

Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City, Metro Manila

TWENTIETH CONGRESS
First Regular Session

HOUSE BILL NO. 411



Introduced by Representative **JESUS R. MARQUEZ**

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 (DOST) to strengthen the country's metrology infrastructure. The proposed creation of the Institute is the result of the technical working group convened under the House Committee on Science and Technology, spearheaded by former Congressman Carlito S. Marquez and Technical Working Group Chair Congressman Ron Salo.

Measurement plays a vital role in science, industry, and commerce. The science that underpins accurate and reliable measurement is known as "metrology". In 2003, Republic Act No. 9236, also known as the "*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. Despite the efforts, the Philippines lagged behind Southeast Asia due to a lack of legal framework, policies, technical experts, facilities, and funding to cope with measurement science's fast-paced development and advancement.

Currently, metrology services are primarily carried out by the National Metrology Laboratory of the Philippines (NML) under the Industrial Technology Development Institute (ITDI) of the Department of Science and Technology (DOST). While the NML has played a crucial role in sustaining our metrological capabilities, it remains inadequate in meeting the expanding and increasingly 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.

To address these challenges, this proposed bill seeks to establish a National Measurement Institute of the Philippines, a dedicated institution that will serve as the country's apex authority for scientific and industrial metrology. Rather than merely modernizing the existing NMIS, this measure establishes a national institution capable of

advancing the science of measurement and meeting the growing demands of a technology-driven global economy.

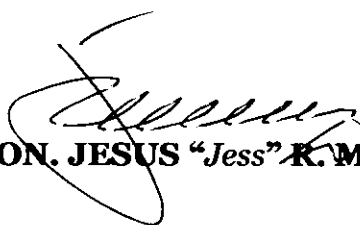
The NMIPhil will be crucial in aligning our national measurement system with international standards and best practices, particularly within the frameworks of the ASEAN Economic Community (AEC), the World Trade Organization (WTO), and other global agreements. It will also support Philippine industries in ensuring the quality and global competitiveness of our products and services.

The COVID-19 pandemic underscored the importance of accurate and reliable measurements, from basic health parameters like body temperature and blood pressure to sophisticated diagnostics and genomic analysis. It also accelerated the adoption of digital technologies, all of which depend heavily on precision measurement and calibration systems.

The country's economic income, prosperity and development rely on the ability to develop, manufacture and trade competitive and high-quality products and services. Traders, consumers, industries and the government make decisions based on measurement results. In all matters relating to measurement, measuring instruments, and procedures, this bill supports the acceleration of economic growth and stability in meeting the current and future demands of the stakeholders in metrology, as well as to adapt international best practices.

Ultimately, only through reliable measurement can we monitor progress, enforce regulations, and ensure quality. Science and technology cannot thrive without metrology. The proposed NMIPhil will drive innovation, strengthen public trust in measurements, and equip the Philippines with the tools to become self-reliant and future-ready.

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



HON. JESUS "Jess" R. MARQUEZ

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AN ACT
ESTABLISHING THE NATIONAL MEASUREMENT INSTITUTE OF THE
PHILIPPINES (NMIPhil), APPROPRIATING FUNDS THEREFOR, AND
FOR OTHER PURPOSES

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

1 **SECTION 1. Short Title.** – This Act shall be known as the “National Measurement
2 Institute of the Philippines (NMIPhil) Act.”
3

4 **SEC. 2. Declaration of Policy.** – It is hereby declared the policy of the State to:
5

- 6 (a) Develop the National Measurement System (NMS) to advance scientific and
7 technical progress in the national economy and ensure measurement integrity in
8 the Philippines while aligning with regional and international standards;
9 (b) Support the National Quality Infrastructure (NQI) institutions, namely, the
10 National Standards Body, National Accreditation Body, and National Metrology
11 Institute to uphold standards, accreditation, and measurement accuracy to
12 enhance the competitiveness of Philippine products and services; and
13 (c) Promote the adoption of international standards and best practices in Philippine
14 standards, testing, and accreditation services.
15

16 **SEC. 3. Establishment of the National Measurement Institute of the Philippines.**
17 The National Metrology Division of The Industrial Technology Development Institute of
18 the Department of Science and Technology (DOST), and the different Regional Metrology
19 Laboratories of the DOST Regional Offices are hereby merged and constituted as the
20 country’s National Metrology Institute, to be known as the National Measurement
21 Institute of the Philippines (NMIPhil).
22

23 The NMIPhil shall be attached to the DOST for policy, program coordination and
24 administrative supervision.
25

26 **SEC. 4. Objectives of the Institute.** – The objectives of the Institute are:
27

- 28 (a) To adopt and establish metrological standards according to international and
29 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 necessary advice and technical support to the government, industry, academe/research institutions, civil society organizations, commerce and the public in measurement related issues.

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

- (a) Maintain and update the national measurement standards, ensuring compliance with international requirements and guarantee that all metrological laboratories infrastructure and reference standards are internationally compliant;
- (b) Provide metrological traceability to the international system of units (SI) and allowed non-SI units for measurements done in the country;
- (c) Facilitate international harmonization of measurements through participation in relevant metrological activities and collaborate with calibration laboratories and other metrological bodies for capacity building and protocol harmonization;
- (d) Appoint designated institutes for specific tasks and conduct type evaluation/approval activities for regulated measuring instruments, including accepting capabilities from recognized international metrology institutes;
- (e) Enhance the country's metrological human resources through education and capacity building programs;
- (f) Represent the Philippines in international and regional metrology organizations and committees, levy fees and charges for products and services;
- (g) Support the National Quality Infrastructure (NQI) in standardization, accreditation, and conformity assessments related to metrology;
- (h) Promulgate internal policies, rules and regulations, and disseminate guidelines as well as creating programs/projects related to the National Measurement System; and
- (i) 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 is 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 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 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

1 receive the benefits, privileges and emoluments equivalent to the rank of Assistant
2 Secretary.

3
4 The Executive Director and the Deputy Executive Directors must be Filipino
5 citizens of good moral character, of proven integrity, with advanced degree in metrology,
6 physical sciences, engineering, or related fields of study, with at least five (5) years of
7 related supervisory experience.

8
9 The NMIPhil, in coordination with the Department of Budget and Management
10 (DBM) and the Civil Service Commission, shall determine its organizational structure,
11 including the technical and administrative support complement necessary for its effective
12 and efficient operations.

13
14 **SEC. 7. Main Office, Regional Metrology Laboratories and Other Centers And**
15 **Facilities.** – The NMIPhil shall have its Main Office at the National Government
16 Administrative Center in New Clark City, Capas, Tarlac. The NMIPhil shall coordinate
17 with the Bases Conversion and Development Authority (BCDA) concerning various
18 aspects, including land allocation and other pertinent matters, for the establishment of
19 its main office and research offices.

20
21 There shall be established a National Metrology Training Center under the
22 NMIPhil to undertake training on metrology for building the competence and capabilities
23 of metrology-related entities and in implementing legal metrological controls in the
24 country.

25
26 The NMIPhil shall maintain the regional Metrology Laboratories and establish
27 offices, centers, and research facilities/laboratories in strategic areas of the country. The
28 existing facilities of the national metrology division shall be retained by the NMIPhil.

29
30 **SEC. 8. Executive Board of the Institute.** The National Metrology Board (NMB)
31 shall be the Executive Board of the Institute. It shall be the national authority that is
32 responsible for harmonizing, delineating, overseeing, and coordinating the
33 implementation of regulation of measurements and measuring instruments in the
34 country by NRAs, LGUs, and their contracted public and private entities.

35
36 In fulfilling its mandate, the NMB shall adhere to attainment of the objectives of
37 this act and other mandated national policies and regulations related to metrology and
38 pursue conformance with the relevant international and regional agreements and
39 guidelines.

40
41 **SEC. 9. Composition and Meetings of the NMB.** – The NMB shall be composed of
42 the following:

43
44 (a) The DOST, with the DOST Secretary as Chair, or an Undersecretary as alternate
45 Chair;

46
47 (b) The Department of Trade and Industry (DTI), with the DTI Secretary as vice-chair,
48 or the Undersecretary for competitiveness and innovation as alternate vice-chair;

49
50 (c) The Department of Health (DOH), to be represented by at least a Director IV;

- 1
2 (d) The Department of Energy (DOE), to be represented by at least a Director IV;
3
4 (e) The Department of Agriculture (DA), to be represented by at least a Director IV;
5
6 (f) The Department of Environment and Natural Resources (DENR), to be
7 represented by at least the Director IV;
8
9 (g) The Department of Interior and Local Government (DILG), to be represented by
10 the Undersecretary for local government;
11
12 (h) The Executive Director of the National Measurement Institute of the Philippines
13 (NMIPhil);
14
15 (i) The President of the Union of Local Authorities of the Philippines (ULAP), or
16 his/her duly authorized representative;
17
18 (j) One (1) Representative each from the:
19 i. Manufacturing industry associations;
20 ii. Associations of local manufacturer of measuring instruments;
21 iii. Association of private calibration laboratories; and
22 iv. Professional metrology association of national membership.
23

24 The Representatives of the private sector shall serve for a term of three (3) years,
25 to be appointed by the Secretary of the DOST from nominees submitted by their
26 respective organizations.
27

28 The Board shall convene at least once a year. Special meetings may be convened
29 upon the request of the chair or majority of the member of the NMB.
30

31 **SEC. 10. Compensation and Other Benefits.** The Chair and members of the NMB
32 shall be entitled to *per diems*, allowances and other reimbursable expenses as prescribed
33 by the department of budget and management (DBM) subject to pertinent government's
34 accounting and auditing rules and regulations.
35

36 The NMIPhil shall provide office, technical and administrative secretariat support
37 to the NMB.
38

39 **SEC. 11. Powers and Functions of the NMB.** – The NMB shall have the following
40 additional powers and functions:
41

- 42 (a) Promulgate national policies and guidelines that will guarantee the adoption by
43 all NRAs and LGUs of uniform regulation of measurements and measuring
44 instruments throughout the country;
45
46 (b) Oversee the implementation and application of regulation of measurements and
47 measuring instruments by NRAs, LGUs, and other public and private entities
48 contracted by them;
49

1 (c) Harmonize and/or delineate the authority of NRAs and LGUs to regulate the
2 importation, sale, and repair of measuring instruments, to implement regulation
3 of measurements and measuring instruments, and to impose fees, charges, and
4 fines, and, as necessary;

5
6 (d) Call upon any government department, agency or instrumentality, Local
7 Government Units, private sector organizations and entities, and non-government
8 organizations, to provide data, information, expertise, and recommendations in
9 formulating and promulgating policies and guidelines for an efficient and effective
10 regulation of measurements and measuring instruments;

11
12 (e) Create technical working committees and perform such other functions as may be
13 necessary for the attainment of its mandates.

14
15 **SEC. 12. Human Resource Development Program.** – The NMIPhil shall
16 formulate a continuing human resource development program on the different aspects of
17 the national measurement system to recruit and maintain a cadre of highly-proficient
18 personnel in its roster. It shall include:

19
20 (i) Scholarship and financial assistance – Not later than three (3) years from the
21 enactment of this act, scholarship and financial assistance grants shall be provided
22 for undergraduate and graduate studies in metrology and related fields, as well as
23 for specialized training programs, in coordination with the DOST, Commission on
24 Higher Education (CHED), Technical Education and Skills Development Authority
25 (TESDA), Higher Education Institutions (HEIs), and other entities providing
26 support for metrology development in the country. Cooperation with international
27 organizations on human resources development and capacity enhancement shall
28 also be undertaken; and

29
30 (ii) New salary scale for NMIPhil Personnel - The NMIPhil shall develop a new salary
31 scale for NMIPhil personnel in consonance with Republic Act No. 8439, as
32 amended, otherwise known as the “Magna Carta for Scientists, Engineers,
33 Researchers and Other Science Technology Personnel In Government” with review
34 and approval from the DBM.

35
36 **SEC. 13. Capacity Enhancement Plan.** The DOST Secretary, and the Executive
37 Director of the NMIPhil, in consultation with the Secretary of the DBM, shall formulate
38 the NMIPhil Capacity Enhancement Plan.

39
40 The plan, to be implemented within ten (10) years, shall indicate among others:

41
42 (a) The Objectives and Key Performance Indicators;

43
44 (b) Requirements in terms of equipment, facilities and personnel, and the
45 concomitant technical expertise, necessary to attain the plan’s objectives;

46
47 (c) The projects to be undertaken, which shall indicate the equipment and technology
48 acquisitions, including major construction or upgrade of facility; and

49
50 (d) The schedules and estimated cost of each project.

1
2 The DOST, through its sectoral councils, shall be responsible for, among others,
3 facilitating the development of the National Metrology Research and Development
4 Roadmap and ensuring the continuous fund support to its implementation.
5

6 **SEC. 14. *Capacity Enhancement Fund.*** To fund the enhancement of the capacity
7 and capability build-up of the NMIPhil, there is hereby established the NMIPhil Capacity
8 Enhancement Fund. This fund shall be in addition to appropriations provided by the
9 national government for NMIPhil and shall be administered by the Executive Director in
10 accordance with existing government budgeting, accounting and auditing rules and
11 regulations. The Capacity Enhancement Fund shall include an amount of Three billion
12 pesos (PHP 3,000,000,000.00) which shall be appropriated from the General
13 Appropriations Act.
14

15 For three (3) years from the start of the effectivity of this Act, a minimum amount
16 of One billion pesos (PHP 1,000,000,000.00) per year shall be released to the NMIPhil.
17 The entire amount, including any interest income thereon, shall be used exclusively for
18 the construction and purchase of facilities, equipment, information technology systems,
19 and instruments for metrology research and development, calibration purposes,
20 implementation of the resource development and capacity building program, and other
21 activities outlined in the Capacity Enhancement Plan.
22

23 **SEC. 15. *Acquisition and upgrading of physical resources and operational***
24 ***techniques.***— To efficiently and effectively address the expanding measurement needs of
25 society, industry, research institutions and the academe, the acquisition and/or upgrade
26 of state-of-the-art instruments, equipment, facilities and systems shall be immediately
27 pursued, and complemented with technical capability building programs for NMIPhil
28 personnel.
29

30 **SEC. 16. *Loans, grants, bequests, and donations whether from local or foreign***
31 ***sources.*** The Secretary of the DOST is hereby authorized to solicit and manage loans,
32 grants, bequests, and donations from both local and foreign sources, including entering
33 into loan agreements with foreign financial institutions, in compliance with relevant
34 accounting and auditing regulations.
35

36 **SEC. 17. *Multi-year Contracts and Other Contractual Arrangements.*** — The
37 NMIPhil may enter into multi-year contracts or other contractual arrangements with
38 suppliers and contractors in the implementation of the NMIPhil capacity enhancement
39 plan, and other programs and projects provided with appropriations by congress.
40

41 For multi-year contracts, the Congress shall, upon issuance of the multi-year
42 obligational authority by the DBM, make the corresponding appropriations for the
43 ensuing fiscal years: *Provided*, that the NMIPhil and the DBM shall jointly issue the
44 implementing guidelines to ensure consistency with the NMIPhil capacity enhancement
45 plan and existing guidelines on the contracting of multi-year projects.
46

47 **SEC. 18. *Appropriations.*** — The amount necessary to carry out the provisions of
48 this Act shall be included in the General Appropriations Act for the year following its
49 enactment and every year thereafter.
50

1 Fifty percent (50 %) of the fees and charges collected as a result of the metrological
2 work and calibration services shall be used by the Board and the NMIPhil in the
3 enhancement of their capabilities and modernization of metrological and measurement
4 standard activities. The remaining amount shall be remitted to the National Treasury.
5

6 **SEC 19. *Implementing Rules and Regulations (IRR).*** – Within ninety (90) days
7 from the start of the effectivity of this act, the DOST, in consultation with the relevant
8 national government departments and agencies, LGUs, the private sector, and other
9 concerned organizations, shall issue the necessary implementing rules and regulations of
10 this act.
11

12 **SEC 20. *Separability Clause.*** – If for any reason, any provision of this Act is
13 declared unconstitutional, the other section or provisions hereof which are not hereby
14 affected shall continue to be in full force and effect.
15

16 **SEC. 21. *Repealing Clause.*** – Republic Act No. 9236, and all laws, decrees, orders,
17 rules and regulations or portions thereof inconsistent with this Act are hereby repealed or
18 modified accordingly.
19

20 **SEC 21. *Effectivity.*** – This Act shall take effect fifteen (15) days after its complete
21 publication in the Official Gazette or in at least two (2) newspapers of general circulation,
22 whichever comes earlier.

Approved,