

1 Items in Purple are items proposed by the Task Force

2 Items in Green are proposed by the Professional Certified Planner

3

4 **ARTICLE XXXI**

5 **Section 13. SOLAR FACILITY REQUIREMENTS**

6

7 These requirements are for the implementation of solar energy systems in Delaware County, Indiana.
8 The County finds that it is in the public interest to encourage the use and development of renewable
9 energy systems that enhance energy conservation efforts, reduce greenhouse gas emissions and
10 promote sustainable development.

11

12 **A. APPLICATION REQUIREMENTS**

13 Applications for solar facility must include a concept plan, a site plan, a maintenance plan, a
14 decommission plan, and an emergency/fire safety plan. If the solar facility extends into the
15 floodplain, that area of the project must comply with the Floodplain Management Ordinance. As a
16 part of the application submittal, the applicant shall provide proof of notification of the proposed
17 project as set forth below. Prior to the issuance of any permits for the solar facility, verification of all
18 agreements, bonds, and other required permits shall be provided including a drainage permit, a
19 stormwater/erosion control permit, and driveway permits.

20

21 **1. Pre-Application Meeting**

22

23 Prior to submitting an application, the solar facility is required to meet with the Planning
24 Director at least thirty (30) days prior to the anticipated application submission to discuss the
25 proposed request, and to become more familiar with the applicable requirements. The
26 anticipated agenda date will be used in all public notice requirements.

27

28 **2. Concept Plan**

29

30 The Concept Plan is intended to be a one-page overview of the entire facility showing the
31 requirements set forth herein. The facility shall be constructed and operated in substantial
32 compliance with the approved concept plan, with allowances for changes required by any
33 federal or state agency. The project shall be limited to the phases and conditions set forth in the
34 concept plan that constitutes part of the application, notwithstanding any other state or federal
35 requirements. No additional phasing or changes in facility size shall be permitted without
36 obtaining approval of the changes from the staff. The concept plan shall include the subject
37 parcels; the proposed general location of the solar panels and related facilities; the location of
38 proposed fencing, the location and nature of proposed buffers, including vegetative and
39 constructed buffers and berms; the location of points of ingress/egress; and any proposed
40 construction phases. The concept plan shall be supplemented with: 1) all landowner agreements
41 and/or recorded memorandums and waivers; 2) proof of correspondence and cooperation with
42 wildlife agencies including the U.S. Fish and Wildlife Service and the Indiana Department of
43 Natural Resources; 3) proof of compliance with applicable FAA regulations. Waivers may be
44 provided on an on-going basis, however, waivers provided after the concept plan has been

45 submitted will require a revised concept plan to be submitted along with a new site plan
46 covering the area affected by a waiver.
47

48 **3. Site Plan**

49
50 A detailed plan, at a measurable scale, of all of the improvements to be placed on the site(s).
51 Use of the Delaware County Geographic Information System (GIS) if recommended. Multiple site
52 plans may need to be submitted to maintain a measurable scale to review and assess compliance
53 with the requirements set forth herein. The site plan(s) must include:
54

- 55 a) The location, number and spacing of all solar collectors and related structures;
- 56 b) The location of fencing and buffer/screening areas;
- 57 c) Property lines and setbacks;
- 58 d) The location of easements, access roads and points of ingress/egress;
- 59 e) The location of all above ground and underground utility lines.

60
61 The site plan must include ALTA survey results and show easements of record, contours,
62 floodplain boundaries, the location of any historic or heritage sites as recognized by the Division
63 of Historic Preservation and Archeology of the Indiana Department of Natural Resources, the
64 location of any wetlands based upon a delineation plan, and waterways (including regulated
65 drains, mutual drainage tiles/facilities, retention areas, etc.). A separate landscape plan prepared
66 by a professional landscape architect is to be provided to ensure readability along with an
67 assessment form or score card from an approved source showing that the proposed landscape
68 plan meets or exceeds accepted pollinator and habitat standards. Delaware County currently
69 recognizes the Purdue University 2020 Solar Site Pollinator Habitat Planning Scorecard and the
70 Michiana Area Council of Governments Technical Guide: Establishment and Maintenance of
71 Pollinator-Friendly Solar Projects and may consider other assessment forms as they are
72 developed.
73

74 **4. Maintenance Plan**

75
76 The developer shall submit a maintenance plan that includes how the solar farm will manage the
77 following concerns:
78

- 79 a) Maintenance of the Panels. Maintenance of the Panels shall be repaired or replaced when
80 either nonfunctional or in visible disrepair. Panels that are not so maintained shall be
81 considered a public nuisance. Damaged panels that result in a release of hazardous
82 substances shall be reported and mitigated as set forth in the Emergency/Fire Safety Plan.
- 83 b) Landscape requirements. Native grasses and perennials shall be used to stabilize the site for
84 the duration of the facilities use.
- 85 c) Wildlife protection. Detail strategies that will be utilized to reduce risks of "lake effect" and
86 will maintain wildlife corridors.

- 87 d) Landscape Maintenance Plan. The solar facility project shall provide a landscape
88 maintenance plan consistent with the requirements in ARTICLE XXX, SECTION 5
89 DEVELOPMENT STANDARDS, SUBSECTION.B.5.i.
90 e) Pesticide Management Plan. The solar facility shall provide a pesticide management plan to
91 be approved by Delaware County/Purdue Extension, and Soil and Water Conservation
92 Service.

93
94 **5. Decommission and Restoration Plan and Agreement**

95
96 A Decommission and Restoration Plan shall be submitted and shall form the basis for a
97 Decommissioning Agreement to be approved by the Delaware County Commissioners. The
98 decommission plan shall include a reliable and detailed estimate of the costs of
99 decommissioning prepared by a professional engineer or contractor who has expertise in the
100 removal of solar facilities. The plan shall include a performance bond or other approved method
101 in the amount of 125% of the cost estimate to decommission the facility. The cost estimate shall
102 be updated every five (5) years and one (1) year prior to the lease end by a professional engineer
103 or contractor who has expertise in the removal of solar facilities. The cost estimate updates shall
104 be paid for by the owner or operator of the facility.

105
106 Decommissioning shall include removal of all solar electric systems, buildings, cabling up to the
107 depth of four (4) feet, electrical components, security barriers, roads, foundations to a depth of
108 four feet, pilings, and any other associated facilities, so that any agricultural ground upon which
109 the facility or system was located is again tillable and suitable for agricultural uses. The site shall
110 be graded and reseeded to restore it to as natural a condition as possible, unless the landowner
111 requests in writing that the access roads or other land surface areas not be restored, and this
112 request is approved by the County Commissioners.

113
114 Solar facilities which have reached the end of their useful life or have not been in active and
115 continuous service for twelve (12) months shall be removed within twelve (12) months at the
116 owner's or operator's expense in accordance with the decommissioning agreement, except if the
117 project is being repowered or a force majeure event has or is occurring requiring longer repairs.
118 If the owner or operator of the solar facility fails to remove the installation in accordance with
119 the agreement or within the proposed date of decommissioning, the County may collect the
120 surety and staff or a hired third party may enter the property to physically remove the
121 installation.

122
123 **6. Road Use Agreement**

124
125 Prior to the use of any county roads for the purpose of transporting parts and/or equipment for
126 construction, operation or maintenance of a solar facility, the owner and/or operator must
127 provide proof of a signed road use agreement between the Delaware County Commissioners and
128 the owner/operator. The Road Use Agreement should include identification of all public roads
129 that will be used for construction and maintenance. The County Engineer/Highway
130 Superintendent or a qualified consultant hired by the County Commissioners at the expense of

131 the owner/operator of the solar facility should conduct a pre-construction base-line survey to
132 determine existing road conditions for assessing potential future drainage. Any road damage
133 caused by the construction, installation and/or removal of the solar facility facilities must be
134 repaired to the satisfaction of the County Engineer. The County may require surety bonds, at the
135 expense of the owner/operator, to ensure that future repairs are completed to the satisfaction
136 of the County.

137
138 **7. Emergency/Fire Safety Plan**
139

140 An emergency and fire safety plan shall be provided to the Delaware County Emergency
141 Management Agency for approval and the local fire departments whose jurisdiction is included
142 in whole or in part within the solar facility project area. Any specialized training and equipment
143 shall be provided at the owner/operator's expense. If entrances are locked, Knox boxes and keys
144 shall be provided at all locked entrances to the applicable emergency personnel. The names and
145 phone numbers for the electric utility provider and the site operator, the 911 addresses and GPS
146 coordinates shall be provided as a part of the plan and shall be posted at each entrance to the
147 solar facility project.

148
149 The plan shall include provisions dealing with damage to panels that result in a release of
150 hazardous substances. It shall include a listing of potential hazardous substances, incident
151 reporting requirements as applicable to the Emergency Management Agency, the Plan
152 Commission Office, the Health Department Office, the Indiana Department of Homeland
153 Security and the Indiana Department of Environmental Management, and a mitigation plan that
154 includes the testing of water wells as deemed necessary by the applicable agencies.
155

156 **8. Economic Development Agreement**
157

158 Due to the complexity of solar facility projects, the Delaware County Commissioners may elect to
159 enter into an Economic Development Agreement to address taxing, land use, assessments and
160 other issues related to a solar facility project.
161

162 **9. Notification of Project**
163

164 1. The applicant shall provide notice of the intent to locate a solar facility to all property
165 owners within one (1) mile of the boundaries of the solar facility project within one (1) year,
166 six (6) months, and one (1) month before submitting an application to Delaware County
167 regarding the special use of a solar facility.

168
169 2. In addition, for the Board of Zoning Appeals hearing, the applicant shall provide a copy of
170 the written notice sent to all surrounding property owners within 300 feet or 2 properties
171 deep, whichever is greater, from the boundaries of the solar facility project area along with
172 proof of the sending of such notice (i.e. return receipts or certified mail receipts). The
173 applicant shall also provide a list of the surrounding property owners to whom notice was
174 sent.

175 **10. Notification of Project**

- 176
- 177 1. The owner or operator of the solar facility shall maintain a current comprehensive general
- 178 liability insurance policy covering bodily injury and property damage, and cyber insurance to
- 179 protect from data breaches and other cyber security issues. The insurance shall be in the
- 180 amount of \$2,000,000 per occurrence and \$5,000,000 in aggregate, naming Delaware
- 181 County as an additional insured. Proof of insurance shall be provided to the Plan
- 182 Commission office prior to the issuance of permits and on an annual basis thereafter. Failure
- 183 to maintain insurance shall result in cancellation of the Improvement Location Permit by the
- 184 Planning Director.
- 185
- 186 2. It is the responsibility of the owner or operator of the solar facility to inform the Planning
- 187 Director of all changes in ownership of any insurance policy during the life of the project,
- 188 including the sale or transfer of ownership or policy cancellations. The County shall be
- 189 named as a notified party by the insurance provider in the event there is a lapse in coverage.
- 190
- 191 3. Terminology shall be included in any and all insurance policies that provides policy limit
- 192 adjustments derived from the U.S. Bureau of Labor Statistics Consumer Price Index (CPI) to
- 193 protect against inflation. The County Commissioners may review coverage amounts as often
- 194 as every five (5) years and modify, as necessary, to determine if appropriate limits have
- 195 drifted too far from the CPI adjusted level.

196

197 **11. Changes to Existing Solar Facility**

198 Once an application is approved, any change to the solar panel footprint or adding additional

199 property shall be considered a new application subject to the ordinance standards and

200 procedures in effect at the time of the change. An application for said change does not affect

201 any prior approvals.

202

203 **B. LAND USE LIMITATIONS**

204

205 The County is concerned with the preservation of farmland and therefore has limited the total

206 number of acres that can be devoted to solar facilities within Delaware County. The maximum

207 number of acres devoted to all community-scale solar facilities under panel is limited to 3,400 acres.

208

209 **C. HEIGHT**

210

211 The height of the solar collector and any mounts shall not exceed 20 feet when oriented at

212 maximum tilt.

213

214 **D. SETBACKS**

- 215
- 216 1. A minimum fifty (50) foot setback shall be maintained from the **closest point of the solar facility**
- 217 **security fence facing the right-of-way** to the road right-of-way line, existing or proposed,
- 218 **whichever is greater.**

- 219 2. A minimum two hundred (200) foot setback, which includes a screening buffer and other native
220 vegetation as described below, shall be maintained from the solar facility structures to any
221 non-participating owner's adjoining property which contains a dwelling, as measured from the
222 property line to the solar facility security fence. If the adjoining property does not contain a
223 dwelling, the regular F Farming Zone side and rear setbacks of twenty-five (25) feet and fifty (50)
224 feet, respectively, shall apply.
- 225 3. A minimum two hundred fifty (250) foot setback shall be maintained from any non-participating
226 dwelling to any solar facility property line. A minimum one hundred (100) foot setback shall be
227 maintained for all other dwellings.
- 228 4. The setbacks set forth in items 2. and 3. above may be reduced by up to 50% with a written
229 waiver from the property owner(s).

230

231 **E. SIGNAGE**

232

233 Each solar facility must include an informational sign, one (1) per frontage, with the name of the
234 facility owner and the phone number for a 24-hour emergency contact. The informational sign may
235 not exceed six (6) square feet.

236

237 **F. BUFFERS AND LANDSCAPE**

238

239 The facilities, including fencing, shall be significantly screened from the viewshed of adjacent
240 residential dwellings or commercial buildings by a buffer zone extending from the property line.
241 Adjacent includes dwellings across the road from the solar facility. A property owner may waive the
242 buffer zone requirement in whole or in part. Existing vegetation or natural landforms on the site may
243 provide such screening. Existing wooded areas of an acre or more of land may not be removed for
244 the installation or operation of a solar facility. Large trees, greater than twelve (12) inches in
245 diameter at breast height, outside of wooded areas, that are removed must be replaced with native
246 trees at a 2 to 1 ratio on the solar facility site. If existing vegetation or landforms providing the
247 screening are disturbed, new plantings shall be provided which accomplish equivalent screening.
248 Opaque architectural screening methods may be used to supplement other screening methods but
249 shall not be the primary method.

250

- 251 1. Landscaping/Screening. A minimum 50-foot buffer zone, containing native plants including trees,
252 shrubs and pollinators, shall be maintained. If there is no existing vegetation or if the existing
253 vegetation is inadequate to serve as a screen, native plants shall be planted to create the visual
254 screen. Remaining areas in the setbacks shall be maintained with pollinator-friendly plants as
255 shown on the landscape plan. New plantings of trees shall be approximately 6 feet in height at
256 time of planting. Blooming shrubs may be used in buffer areas as appropriate for visual
257 screening.
- 258 2. Wildlife corridors. The concept plan shall identify an access corridor for wildlife to navigate
259 through the Solar Facility project area. The proposed wildlife corridor shall be shown on the
260 detailed site plan. To the extent it is reasonably practical, areas between and/or along fencing
261 shall be kept open or contain openings to allow for the movement of migratory animals and

262 other wildlife. Setbacks from county drain tiles, transmission lines, or natural gas lines are all
263 valid wildlife corridors.

264 3. Landscape Plantings. The overall solar facility project area shall include pollinator-friendly
265 plantings in an amount and configuration to meet or exceed pollinator-friendly standards.

266

267 **G. FENCING**

268

269 Facilities that are to be enclosed by security fencing shall have the fencing located on the interior of
270 the buffer area. Solar facilities that do not coincide with livestock shall use wildlife- permeable fence,
271 fencing with larger holes than a traditional chain-link fence that allows for small-to medium-sized
272 animals to move freely through the fence for at least ten (10) percent of the fence lines where the
273 10% shall be evenly distributed along each quarter mile section and at identified wildlife corridor.

274 Wooded areas of 10 acres or greater must be incorporated into wildlife corridors so that fencing
275 does not prevent access to the wooded area by large animals. Substation locations identified on the
276 site plans will be allowed to use traditional chain-link fencing around the entire structure. Fencing
277 shall be maintained in good condition for the life of the solar facility operation. Barbed wired fencing
278 is prohibited.

279

280 **H. GROUND COVER**

281

282 The ground around and under solar arrays and in buffer areas that do not contain concurrent
283 agricultural uses shall be planted and maintained in native perennial vegetated ground cover, and
284 meet the following standards:

285

286 1. Top soil shall not be removed during development, unless part of a remediation effort.
287 2. Soil shall be planted and maintained in perennial vegetation to prevent erosion, manage run-off,
288 and build soil. Seeds should include a mix of grasses and wildflowers, native to the region, that
289 will result in short stature prairie with a diversity of forbs (flowering plants) that bloom
290 throughout the growing season.

291 3. An integrated pest management plan shall be submitted indicating the approach for site
292 preparation and on-going ground cover maintenance. Nothing is intended to prevent pesticide
293 use around on-site buildings or spot treatments for invasive species as may be deemed
294 necessary to protect public health and safety. Plant material must not have been treated with
295 systemic pesticides, particularly neonicotinoids.

296

297 **I. LIGHTING**

298

299 Lighting must meet the requirements in ARTICLE XXX, Section 5 DEVELOPMENT STANDARDS.

300

301 **J. GLARE**

302

303 Solar panel placement should be prioritized to minimize or negate any solar glare onto nearby
304 properties or roadways, without unduly impacting the functionality or efficiency of the solar system.
305 Exterior surfaces of the collectors and related surfaces shall have nonreflective finish.

306 **K. NOISE**

307

308 Sound attributable to the solar facility shall not exceed an hourly average sound level of sixty (60)
309 A-weighted decibels as modeled at the property line adjacent to a dwelling or residence zone.

310

311 **L. DRIVEWAY ACCESS**

312

313 Driveways shall be paved with a hard surface material for the first fifty (50) feet from the edge of the
314 public road pavement. Interior drives are not required to be paved.

315

316 **M. CONCURRENT USES**

317

318 Nothing will prevent a solar facility from coinciding with agricultural uses including but not limited to
319 the grazing of livestock or apiculture.

320

321 **N. POWER LINES**

322

323 Power lines installed on the solar facility project sites that connect panel rows to inverters must be
324 buried underground. Power lines between the solar facility project and the electric utility
325 transmission system may be overhead.

326

327 **O. GENERAL PROVISIONS**

328

- 329 1. All solar facilities must meet or exceed the standards and regulations of the Federal Aviation
330 Administration (FAA), the Federal Communications Commission (FCC), the Indiana Electrical
331 Code and any other agency of the local, state, or federal government with the authority to
332 regulate such facilities that are in force at the time of the application.
- 333 2. A solar collector shall not be considered an impermeable surface provided the ground
334 underneath the collector is not compacted or of hard surface and contains a vegetated ground
335 cover.
- 336 3. Installation of solar facilities must not interfere with existing drainage tiles unless mitigation
337 measures are taken such as repairs, replacing tile, installing additional drainage features, or
338 re-routing. This is the obligation of the project owner which continues and applies even if the
339 interference is discovered after construction of the project.
- 340 4. All solar farm structures shall conform to applicable industry standards as well as all local, state,
341 and federal regulations. Solar farm applicants shall submit certificates of design compliance that
342 solar manufactures have obtained from UL (Underwriter Laboratories), DNV (Det Norske Veritas)
343 or an equivalent third party.

344

345 **P. PROPERTY VALUE GUARANTEE**

346

347 The owner or operator of any solar facility shall agree to a property value guarantee agreement
348 drafted by the County with the purpose of protecting against diminished value of a non-participating

349 adjoining property owner with a residence located within two (2) property owners deep. Such
350 agreement shall include at least the following:

- 351
- 352 1. Within twelve (12) months of the completion of the solar facility, a non-participating adjoining
353 property owner may request an appraisal of their residential property based on similar
354 properties located at least two (2) miles away from the solar facility project. Such appraisal shall
355 be conducted at the expense of said Owner/Operator and can be conducted by a mutually
356 agreeable appraiser.
 - 357 2. If no agreement on an appraiser can be reached, the non-participating property owner and the
358 project owner/operator shall each select an appraiser and those appraisers shall cooperatively
359 select a third, independent appraiser to conduct the appraisal.

360
361 The County is not responsible for enforcing the Property Value Guarantee.

362
363 **Q. GOOD NEIGHBOR POLICY**

364
365 The owner or operator of any solar facility shall agree to negotiate a good neighbor agreement with
366 adjacent non-participating property owners to facilitate positive relationships with adjacent non-
367 participating property owners. A solar facility should make a good faith effort to approach non-
368 participating owners, within 2 property owners deep that contain a residential dwelling. Such
369 agreement shall include at least the following:

- 370
- 371 1. The good neighbor agreement is transferable with ownership of the non-participating property.

372
373 The good neighbor agreement is between the solar facility and the non-participating property owner
374 and is not enforceable by Delaware County.

375
376 **R. TRANSFER OF OWNERSHIP**

377
378 Add duties and obligations of each owner/operator of a solar facility shall be joint and several, and
379 shall be binding upon all heirs, successors in interest, and assigns. At least thirty (30) days prior to
380 any transfer of any ownership interest, written notice shall be given to the Delaware County
381 Commissioners and the Plan Commission. All agreements, bonds, and other financial assurances
382 provided under this ordinance shall remain in full force and effect upon any transfer of ownership
383 interest until the successor in interest delivers replacement documents for approval by the Delaware
384 County Commissioners. Any transfer of ownership interest without prior approval of replacement
385 documents shall constitute a default and shall not relieve the original responsible party of liability.

386
387 **S. NUISANCE**

388
389 Any solar farm, or part thereof, declared to be unsafe by the Delaware County Building
390 Commissioner by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard,
391 disaster, damage, or abandonment is hereby declared to be a public nuisance and shall be abated by
392 repair, rehabilitation, demolition or removal in accordance with an abatement order from said

393 Commissioner or, if applicable, the Decommissioning Plan Agreement. Abatement orders shall allow
394 no more than sixty (60) days for corrections or for a rehabilitation plan to be filed with the Plan
395 Commission office setting forth a timeline for compliance with the abatement order.

396

397

398 **Add to definitions:**

399

400 Good Faith Effort: Obtaining written acknowledgment in an attempt to contact non-participating
401 property owners, that is reasonable under the circumstances. One such way is a certified, return receipt
402 mail could be considered a good faith effort.