



DEPARTMENT CIRCULAR NO. DC2024-\_\_\_\_\_

PRESCRIBING AMENDMENTS TO  
DEPARTMENT CIRCULAR NO. DC2023-10-0029 TITLED,  
“PROVIDING SPECIFIC AUCTION POLICY AND GUIDELINES FOR NON-FIT-  
ELIGIBLE RENEWABLE ENERGY TECHNOLOGIES IN THE GREEN ENERGY  
AUCTION PROGRAM”

**WHEREAS**, on 12 December 2023, the Department of Energy (DOE) issued Department Circular (DC) No. DC2023-10-0029 titled, “Providing Specific Auction Policy and Guidelines for Non-FIT-Eligible Renewable Energy Technologies in the Green Energy Auction Program”;

**WHEREAS**, on 25 March 2024, the DOE issued amendments to the above DC clarifying that the Energy Regulatory Commission (ERC) shall promulgate the rules on the Price Determination Methodology (PDM) for Non-FIT-Eligible RE Technologies in the GEAP;

**WHEREAS**, Section 7 of said DC2023-10-0029 provides that the payment and settlement for the Non-FIT GET to the Non-FIT Eligible RE Facilities of GEA Winning Bidders shall be collected and administer through the WESM by the Market Operator.

**WHEREAS**, Pumped-Storage Hydropower (PSH) is distinct from Geothermal and Impounding Hydro Facilities due to its combined ability to store and generate energy and capability to provide ancillary services and grid support;

**WHEREAS**, there is a need to provide a separate settlement mechanism for PSH Facilities that takes into account their design and operational characteristics having the capability to support greater entry of variable REs and power system flexibility;

**NOW, THEREFORE**, pursuant to its authority under Republic Act No. 9513, or the Renewable Energy Act of 2008, the DOE hereby adopts, issues, and promulgates the following amendments to DC No. DC2023-10-0029:

**Section 1.** Section 4 is hereby amended to read as follows:

xxx xxx xxx xxx

**“b. Non-FIT Green Energy Tariff (Non-FIT GET)** - refers to the Price Offer, in PhP/kWh, approved by the Energy Regulatory Commission (ERC) in accordance with Section 6 hereof after the conduct of each GEA for Non-FIT-Eligible RE technology corresponding to each Winning Bidder on a pay-as-bid basis: *Provided*, That the Non-FIT GET for PSH shall be the Price Offer in PhP/kW/h;

50 **c. Price Offer** – refers, in each Auction Round, to the price in PhP/kWh  
51 that a Qualified Bidder offers for energy generated or to be generated by  
52 its Non-FIT-Eligible RE Facility: *Provided*, That the Price Offer for PSH  
53 shall be the price in PhP/kW/h for the Available Capacity of the PSH  
54 Facility;

55 xxx xxx xxx xxx

56  
57 **e. PSH Available Capacity** – refers to the capacity which can be utilized  
58 to generate or store energy and/or support and provide flexibility to the  
59 grid: *Provided*, That the Available Capacity shall exclude those non-  
60 operational units of the PSH Facility and shall not exceed the total  $P_{max}$   
61 of the plant or generating unit, as the case may be: *Provided*, further,  
62 That in computing the Non-FIT GET, the PSH Available Capacity shall be  
63 based on the nominated capacity in kW per trading interval without  
64 regard to the mode of operation, i.e., generating, pumping or standby,  
65 how the available capacity is used, e.g., load following, peak shaving,  
66 load shifting, and the sub market where the capacity is sold/sourced.”  
67

68 **Section 2.** Section 7 is hereby amended to read as follows:

69  
70 **“Section 7. Settlement of the Non-FIT GET due to the Winning**  
71 **Bidders for Geothermal and Impounding Hydro.** The payment and  
72 settlement for the Non-FIT GET to the Non-FIT Eligible RE Facilities of  
73 Winning Bidders shall be collected and administered through the WESM  
74 by the Market Operator.

75  
76 In all cases, the Geothermal and Impounding Hydro Facilities of Winning  
77 Bidders shall be paid with the Total GEA Amount, without regard to the  
78 Energy Trading Amount in the WESM following the formula below:”

79  
80 xxx xxx xxx xxx

81  
82 **Section 3.** Section 7.2 is hereby amended to read as follows:

83  
84 **“Section 7.2.** In case the Energy Trading Amount in the WESM of a  
85 Geothermal and Impounding Hydro Facility of a GEA Winning Bidder is  
86 lower than its computed Total GEA Amount for a relevant billing month,  
87 the Market Operator shall reflect in the settlement statement of the  
88 customers the difference in amount and collect the same from the buyers  
89 in the WESM using the following formula:”

90  
91 xxx xxx xxx xxx

92  
93 **Section 4.** Section 7.3 is hereby amended to read as follows:

94  
95 **“Section 7.3.** In case the Energy Trading Amount in the WESM of a of a  
96 Geothermal and Impounding Hydro Facility of a GEA Winning Bidder is  
97 higher than the computed Total GEA Amount for a relevant billing month,  
98 the Market Operator shall reflect in the settlement statements of the

99 customers and collect only the amount due that will satisfy the computed  
100 GEA Amount and flowback the difference following the formula for  
101 flowback to each buyer in the WESM as follows:"

102  
103 xxx xxx xxx xxx

104  
105 **Section 5.** A new section is hereby inserted after Section 7 to read as follows:

106  
107 **"Section 8. Settlement of the Non-FIT GET due to the Winning**  
108 **Bidders for PSH.** The payment and settlement for the Non-FIT GET to  
109 the PSH Facilities of GEA Winning Bidders shall be collected and  
110 administered through the WESM by the Market Operator. As such, the  
111 PSH Facilities of GEA Winning Bidders must be registered in the WESM  
112 in accordance with the WESM Rules and Market Manuals and relevant  
113 rules and regulations.

114  
115 The Winning Bidders for PSH shall be paid with the Total GEA Amount in  
116 consideration of its Available Capacity without regard to the Total Trading  
117 Amount in the WESM following the formula below:

118  
119 
$$\text{Total GEA Amount} = \sum_{i \in h} (|AC_i| \times \text{Non - FIT GET} \times d_i)$$

120  
121 Where,

122  
123 AC<sub>i</sub>: Absolute value of the Available Capacity in kW for  
124 trading interval i;

125 h: Settlement interval;

126 d<sub>i</sub>: Duration of trading intervals in hours;

127  
128 
$$d_i = \frac{T}{60}, \text{ hours}$$

129 and,

130 T: Duration of trading intervals in minutes (i.e., 5, 15,  
131 60, etc.);

132  
133 Where:

134  
135 The "**Total Trading Amount for PSH**" or "**TTA-PSH**" refers to the total  
136 trading amount in the WESM. This is provided in the formula below:

137  
138 
$$TTA - PSH_{p,h} = ETA - PSH_{p,h} + RTA - PSH_{p,h}$$

139  
140 Where:

141  
142 TTA-PSH<sub>p,h</sub> refers to the total trading amount of trading  
143 participant p for settlement interval h

144

145                   ETA-PSH<sub>p,h</sub> refers to the energy trading amount of trading  
146   participant p at settlement interval h

147  
148                   RTA-PSH<sub>p,h</sub> refers to the reserve trading amount of trading  
149   participant p at settlement interval h

150  
151                   **“Energy Trading Amount for PSH” or “ETA-PSH”** refers to the  
152                   amount in Php to be paid by or paid to a trading participant, when the  
153                   PSH acts as a generator or a load, calculated in accordance with the  
154                   Price Determination Methodology (PDM) Manual, and subsequent  
155                   amendments thereto.

156

157                   
$$ETA - PSH_{p,h} = \sum_{i \in h} \left[ \sum_{n \in N_p} (FEDP_{n,i} * GESQ_{n,i}) - \sum_{n \in N_p} (FECP_{n,i} * GECSQ_{n,i}) \right]$$

158  
159                   Where:

160  
161                   ETA-PSH<sub>p,h</sub> refers to the energy trading amount of trading  
162   participant p at settlement interval h

163  
164                   FEDP<sub>n,i</sub>           refers to the final energy dispatch price of market  
165   trading node n at dispatch interval i in settlement  
166   interval h

167  
168                   GESQ<sub>n,i</sub>           refers to the gross energy settlement quantity for  
169   market trading node n at dispatch interval i in  
170   settlement interval h

171  
172                   N<sub>p</sub>                refers to the set of market trading nodes assigned to  
173   trading participant p

174  
175                   FECP<sub>n,i</sub>           refers to the final energy consumption price of  
176   market trading node n at dispatch interval i in  
177   settlement interval h

178  
179                   GECSQ<sub>n,i</sub>        refers to the gross energy consumption settlement  
180   quantity for market trading node n at dispatch  
181   interval i in settlement interval h”

182  
183                   **“Reserve Trading Amount for PSH” or “RTA-PSH”** refers to the  
184                   amount in Php to be paid to a trading participant in the reserve market,  
185                   calculated in accordance with the Price Determination Methodology  
186                   (PDM) Manual and subsequent amendments thereto, as approved by the  
187                   Energy Regulatory Commission.”

188

189                   **Section 6.** New subsections under Section 8 are hereby inserted to read as  
190                   follows:

191

192 **"Section 8.1. Collection and Flowback of Difference between Total**  
193 **Trading Amount and Total GEA Amount.** The Market Operator shall  
194 calculate the difference between the Total Trading Amount in the WESM  
195 and the computed Total GEA Amount for the billing month of the PSH  
196 Facilities of GEA Winning Bidders during the preliminary and final  
197 settlement process under the WESM Rules.

198  
199 **Section 8.2.** In case the Total Trading Amount in the WESM of a PSH  
200 Facility of a GEA Winning Bidder is lower than the computed Total GEA  
201 Amount for a relevant billing month, the Market Operator shall reflect in  
202 the settlement statement of the customers the difference in amount and  
203 collect from the buyers their corresponding share on the GEA Shortfall  
204 Amount based on the available capacity committed, scheduled,  
205 dispatched, as the case may be, in the Energy Market and/or Reserve  
206 Market, using the following formula:

207  
208 **TTA-PSH < Total GEA Amount**

209  
210 **Energy Market**

211  
212 
$$\text{Collection Allocation per buyer} = \sum_{i \in h} (GEASA_i) \times \frac{GESQ_c}{GESQ_{ctotal}}$$

213  
214 Where:

215  
216 **Collection Allocation per buyer** is the buyer's share in the GEA  
217 Shortfall Amount in PhP at settlement interval h in the Energy  
218 Market.

219  
220 **GEA Shortfall Amount (GEASA)** is the difference between TTA-  
221 PSH and GEAA per trading interval i where TTA-PSH is lower  
222 than GEAA in PhP.

223  
224 
$$GEASA = (TTA - PSH - GEAA) \times \frac{GSCEM}{TAC}$$

225  
226 Where;

227  
228 **GSCEM** is the Gross Scheduled Capacity in either the  
229 Energy Market or the Reserve Market, with Energy  
230 Dispatched in the Energy Market.

231  
232 **TAC** is the Total Available Capacity of the PSH Facility that  
233 may be committed, scheduled and/or dispatched in the  
234 WESM.

235  
236 **GESQ** is the gross energy settlement quantity of electricity sold or  
237 purchased as determined in WESM Rules in MWh.

238

239 **GESQ<sub>c</sub>** is the GESQ for customer c (buyer in the WESM) for the  
240 billing month in MWh.

241  
242 **GESQ<sub>ctotal</sub>** is the total customer GESQ (buyers in the WESM) for  
243 the billing month in MWh.

244  
245 **Reserve Market**

246  
247 
$$\text{Collection Allocation per buyer} = \sum_{i \in h} GEASA_i \times \frac{GRSQ_c}{GRSQ_{ctotal}}$$

248  
249 Where:

250  
251 **Collection Allocation per buyer** is the buyer's share in the GEA  
252 Shortfall Amount in PhP at settlement interval h in the Reserve  
253 Market.

254  
255 **GEA Shortfall Amount (GEASA)** is the difference between TTA-  
256 PSH and GEAA per trading interval i where TTA-PSH is lower  
257 than GEAA in PhP.

258  
259 
$$GEASA = (TTA - PSH - GEAA) \times \frac{GSCRM}{TAC}$$

260  
261 Where:

262  
263 **GSCRM** is the Gross Scheduled Capacity in the Reserve  
264 Market without Energy Dispatched in the Energy Market.

265  
266 **TAC** is the Total Available Capacity of the PSH Facility that  
267 may be committed, scheduled and/or dispatched in the  
268 WESM.

269  
270 **GRSQ** is the gross reserve settlement quantity of capacity sold or  
271 purchased as determined in WESM Rules in MW/h.

272  
273 **GRSQ<sub>c</sub>** is the GRSQ for customer c (buyer in the WESM) for the  
274 billing month in MW/h.

275  
276 **GRSQ<sub>ctotal</sub>** is the total customer GRSQ (buyers in the WESM) for  
277 the billing month in MW/h.

278  
279 **Section 8.3.** In case the Total Trading Amount in the WESM of a PSH  
280 Facility of a GEA Winning Bidder is higher than the computed Total GEA  
281 Amount for a relevant billing month, the Market Operator shall reflect in  
282 the settlement statement of the customers the difference in amount and  
283 collect only the Total GEA Amount and flowback to the buyers their  
284 corresponding share on the GEA Flowback Amount based on the  
285 available capacity committed, scheduled, dispatched, as the case may

286 be, in the Energy Market and/or Reserve Market, using the following  
287 formula:

288  
289 **TTA-PSH > Total GEA Amount**

290  
291 **Energy Market**

292  
293 
$$\text{Flowback Allocation per buyer} = \sum_{i \in h} (GEAFA_i) \times \frac{GESQ_c}{GESQ_{ctotal}}$$

294  
295 Where:

296  
297 **Flowback Allocation per buyer** is the buyer's share in the GEA  
298 Flowback Amount in PhP at settlement interval h in the Energy  
299 Market.

300  
301 **GEA Flowback Amount (GEAFA)** is the difference between TTA-  
302 PSH and GEAA per trading interval i where TTA-PSH is higher  
303 than GEAA in PhP.

304  
305 
$$GEAFA = (TTA - PSH - GEAA) \times \frac{GSCEM}{TAC}$$

306  
307 Where:

308  
309 **GSCEM** is the Gross Scheduled Capacity in either the  
310 Energy Market or the Reserve Market, with Energy  
311 Dispatched in the Energy Market.

312  
313 **TAC** is the Total Available Capacity of the PSH Facility that  
314 may be committed, scheduled and/or dispatched in the  
315 WESM.

316  
317 **GESQ** is the gross energy settlement quantity of electricity sold or  
318 purchased as determined in WESM Rules in MWh.

319  
320 **GESQ<sub>c</sub>** is the GESQ for customer c (buyer in the WESM) for the  
321 billing month in MWh.

322  
323 **GESQ<sub>ctotal</sub>** is the total customer GESQ (buyers in the WESM) for  
324 the billing month in MWh.

325  
326 **Reserve Market**

327  
328 
$$\text{Flowback Allocation per buyer} = \sum_{i \in h} GEAFA_i \times \frac{GRSQ_c}{GRSQ_{ctotal}}$$

329  
330 Where:

331

332 **Flowback Allocation per buyer** is the buyer's share in the GEA  
333 Flowback Amount in PhP at settlement interval h in the Reserve  
334 Market.

335  
336 **GEA Flowback Amount (GEAFA)** is the difference between TTA-  
337 PSH and GEAA per trading interval i where TTA-PSH is higher  
338 than GEAA in PhP.

339  
340 
$$GEAFA = (TTA - PSH - GEAA) \times \frac{GSCRM}{TAC}$$

341 Where:

342  
343 **GSCRM** is the Gross Scheduled Capacity in the Reserve  
344 Market without Energy Dispatched in the Energy Market.

345  
346 **TAC** is the Total Available Capacity of the PSH Facility that  
347 may be committed, scheduled and/or dispatched in the  
348 WESM.

349  
350 **GRSQ** is the gross reserve settlement quantity of capacity sold or  
351 purchased as determined in WESM Rules in MW/h.

352  
353 **GRSQ<sub>c</sub>** is the GRSQ for customer c (buyer in the WESM) for the  
354 billing month in MW/h.

355  
356 **GRSQ<sub>ctotal</sub>** is the total customer GRSQ (buyers in the WESM) for  
357 the billing month in MW/h."

358

359 **Section 7.** A new Section 9 is hereby inserted to read as follows:

360

361 **"Section 9.** The DOE shall issue specific rules and regulations for the  
362 smooth integration of PSH Facilities in the market. Such rules and  
363 regulations shall include, but shall be limited to, the following:

364

- 365 1. Prioritization of PSH in terms of scheduling and dispatch over other  
366 AS Providers in the Reserve Market and Generators in the  
367 Energy/Spot Market to ensure full utilization.
- 368
- 369 2. PSH shall undergo AS Capability Testing and Certification by the SO  
370 or any accredited third-party testing entity.
- 371
- 372 3. To ensure that PSH can provide other grid support services, PSH  
373 shall not be limited to the current AS, such as utilization of excess  
374 energy from variable renewable energy (VRE) Facilities for pumping  
375 of PSH Facilities.

376

377 The rules shall further provide the following responsibilities:

378



- 379 1. The SO and MO shall implement the optimal dispatch of capacities  
380 from PSH providing energy and ancillary services to ensure that the  
381 demand and ancillary services requirements are always met.  
382
- 383 2. The SO shall as far as practicable, consider in its AS Procurement  
384 Plan the capacities and timelines of the PSH under the GEAP. Said  
385 capacities from PSH under the GEAP shall be prioritized.  
386
- 387 3. The MO shall handle the payment and settlement of the GEA amount  
388 to the PSH Facilities of GEA Winning Bidders.  
389
- 390 4. The SO shall handle the scheduling and dispatch of the PSH.  
391
- 392 5. The SO shall recover from grid users/customers, through a cost  
393 recovery mechanism in accordance with the guidelines to be  
394 promulgated by the ERC, the costs associated in the settlement of  
395 the Total GEA Amount whenever there is a shortfall or flowback  
396 amount relative thereto corresponding to the portion of the available  
397 capacity committed or scheduled in the reserve market but not  
398 dispatched to the Energy Market.  
399
- 400 6. The SO shall ensure that the procurement of the energy needed  
401 during pumping mode is at the least cost, whenever practicable. For  
402 the avoidance of doubt, the pumping costs shall be passed on to the  
403 relevant trading participant/s."  
404

405 **Section 8.** A new Section 10 is hereby inserted to read as follows:  
406

407 **"Section 10. Revenues or Income Attributable to Winning Bidders.**  
408

409 For the avoidance of doubt, regardless of the Energy Trading Amount for  
410 Geothermal and Impounding hydro, and Total Trading Amount for PSH,  
411 the revenues or income attributable to the GEA Winning Bidders shall be  
412 the Total GEA Amount it will receive based on the Non-FIT GET."  
413

414 **Section 9.** The sections in DC2023-10-0029 shall be renumbered accordingly.  
415

416 **Section 10. Separability Clause.** If any section or provision of this Circular is  
417 declared invalid or unconstitutional, such parts not affected shall remain valid and  
418 subsisting.  
419

420 **Section 11. Repealing Clause.** The provisions of other circulars, orders, issuances,  
421 rules, and regulations which are inconsistent with the provisions of this Circular, are  
422 hereby repealed, amended, modified, or superseded accordingly.  
423

424 **Section 12. Effectivity.** This Circular shall take effect immediately after publication in  
425 two (2) newspapers of general circulation. A copy of this DC shall be filed with the  
426 University of the Philippines Law Center – Office of National Administrative Register  
427 (UPLC-ONAR).  
428

429 Issued this \_\_\_\_\_ at the DOE, Energy Center, Rizal Drive cor. 34<sup>th</sup>  
430 Street, Bonifacio Global City, Taguig City.

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437

**RAPHAEL P.M. LOTILLA**  
Secretary