



1 **DEPARTMENT CIRCULAR NO. DC2024-05-_____**

2 **“PRESCRIBING THE GUIDELINES FOR THE LOCAL TOTAL ELECTRIFICATION**
3 **ROADMAP OF THE DISTRIBUTION UTILITIES”**

4
5 **WHEREAS**, Republic Act (RA) No. 11646 entitled “The Act Promoting the Use of
6 Microgrid Systems to Accelerate the Total Electrification of Unserved and
7 Underserved Areas Nationwide” otherwise known as the “Microgrid Systems Act”
8 (MGSA), which was promulgated on 09 February 2022, declares the policy of the state
9 to accelerate total electrification and ensure the provision of quality, reliable, and
10 secure electricity service at reasonable rates in unserved and underserved areas;

11
12 **WHEREAS**, Section 12 (a) and (d) of RA 11646 mandates the Department of Energy
13 (DOE) to prepare and publish annually on its website the National Total Electrification
14 Roadmap (NTER), upon consultation with public and private stakeholders; and
15 determine, in consultation with Distribution Utilities (DUs), the time frame for
16 compliance with their respective Local Total Electrification Roadmaps (LTERs) and
17 Distribution Development Plans (DDPs);

18
19 **WHEREAS**, Section 13 of RA 11646 mandates the National Electrification
20 Administration (NEA) to assist the Electric Cooperatives (ECs) in the preparation of
21 their respective LTERs; and evaluate and verify the unserved and underserved areas
22 submitted by ECs as part of its LTER and submit its recommendations to the DOE not
23 later than the 15th of March of every year;

24
25 **WHEREAS**, Section 14 (a) and (b) of RA 11646 mandates the National Power
26 Corporation (NPC) to prepare and execute annually an NPC Graduation Plan and shall
27 continue to perform its missionary electrification mandate;

28
29 **WHEREAS**, Section 15 of RA 11646 mandates the DUs to prepare their LTER in
30 pursuit of the total electrification of their franchise areas and it shall contain the
31 following, among others:

- 32
33 (a) A validated detailed inventory of all areas within a DU’s franchise which it plans
34 to electrify including a specific time frame for electrification, including DU
35 identified unserved areas for electrification through DU operated microgrid
36 systems;
37 (b) A validated annual work plan for electrification; and
38 (c) A validated detailed inventory of all unserved and underserved areas within its
39 franchise.

40
41 **WHEREAS**, on 25 June 2022, the DOE promulgated Department Circular No.
42 DC2022-05-0017 or the Rules and Regulations to Implement Republic Act No. 11646
43 (Microgrid Systems Act) which mandates the DOE to prepare the NTER and publish
44 it on the DOE Website, no later than 30 September of every year;

45
46 **WHEREAS**, on 21 December 2022, the DOE issued Department Order No. DO2022-
47 12-0016¹ mandating the Total Electrification Steering Committee¹ (TESC) to
48 supervise and provide directions in the formulation of the National Total Electrification
49 Roadmap (NTER);

50
51 **WHEREAS**, on 23 March 2023 during the TESC Meeting 2023-01, the TESC
52 approved the National Total Electrification Framework identifying the various
53 electrification strategies, funding sources, and project implementers;

54
55 **WHEREAS**, to ensure that the DUs will be able to efficiently and effectively plan out
56 its electrification projects and programs to unserved and underserved areas within its
57 franchise area, it is necessary to issue this Guidelines for the development of the DUs'
58 LTER;

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60 **WHEREAS**, the DOE consulted with the DUs on the development of the LTER
61 template on the following occasions:

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Dates	Venue	Participating DUs (ECs and PIOUS)
	Cebu City	Regions VI, VII, and VIII
	Taguig City	Regions I, II, III, IV-A, IV-B, V and NCR
	Cagayan de Oro City	Regions X, XI, XII, CARAGA
	Zamboanga City	Regions IX and BARMM

63
64 **NOW, THEREFORE** the DOE, in consideration of the foregoing hereby issues the
65 following guidelines to govern the development of the LTER, including the manual in
66 filling out the standard template as Annex A.

67 **Section 1. Definition of Terms**

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69 For purpose of the LTER, the operational definition of terms will be adopted:

- 70
71 1.1. **Annual Work Plan (AWP)** - refers to the Distribution Utilities' (DUs) annual
72 plan of all projects to commence within the reference year and shall be
73 completed not later than eighteen (18) months from submission to the DOE.
74
75 1.2. **Local Total Electrification Roadmap (LTER)** - refers to a DU's
76 comprehensive 10-year strategic plan with an AWP to accelerate total
77 electrification in its franchise area, to be updated annually.

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¹ Department Order 2022-12-0016 creating the Total Electrification Steering Committee (TESC) which will serve as an oversight body in formulating and consolidating various programs and activities that will allow full access to electricity of communities that are identified as unserved and underserved by DUs and other responsible entities.

- 79 1.3. **Microgrid System** – as defined in RA 11646, refers to a group of
80 interconnected loads and a generation facility of Decentralized Power
81 Generation with clearly defined electrical boundaries that acts as an
82 integrated power generation and distribution system, whether or not
83 connected to a distribution or transmission system.
84
- 85 1.4. **National Total Electrification Roadmap (NTER)** - refers to the DOE’s
86 comprehensive national strategic plan, including a work plan to accelerate
87 total electrification in the country, taking into consideration the various
88 LTERs and the Distribution Development Plans (DDPs). It shall be
89 incorporated in the Philippine Energy Plan.
90
- 91 1.5. **NPC Graduation Plan** - refers to a comprehensive and detailed strategy of
92 the NPC to attract private sector participation in areas purely served by the
93 NPC, to be updated annually.
94
- 95 1.6. **Served Households** - refers to households with access, connected to a
96 distribution system of a DU or by MGSP or utilizing a stand-alone home
97 system, regardless of the technology used and number of hours.
98
- 99 1.7. **Unserved Households** – refers to households without access and
100 connection to the electricity service by the concerned DUs and NPC.
101
- 102 1.8. **Unserved Areas** – as defined in RA 11646 refers to an area with no
103 electricity access, no distribution system lines, no home power system, no
104 connection to any microgrid system, or for which no distribution grid
105 extension has been developed or implemented by the DU.
106
- 107 1.9. **Underserved Areas** – as defined in RA 11646, refers to areas currently
108 served by home power systems, microgrid systems, or DU’s whose supply
109 of electricity is less than twenty-four (24) hours daily because of the non-
110 implementation of approved capital expenditure projects, noncompliance
111 with the service parameters of the Philippine Distribution Code (PDC), or
112 any other reason resulting to an overall failing mark based on ERC’s latest
113 annual technical evaluation of the performance of distribution systems.

114 **Section 2. Scope of Application**

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116 This Circular shall apply to the following:

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118 2.1. Distribution Utilities;

119 2.2. NEA;

120 2.3. NPC operating both the generation and distribution facilities in Missionary
121 Areas; and

122 2.4. Other qualified project implementers as stated in Section 4.3 of this
123 Circular.

124

Section 3. Guiding Principles

The preparation of the NTER and the LTER shall be in accordance with the following:

- 3.1. The NTER shall provide a comprehensive national strategic plan to accelerate total electrification in the country taking into consideration the growing demand and household targets.
- 3.2. All DUs, including those with 100% household electrification status in the reference year, shall prepare and submit its 10-year LTER which shall include an AWP to ensure timely implementation of electrification projects within its franchise areas in accordance with this Circular.
- 3.3. For the purpose of this Circular, the term “area” shall correspond to “barangay level”. For an area wherein there are unserved households within sitios, it will be declared as “partially served area/barangay” as referred to Section 5.2 of this Circular.
- 3.4. The DUs shall identify the appropriate electrification strategy for all unserved households and underserved areas within their franchise as discussed in Section 4.1 of this Circular.
- 3.5. The DU shall adhere with the hierarchical structure of financing the electrification project identified in the LTER as outlined in Section 4.2 of this Circular.
- 3.6. For the purpose of this Circular, households situated in areas declared as danger zones and/or protected areas shall not form part of the targets by the DUs in their LTER.
- 3.7. For electrification projects undertaken by project implementers other than the DU, as mentioned in Section 4.3 of this Circular, the DU shall recognize said initiative subject to evaluation based on the sufficiency of its electricity service. As necessary, the DU shall provide support to the project implementers or provide appropriate electrification strategies to ensure its sustainability.
- 3.8. The DUs shall ensure the timely submission and implementation of annual electrification targets in the LTER in accordance with Section 6.1.1.3 of this Circular.
- 3.9. The final LTER submitted by the DUs and reviewed and validated by the DOE and NEA, for the case of ECs, shall be the basis in the declaration of unserved and underserved areas that may be subject to competitive selection process for the MGSP.
- 3.10. The NPC in its MEP, shall have plans in providing 24/7 electricity service in missionary areas and comply with the hybridization policy issued.

174 3.11. The NEA shall ensure strict compliance of ECs in the preparation of LTER
175 in accordance with this Circular.

176
177 All activities shall be under the supervision and policy direction of the TESC who shall
178 recommend the final NTER to the DOE Secretary for the publication.

179 **Section 4. National Total Electrification Framework**

180
181 In order to achieve 100% Household electrification level, the National Total
182 Electrification Framework was established and encompasses the key factors, such as
183 electrification strategies, funding sources and project implementers.
184

185 **4.1. Electrification Strategies**

186
187 The four distinct electrification strategies below are tailored to suit specific
188 geographical locations, the contiguity of households and their distance from
189 existing distribution facilities.
190

191
192 4.1.1. **Household Electrification** - refers to connecting individual
193 households to the existing grid or power supply system,
194 guaranteeing that every unserved household shall be immediately
195 connected, if feasible, in accordance with the existing regulations
196 duly promulgated by the ERC.
197

198 4.1.2. **Distribution line extension** - refers to extension of DU facilities and
199 providing household connections in unserved and partially served
200 areas where the identified households are relatively close with each
201 other.
202

203 4.1.3. **Stand Alone Home Systems** - refers to provision of electricity
204 service through stand-alone home systems, such as solar home
205 systems, other renewable energy sources and other emerging
206 technologies in remote and hard-to-reach areas with dispersed
207 households and not viable for line extension.
208

209 4.1.4. **Microgrid System** - refers to provision of electricity service by
210 constructing both generation and distribution line in remote areas
211 with clustered households and has potential for economic activities
212 and is not viable for the extension of DU facilities.
213

214 **4.2. Funding Source**

215
216 The framework delineates the prioritization of available funds to support the
217 designated electrification strategies, as follows:
218

- 219 4.1.1. DU Internally Generated Funds (IGF) - refers to funds that are
220 generated through the operations and can be used to fund
221 electrification plans and projects of a DU, reducing the dependence
222 on external sources like loans.
223
- 224 4.1.2. Private Sector Initiative / Foreign-Assisted Projects - refers to
225 assistance that receives financial, technical or other forms of
226 support from the private sector or foreign entities.
227
- 228 4.1.3. Energy Regulations (ER) No. 1-94 Electrification Fund - refers to
229 50% of the one-centavo per kilowatt-hour (PhP 0.01/kWh)
230 generated from the total electricity sales of all generation facilities
231 under Rule 29(a) of the EPIRA's Implementing Rules and
232 Regulations, allocated to DUs serving the host communities.
233
- 234 4.1.4. NEA Subsidy - refers to funds given to Electric Cooperatives (ECs)
235 from NEA, through the General Appropriations Act, to deliver
236 electricity services to areas without access within the ECs'
237 franchise area e.g. SEP, BLEP.
238
- 239 4.1.5. DOE Locally Funded Project - refers to funds given to DOE to
240 complement the existing electrification programs by providing
241 flexibility on the prioritization and implementation of appropriate
242 electrification strategies to remaining unserved households in the
243 country.
244
- 245 4.1.6. NPC Missionary Electrification Plan Fund - refers to the funds from
246 the revenues from the sales in the missionary areas and from the
247 Universal Charge (UC) to be collected from all electricity end-users
248 as determined by the ERC.
249

250 4.3. **Project Implementers**

251

252 In addition to the NEA, NPC and DUs, the framework introduces the role of
253 other qualified project implementers that are crucial to expedite and address
254 the absorptive capacity of the DUs in achieving 100% electrification within
255 their franchise areas. The qualified project implementers include:
256

- 257 4.3.1. **State Universities and Colleges:** Demonstrating technical and
258 academic expertise in implementing new and emerging
259 technologies.
260
- 261 4.3.2. **Non-Government Organizations (NGOs):** Private organizations
262 who have experience on the management and implementation of
263 electrification programs.
264

265 4.3.3. **Microgrid Systems Service Providers:** Private groups that have
266 expertise and experience on implementing and operating
267 microgrid systems in remote and economically unviable areas of
268 the country: **and**

269
270 4.3.4. **Other eligible private entities.**
271

272 **Section 5. Declaration of Unserved and Underserved Areas**

273
274 The submitted LTER of all DUs shall be the basis of the declaration of unserved and
275 underserved area. The following parameters shall be used:

276
277 5.1. **Unserved Area/Barangay** – Any barangay with no electricity access, no
278 distribution system lines, no home power systems, no connection to any
279 microgrid system, or for which no distribution grid extension has been
280 developed or implemented by the DU. In literal terms, no households have
281 been energized in the area.

282
283 5.2. **Partially Served Area/Barangay**– Any served barangay with remaining
284 unserved households.

285
286 5.3. **Served Area/Barangay** – Any barangay, of which all of its households have
287 been served and has access to electricity 24/7.

288
289 5.4. **Underserved Area/Barangay** – Any barangay, currently served by home
290 power systems, microgrid systems, or DUs whose supply of electricity is
291 less than twenty-four (24) hours daily.
292

293 **Section 6. Procedure in the Preparation and Submission of the LTER**

294
295 The submission of LTER shall apply to all DUs, including those reporting one hundred
296 percent (100%) level of household electrification.

297
298 The DUs shall comply with the following procedures in the preparation and submission
299 of their respective LTERs.

300
301 6.1. Preparation and accomplishing of the LTER

302
303 6.1.1. The DU must fill up the LTER Template attached as Annex A in
304 this Circular comprise of the following forms namely:

305
306 6.1.1.1. Form 1: 10 – Year Electrification Master Plan

307
308 This form portion shall include the list and inventory of all
309 unserved households and/or underserved areas within a
310 DU's franchise, including areas to be served by MGSPs
311 that it plans to electrify including a specific time frame for
312 electrification. The template shall also cover the pertinent
313 information about the DU's electrification project including

314 its area location, area description and details of its
315 electrification plan, funding requirements and issues and
316 concerns that should be addressed for the timely
317 implementation and completion of programmed
318 electrification projects.

319
320 In crafting the LTER, the DU must take into account the
321 following:

- 322
323 ● All electrification strategies as well as the funding
324 requirement relative to the implementation of the
325 said electrification program. The least cost and
326 feasible electrification strategy for the unserved
327 households and underserved areas must be
328 considered.
- 329
330 ● Households which are previously energized
331 through other electrification programs such as
332 stand-alone home systems, as provided by LGUs
333 and/or private entities, and decide the appropriate
334 electrification solution pursuant to Section 3.7 of this
335 Circular.
- 336
337 ● Households situated in areas declared as danger
338 zones and/or protected areas and shall not form
339 part of the DUs targets pursuant to Section 3.6 of
340 this Circular.
- 341
342 ● Areas served by another DU within the franchise
343 area of the original DU franchisee and shall be
344 included in the LTER of the DU currently serving the
345 area, provided that a supporting agreement
346 between the concerned DUs is established.
- 347
348 ● Areas within their franchise that are being served by
349 another DU and shall be included in their planning
350 and reporting. Franchisee DU shall provide
351 supporting agreement for this arrangement.

352
353 6.1.1.2. Form 2: Household Electrification Report

354
355 This form shall consist of the household electrification level
356 of the DU within its franchise area down to Barangay level
357 including areas being served by an MGSP. Relatively,
358 should the DU report an unserved HHs within each
359 Barangay, the DU shall have equivalent electrification
360 plans incorporated in Form 1 to address the energization
361 requirement of said unserved households.

362

363 The methodology for the computation of electrification
364 level using the formula.

365
366
$$\text{Electrification Level (\%)} = \frac{\text{Served Households}}{\text{Potential Households}}$$

367
368 Where:

- 369 ● *Electrification Level (%)* is the status of
370 electrification of the area.
 - 371 ● *Served households* are the number of served
372 households within the area.
 - 373 ● *Potential households* are the number of all target
374 households within the area.
- 375

376 6.1.1.3. Form 3: Annual Work Plan

377
378 In reference to Form 1, this Form, to commence with the
379 implementation of projects within the reference year of
380 submission of the LTER to the DOE, is the AWP per
381 electrification program in Gantt Chart format and must
382 present the planned activities, milestones and timelines of
383 the DU relative to its preparation of project documents up
384 to the energization of Target Households in Unserved and
385 Underserved Areas. The identified projects are required to
386 be completed by the DU which shall conform in the
387 following allowable completion timeline:

- 388 1. Stand Alone Home System – eight (8) months
 - 389 2. DU-initiated microgrid systems – 18 months
 - 390 3. Distribution Line Extension – six (6) months
 - 391 4. Regular Connection - in accordance with Distribution
392 Service and Open Access Rules
- 393
394

395 6.1.1.4. Form 4: Evaluation Sheet for Microgrid System.

396
397 In reference to Form 1, areas identified to be served using
398 a microgrid system as the electrification strategy, the DU
399 shall submit an evaluation of the area including details but
400 not limited to Number of Households, Load Profile, Plant
401 Type, and Area Profile.

402
403 For the identified areas for the microgrid system, the DU
404 shall indicate its target timeline for distribution line
405 extension and connection to their facility, or takeover of an
406 area served by a MGSP.

407
408 6.2. Timeline of Submission of LTER

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Pursuant to the purpose of assisting the DUs in preparing and ensuring the LTER submission is in accordance with the timelines set forth in the RA 11646, the following schedules shall be observed:

6.2.1. The PIOUs and LGUOUs shall submit the electronic copy of the LTER not later than fifteenth (15th) of March of every year, to the DOE via doe.lter@doe.gov.ph. In the case of ECs, in accordance with NEA guidelines, ECs shall submit to NEA its LTER, and that copy of the same shall be provided to DOE, not later than the 15th of March every year. The consolidated LTER of all ECs shall be submitted by NEA to DOE no later than 15th of March of every year. In the event of non-submission by the NEA, the final LTER shall be based on EC's submission which shall be validated by DOE.

Within one hundred twenty (120) calendar days period upon receipt of the LTER of the DUs, the DOE, or the NEA for the case of the ECs, shall validate and provide recommendation about the compliance of the submitted LTER and advise the DUs and ECs if there is a need for revision of the said submission.

6.2.2. Based on the comments and recommendations of the DOE, the PIOUs, LGUOUs, and NEA, for the case of ECs, shall submit an electronic copy of the final LTER reflecting the changes within seven (7) calendar days to the DOE.

Section 7. Validation of LTER

The LTER submitted by the DUs shall be subject to validation by the DOE and NEA, for the case of ECs, based on the following:

- 7.1. Consistency and correctness of data entries.
- 7.2. Electrification strategy matching the profile of the unserved or underserved areas as identified by the DUs as discussed in Section 4 of this Circular.
- 7.3. Concurrence on the fund sources and status of funding approval specially on projects identified to be supported by subsidy programs of the DOE, NEA, NPC and other government agencies.
- 7.4. Inclusion of electrification projects in AWP should have its target date of implementation fall on the reference year of submission of the LTER to the DOE.

Section 8. Roles and Responsibilities of Department of Energy

The DOE shall:

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- 8.1. Oversee the compliance of the DUs in the preparation and submission of their respective annual LTERs;
- 8.2. Validate the LTERs of the DUs pursuant to Section 7 of this Circular;
- 8.3. Prepare and publish annually on its website the NTER, upon consultation with public and private stakeholders;
- 8.4. Recommend to the ERC issuance of show-cause order to DUs and other Mandated Entities for non-compliance with the provisions of this DC, in substance and form, for appropriate sanctions, penalties, and fines, among others, pursuant to Sections 23 & 24 of RA 11646.

Section 9. Responsibilities of the National Electrification Administration (NEA)

The NEA shall:

- 9.1. Assist all ECs in the preparation and ensure timely submission of their respective LTER in accordance with this Circular.
- 9.2. Evaluate and verify the submitted LTER of the ECs pursuant to Section 13.b of RA 11646 and validate the same pursuant to Section 7 of this Circular.
- 9.3. Submit the following to DOE not later than the 15th of March of every year:
 - 9.3.1. The final LTER of each ECs; and
 - 9.3.2. A consolidated, single excel file, consisting of all ECs validated LTER for Form 1.
- 9.4. Submit to DOE every 1st Monday of the succeeding reporting month its consolidated Form 2, based on ECs submissions.
- 9.5. Monitor the implementation of the EC's electrification projects/program in accordance with the timeline set in the EC's LTER.

Section 10. Responsibilities of the National Power Corporation (NPC)

The NPC shall:

- 10.1. Prepare and submit to the DOE a comprehensive and detailed Graduation Plan and shall be updated annually pursuant to Section 14 of the RA 11646 and Section 26 of its IRR. The said plan shall include, but is not limited to, the following:
 - 10.1.1. Existing Areas to be included in the list of DOE declared Unserved and Underserved Areas; and

- 506 10.1.2. Criteria for inclusion of areas in the DOE declared Unserved and
507 Underserved areas.
508
- 509 10.2. The NPC shall ensure timely implementation of plans and programs in
510 providing 24/7 electricity service in missionary areas.
511
- 512 10.3. Submit to the DOE the NPC Quarterly Reports on the Implementation of
513 Missionary Electrification Project every first month of the quarter; and
514
- 515 10.4. Submit every first Monday of the succeeding reporting month on the
516 household electrification report for areas purely served by the NPC.
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518 **Section 11. Responsibilities of the Distribution Utilities (DUs)**

519 The DUs shall:

- 521
- 522 11.1. Identify the appropriate electrification strategy for all unserved households
523 and underserved areas within their franchise area as discussed in Section
524 4.1 of this Circular.
525
- 526 11.2. Prepare and submit an annual LTER in accordance with Section 6.2 of this
527 Circular.
528
- 529 11.3. Submit to DOE and NEA, for the case of ECs, every 1st Monday of the
530 succeeding reporting month for the Forms 2 and 3;
531
- 532 11.4. Submit a justification, in case of delayed implementation, and a catch-up
533 plan to complete the identified projects.
534
- 535 11.5. Designate a focal person and an alternate focal person/s to specifically
536 handle LTER concerns and queries.
537
- 538 11.6. Institutionalize a succession program for the focal person to ensure the
539 continuity of the preparation of its LTER.

540 **Section 12. Incentives**

541 The DOE, in consultation with NEA, may initiate a provision of non-fiscal incentives to
542 DUs that exhibit proactive initiatives and notable achievements towards advancing the
543 objectives of the total electrification program and fulfilling their obligation to ensure
544 provide access to electricity.

545 **Section 13. Regulatory Support**

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548 The ERC shall promulgate the supporting guidelines to implement the obligations set
549 forth in this Circular. Such guidelines shall provide incentives and penalties to ensure
550 compliance of the DUs with the obligations and LTER submission stated herein.
551

552 Further, ERC may introduce amendments to the existing regulatory framework on
553 DU's Capital Expenditure Application in relation to implementation of its electrification
554 projects in pursuit of the 100% electrification goal of the Government.

555

556 **Section 14. Penalty Clauses**

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558 Any person, natural or juridical, is prohibited from the following acts pursuant to
559 Section 23 of RA 11646 and the responsible officers and employees of any private
560 corporation or government agency who commit the said prohibited acts shall, upon
561 conviction, suffer the following penalties pursuant of Section 24 of RA 11646.

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563 **Section 15. Separability Clause**

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

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568 **Section 16. Effectivity**

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570 This Circular shall take effect fifteen (15) days upon its complete publication in at least
571 two (2) newspapers of general circulation. A copy of this Circular shall be filed with the
572 University of the Philippines Law Center - Office of the National Administrative
573 Register.

574

575 Issued this ____ day of _____ 2024 at DOE, Energy Center, Rizal Drive corner 34th
576 Street, Bonifacio Global City, Taguig City, Metro Manila.

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RAPHAEL P.M. LOTILLA

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Secretary

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