACT
ESTABLISHING THE NATIONAL MEASUREMENT INSTITUTE OF THE
PHILIPPINES, AND APPROPRIATING FUNDS THEREFOR”**

EXPLANATORY NOTE

This bill seeks to establish the **National Measurement Institute of the Philippines (NMIPHIL)** as an attached agency of the Department of Science and Technology to strengthen the country’s metrology infrastructure. The proposed Institute is the result of the technical working group convened under the House Committee on Science and Technology, spearheaded by former Rep. Carlito S. Marquez and Technical Working Group Chair Congressman Ron Salo.

Currently, metrology services are primarily carried out by the **National Metrology Laboratory (NML)** under the **Industrial Technology Development Institute (ITDI)** of the **Department of Science and Technology (DOST)**. While the NML under the ITDI of the DOST has played a crucial role in sustaining our metrological capabilities, it remains inadequate in meeting the expanding and increasing complex demands of science, industry and commerce. Limitations in scope, resources legal authority, technical expertise and infrastructure prevent it from keeping pace with regional and global developments in measurement science.

Measurement plays a vital role in science, industry and commerce. The science that underpins accurate and reliable measurement is known “metrology”. In 2003, Republic Act 9236, also known as “National Metrology Act of 2003,” established the national measurement infrastructure system of the Philippines. The law enables the Philippines to develop, maintain and disseminate measurement standards. However, despite the efforts, the Philippines lagged behind Southeast Asia due to lack of legal framework, policies, technical experts, facilities and funding to cope with measurement science’s fast-paced development and advancement.

As global trade and regional integration intensify, the Philippines must ensure that its measurement systems are accurate, reliable, and globally recognized. A dedicated institute will enhance the country's capacity to support industries, protect consumers, and foster innovation through standardized measurements.

There is a need to elevate the country's metrology infrastructure to international standards to enhance the global competitiveness and quality of Philippine measurement systems, ensuring conformity with internationally recognized standards by transforming the **National Metrology Laboratory** into to the **National Measurement Institute of the Philippines (NMIPHIL)** attached to the **DOST** for purposes of policy formulation, program coordination, and administrative supervision.

This will also address the different challenges, NMIPHIL must serve as country's apex authority for scientific and industrial metrology, a national institution capable of advancing the science of measurement and meeting the growing demands of technology driven global economy. The NMIPHIL will be crucial in aligning our national measurement system with international standards, and best practices particularly within the frameworks of ASEAN economic community (AEC), the World Trade Organization (WTO), international agreements, and covenants, resulting in globally competitive and quality products of measurements that conform to the national standards globally. It will support Philippine industries in ensuring the quality and global competitiveness of our products and services.

In view of this, passage of this bill is earnestly sought.



JULIO A. LEDESMA IV

Representative

1st District, Negros Occidental

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

SECTION 1. *Short Title.* – This Act shall be known as the “National Measurement Institute of the Philippines (NMIPhil) Act.”

SEC. 2. *Declaration of Policy.* – It is hereby declared the policy of the State to:

- (a) Develop the National Measurement System (NMS) to advance scientific and technical progress in the national economy and ensure measurement integrity in the Philippines while aligning with the regional and international standards;
- (b) Support the National Quality Infrastructure (NQI) institutions, namely, the National Standards Body, National Accreditation Body, and National Metrology Institute, to uphold standards, accreditation, and measurement accuracy to enhance the competitiveness of Philippine products and services; and
- (c) Promote the adoption of international standards and best practices in metrology.

SEC. 3. *Establishment of the National Measurement Institute of the Philippines.* The National Metrology Division of the Industrial Technology Development Institute of the Department of Science and Technology (DOST-ITDI) is hereby transformed as the country’s national metrology institute to be known as the National Measurement Institute of the Philippines (NMIPhil). The NMIPhil shall be attached to the DOST for policy, program coordination, and administrative supervision.

The existing buildings, equipment, and facilities of the National Metrology Division of DOST-ITDI shall be transferred to the NMIPhil.

SEC. 4. *Objectives of the Institute.* – The objectives of the Institute are:

- (a) To adopt and establish metrological standards according to the international and regional standards;
- (b) To develop competencies and strengthen the implementation of legal metrological controls in the country;
- (c) To disseminate knowledge on measurement standards development;
- (d) To foster a metrology culture that will instill an appreciation of metrology; and
- (e) To provide the highest measurement accuracy in the country, necessary advice, and technical support for the government, industry, academe/research institutions, civil society organizations, commerce and the public in measurement related issues.
- (f) To represent the country in international organizations and ensure international recognition of measurements

SEC. 5. *Powers and Functions of the Institute.* The Institute shall be responsible for maintaining and disseminating the national measurement standards of the country, and it shall:

- (a) Maintain and update the national measurement standards, ensuring compliance with international requirements to support the compliance of all stakeholders of metrology;
- (b) Provide metrological traceability to the International System of Units (SI) and authorize other units as needed non-SI units for measurements done in the country;
- (c) Facilitate international harmonization of measurements through participation in relevant metrological activities and collaborate with metrology stakeholders and other metrological bodies for capacity building and protocol harmonization;
- (d) Conduct research and development, and innovation to provide measurement solutions for the country;
- (e) Appoint designated institutes for specific tasks to hold and maintain specific measurement standards and provide services that are not covered by the national metrology institute;
- (f) Conduct or adopt a system of type evaluation/approval activities for regulated measuring instruments, including accepting capabilities from recognized international metrology institutes;
- (g) Enhance the country's metrological human resources through education and capacity-building programs;
- (h) Represent the Philippines in international and regional metrology organizations and committees;
- (i) Levy fees and charges for products and services;
- (j) Support the National Quality Infrastructure (NQI) activities related to metrology;
- (k) Promulgate internal policies, rules, and regulations and disseminate guidelines, as well as create programs/projects related to the National Measurement System; and

- (l) Serve as the Administrative Secretariat of the National Metrology Board (NMB), overseeing the adoption and implementation of its policies, guidelines, and activities.

The NMB may assign additional powers and functions to the Institute: *Provided*, That it shall be in accordance with the objectives of the Institute as stated in this Act.

SEC. 6. *Organizational Structure.* 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 Executive Director IV. The Executive Director shall be responsible for promulgating and implementing policies, rules, and regulations and directing and controlling the activities of the NMIPhil.

The Executive Director shall be assisted by three (3) Deputy Executive Directors for scientific and industrial metrology, legal metrology, and quality management system, and finance, administration, who shall likewise be appointed by the President and shall receive the benefits, privileges and emoluments equivalent to the rank of Deputy Executive Director III.

The Executive Director and the Deputy Executive Directors must be Filipino citizens of good moral character of proven integrity, with advanced degrees in metrology, physical, chemical and biological sciences, engineering, or related fields of study, with at least five (5) years of related supervisory experience.

The NMIPhil, in coordination with the Department of Budget and Management (DBM) and the Civil Service Commission (CSC), shall determine its organizational structure, including the specialized, technical and administrative personnel complement necessary for its effective and efficient operations.

SEC. 7. *Main Office, Regional Metrology Laboratories, and Other Centers and Facilities.* – The NMIPhil shall have its Main Office in New Clark City, Capas, Tarlac under the administration of the Bases Conversion and Development Authority (BCDA). A parcel of land shall be leased exclusively for the NMIPhil offices, laboratories and training center based on the terms and conditions agreed upon by the NMIPhil and BCDA, and in accordance with existing laws, rules and regulations.

The Regional Metrology Laboratories (RMLs) of the DOST Regional Offices shall operate and provide calibration and measurement services at a level lower than those offered by the National Measurement Institute of the Philippines (NMIPhil), making them more accessible and responsive to the needs of local industries, government agencies, and academic institutions. The RMLs will remain under the supervision and administrative control of the DOST Regional Offices but will operate under the technical oversight and guidance of the NMIPhil. This arrangement ensures that the RMLs' services, procedures, and quality systems are consistent with national requirements and are coherent, consistent and traceable to the International System of Units (SI) through the NMIPhil. By serving as the regional extensions

of the NMIPhil, the RMLs strengthen the country's metrology, address the demand for basic and intermediate-level calibration services, and help build capacity in the regions.

To sustain these functions and continuously improve their capabilities, the DOST, in coordination with the DBM and CSC, shall strengthen and provide the necessary requirements for the upgrading of the RML's calibration services capability, including sufficient manpower and other resources, to ensure their knowledge and capabilities align with the specific metrological requirements and needs of their specific regions.

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

The NMIPhil shall integrate the OneLab Laboratory Referral Network, under the Department of Science and Technology as a strategic platform for delivering calibration, testing, and analytical services within the framework of the National Measurement Institute of the Philippines

SEC. 8. *Executive Board of the Institute.* The National Metrology Board (NMB) shall be the Executive Board of the Institute. It shall be the national authority responsible for harmonizing, delineating, overseeing, and coordinating the implementation of the regulation of measurements and measuring instruments in the country by National Regulatory Authorities (NRAs), Local Government Units (LGUs), and their contracted public and private entities.

In fulfilling its mandate, the NMB shall adhere and may create a technical working group/s to assist them to the attainment of the objectives of this Act and other mandated national policies and regulations related to metrology and pursue conformance with the relevant international and regional agreements and guidelines.

SEC. 9. *Composition and Meetings of the NMB.* – The NMB shall be composed of the following:

- (a) The DOST, with the DOST Secretary as Chair or an Undersecretary as alternate Chair;
- (b) The Department of Trade and Industry (DTI), with the DTI Secretary as vice-chair or the Undersecretary for Competitiveness and Innovation as alternate vice-chair;
- (c) The Department of Health (DOH), or his or her duly authorized representative who must at least be a Director IV;
- (d) The Department of Energy (DOE), or his or her duly authorized representative who must at least be a Director IV;

- (e) The Department of Agriculture (DA), or his or her duly authorized representative who must at least be a Director IV;
- (f) The Department of Environment and Natural Resources (DENR), or his or her duly authorized representative who must at least be a Director IV;
- (g) The Department of Interior and Local Government (DILG), or his or her duly authorized representative who must at least be a Director IV;
- (h) The Department of Public Works and Highways (DPWH), or his or her duly authorized representative who must at least be a Director IV;
- (i) The Department of Transportation (DOTr), or his or her duly authorized representative who must at least be a Director IV;
- (j) The Department of Justice (DOJ), or his or her duly authorized representative who must at least be a Director IV;
- (k) The Department of National Defense (DND), or his or her duly authorized representative who must at least be a Director IV;
- (l) The Department of Education (DepEd), or his or her duly authorized representative who must at least be a Director IV;
- (m) The Commission on Higher Education (CHED), or his or her duly authorized representative;
- (n) The Executive Director of the National Measurement Institute of the Philippines (NMIPhil);
- (o) The President of the Union of Local Authorities of the Philippines (ULAP) or his/her duly authorized representative;
- (p) One (1) Representative each from the:
 - i. Manufacturing industry associations;
 - ii. Association of local manufacturers of measuring instruments;
 - iii. Association of private calibration and testing laboratories; and
 - iv. Professional Metrology Association of National membership.

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

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

The NMIPhil being the Secretariat of the Board, in coordination with CSC and DBM, shall provide office, technical, and administrative support to the NMB.

SEC. 10. *Compensation and Other Benefits.* The NMB Chair and members, or his or her representatives, and members of the technical working group shall be entitled to *per diems*, allowances, and other reimbursable expenses for their attendance to regular and special meetings as prescribed by the DBM subject to pertinent government accounting and auditing rules and regulations.

SEC. 11. *Powers and Functions of the NMB.* – The NMB shall have the following additional powers and functions:

- (a) Promulgate national policies and guidelines that will guarantee the adoption by all NRAs and LGUs of uniform regulation of measurements and measuring instruments throughout the country;
- (b) Oversee the implementation and application of regulation of measurements and measuring instruments by NRAs, LGUs, and other public and private entities contracted by them;
- (c) Harmonize and/or delineate the authority of NRAs and LGUs to regulate the importation, sale, and repair of measuring instruments, to implement regulation of measurements and measuring instruments, and to impose fees, charges, and fines, and, as necessary;
- (d) Call upon any government department, agency or instrumentality, LGUs, private sector organizations and entities, and non-government organizations to provide data, information, expertise, and recommendations in formulating and promulgating policies and guidelines for efficient and effective regulation of measurements and measuring instruments;
- (e) Create technical working committees and perform other functions that may be necessary for the attainment of its mandates.

SEC. 12. *Human Resource Development Program.* – The NMIPhil shall formulate a continuing human resource development program on the different aspects of the national measurement system to recruit and maintain a cadre of highly proficient personnel in its roster. It shall include:

- (i) 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 with international organizations on human resources development and capacity enhancement shall also be undertaken; and

- (ii) Organizational Structure - the NMIPhil, in coordination with the DBM and the CSC , shall determine its organizational structure, including the technical and administrative support complement necessary for its effective and efficient operations.

SEC. 13. *Capacity Enhancement Plan.* The DOST Secretary and the Executive Director of the NMIPhil, in consultation with the Secretary of the DBM, shall formulate the NMIPhil Capacity Enhancement Plan.

The plan, to be implemented within ten (10) years, shall indicate, among others:

- (a) The Objectives and Key Performance Indicators;
- (b) Requirements in terms of equipment, facilities and personnel, and the concomitant technical expertise 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.

Through its sectoral councils, the DOST shall be responsible for, among others, facilitating the development of the National Metrology Research and Development Roadmap and ensuring continuous fund support for its implementation.

To fund the establishment of NMIPhil, an 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. For three (3) years from the start of the effectivity of this act, a minimum amount of One billion million pesos (P 1,000,000,000.00) per year shall be released to the NMIPhil. The entire amount, including any interest income thereon, shall be used exclusively for the construction and purchase of facilities, equipment, information technology systems, and instruments for metrology research and development, calibration purposes, implementation of the resource development and capacity building program, and other activities outlined in the capacity enhancement plan.

SEC. 14. *Acquisition, Maintenance and Upgrading of Physical Resources and Operational Techniques.*— To efficiently and effectively address the expanding measurement needs of society, industry, research institutions, and the academe, the acquisition and/or upgrade of state-of-the-art instruments, equipment, facilities, and systems shall be immediately

pursued and complemented with technical capability-building programs for NMIPhil personnel.

SEC. 15. *Loans, Grants, Bequests, and Donations, Whether from Local or Foreign Sources.* The Secretary of the DOST is authorized to solicit and manage loans, grants, bequests, and donations from local and foreign sources, including entering into loan agreements with foreign financial institutions, in compliance with relevant accounting and auditing regulations.

SEC. 16. *Multi-year Contracts and Other Contractual Arrangements.* — The NMIPhil may enter into multi-year contracts or other contractual arrangements with suppliers and contractors in the implementation of the NMIPhil capacity enhancement plan and other programs and projects provided with appropriations by Congress.

For multi-year contracts, the Congress shall, upon issuance of the multi-year obligational authority by the DBM, make the corresponding appropriations for the ensuing fiscal years: *Provided*, that the NMIPhil and the DBM shall jointly issue the implementing guidelines to ensure consistency with the NMIPhil capacity enhancement plan and existing guidelines on the contracting of multi-year projects.

SEC. 17. *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. 18. *Education and Curriculum Development.* The NMIPhil, Department of Education, CHED, TESDA and other public and private agencies shall formulate the design and details of a curriculum on metrology and its inclusion in all levels of the Philippines' education system.

The NMIPhil will have a close collaboration with the public and private higher education institutions including state universities and college in metrological research and development, including creating specialized subjects or courses related to metrology.

SEC 19. *Memberships.* The NMIPhil shall maintain and participate as a Member-State and represent the Philippines' interests in international and regional metrology organizations, consultative committee meetings and working groups, including, but not limited to, the General Conference on Weights and Measures (*Conférence Générale des Poids et Mesures, CGPM*), the International Organization for Legal Metrology (OIML), the Asia Pacific Metrology Programme (APMP), the Asia Pacific Legal Metrology Forum (APLMF), and ASEAN Consultative Committee on Standards and Quality – Working Group 3 on Legal Metrology (ACCSQ-WG3) among others. The NMIPhil shall perform its obligations to these international organizations.

SEC. 20. Appropriations. – The amount necessary to carry out the provisions of this Act shall be included in the General Appropriations Act for the year following its enactment and every year thereafter.

There shall be additional funds for the enhancement of the capacity and capability build-up of the NMIPhil in the appropriations provided by the national government for NMIPhil and shall be administered by the Executive Director in accordance with existing government budgeting, accounting and auditing rules and regulations in coordination and approval of the DBM. The funds appropriated therein shall be used exclusively for the construction and purchase of facilities, equipment, information technology systems, and instruments for metrology research and development, calibration and maintenance purposes, public information and advocacy, accreditation and certification fees, representation, implementation of the resource development and capacity building program, and other activities outlined in the Capacity Enhancement Plan.

Fifty percent (50 %) of the fees and charges collected as a result of the metrological work and calibration services shall be used by the Board, the NMIPhil, and the DOST-RMLs in the maintenance and enhancement of their capabilities and modernization of metrological and measurement standard activities. The remaining amount shall be remitted to the National Treasury.

SEC 21. Implementing Rules and Regulations (IRR). – Within ninety (90) days from the start of the effectivity of this Act, the DOST through ITDI, 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 22. Separability Clause. – If, for any reason, any provision of this Act is declared unconstitutional, the other section or provisions hereof which are not hereby affected shall continue to be in full force and effect.

SEC. 23. Repealing Clause. – All laws, decrees, orders, rules, and regulations or portions thereof inconsistent with this Act, including Sections 5, 6, and 18 of Republic Act No. 9236, are hereby repealed or modified accordingly.

SEC 24 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, whichever comes earlier.

Approved,