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Introduced by Senator Christopher Lawrence "Bong" T. Go, Senator Joel Villanueva, Senator Ramon Bong Revilla Jr., and Senator Grace Poe

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SENATE

s. No. 2515

AN ACT

STRENGTHENING THE PRACTICE OF ELECTRICAL ENGINEERING IN THE PHILIPPINES AND INSTITUTING HIGHER STANDARDS OF REGULATION IN THE LICENSING AND REGISTRATION OF ELECTRICAL ENGINEERING PRACTITIONERS

EXPLANATORY NOTE

On February 24, 1995, the New Electrical Engineering Law was enacted. The law provides for the composition, powers and functions of the Board of Electrical Engineering, examination and registration of professionals, and the prohibitions in the practice of the electrical engineering profession.

The field of electrical engineering is a cornerstone of progress, impacting diverse sectors such as infrastructure, energy, and technology. In recognition of the critical role played by electrical engineers in the nation's development, it is imperative to fortify the regulatory framework governing their practice, ensuring that it remains robust, responsive, and aligned with contemporary needs.

This bill seeks to develop and nurture a pool of proficient and quality electrical engineering practitioners whose standards of practice shall be outstanding, honorable and globally competitive. This bill will mandate the provision of rational regulatory measures that are responsive to the growing needs of the electrical engineering profession considering the advances in technology and globalization.

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

SENATOR CHRISTOPHER AWRENCE "BONG" T. GO

SENATOR JOEL VI ANUEVA SENATOR RAMON BONG REVILLA JR.

ACE POE



NINETEENTH CONGRESS OF THE REPUBLIC OF THE PHILIPPINES Second Regular Session

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SENATE S. No. <u>251</u>5

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Introduced by Senator Christopher Lawrence "Bong" T. Go, Senator Joel Villanueva, Senator Ramon Bong Revilla Jr., and Senator Grace Poe

AN ACT

STRENGTHENING THE PRACTICE OF ELECTRICAL ENGINEERING IN THE PHILIPPINES AND INSTITUTING HIGHER STANDARDS OF REGULATION IN THE LICENSING AND REGISTRATION OF ELECTRICAL ENGINEERING PRACTITIONERS

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

1	Section 1. Short Title. – This Act shall be known as the "Electrical Engineering
2	Act of 2023."
3	Sec. 2. Declaration of Policy. – The State recognizes the importance of electrical
4	practitioners in nation-building. Towards this end, the State fosters, develops and
5	nurtures a pool of proficient and quality electrical engineering practitioners whose
6	standards of practice shall be outstanding, honorable, and globally competitive. The
7	State shall provide rational regulatory measures that are responsive to the growing
8	needs of the electrical engineering profession considering the advances in technology

9 and globalization.

10 Sec. 3. *Definition of Terms.* – As used in this Act, the following terms shall 11 mean:

- a) *Practice of electrical engineering* a person is deemed to be in the practice of
 electrical engineering when he renders or offers to render professional electrical
 engineering service in the form of:
- 15 1. Electrical Consultancy Services;

- 1 2. Professional Design Services;
- 3. Management, supervision and taking charge of the construction,
 erection, installation, alteration, testing and commissioning of projects
 involving all kinds of electrical systems and the power system of any
 critical facility of multiple electrical components in powering a controlled
 environment in the power structure are all part of the electrical power
 train;
- 8 4. Management, supervision and taking charge of the tending, operation, maintenance and control of electrical systems of electric power plants, 9 grid systems, switchyards, transmission and distribution systems, 10 network system control, data acquisition, protection and monitoring 11 systems, conflagration detection, control and protection system, electric 12 utilities, watercrafts, electric locomotives, factories, farm electrification, 13 and industrial complexes, commercial buildings, government buildings, 14 15 institutional buildings, health care facilities, airports and seaports and all other facilities involving electrical processes; 16
- Management, supervision and taking charge of the manufacture,
 fabrication, repair, testing and commissioning of electrical components,
 equipment and devices including switchgears, switchboards, control gears, transformers, generators, electric motors, controllers, appliances,
 lighting fixtures, apparatuses and other related processes;
- 6. Teaching of basic and professional electrical engineering subjects in government- recognized engineering schools including allied sciences, the Electrical Engineering Law, the Philippine Electrical Code and International Electrical Standards and their applications into the electrical industry;
- Management, supervision and taking charge of the sale, supply and
 distribution of electrical equipment including industrial equipment and its
 control systems, controllers and devices, power electronics, industrial
 robotics, instrumentation and automation; and other related equipment

or components requiring application of electrical engineering data and 1 2 principles, interpretation of technical specifications of electrical products; 3 8. Employment in national, provincial or local government units/agencies or in government-owned and controlled corporations, government 4 financial institutions as a Professional Electrical Engineer, Registered 5 6 Electrical Engineer or Registered Master Electrician if the nature and 7 character of his work is in line with the profession requiring knowledge 8 and expertise of electrical engineering including Certified Electrical System Inspector and Certified Electrical Plans Examiner; 9

9. And all other services related to Electrical Engineering under this Act.

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b) Electrical Engineering - refers to the profession of the art and science of 11 conceptualizing, planning, designing and creating Electrical Systems to include 12 but not limited to the operation and maintenance of equipment and machinery, 13 electrical processes of all types of buildings, commercial complexes, factories 14 15 or industrial plants, electric plants, variable renewable energy (VRE), energy distribution, electric locomotives, watercrafts; transmission, 16 storage, 17 construction and commissioning of electrical projects, manufacturing and distribution of electrical products, teaching electrical subjects; and other related 18 19 facilities or processes, in accordance with the principles of safety and reliability.

- c) *Electric supply equipment* is any equipment which produces, modifies,
 regulates, or controls the supply of electric energy.
- d) *Electric plant* is an establishment or a system for the production and
 modification of electric energy.
- e) *Power plant design* refers to planning, specifying, coordinating layouting of
 electrical equipment in power plants, substations and the like.
- f) Substation is any building, room or separate place which houses or encloses
 electric supply equipment connected to transmission or distribution lines and
 the interior of which is accessible, as a rule, only to properly qualified persons.

- g) *Electrical system design* refers to the choice of electrical systems, including
 planning and detailing of requirements for protection, control, monitoring,
 coordination, and interlocking of electrical systems among others.
- h) *Voltage* is the highest effective potential difference between any two
 conductors of the circuit concerned expressed in volts;
- i) *kVA or MVA* refers to the capacity of an electric plant or ratings of supply
 equipment ex- pressed in kilovolt-amperes or megavolt-amperes. kVA or MVA
 is also referred to as the connected load of industrial plants, commercial edifices
 and other establishments expressed in kilovolt-amperes or megavolt-amperes;
- j) *kW or MW* refers to the capacity of an electric plant or ratings of supply
 equipment expressed in kilowatts or megawatts. kW or MW is also referred to
 as the connected load of industrial plants, commercial edifices, institutional
 buildings, watercrafts and other establishments ex- pressed in kilowatts or
 megawatts;
- k) Utilization equipment refers to energy-consuming equipment including
 motors, heaters, furnaces, light sources and other devices which utilize electric
 energy, for any purpose.
- Industrial plant or factory refers to manufacturing assembly plants, including
 engineering shops, shipyards or other business endeavors where electrical
 machinery and equipment are installed.
- m) Licensed Electrical Practitioner" (LEP) refers to a person professionally and 21 academically qualified, registered and licensed to practice electrical engineering 22 as defined in this Act, with a Certificate of Registration by the Professional 23 24 Regulatory Board of Electrical Engineering and a valid professional identification card issued by the Professional Regulations Commission as Professional 25 Electrical Engineer, Registered Electrical Engineer or Registered Master 26 Electrician. The Professional Electrical Practitioners can manage completely the 27 power system of any critical facilities of multiple electrical components in 28 powering a controlled environment in the power structure as all part of the 29 electrical power train as follows; 30

1	1. Consulting Electrical Engineer
2	2. Electrical System Designer
3	3. Electrical Practitioner-In-Charge in Electrical Operations
4	4. Electrical Project-In-Charge in Electrical Projects
5	5. Electrical Works or Projects
6	6. Electrical Equipment or Machinery
7	7. Electric Supply Equipment
8	8. Electrical Utilization Equipment
9	9. Electric Power Plants
10	10. Industrial Plant or Factory or Manufacturing Plant
11	11. Industrial Complex
12	12. Electrical Equipment Manufacturing Plant
13	13.Commercial Establishment
14	14. Institutional Buildings
15	15. Power Grid or Grid
16	16. Power Grid System Operation and Control
17	17. Power Distribution System Operation and Control
18	18. Power Substation
19	19. Watercraft Electrical System
20	20. Electric Locomotive System
21	n) <i>System Nominal Voltage or Voltage</i> – is the highest effective potential
22	difference between any two conductors of the circuit concerned expressed in
23	volts. For the purpose of this Act, "System Nominal Voltage" shall refer to the
24	Philippine-recognized standard voltage levels;
25	o) Unsafe Installation – refers to all new and existing installations which are in
26	violation or non- compliant with the provisions of the latest edition of the
27	Philippine Electrical Code and other Philippine recognized International
28	Standards;
29	p) Unsafe Design – refers to all new and existing plans and designs which are in
30	violation or non- compliant with the provisions of the latest edition of the

Philippine Electrical Code and other Philippine recognized International
 Standards;

q) *Philippine Electrical Code* – As recognized by this Act, the Philippine Electrical 3 Code sets forth the minimum requirements and standards that constitute the 4 5 framework as a legal criteria of safe electrical design, trustworthy installations and the appropriate equipment installed within industrial and commercial 6 7 establishments, public and private buildings, including mo- bile homes and recreational vehicles, floating buildings, watercrafts, locomotives and other 8 structures aimed at safeguarding persons and buildings and their contents from 9 the hazards arising from the use of electricity for light, heat, power, and for 10 11 other purposes;

r) *Electrical Plans* – refers to the documents illustrating the interpretation of the
 electrical system as designed, through a structure of symbols, drawings and
 diagrams that gives a clear description of sizes, ratings, configurations and
 other relevant identification to every part and components of the system
 according to the norms set forth by the Philippine Electrical Code and other
 Philippine-recognized Standards in a form of hard prints used for reference in
 construction, operation and maintenance;

- s) *Electrical plans* duly signed, stamped or sealed, as instruments of service, are
 the intellectual properties and documents of the author who is the Electrical
 Design Engineer-of-Record with the Office of the Building Official, whether the
 purpose for which they are made is executed or not;
- t) As-built Plans or As-built Drawings refers to a revised set or sets of plans or 23 24 drawings that are documented during or upon completion of a project or a particular job. As final set of documents, they reflect all the changes that had 25 been made to the original construction draw- ings including notes, 26 modifications, and any other information in the specifications and work- ing 27 drawings during the construction process, and where the exact dimensions, 28 geometry, and location of all elements of the works completed are shown as of 29 the specific date of the update; 30

- u) *Distribution Utility or DU* refers to an electric cooperative, or a private
 corporation, or government-owned utility or a local government unit that has a
 franchise to operate an electric distribution system;
- v) Electric Cooperative or EC refers to a cooperative or corporation authorized to
 provide electric services pursuant to Presidential Decree No. 269;
- w) Electrical Firm refers to a partnership or corporation composed of authorized
 Electrical Engineering Practitioners duly registered with proper government
 agencies with business permits as professional services providers and who are
 authorized to collectively render electrical engineering services;
- x) Continuing Professional Development (CPD) refers to a sustaining and
 progressive Professional Regulation Commission (PRC) driven learning program
 or process that maintains, enhances, or increases the knowledge and
 continuing ability of electrical practitioners;

ARTICLE II

BOARD OF ELECTRICAL ENGINEERING

Sec. 4. Composition of the Board. - The Board of Electrical Engineering, 16 17 hereinafter referred to as the Board, shall be created as a collegial body under the general supervision and administrative control of the Professional Regulations 18 19 Commission (PRC). The Board shall be composed of a chair- person and two (2) members to be appointed by the President of the Philippines from among the 20 recommendees of the Commissioner of the PRC, hereinafter referred to as the 21 Commissioner. The recommendees of the Professional Regulation Commission (PRC) 22 shall be chosen from the nominees of the integrated and accredited association of 23 electrical engineers. 24

Sec. 5. *Powers and Duties of the Board.* – The Board shall exercise executive, administrative, quasi-legislative, or quasi-judicial powers in carrying out the provisions of this Act. It shall be vested with the following specific powers, functions, duties and responsibilities:

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a) Supervise and regulate the practice of electrical engineering in the Philippines;

b) Determine and evaluate the qualifications of the applicants for registration with
 or without licensure examinations and for special permits;

3 c) Prepare the examination questions in accordance with the Scope of Examinations under this Act; prescribe the syllabi of the subjects and their 4 relative weights for the licensure examinations; formulate or adopt test 5 6 guestions and deposit them in a test guestion bank; draw the test guestions at 7 random through process of computerization; conduct the examination; correct 8 and rate the examination papers manually or through process of computerization; and submit the examination results to the Professional 9 Regulations Commission (PRC) within the period provided for by the rules of 10 the Commission; 11

d) Prescribe, amend or revise the requirements of candidates for Professional
 Electrical Engineers and subjects in the licensure examination for Registered
 Electrical Engineers, Registered Master Electricians and their relative weights,
 subject to the approval of the Professional Regulation Commission (PRC);

- e) Register successful applicants for professional electrical engineers and
 applicants who have passed the licensure examinations for registered electrical
 engineers or registered master electricians and issue the corresponding
 certificates of registration and professional licenses;
- f) Issue special permits to individual foreign electrical engineers and electricians
 for specific projects and for a specific duration of time;
- 22 g) Look into the conditions affecting the practice of the electrical engineering profession, adopt measures for the enhancement of the profession and the 23 24 maintenance of high professional, technical, and ethical standards and conduct ocular inspection of places where registrants practice their profession, such as, 25 but not limited to: electric plants, substations, switching stations, industrial 26 plants or factories, commercial establishments, airports, seaports, institutional 27 buildings, watercrafts, electric locomotives, engineering offices, repair shops, 28 electrical projects, new, and ongoing constructions and similar places to 29 determine and enforce compliance with this Act. The Board shall authorize the 30

- duly integrated and accredited electrical engineering association to render
 assistance in this function;
- h) Promulgate rules and regulations including a code of ethics, administrative
 policies, orders and issuances to carry out the provisions of this Act;
- i) Investigate violations of the Act and the rules and regulations, code of ethics,
 administrative policies, orders and issuances promulgated by the Board. The
 rules on administrative investigation promulgated by the Professional
 Regulation Commission (PRC) shall govern in such investigation;
- j) Issue subpoena or subpoena duces tecum, to secure the attendance of
 respondents or witnesses or the production of documents at and relative to the
 investigation conducted by the Board;
- 12 k) Delegate the investigation of the case to the chairman, a member of the Board 13 or a Professional Regulations Commission attorney (PRC attorney). If the case 14 concerns strictly the practice of the profession, the investigation shall be 15 presided by the chairman or a member of the Board with the assistance of a 16 PRC attorney;
- Render decision, order or resolution on preliminary investigation or inquiry, on undocketed cases and on docketed administrative cases against examinees or registrants which shall become final and executory unless appealed with the PRC within fifteen (15) days from receipt of the copy thereof. The decision of the Professional Regulation Commission (PRC) may be appealed to the Court of Appeals in accordance with the procedure provided in the Rules of Court;
- m) After due notice and hearing, cancel examination papers and bar any examinee 23 24 from future examination; refuse or defer his registration; reprimand the registrant with stern warning; suspend him from the practice of his profession; 25 26 revoke his certificate of registration; delist his name from the roll of professional electrical engineers, registered electrical engineers and registered master 27 electricians for continuous non-payment of annual registration fees and non-28 compliance with the Continuing Professional Development (CPD) requirements; 29 reinstate or reenroll his name in the said roll, reissue or return his certificate of 30

registration. A decision of suspension, revocation of the certificate of registration, or delisting from the roll by the Board as provided herein, may be appealed initially to the Professional Regulation Commission (PRC) within fifteen (15) days from receipt thereof. The decision of the PRC may be appealed to the Court of Appeals in accordance with the procedure provided in the Rules of Court;

n) Administer oaths in connection with the administration, implementation, or enforcement of this Act;

- o) Submit an annual report on the proceedings and accomplishments during the
 year and on recommendations of the Board to the Professional Regulation
 Commission (PRC) after the close of each fiscal year;
- p) Prosecute or institute criminal action against any violator of the Act or the rules
 and regulations of the Board;
- 14 q) Adopt an official seal;
- r) Coordinate with the Professional Regulation Commission (PRC) and the
 Commission on Higher Education (CHED) in prescribing, amending or revising
 the courses;
- s) Prescribe programs, guidelines and criteria on the Continuing Professional
 Development program (CPD) for professional electrical engineers, registered
 electrical engineers and registered master electricians and renew their
 professional licenses after compliance with the CPD requirement;
- t) Perform such other functions and duties as may be necessary to implement
 effectively this Act. The policies, resolutions, rules and regulations, orders or
 decisions issued or promulgated by the Board shall be subject to the review
 and approval by the Professional Regulation Commission (PRC); however, the
 Board's decisions, resolutions or orders which are not interlocutory, rendered
 in an administrative case, shall be subject to review only if on appeal.
- Sec. 6. *Qualifications of Board Members.* Each Board member must, at the time
 of his appointment:

- a) Be a natural-born Filipino citizen and a resident of the Philippines for at least
 seven (7) consecutive years;
- b) Be at least thirty-five (35) years of age, of proven integrity with high moral
 values in his personal as well as his professional conduct;
- c) Be a person with no final conviction by the court of an offense involving moral
 turpitude;
- d) Be a holder of the degree of Bachelor of Science in Electrical Engineering (BSEE)
 from a university, school, college, academy or institute duly constituted,
 recognized and accredited by the Philippine government;
- e) Be a professional electrical engineer with a valid certificate of registration and
 a valid professional license duly qualified to practice electrical engineering in
 the Philippines;
- f) Have practiced electrical engineering for a period of not less than ten (10) years
 prior to his appointment, with a sworn statement as such; and
- g) Not be an official nor a member of the faculty of, nor have a pecuniary interest
 in, any university, college, school or institution conferring a bachelor's degree
 in electrical engineering for at least three (3) years prior to his appointment,
 and is not connected with a review center or with any group or association
 where review classes or lectures in preparation for the licensure examinations
 are offered or conducted at the time of his appointment.

Sec. 7. *Term of Office.* – The members of the Board shall hold office for a term of three (3) years from the date of appointment or until their successors shall have been appointed and qualified. They may, however, be reappointed for a second term. Each member shall qualify by taking an oath of office before entering upon the performance of his duties.

Vacancies in the Board shall be filled by the President from the list of recommendees by the Commissioner who were chosen from the list of nominees submitted by the integrated and accredited association for the unexpired term only.

- 29 Sec. 8. *Removal of Board Members*. Any member of the Board may be removed
- 30 by the President of the Philippines, upon the recommendation of the Commissioner

for neglect of duty, in- competence, malpractice, commission or tolerance of
irregularities in the examinations, or for unprofessional, unethical, or dishonorable
conduct, after having been given the opportunity to defend him- self in a proper
administrative investigation.

5 Sec. 9. *Compensation of Chairman and the Board Members.* – The chairman and 6 members of the Board shall receive a monthly compensation as prescribed under 7 existing laws: Provided, That such compensation shall be increased or modified 8 pursuant to the General Appropriations Act.

9 Sec. 10. *Executive Officer of the Board*. – The Commissioner shall be the executive 10 officer of the Board and shall conduct the examination given by the Board and shall 11 designate any subordinate officer of the Professional Regulation Commission (PRC) to 12 act as secretary and custodian of all records including all examination papers and 13 minutes of the deliberations of the Board.

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ARTICLE III EXAMINATION AND REGISTRATION

Sec. 11. *Examination Required.* – All applicants for registration for the practice of electrical engineering in the Philippines shall be required to pass a technical examination as hereafter provided, except as otherwise specifically allowed under this Act.

Sec. 12. *Registration and License Required*. – A valid certificate of registration and a valid professional identification card from the Professional Regulation Commission (PRC) are required before any person is allowed to practice electrical engineering in the Philippines except as otherwise allowed under this Act.

Sec. 13. *Examination Fees.* – All applications for professional electrical engineer, registered electrical engineer, and registered master electrician shall be subject to payment of fees prescribed by the Professional Regulation Commission (PRC); Provided, That ninety percent (90%) of the fees is to be treated as a special fund for the programs, projects and activities of the PRC and the remaining ten percent (10%) shall be set aside as a trust fund for the establishment and maintenance of the center for continuing education and research.

Sec. 14. *Registration Fees, License Fees and Fines.* – All applicants for registration 1 and license to practice as professional electrical engineer, registered electrical 2 engineer and registered master electrician shall be subject to the payment of 3 registration fees, license fees, and fines in case of violation of the pertinent rules and 4 regulations for the amounts prescribed by the Board and approved by the PRC: 5 Provided, That fifty percent (50%) from these collections is to be treated as a special 6 fund for programs, projects and activities of the PRC and the other fifty percent (50%) 7 shall be set up in a separate special fund for the supervisory and regulatory functions 8 9 of the Board.

10 Sec. 15. *Exemption from Examination and Registration*.

a) Examination and registration shall not be required of foreign electrical
 engineers, erection/commissioning/guarantee engineers employed as technical
 consultants by the Philippine government or by private firms, for which the
 pertinent professional society certifies that no qualified Filipino professional is
 available, or of foreign electrical installers for the erection and installation of a
 special project or for any other specialized work, subject to the following
 conditions:

- 18 1. That the abovementioned foreign professionals are legally qualified to 19 practice their profession in their own country in which the requirements and 20 qualifications for obtaining a license or certificate of registration are not 21 lower than those specified in this Act;
- That the scope of work to be performed by said foreign professionals shall
 be limited only to the particular work for which they were contracted;
- 3. That prior to commencing work, the foreign professional shall secure a
 special permit from the Professional Regulation Commission (PRC);
- 26 4. That said foreign professional shall not engage in private practice on their27 own account;
- 5. That for every foreign professional contracted pursuant to this section, one
 Filipino understudy who is registered under the provisions of this Act shall
 be employed by the private firm utilizing the services of such foreign

- professional for at least the duration of the alien expert's tenure with said
 firm; and
 - That the exemption herein granted shall be good only for twelve (12) months, renewable at the discretion of the Board.
 - b) No registration with the Board shall be required of the following:
- Engineering students, apprentices and other persons employed or acting as
 subordinates of, or undergoing training under a person holding a valid
 certificate of registration and a valid professional license under this Act; and
- 2. Persons in charge of or supervising the operation, tending and maintenance 9 of an electric generating set for private use employing voltages not 10 exceeding two hundred fifty volts (250 V) and capacity not exceeding fifty 11 kilovolt amperes (50 kVA): Provided, that the owner or operator shall be 12 required to have the electric generating set periodically inspected at 13 intervals of not more than one (1) year by a Professional Electrical Engineer, 14 a Registered Electrical Engineer on a national, city, provincial or municipal 15 government authority exercising legal jurisdiction over electrical 16 17 installations.
- Sec. 16. *Holding of Examinations.* Examinations for the practice of electrical engineering in the Philippines should be given twice a year in the City of Manila and other places on dates that the Board may recommend for determination of scheduling. The Board shall schedule the interview or oral examination of every applicant for registration as professional electrical engineer at the office of the Professional Regulation Commission (PRC) or other government facilities that may be ap- proved by the Commission.
- Sec. 17. *Qualifications of Applicant for Registration as Professional Electrical Engineer.* – Any person applying for registration as professional electrical engineer shall establish to the satisfaction of the Board that, on or before the date of registration, the applicant:
- a) Is a citizen of the Philippines;
- 30 b) Is of legal age;

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- 1 c) Is of good reputation with high moral values;
- 2 d) Has not been finally convicted by the court of an offense involving moral
 3 turpitude;

e) Is a holder of the degree of Bachelor of Science in Electrical Engineering (BSEE)
from a university, school, college, academy or institute duly constituted,
recognized and accredited by the Philippine government;

- f) Is a Registered Electrical Engineer with certificate of registration and valid
 professional identification card and with seven (7) years or more of qualified
 practice beginning from the date of his registration as a Registered Electrical
 Engineer; and
- g) Is a member of good standing of the Professional Regulation Commission (PRC)
 accredited professional organization for at least five (5) years.

13 Sec. 18. *Qualifications of Applicants for Registered Electrical Engineer Examination*.

- Any person applying for admission to the registered electrical engineering
examination, as herein provided shall establish to the satisfaction of the Board that,
on or before the date of the examination, the applicant:

- a) Is a citizen of the Philippines;
- b) Is of legal age;
- 19 c) Is of good reputation with high moral values;
- d) Has not been finally convicted by the court of an offense involving moral
 turpitude; and
- e) Is a holder of the degree of Bachelor of Science in Electrical Engineering (BSEE)
- from a university, school, college, academy or institute duly constituted,
 recognized and accredited by the Philippine Government.

Sec. 19. *Qualifications of Applicants for Registered Master Electricians Examination* - Any person applying for examinations for Registered Master Electrician as herein provided shall establish, to the satisfaction of the Board, that on or before the date of the examination, the applicant:

- a) Is a citizen of the Philippines;
- 30 b) Is of legal age;

- 1 c) Is of good reputation with high moral values;
- 2 d) Has not been finally convicted by the court of an offense involving moral
 3 turpitude;
- 4 e) Has satisfied any of the following conditions:
- 5 1. Has completed at least three (3) years of a Bachelor of Science in 6 Electrical Engineering (BSEE) program or a course in electrical 7 engineering technology from an engineering school recognized by the 8 Philippine government and, in addition, has a subsequent specific record 9 of one (1) year practice in electrical wiring and installation, operation 10 and maintenance of utilization devices and equipment; or
- Has completed a Certificate Course in Electrical Technology from a school recognized by the Philippine government and, in addition, has a subsequent specific track record of two (2) years experience in electrical wiring and equipment installation, operation and maintenance of power, utilization devices and equipment; or power line installation and maintenance, or substation installation, operation and maintenance;
- 173. Has completed High School under a Program with a track in Electrical18Technology from a school recognized by the Philippine government and,19in addition has a subsequent specific track record of five (5) years20experience in electrical wiring and equipment installation, operation and21maintenance of power, utilization devices and equipment; or power line22installation and maintenance, or substation installation, operation and23maintenance;
- 4. Has completed secondary education and has completed a separate but
 relevant technical education and skills training program with
 corresponding certificate of competency.
- Provided however, that the applicant has a specific track record of at
 least seven (7) years of experience in electrical wiring and equipment
 installation, operation and maintenance of power, utilization devices and

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1 2 equipment, or power line installation and maintenance, or substation installation, operation and maintenance.

Sec. 20. *Scope of Examination.* – As a prerequisite for registration as Professional
 Electrical Engineer, Registered Electrical Engineer, Registered Master Electrician, the
 applicant shall pass the examinations and shall comply with the requirements thereto:
 a) Professional Electrical Engineer

For the purpose of confirming the service record and clarifying the technical
report submitted by the applicant for registration as a professional electrical
engineer, an oral examination or interview shall be conducted on the following
documents to be submitted to the Board:

- 1. Certified experience record from the date applicant took oath as a registered electrical engineer indicating the inclusive dates, companies worked for, description of specific responsibilities, significant accomplishments as well as the name and position of immediate supervisors to establish the lessons learned and the impact to his practice as a professional;
- 17 2. Technical Engineering Report (TER) covering an evaluation, an analysis, a study or a critical discussion of an electrical engineering project or 18 subject, on one or several technical aspects such as: design, 19 construction, installation, commissioning, testing, operation, 20 maintenance, repair, re- search and the like. The TER shall be supported 21 by engineering principles and data. Published or unpublished scientific 22 paper or treatise on electrical engineering theories and applications may 23 be considered as complying with the requirement; 24
- 3. Three (3) certifications signed by three (3) Professional Electrical
 Engineers to the effect that the experience record submitted by the
 applicant is factual and that the technical paper submitted was actually
 prepared by the applicant.

- 1 The applicant must obtain passing marks on the experience record and on the 2 technical report in order to qualify for registration as a professional electrical 3 engineer.
- 4 b) Registered Electrical Engineer

The applicant shall pass a written examination on different subjects or group of subjects as follows:

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- 1. Mathematics, such as: Calculus 1, Calculus 2, Engineering Data Analysis, Differential Equations, and others. The weight is twenty five percent (25%).
- 2. Engineering sciences and allied subjects, such as Chemistry for 10 Engineers, Physics for Engineers, Computer-aided Drafting, Engineering 11 Mechanics, Engineering Economics, Technopreneurship 101. 12 Fundamentals of Deformable Bodies, Materials Science and Engineering, 13 Electronic Circuits: Devices and Analysis, Basic Thermodynamics, 14 Industrial Electronics, Electromagnetics, Fluid Mechanics, Fundamentals 15 of Electronic Communications, Logic Circuits and Switching Theory, 16 17 Microprocessor Systems, Computer Programming, Basic Occupational Safety and Health, Environmental Science and Engineering, and others. 18 19 The weight is thirty percent (30%).
- 3. Electrical engineering professional subjects, such as numerical methods 20 and analysis, EE law, codes, and professional ethics, electrical standards 21 and practices, electrical circuits 1, electrical circuits 2, electrical 22 apparatus and devices, electrical machines 1, electrical machines 2, 23 engineering mathematics for EE, electrical systems and illumination 24 engineering design, power system analysis, fundamentals of power plant 25 engineering design, distribution systems and substation de- sign, 26 management of engineering projects, research methods, research 27 project or capstone design project, instrumentation and control, 28 feedback control systems and others. The weight is forty five percent 29 (45%). 30

1 The passing general weighted average rating shall be seventy percent 2 (70%) with no grade below fifty percent (50%) in any group of subjects 3 listed above.

The examination questions on the foregoing subjects shall cover only basic theories and principles, and shall exclude questions based on experience and trade practices. The number of questions shall be such that the examination can be finished in three (3) consecutive eight-hour days.

8 c) Registered Master Electrician

9 The applicant for Registered Master electrician shall pass the examinations and 10 shall comply with the requirements thereto:

- 1. Technical Subject: Ohm's Law, basic calculations on direct and 11 alternating current circuits, single phase and three-phase circuits, basic 12 transmission and distribution circuits; basic theories in electrical 13 equipment, machines and apparatuses such as: motors, generators, 14 transformers, wires and cables, fuses, circuit breakers and safety 15 switches; knowledge in motor controllers as: basic magnetic starters, 16 controllers, star-delta, reduced voltage controllers, 17 reversina programmable logic controllers, soft starters and variable frequency 18 drives; control circuits, schematic diagrams, and other related subjects 19 20 as may be prescribed by the Board.
- 2. Philippine Electrical Code and other relevant general requirements for 21 installation of wirings for lighting and power; approved wiring methods, 22 approved types of wiring materials and devices; installation of 23 switchboards and panel boards, installation principles for hazardous 24 locations; methods in creating electrical diagrams, reading and 25 interpretation of drawing symbols and plans; installation principles of 26 distribution transformers, substation components; 27 power and application of standard structures, power line construction, line 28 hardwares and devices; principles in banking single phase transformers; 29 installation practices of poles, towers and other structures; principles 30

and practices in operation and maintenance of electrical equipment such
 as power circuit breakers, switchgears and outdoor power switching
 equipment; safety practices and involving low, medium, high voltages;
 general knowledge in the Philippine Electrical Engineering Law, and
 other related subjects as may be prescribed by the Board.

6 The number of test questions shall be such that the examinations can be 7 finished in one (1) eight-hour day.

8 The relative weights shall be fifty percent (50%) for technical subjects and 9 fifty percent (50%) for Philippine Electrical Code.

10 The passing general average rating shall be seventy percent (70%) with no 11 grade below fifty percent (50%) in any subject.

Sec. 21. *Report of Ratings.* – The Board of Electrical Engineering shall, within thirty (30) days after the date of completion of the examinations, report the ratings obtained by each candidate to the Professional Regulation Commission (PRC).

Sec. 22. *Reexamination of Failed Subjects.* – An applicant shall be allowed to retake, any number of times, only the subject/s in which he has obtained a grade below fifty percent (50%). When he shall obtained an average grade of seventy percent (70%) in the subject/s repeated, he shall be considered to have passed his licensure examination.

Sec. 23. *Professional Oath*. – All successful candidates in the examination shall be required to take a professional oath before the Board or any government official authorized to administer oaths prior to entering upon the practice of professional electrical engineering, registered electrical engineering, registered master electrician.

Sec. 24. *Issuance of Certificates of Registration and Professional Identifications.* — The registration of a professional electrical engineer, registered electrical engineer and registered master electrician commences from the date the name of the professional is entered in the roll of registrants or licensees for the profession. Every registrant who has satisfactorily met all the requirements specified in this Act, upon payment of the registration fee, shall be issued a certificate of registration and a professional identification card as a Professional Electrical Engineer, a Registered Electrical Engineer or a Registered Master Electrician that shows the full name of the registrant and with registration number, signed by the Commissioner and by the Chairman and members of the Board, stamped with the official seal, as evidence that the person named therein is entitled to practice the profession with all the rights and privileges appurtenant thereto. The certificate shall remain in full force and effect until withdrawn, suspended, or revoked in accordance with law.

7 A professional identification card signed by the Commissioner and bearing the 8 registration number and date of issuance thereof and the month of expiry or renewability shall likewise be issued to every registrant who has paid the annual 9 registration fees for three (3) consecutive years and has complied with the 10 requirements of the Continuing Professional Development (CPD), unless exempted 11 therefrom. This professional identification card will serve as evidence that the licensee 12 can lawfully practice his profession until the expiration of its validity. Non-renewal of 13 the professional identification card will render the electrical engineering practitioner 14 15 not authorized to practice electrical engineering as prescribed in this Act.

Sec. 25. Continuing Professional Development Program (CPD). - The CPD 16 17 guidelines shall be prescribed and promulgated by the Board subject to the approval of the Commission, after consultation with the integrated and accredited electrical 18 engineering associations, other associations of the electrical engineering profession, 19 and other concerned sectors. The Board shall incorporate in the said guidelines the 20 creation of a CPD council that shall be composed of officers coming from the Board, 21 22 the Commission, the integrated and accredited electrical associations, and other 23 concerned sectors. It shall be vested with the functions, duties and responsibilities to 24 implement the guidelines and shall have the juridical personality that is distinct and separate from and independent of the Board, the Commission, the integrated and 25 26 accredited electrical engineering association, and other associations of the electrical engineering profession. 27

Sec. 26. *Organization of Electrical Engineering Practitioners.* – There shall only be one national organization of electrical engineering practitioners, which shall be recognized and accredited by the Professional Regulation Commission (PRC). Every grade of electrical engineering practitioners under this Act upon registration with the
 PRC as such, shall ipso facto, become a member of the accredited national
 organization.

The Professional Electrical Engineer, Registered Electrical Engineer and the Registered Master Electrician shall receive the benefits and privileges appurtenant to this listed membership in the duly accredited electrical engineering association only upon payment of the required membership fees and dues.

8 Sec. 27. Seal of Professional Electrical Engineer. - All licensed Professional Electrical Engineers may obtain a seal of a design prescribed and certified by the Board 9 bearing the registrant's name, the certificate number and the legend "Professional 10 Electrical Engineer." Plans, design, specifications, reports and other professional 11 documents prepared by or executed under the immediate supervision of, and issued 12 by a licensee, shall be stamped on every sheet with said seal when filed with 13 government authorities or when submitted or used professionally; Provided, however, 14 15 That it is unlawful for anyone to stamp or seal any document with said seal after the registrant's name has been delisted from the roster of professional electrical engineers 16 17 or after the validity of his professional identification card which bear the evidence that he is authorized to practice as mandated in this Act, has expired. 18

The registrant shall be allowed again to use his seal or stamp in the documents he prepares, signs or issues only after he is reinstated to the practice of his profession and reissued a new professional identification card.

Sec. 28. *Indication of Registration and Professional License Number.* – The Professional Electrical Engineer, Registered Electrical Engineer and Registered Master Electrician shall be required to indicate the registration and professional license number, the date registered, and the date of its validity in the documents the engineer signs, uses or issues in connection with the practice of profession.

Sec. 29. *Refusal to Issue Certificates.* – The Board of Electrical Engineering shall not issue a certificate of registration to any person convicted by the court of any criminal offense involving moral turpitude or to any person guilty of immoral or dishonorable conduct or to any person of unsound mind. In the event of refusal to issue certificates for any reason, the Board shall give the applicant a written statement
 setting forth the reasons for such action, which statement shall be incorporated in the
 records of the Board.

After no less than a year from the finality of the Board's decision, the Board,
out of equity and justice, may recommend to the Professional Regulation Commission
(PRC) the issuance of the certificate of registration to the applicant.

7 Sec. 30. Revocation of Certificates of Registration and Suspension from the Practice of the Profession. – The Board shall have the power, upon proper notice and 8 hearing, to revoke any certificate of registration of any registrant, to suspend him 9 from the practice of his profession or to reprimand him for any cause specified in the 10 preceding section, or for the use of, perpetration of any fraud or deceit in obtaining a 11 certificate of registration, or for gross negligence or incompetence or for 12 unprofessional or dishonorable conduct; for violation of this Act, the rules and 13 regulations and other policies of the Board and the Code of Professional Ethics. 14

15 It shall be sufficient ground for the revocation of a certificate issued to a person 16 under this Act, and his suspension from the practice of his profession for 17 unprofessional or dishonorable conduct, if:

a) Being a professional electrical engineer, he has signed and affixed his seal on
 any plan, design, technical reports, valuation, estimate, specification or other
 similar document or work not prepared by him or not executed under his
 immediate supervision;

b) He has represented himself as having taken charge of or supervised: any
electrical construction or installation; operation, tending and maintenance of
any electric plant; manufacture or repair of electrical equipment, teaching of
electrical engineering subjects; sale or distribution of any electric supply or
utilization equipment requiring engineering calculations or application of
engineering principles and data, without actually having done so.

The decision of the board shall be final and executory unless it is appealed by the respondent to the Commission within fifteen (15) days from the receipt of such decision. The Board's or Commission's decision is appealable by the respondent to the Court of Appeals in accordance with the procedure provided
 under the Rules of Court.

Any person, firm, association or corporation may file charges in accordance 3 with the provisions of this section against any licensee, or the Board may, on 4 its own initiative (motu propio) investigate and/or take cognizance of acts and 5 6 practices constituting cause for suspension or revocation of the certificate of 7 registration by proper resolution or order, such charges shall be in writing and 8 shall be sworn to by the person making them and shall be filed with the Board. The rules and regulations of the Commission on administrative investigation 9 shall govern the procedure and conduct of administrative investigation before 10 the Board. 11

- 12 The respondent shall have the right to a speedy and public hearing and to 13 confront and cross- examine witnesses against him.
- 14 Sec. 31. *Re-issuance of Revoked Certificates or Replacement of Lost* 15 *Certificates.*
- a) Subject to the approval of the Professional Regulation Commission (PRC), the
 Board may re-issue a certificate, for reasons it may deem sufficient, entertain
 an application for a new certificate in the same manner as application for an
 original one. It may exempt the applicant from the necessity of undergoing an
 examination.
- b) A new certificate of registration to replace any certificate that has been lost,
 destroyed or mutilated may be issued, subject to the rules of the Board.
- 23

ARTICLE IV

24 FIELD OF PRACTICE OF THE ELECTRICAL ENGINEERING PROFESSION

25 Sec. 32. *Field of Practice.* – The field of practice of responsible character for 26 Professional Electrical Engineers, Registered Electrical Engineers, and Registered 27 Master Electricians shall be as follows:

a) The Professional Electrical Engineer's field covers the practice of the electrical
 engineering profession in its full scope without limits as to voltage levels or
 MVA capacities to include the sole authority to design electrical systems,

provided that such designs, plans and specifications related therein shall bear
 his signature and seal as author of official documents appurtenant thereto the
 responsibilities and accountabilities, as defined in this Act.

Further, that the Professional Electrical Engineer-of-Record with the Office of the Building Official and Author of Electrical Documents submitted shall bear his seal and signature and shall have full liability over these said documents for a period of fifteen (15) years; unless his responsibility is assumed by another Professional Electrical Engineer who made modification to the electrical system under the new employ of the establishment owner or management.

- b) Appointment of Professional Electrical Engineers in government Where a
 position in a government institution requires a master's degree holder, a
 Professional Electrical Engineer shall be eligible for the position.
- c) Subject to the limitations as defined in this Act, a Registered Electrical 13 Engineer's field of practice covers the practice of the electrical engineering 14 15 profession in its full scope without limits as to volt- age levels or MVA capacities to include the authority to design electrical systems, provided that such 16 17 designs, plans and specifications related therein shall bear his signature includes the taking charge and supervision of projects execution and installation 18 works; operation and maintenance of electrical systems in power plants, 19 industrial plants, commercial buildings or complexes, water- crafts, electric 20 locomotives, and other electric systems; to include manufacture and repair of 21 electrical equipment and machines, switchboards, transformers, generators, 22 motors, electrical apparatuses; teaching of electrical engineering subjects and 23 24 allied sciences; and the sale and distribution of electrical equipment requiring engineering calculations or application of engineering data. 25

Further, that the Registered Electrical Engineer-of-Record with the Office of the Building Official on electrical documents submitted bearing his name and signature over the design or supervision of an electrical installation shall have full civil liability over these said installations for a period of fifteen (15) years; unless his responsibility is assumed by another Registered Electrical Engineer who made modification to the electrical system under new employ of the
 establishment owner or management.

d) Subject to the limitations as defined by this Act, a Registered Master 3 Electrician's field of practice includes the installation, erection, wiring of 4 electrical projects; operation, teach basic electrical technology subjects 5 6 maintenance and repair of electrical machinery, equipment and devices in an 7 electric system of residential, institutional, commercial and industrial plants, in 8 power plants, industrial sub- stations, watercrafts, electric locomotives, to include installation of transmission, distribution and substation system 9 equipment; erection and installation of electric poles, towers and other related 10 structures, installation of line hardware, stringing of power lines, switching 11 equipment and devices; banking of transformers; to include but not limited to 12 13 operation, maintenance and repair thereat.

Provided, that if the scope of work, or the machinery, equipment or the electrical system involved is rated in excess of five hundred kilovolt-amperes (500 kVA), or not to exceed of six hundred volts (600 V), the Registered Master Electrician shall be under the supervision of a Professional Electrical Engineer or a Registered Electrical Engineer.

Provided furthermore, that the Registered Master Electrician-of-Record with the Office of the Building Official on electrical documents submitted bearing his name and signature or supervision of an electrical installation shall have full civil liability over these said installations for a period of fifteen (15) years; unless his responsibility is assumed by another Registered Master Electrician (RME) who made modification to the electrical system under new employ of the owner.

26 Sec. 33. *Prohibitions in the Practice of Electrical Engineering*. – It shall be 27 unlawful for any person to:

a) Practice or offer to practice electrical engineering in the Philippines without
 having previ- ously obtained a certificate of registration, professional license
 and a valid identification (ID) issued by the Professional Regulation Commission

(PRC) qualifying him as an Li- censed Electrical Practitioner as defined in this 1 2 Act, except as provided for in Section 15 hereof; b) Use, or attempt to use as his own, certificate of registration, professional license 3 4 or the seal of another; c) Give false or forged evidence of any kind to the Board or to any member thereof 5 6 in obtaining a certificate of registration or professional license; 7 d) Falsely impersonate any registrant of like or different name; e) Attempt to use a revoked or suspended Certificate of Registration or an expired 8 professional identification card; 9 f) Use, in connection with the registrant's name or otherwise assume, use or 10 advertise any title or description tending to convey the impression that he is a 11 Professional Electrical Engineer, Registered Electrical Engineer or Registered 12 Master Electrician without holding a valid Certificate of Registration and a valid 13 Professional Regulation Commission (PRC) identification card; 14 15 g) Sign a document involving electrical design, plan, technical specification, valuation and the like on behalf of a professional electrical engineer. 16 h) Take responsible charge or supervise the preparation of plans, designs, 17 investigations, valuation, technical reports, specifications, project studies, 18 estimates or consultancy services or to be in the performance of other electrical 19 engineering services unless he is a duly authorized electrical engineering 20 practitioner as defined in this Act; 21 i) Make offers, proposals, quotations, or enter or sign into a contract to render 22 Professional Design Services, installation works, execution of projects, 23 24 maintenance services or for the supply or fabrication of electrical equipment, and other electrical services unless he is an authorized Electrical Practitioner as 25 defined in this Act; 26 i) Make use of electrical plans, designs, specifications, drawings and electrical 27 documents relative to the construction of a building or of any other purposes 28 without bearing the seal and signature of a Professional Electrical Engineer as 29 defined in this Act; 30

- k) To duplicate or to make copies without the expressed written consent of the
 author of an electrical document for use in the repetition of and for other
 projects or buildings, whether executed partly or in whole;
- I) Take direct charge or responsible supervision of the construction, erection, 4 5 installation, alteration, testing, commissioning, operation, tending, and 6 maintenance of any electrical system, equipment, machinery or process; or the 7 performance of electrical engineering services in connection with the 8 manufacture, sale, supply, distribution, application of electrical equipment and systems or of any electrical works for projects, either for himself or for others, 9 unless he is a duly authorized electrical engineering practitioner as defined in 10 11 this Act;
- 12 m) Order or otherwise cause the fabrication, manufacture, construction, erection, 13 installation or alteration of any electrical equipment, machinery or process for 14 any electrical works, pro- jects, or plants, unless the designs, plans, layouts or 15 specifications have been prepared by or under the direct responsible charge of 16 an authorized electrical engineering practitioner as defined in this Act;
- n) Teach basic electrical engineering subjects and allied sciences unless the
 person is a duly Registered Electrical Engineer or Professional Electrical
 Engineer authorized to practice as defined by this Act; and
- o) Teach professional subjects in electrical engineering course unless the person
 is an Professional Electrical Engineer; or an Registered Electrical Engineer with
 a Masteral or Doctorate Degree related to electrical engineering.
- p) To render, make offers or proposals, or enter into a contract to provide
 electrical engineering services for any private persons, entities, clients or
 projects, whether in personal capacities for any registered electrical
 engineering practitioner who is an officer or employee of any local government
 unit or agency charged with the enforcement of laws, ordinances or regulations
 relating to the construction, inspection and approval of electrical permits.
- q) To render, make offers or proposals, or enter into a contract to provide
 electrical engineering services for any private persons, entities, clients or

projects, whether in personal capacities for any electrical engineering
 practitioner who is an officer or employee of the Grid Opera- tor, Electric
 Cooperatives (EC's) and Distribution Utilities (DU's) or any other practitioners
 similarly situated.

5 Sec. 34. Signing of Electrical Plans, Specifications and Other Contract Documents 6 It shall be unlawful for any licensed electrical practitioner to sign his name, affix his 7 seal, or use any other method of signature on electrical plans, specifications, or other 8 contract unless the same is made in such manner as to clearly indicate the part or 9 parts of such work actually performed by the former; and it shall be unlawful for any 10 person, except the Electrical-Engineer-of-record to sign for any branch of the work or 11 any function or electrical engineering practice, not actually performed by him. The Electrical Engineer-of-record shall be fully responsible for all electrical plans, 12 13 specifications, and other documents issued under his seal or authorized signature.

14 The Board shall make all the necessary rules and regulations with regard to the 15 signing and sealing of drawings, specifications, reports and other documents.

Sec. 35. Ownership of Plans, Specifications and Other Contract Documents. -16 17 Plans, design and specifications and other contract documents duly signed, stamped, 18 or sealed, as instruments of service, are the intellectual property and documents of 19 the Licensed Electrical Practitioner, whether the object for which they are made is 20 executed or not. It shall be unlawful for any person to duplicate or to make copies of said documents for use in the repetition of any for other projects or buildings, whether 21 22 executed partly or in whole, without the written consent of Licensed Electrical 23 Practitioner or author of said documents.

All Licensed Electrical Practitioner shall incorporate this provision in all contract documents and other instruments of service.

Sec. 36. *Minimum Personnel Required*. – Except as otherwise provided in this Act, all electrical installations, undergoing construction, operation and maintenance in every building or commercial complex, industrial plant, power plant, locomotive, sea craft, VRE, factory, manufacturing plant in an industrial complex or any electrical system or process in operation, shall have not less than the following complements of

authorized electrical engineering practitioners in accordance to capacity in kVA or MVA 1 as defined by the Professional Regulatory Board of Electrical Engineering; 2 a) For capacities of 150 kVA up to 300 kVA – one (1) resident Registered Master 3 4 Electrician; b) For capacities above 300 kVA up to 1000 kVA - one (1) resident Registered 5 6 Master Electrician and one (1) Registered Electrical Engineer; 7 c) For capacities above 1000 kVA up to 5,000 kVA – Two (2) resident Registered Master Electricians, and one (1) resident Registered Electrical Engineer or 8 **Professional Electrical Engineer:** 9 d) For capacities above 5,000 kVA to 20,000 kVA - three (3) Registered Master 10 Electricians, one (1) Registered Electrical Engineer and one (1) Professional 11 Electrical Engineer as resident complement: 12 e) For capacities above 20,000 kVA to 60,000 kVA - four (4) Registered Master 13 Electricians, two (2) Registered Electrical Engineers, and one (1) Professional 14 15 Electrical Engineer, as resident complement: f) For capacities above 60,000 kVA – five (5) Registered Master Electricians, three 16 17 (3) Registered Electrical Engineers, and one (1) Professional Electrical Engineer, as resident complement: 18 19 g) For single or cluster capacities of Manned Substations of Grid or Distribution 20 Utilities (DU's) up to 75 MVA in specific inclusive area or location: one (1) Registered Master Electrician, one (1) Registered Electrical Engineer per shift, 21 22 and one (1) Professional Electrical Engineer as Head or Managing Electrical Engineer whose scope of responsibility includes overall operation and 23 maintenance; 24 h) For single or cluster capacities of Manned Substations of Grid or Distribution 25 Utilities (DU's) above 75 MVA up to 200 MVA in an inclusive area or location: 26 two (2) Registered Master Electricians, one (1) Registered Electrical Engineer 27 per shift, and one (1) Professional Electrical Engineer as Head or Managing 28 29 Electrical Engineer whose scope of responsibility includes overall operation and maintenance. 30

i) For single or cluster capacities of Manned Substations of Grid or Distribution
 Utilities (DU's) above 200 MVA in an inclusive area or location in this category:
 three (3) Registered Master Electricians, two (2) Registered Electrical Engineers
 per shift, one (1) Professional Electrical Engineer as Head of Shift Operations,
 and one (1) Professional Electrical Engineer as Managing Electrical Engineer
 whose scope of responsibility includes overall operation and maintenance.

j) Except as otherwise provided in this Act, all resident authorized electrical
 practitioners in Grid System Operations shall have minimum requirements of at
 least Registered Electrical Engineers or Professional Electrical Engineers during
 shift operations and one Professional Electrical Engineer as Head or Managing
 Electrical Engineer for every department, division or section, as the case may
 be.

k) Except as otherwise provided in this Act, all resident electrical practitioners in
 Distribution System Operations shall have minimum requirements of at least
 Registered Electrical Engineers or Professional Electrical Engineers during shift
 operations, and one Professional Electrical Engineer as Head or Managing
 Electrical Engineer for every department, division or section as the case may
 be.

For electrical works or projects of 150 kVA up to 1,000 kVA capacity: One (1)
 Registered Master Electrician as Project Electrician-In-Charge, and one (1)
 Registered Electrical Engineer as Project Engineer-In-Charge, and one (1)
 Professional Electrical Engineer as Project Manager or Consultant.

m) For electrical works or projects of over 1,000 kVA up to 5,000 kVA capacity:
 Two (2) Registered Master Electricians as Project Electricians-In-Charge, and
 one (1) Registered Electrical Engineer as Project Engineer-In-Charge, and one
 (1) Professional Electrical Engineer as Project Manager or Consultant.

n) For electrical works or projects under construction of over 5,000 kVA capacity:
 Three (3) Registered Master Electricians as Project Electricians-In-Charge; and
 two (2) Registered Electrical Engineers as Project Engineers-In-Charge; and

one (1) Professional Electrical Engineer as Project Manager; and one (1)
 Professional Electrical Engineer as Consultant.

The Professional Regulatory Board of Electrical Engineering in consultation with the
industry stakeholders shall review and amend the categories and classification in every
three (3) years when necessary.

Sec. 37. Preparation of Plans, Supervision of Projects and Application of the 6 *Philip- pine Electrical Code.* – It shall be unlawful for any person not authorized under 7 this Act to prepare plans, designs, valuations or specifications for any electrical wiring, 8 equipment or system; and no installation thereof shall be undertaken unless the plans, 9 designs, valuations and specifications have been prepared by or under the responsible 10 charge of, and signed and sealed by a Professional Electrical Engineer; and a 11 construction permit for the execution thereof is first secured; and unless the work is 12 done in accordance with the Philippine Electrical Code and other Philippine-recognized 13 International Standards and is executed under the responsible charge or supervision 14 of a Professional Electrical Engineer, a Registered Electrical Engineer, or a Registered 15 Master Electrician as the case may be, and the routinary fiscal, ministerial and 16 technical requirements of the government agency, if any, exercising jurisdiction over 17 18 the particular installation have been complied with.

19 Sec. 38. *Practice Not Allowed for Firms and Corporations.* – The practice of 20 electrical engineering is a professional service admission to which is based on 21 individual and personal qualifications. Hence, no firm or corporations may be 22 registered or licensed as such for the practice of electrical engineering.

However, persons properly qualified and licensed as professional electrical engineers may, among themselves, form a partnership or association and collectively render electrical engineering service. Individual members of such partnerships or associations shall be responsible for their own respective acts.

Provided, that in cases involving professional liability of an electrical engineer employed within and representing the firm in present or past jobs, and whether still or no longer working within the firm, the firm and the engineer involved are jointly and severally liable to all obligations arising from business transactions of the firm. Sec. 39. *Posting of Certificate of Compliance.* – The owner, manager or the person in charge of an electric plant, industrial plant or factory, commercial establishment, institutional building, watercraft, or electric locomotive shall post or cause to be posted in a conspicuous place within such plant or establishment the certificate of registration of the engineers or electricians employed in such plant or establishment, in a frame protected by transparent glass or equivalent.

7 Sec. 40. Certificate of Specialty. - Certificates of specialty shall be issued by the Board, subject to the approval of the Commission, to licensed electrical 8 9 practitioners who have been screened and recommended by the integrated and accredited electrical engineering association. These are for specific fields in which the 10 applicants have specialized knowledge, training and experience and have 11 demonstrated their competence and expertise. The Board shall, subject to the 12 13 approval of the Commission, and after consultation with the said association, prescribe and issue the necessary guidelines for the issuance of these certificates in accordance 14 15 with the prescribed structure of quality assurance system aligned to the PQF and applicable international standards. 16

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Sec. 41. *Foreign Reciprocity.* – No foreign engineer shall be admitted to take a board ex- amination, be given a certificate of registration, or be entitled to any of the rights and privileges under this Act unless the country of which he is a subject or citizen specifically permits Filipino engineers to practice within its territorial limits on the same basis as the subjects or citizens of such country.

Sec. 42. *Enforcement of the Act by Officers of the Law.* – It shall be the duty of all constituted officers of the law of the national government, or any provincial, city or municipal government or of any political subdivision thereof to prosecute any person violating the provisions of this Act. The Secretary of Justice or his assistant shall act as legal adviser of the Board and render such legal assistance as may be necessary in carrying out the provisions of this Act.

Sec. 43. *Penalty Clause.* – In addition to the administrative sanctions imposed
under this Act.

Any person, Filipino or Foreigner, who shall violate any of the provisions of this Act shall be guilty of misdemeanor and shall, upon conviction, be sentenced to a fine of not less than One hundred thousand pesos (P100,000.00) nor more than One million pesos (P1,000,000.00) or imprisonment for a period not less than six (6) months nor more than five (5) years or both at the discretion of the court.

Further, any government agency or private firm or institution who violates
under this Act shall be punished by a fine of not less than One Million Pesos (P
1,000,000.00) nor more than Five Million Pesos (P 5,000,000.00) at the discretion of
the court.

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ARTICLE V

TRANSITORY PROVISIONS

Sec. 44. *Terms of Office of Board Members.* – Upon approval of this Act, the incumbent chairperson and two (2) members of the Board shall continue to serve until their terms of office expire or until their replacements under this Act have been appointed by the President of the Republic.

16ARTICLE VI17FINAL PROVISIONS

Sec. 45. *Implementing Rules and Regulations.* – The Board shall formulate and
issue the implementing rules and regulations to carry out the provisions of this Act.

Sec. 46. *Funding Provisions*. – Such sums as may be necessary to carry out provisions of this Act shall be included in the General Appropriations Act of the year following its enactment into law and thereafter.

Sec. 47. *Repealing Clause.* – Republic Act No. 7920 is hereby repealed. All other laws, decrees, executive orders, proclamations, rules and regulations, or parts thereof inconsistent with the provisions of this Act are hereby amended, repealed or modified accordingly.

27 Sec. 48. *Separability Clause.* – If any provision or part of this Act is declared 28 invalid or unconstitutional, the remaining parts or provisions not affected shall remain 29 in full force and effect. Sec. 49. *Effectivity Clause.* – This Act shall take effect fifteen (15) days after its
 publication in the Official Gazette or in a national newspaper of general circulation."

Approved,