



Republic of the Philippines
DEPARTMENT OF ENERGY
Kagawaran ng Enerhiya

DEPARTMENT CIRCULAR NO. DC2023-__ - ____

POLICY ON THE MAPPING OF SUBMARINE, INTER-ISLAND OVERHEAD AND UNDERGROUND OIL AND GAS PIPELINES AND POWER LINE FACILITIES TO ENSURE ITS SAFETY AND SECURITY

WHEREAS, Republic Act (RA) No. 7638, or the *Department of Energy (DOE) Act of 1992*, mandates the DOE to formulate policies for the planning and implementation of a comprehensive program for the efficient supply and economical use of energy consistent with the approved national economic plan and with the policies on environmental protection and conservation and maintenance of ecological balance, and provide a mechanism for the integration, rationalization, and coordination of the various energy programs of the Government; and to establish and administer programs for the exploration, transportation, marketing, distribution, utilization, conservation, stockpiling and storage of energy resources of all forms, whether conventional or nonconventional;

WHEREAS, RA No. 9136 or the *Electric Power Industry Reform Act of 2001 (EPIRA)*, Section 2 (b) and (f) thereof declares that it is the policy of the State to ensure the quality, reliability, security and affordability of the supply of electric power; and to protect the public interest as it is affected by the rates and services of electric utilities and other providers of electric power.

WHEREAS, Section 2 of RA No. 11361, otherwise known as “*The Anti-Obstruction of Power Lines Act*,” provides the policy of the State to ensure uninterrupted conveyance of electricity from generating plants to end users, and to protect the integrity and reliability of the country’s transmission, sub-transmission, and distribution systems by keeping the land beneath, the air spaces surrounding, and the area traversed by power lines clear of dangerous obstructions and activities.

WHEREAS, the *Philippine Electrical Code (PEC) of 2017* provides the standards for the installation and maintenance of electrical and power systems and layouts for underground facilities.

WHEREAS, under RA No. 8479, otherwise known as the “*Downstream Oil Industry Deregulation Act of 1998*,” the DOE shall continue to encourage certain practices in the industry which serve the public interest and are intended to achieve efficiency and cost reduction, ensure the continuous supply of petroleum products, and enhance environmental protection. Under Section 15(a) of the same law, the Secretary of Energy is authorized to gather and compile appropriate information concerning, and to investigate from time to time the organization, business, conduct, practices, and management of any person or entity in the industry.

WHEREAS, pursuant to RA No. 8479, an act deregulating the downstream oil industry and for other purposes, Section 15 thereof provides the additional power of the DOE Secretary to require, by general or special orders, persons or entities engaged in the activity of the industry to file reports as may be prescribed in the said order.

WHEREAS, Department Circular 2017-11-0012, otherwise known as the *Rules and Regulations Governing the Philippine Downstream Natural Gas Industry*, provides a regulatory framework for the downstream natural gas industry. It applies to industry compliance, policies, rules, regulations, standards and best practices in areas of siting, design, construction, expansion, rehabilitation, modification, operation and maintenance & repair of any project necessary to the development of the Philippine Downstream Natural Gas Industry value chain. The Circular also provides a transparent guideline for investors in developing the required infrastructure as it stipulates the legal, technical and financial documentary requirements, application procedure, evaluation process, criteria and permits to ensure safe, transparent, competitive and environmentally friendly operation of natural gas facilities.

WHEREAS, Proclamation No. 72, series of 2001, entitled "*Establishing Safety and Exclusion Zones for Offshore Natural Gas Wells, Flowlines, Platform, Pipelines, Loading Buoy and Other Related Facilities for the Malampaya Deep Water Gas-to-Power Project over Certain Waters and Submerged Lands Adjacent to Batangas, Mindoro and Palawan*," establishes the safety and exclusion zones for offshore natural gas wells, flowlines, platform, pipelines, loading buoy and other related facilities for the Malampaya Deep Water gas-to-power project over certain waters and submerged lands adjacent to Batangas, Mindoro and Palawan with the objective that certain waters, submerged lands, and foreshore areas be reserved as safety and exclusion zones in order: (a) to protect public health, safety and the environment; (b) to secure the project infrastructure from damage; and (c) to prevent disruptions in the availability of electricity from the power plants using Malampaya gas.

WHEREAS, various incidents, *i.e.*, Amlan-Samboan 138 kV Transmission Line 1 submarine cable, Mindanao-Visayas Interconnection Project, Inter Island Incidents in Quezon II Electric Cooperative, Inc., total blackout in Siargao Islands due to damaged submarine cable and the damaged Line 2 of the Cebu-Mandaue 138 kV underground power line. These incidents, which were caused by public works and surveying activities, albeit legitimate and for good cause, have affected the security, and reliability of power supply in the Philippines.

WHEREAS, for the operation of the onshore underground natural gas pipeline routes and right-of-way, various incidents were encountered that are human induced such as illegal settlers, and uncoordinated structures construction, *kaingin*, and diggings, while the incidents experienced for the offshore underwater natural gas pipeline are the illegal or unmarked droppings of ship anchor(s). The risks of insurgency, sabotage, dynamite fishing and/or trawling of fishing nets over these facilities are likewise a constant possibility.

WHEREAS, the aforementioned incidents call for all the mandated government agencies, contractors, and other relevant stakeholders and entities to augment all current policies and measures to achieve a common and consolidated information and database to ensure appropriate infrastructures and protocols are in place, and for a harmonized and coordinated response to ensure the integrity, safety, security, and security of these vital energy facilities and assets.

NOW, THEREFORE, in consideration of the foregoing, the DOE hereby issues and promulgates the policy for the mapping of all submarine, overhead, and underground power lines and gas facilities and their associated facilities.

Section 1. Objectives.

This Circular intends to:

- a. Consolidate information from the stakeholders on a project's location indicating the coordinates, including, but not limited to, latitude, longitude, vertical coordinates, altitude or vertical elevation above a surface, *e.g.*, above sea level, and depth, *e.g.*, below sea level, buried depth below ground level or below seabed level, of critical overhead inter-island, underground and submarine power lines and oil and gas pipelines; and
- b. Continually update the digital mapping of the said energy and energy-related facilities that are situated underground and those traversing bodies of water such as, but not limited to, rivers, tributaries, and island channels., including their systems that operate as command/control and operations networks

Section 2. General Policies and Principles. The policy shall be governed by the following principles:

- 2.1 Ensure the continued supply of energy and electricity by protecting the integrity and security of power lines, oil and gas pipelines and facilities by prohibiting any construction, expansion, rehabilitation, modification of hazardous improvements and the implementation of any such activities without prior notice and approval of the appropriate government agencies;
- 2.2 Ensure compliance with International and Philippine standards and industry best practices covering but not limited to Health – Safety – Security – Environment for efficient, sustainable and safe operations, high-quality delivery of services, and consumer protection in consonance with applicable laws, rules, and regulations;
- 2.3 Accountability in the security and reliability of power, oil and gas supply, and in the safeguarding of submarine, inter-island overhead and underground oil and gas pipelines and power line facilities.
- 2.4 Decrease in the utilization of valuable resources and the economic losses due to the repair of damaged facilities which shall ultimately be borne by the public.

2.5 To create a map of all submarine, inter-island overhead and underground power lines, and oil and natural gas pipelines, subject to strict confidentiality and appropriate coordination and communication with appropriate agencies and entities.

SECTION 3. Definition of Terms. As used in this Circular the, the following terms and phrases are defined as follows:

- (a) Department of Energy (DOE)** refers to the government agency created pursuant to RA No. 7638 and RA No. 9136;
- (b) Fortuitous Events or Force Majeure** refer to an event or circumstance generally caused: (1) by nature such as, but not limited to, fires, floods, typhoons or other catastrophes, or acts of God; and/or (2) by the acts of man, such as, but not limited to, war, national emergencies, revolution, riot, insurrection, civil unrest, strikes, instability to access/ inability to use land, fire, explosion, leaks, epidemic or quarantine, order of a court, failure of agencies to act, or any other similar violent or threatening actions.
- (c) Geographic Information System** or GIS file format is a standardized way of organizing and storing spatial data in a computer file. These formats typically include both geometric and attribute data, such as coordinates, polygons, and descriptive information about the features being represented;
- (d) International Standards** shall mean the technical standards comprised of rules, guidelines, processes, and characteristics developed by one or more international standards organizations composed of experts from many countries, approved and published globally, and are available for consideration and use worldwide, consistent with applicable laws in the Philippines.
- (e) Inter-island Overhead Connection** refers to the overhead connection between islands for the transmission of electric power from one island to another.
- (f) Local Government Unit (LGU)** refers to the political entity created, converted, divided, merged, abolished, or its boundaries substantially altered either by the act of Congress, in the case of the province, city, municipality, or any other political subdivision, or by an ordinance passed by the Sangguniang Panlalawigan or Sangguniang Panglungsod concerned, in the case of barangay located within its territorial jurisdiction, subject to such limitations and requirements prescribed in Republic Act 7160;
- (g) National Mapping and Resource Information Authority (NAMRIA)** refers to the government agency mandated to provide the public with mapmaking services and to act as the central mapping agency, depository, and distribution facility for natural resources data in the form of maps, charts, texts, and statistics;
- (h) Network Service Provider (NSP)** refers to an entity that engages in the activity of owning, controlling, or operating a transmission or distribution system;

(i) Oil and Gas Pipelines refers to a tube system that is welded together and is used to transport oil, natural gas, or refined petroleum products. The pipeline can be located above ground, buried in the ground, suspended above the ground, on the sea floor, or buried in the sea floor;

The definition shall likewise include oil, refined petroleum products, and natural gas facilities such as Processing plants and Liquefied Natural Gas (LNG) Storage and Regasification Terminals since they are the starting and connecting points of oil and gas pipelines.

(j) Operator shall pertain to a person who is granted a permit by the DOE to engage in the siting, design, construction, expansion, rehabilitation, modification, operation and maintenance of facilities and pipelines. It shall also pertain to entities who are responsible for the operation and maintenance of power lines, regardless of ownership.

(k) Philippine Electrical Code (PEC) refers to the set of rules which provide for the safety in electrical installation, construction, operation and maintenance, and the utilization of electricity mandated under the “New Electrical Engineering Law”;

(l) Power Lines refers to transmission lines, sub-transmission lines, distribution lines, generation dedicated point-to-point lines, and other connection assets including the poles and towers used to support the lines, and other related facilities constructed or erected used for the conveyance of electricity;

(m) Republic Act 7160 refers to the Local Government Code of 1991;

(n) Staking Sheet refers to the outlined system and layout for electrical, including the corresponding coordinates;

(o) Submarine Cables refers to wires that are wrapped with insulating and waterproof materials and laid underwater on the seabed and rivers for power transmission.

(p) Underground Transmission Lines refers to electrical cables that are installed beneath the ground.

Section 4. Scope And Application. This Policy shall apply to the following mandated entities:

- 4.1.1. Distribution Utilities;
- 4.1.2. Generation Companies;
- 4.1.3. Network Service Provider;
- 4.1.4. DOE registered facilities of registered downstream oil and natural gas industry players;
- 4.1.5. Owners and Operators of Oil and Gas pipelines; and
- 4.1.6. Other Service Providers, as may be determined by the DOE.

Section 5. Reportorial Requirements. Upon the effectivity of this Circular, mandated entities shall submit the requirements within three (3) months thereof. Thereafter the

mandated entities shall submit to the DOE the reportorial requirements enumerated in the Circular every 15th day of February of every year. The report shall include any update on development and expansion of the facilities.

5.1. POWER LINE FACILITIES

5.1.1 Proceed data/file which includes exact coordinates of energy facilities layouts supported with Board Resolution and/or Secretary Certificate or any equivalent..

5.2.2 Vector file preferably in shapefile format of the energy facilities locations using WGS'84 Geographic Coordinates with vertical coordinates or other GIS file format, as may be acceptable to/ prescribed by the DOE.

5.2. OIL AND GAS PIPELINES

5.2.1 Location/Layout Plan (hard and scanned copies) of the energy facilities with WGS '84 geographic coordinates certified, signed and sealed by a geodetic engineer.

5.2.2. Vector file preferably in shapefile format of the energy facilities locations using WGS'84 Geographic Coordinates with vertical coordinates or other GIS file format, as may be acceptable to/ prescribed by the DOE.

All sets of coordinates shall be the exact location of the energy facilities (power system layouts and oil and gas pipelines) with corresponding metadata, including the horizontal and vertical reference system, source, date last updated, and other information or data that the DOE may require.

Section 6. Responsibility of the DOE. The DOE shall have the following responsibilities:

- a) To consolidate and combine the submitted documents of the mandated entities into a single GIS file to be submitted and coordinated with the NAMRIA;
- b) To treat with utmost confidentiality all the submitted documents by the mandated entities;
- c) To coordinate in achieving the objectives of this Circular, with the following entities: the Philippine Inter-Agency Health-Safety-Security-Environment Inspection and Monitoring Team (PIA HSSE-IMT) for the conduct of inspection and monitoring of downstream natural gas industry facilities and pipelines, which is composed of representatives from the DOE-OIMB-NGMD, Department of Labor and Employment – Bureau of Working Conditions, Department of Health, Department of Interior and Local Government – Bureau of Fire Protection, Department of Environment and Natural Resources – Environmental Management Bureau, Department of Transportation - Philippine Coast Guard and Maritime Industry Authority; National Electrification

Administration, National Transmission Corporation, NGCP, Distribution Utilities, owners and operators of powerlines and oil and gas pipelines, law enforcement agencies, Armed Forces of the Philippines; and other relevant agencies; and

- d) Should incidents happen to these facilities, the DOE shall commence coordination with the mandated entities and perform all necessary actions to achieve the objectives of this Circular pursuant to its mandate and function under existing laws, rules and regulations.

Section 7. Support from Other Government Agencies.

- a) The Local Government Unit (LGU) of its cities and municipalities shall ensure that every mandated entity, within their territorial jurisdiction, complies with the requirements and standards under PEC and similar issuances under RA No. 7160;
- b) The LGU may issue the necessary ordinances for the regulation of any activities that may affect the safety, security and integrity of oil and gas pipelines and power line facilities in the area;
- c) The LGU shall regularly coordinate with relevant government agencies for the protection of Oil and Natural Gas Pipelines, and Electric Power Transmission/ Distribution Lines in their area or jurisdiction and with the owner/ operator, other companies, the general public, and other Government agencies;
- d) In coordination with the DOE, the NAMRIA shall include the layouts of the aforementioned power lines and oil and gas pipelines and their respective facilities, as submitted by the stakeholders and consolidated by the DOE, in their maps accordingly and update such maps accordingly. The NAMRIA shall provide appropriate agencies and entities, motu proprio or upon request, the coordinates and location of such energy assets, subject to appropriate confidentiality and limitations that NAMRIA may deem necessary;
- e) Easement/ Lease/ Purchase of Land Agreements should include the protection of Oil and Gas Pipelines, and Electric Power Transmission/ Distribution Lines that will pass through or occupy said land to ensure the protection of the land owners and the general public; and
- f) Any project that may affect the safety, security and integrity of oil and gas pipelines and powerline facilities in the area should be coordinated with DOE by the lead government agency or its contractor.

Section 8. Penalty Clause

In case of damages to its facilities caused by fortuitous events, the aggrieved party shall be compensated in full by the causer to compensate the former for the cost of the repair of damaged facilities, without prejudice to other appropriate remedies that may be pursued pursuant to applicable laws, rules and regulations.

Section 9. Separability Clause

If for any reason any section of this Circular is declared unconstitutional or invalid, such parts not affected shall remain in full force and effect.

Section 10. Effectivity

This Circular shall take effect fifteen (15) calendar days upon its publication in at least two (2) newspapers of general circulation. Copies thereof shall be filed with the University of the Philippines Law Center – Office of National Administrative Register (UPLC-ONAR).

Issued on _____ at Energy Center, Bonifacio Global City, Taguig City.

RAPHAEL P.M. LOTILLA
Secretary

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