

1 **SECTION 35 – RENEWABLE ENERGY ORDINANCE**

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4 **SECTION 1 TITLE**

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6 The title of this ordinance is the Faribault County Renewable Energy Ordinance, and will be
7 referred to herein as “THIS ORDINANCE”.

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9 The existing Faribault County Wind Energy Conversion Systems Ordinance previously adopted
10 on August 19, 2010, is hereby repealed. The adoption of this Ordinance, however, shall not
11 effect nor prevent any pending or future prosecution or legal action to abate, any existing
12 violation of the previous Faribault County Wind Energy Conversion Systems Ordinance provided
13 the violation is also a violation of this Ordinance. Nor shall this relieve any person or entity from
14 obligations imposed under the previously adopted ordinance.

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17 **SECTION 2 PURPOSE**

18
19 This Ordinance is established to regulate the installation and operation of Renewable Energy
20 Systems within Faribault County not otherwise subject to siting and oversight by the State of
21 Minnesota pursuant to Minnesota Statutes Chapters 216F, 216C.25, and 500.30, and
22 Minnesota Rules Chapter 1325.1100, as amended. In no case shall the provisions of this
23 Ordinance guarantee rights to renewable energy development.

24
25 Faribault County’s goal is to promote the effective and efficient use of Renewable Energy
26 Systems and to facilitate economic opportunities for local residents consistent with public health,
27 safety and general welfare.

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30 **SECTION 3 JURISDICTION**

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32 The regulations of this Ordinance shall apply to all the area of Faribault County outside the
33 incorporated limits of municipalities.

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36 **SECTION 4 INTERPRETATION**

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38 Where the provisions of this Ordinance impose greater restriction than those of any statute,
39 other ordinance or regulations, the provisions of this Ordinance shall be controlling. Where the
40 provisions of any statute, other ordinance or regulation impose greater restrictions than this
41 Ordinance, the provisions of such statute, other ordinance or regulation shall be controlling.

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50 **SECTION 5 DEFINITIONS**

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52 **Accessory Structure or Facility** – Any building or improvement subordinate to a principal use
53 which, because of the nature of its use, can reasonably be located at or greater than normal
54 structure setbacks.
55
56 **Accessory Use** – A use clearly incidental or subordinate to the principle use of a lot or a
57 building located on the same lot as the principle use.
58
59 **Aggregated Project** – Those which are developed and operated in a coordinated fashion, but
60 which have multiple entities separately owning one or more of the individual WECS within the
61 larger project. Associated infrastructure such as power lines and transformers that service the
62 facility may be owned by a separate entity but are also included as part of the aggregated
63 project.
64
65 **Airfoil** – A part such as a blade, with a flat or curved surface, designed to provide a desired
66 reaction force when in motion relative to the surrounding air.
67
68 **Airport Influence Zone** – All land which lies within 10,000 feet of any part of Runway 16/34 at
69 the Blue Earth Municipal Airport, and 5,000 feet of any part of the Wells Municipal Airport.
70
71 **Applicant** – Any person, provider, firm, partnership or company who files an application for any
72 permit required for the construction, replacement, or alteration of WECS or any component
73 thereof.
74
75 **Array (solar)** – Any number of solar photovoltaic modules or panels connected together to
76 provide a single electrical output.
77
78 **Array (photovoltaic)** – A group of solar photovoltaic modules connected together to increase
79 voltage and/or power to the level required for a given system.
80
81 **Array (tracking)** – A solar array that follows the path of the sun during the day to maximize the
82 solar radiation it receives.
83
84 **Awning** – A sheet of material stretched on a frame and used to keep the sun or rain off a
85 storefront, window, doorway, patio, or deck.
86
87 **Azimuth** – A clockwise measurement around the horizon in degrees, beginning and ending at
88 true north.
89
90 **Board of Adjustment** – An officially constituted quasi-judicial body appointed by the County
91 Board whose principle duties are to hear appeals from decisions of the Zoning Administrator
92 and, where appropriate, grant variances from the strict application of this Ordinance.
93
94 **Building** – Any structure having a roof for the shelter, support or enclosure of persons, animals,
95 or chattel, or property of any kind; and when separated by party walls without openings, such
96 portion of such building so separated shall be deemed a separate building.
97
98 **C-BED (Community-Based Energy Development) Project** – As defined in Minnesota Statutes
99 216B.1612, as amended. Based on the total name plate generating capacity, C-BED Projects

100 are considered to be (1) Micro-WECS, (2) Non-Commercial WECS or (3) Commercial WECS as
101 defined in this Section.

102
103 **Campground** – A facility licensed by the Minnesota Department of Health for the purpose of
104 camping.

105
106 **Church** – As defined in Minnesota Statute 272.02.

107
108 **Comprehensive Land Use Plan** – Means the policies, statements, goals, and interrelated
109 plans for private and public land and water use, transportation, and community facilities
110 including recommendations for plan execution, documented in texts, ordinances and maps
111 which constitute the guide for the future development of the unincorporated areas of the County.

112
113 **Conditional Use** – Means a specific type of structure or land use listed in the official control that
114 may be allowed but only after an in-depth review procedure and with appropriate conditions or
115 restrictions as provided in the official zoning controls or building codes and upon a finding that:
116 (1) certain conditions as detailed in the Zoning Ordinance exist and (2) the structure and/or land
117 use conform to the Comprehensive Land Use Plan, if one exists, and are compatible with the
118 existing neighborhood.

119
120 **County** – Faribault County, Minnesota.

121
122 **County Board** – Faribault County Board of Commissioners.

123
124 **Decibel** – A unit of measure of sound pressure.

125
126 **Department** – The Faribault County Planning and Zoning Department, or other entity
127 designated by the County Board to administer and implement this Ordinance.

128
129 **Development Agreement** – A written agreement that may incorporate a Road Use and Repair
130 Agreement, a Public Drainage System Agreement, or other project specific provisions as required
131 to address a project's impact on the County's public infrastructure.

132
133 **Dwelling** – A building, or portion thereof, designed exclusively for residential occupancy; the
134 term does not include hotels, motels, tents, tent trailers or recreational vehicles.

135
136 **Electromagnetic Communications** – The use of an electromagnetic wave to pass information
137 between two points.

138
139 **FAA** – Federal Aviation Administration.

140
141 **Fall Zone** – The area, defined as the furthest distance from the tower base, in which a guyed
142 tower may collapse in the event of a structural failure.

143
144 **Feeder Line** – Power line that transports electrical power from one or more wind turbines or
145 individual transformers associated with individual wind turbines to the point of interconnection
146 with the electric power grid. In the case of interconnection with the high voltage transmission
147 systems, the point of interconnection shall be the substation serving the WECS.

148

149 **Flicker** – The moving shadow cast by the rotating blades of a WECS, or any intermittent,
150 repetitive, or rhythmic lighting effect that is a direct result of rotating WECS blades.

151
152 **Flicker Analysis** – A study showing the duration and location of flicker potential.

153
154 **Generator Nameplate Capacity** – The maximum rated output of electrical power production of
155 a generator under specific conditions designated by the manufacturer with a nameplate
156 physically attached to the generator.

157
158 **Maximum Design Tilt (Solar Energy Systems)** – Maximum tilt, or angle, is vertical, or ninety
159 (90) degrees for a solar energy system designed to track daily or seasonal sun position or
160 capable of manual adjustment on a fixed rack.

161
162 **Meteorological Towers** – For the purposes of this ordinance, meteorological towers which are
163 erected primarily to measure wind speed and directions plus other data relevant to siting
164 WECS. Meteorological towers do not include towers and equipment used by airports, the
165 Minnesota Department of Transportation, or other similar applications to monitor weather
166 conditions. These are considered tower facilities and are included in Section 21 – Tower
167 Ordinance of the Faribault County Zoning Ordinance.

168
169 **Micro-WECS** – A WECS which is less than one hundred (100) feet in hub height.

170
171 **Minimum Design Tilt (Solar Energy System)** – Minimum tilt, or angle, is horizontal, or zero (0)
172 degrees for a solar energy system designed to track daily or seasonal sun position or capable of
173 manual adjustment on a fixed rack.

174
175 **Modular (Solar)** – A number of individual solar cells connected together in an environmentally
176 protected housing producing a standard output voltage and power. Multiple modules/panels can
177 be assembled into an array for increased power and/or voltage.

178
179 **Nameplate Capacity** – The total maximum rated output of a solar energy system.

180
181 **Noise Profile** – A study certifying the WECS is in compliance with Minnesota Chapter 7030, as
182 amended, of the Minnesota Pollution Control Agency noise standards.

183
184 **Non-Participating Property Boundaries** – Property where the landowner has control of wind
185 and land rights. Not part of a developer WECS project.

186
187 **Non-Prevailing Wind** – The non-dominant wind direction in the County.

188
189 **Owner** – Entity or entities with any equity interest in the WECS, including their respective
190 successors and assigns. Owner does not mean the landowner from whom the land is leased for
191 locating the WECS, or any person holding a security interest in the WECS solely to secure an
192 extension of credit, or a person foreclosing on such security interest provided that after
193 foreclosure such person seeks to sell the WECS at the earliest practicable date.

194
195 **Participating Property Boundaries** – Developer has site control of wind and land rights for the
196 purpose of installation of WECS. This control may be attained through fee title ownership,
197 easement, or other appropriate contractual relationship.

198

199 **Photovoltaic Device** – A system of components that generates electricity from incident sunlight
200 by means of the photovoltaic effect, whether or not the device is able to store the energy
201 produced for later use.
202

203 **Power Line** – An overhead or underground conductor and associated facilities used for the
204 transmission or distribution of electricity.
205

206 **Power Purchase Agreement (PPA)** – Legally enforceable agreement between two or more
207 persons where one or more of the signatories agrees to provide electrical power and one or
208 more of the signatories agrees to purchase the power.
209

210 **Preliminary Acoustic Study** – A study certifying the WECS will be in compliance with
211 Minnesota Chapter 7030, as amended, of the Minnesota Pollution Control Agency.
212

213 **Prevailing Wind** – The predominant wind direction in the County.
214

215 **Project** – A WECS or combination of WECS.
216

217 **Project Owner** – An individual or entity with legal ownership of a WECS project.
218

219 **Public Conservation Lands** – Land owned in fee title by State or Federal agencies and
220 managed specifically for grassland conservation purposes, including but not limited to State
221 Wildlife Management Areas, State Parks, State Scientific and Natural Areas, Federal Wildlife
222 Refuges and Waterfowl Production Areas. For the purposes of this section, public conservation
223 lands will also include lands owned in fee title by non-profit conservation organizations. Public
224 conservation lands do not include private lands upon which conservation easements have been
225 sold to public agencies or non-profit conservation organizations.
226

227 **Public Drainage System** – Those drainage systems established or under the jurisdiction of a
228 Drainage Authority under MN Statutes 103D or 103E.
229

230 **Renewable Energy** – Energy from sources that are not easily depleted such as moving water
231 (hydro, tidal and wave power), biomass, geothermal energy, solar energy, wind energy, and
232 energy from solid waste treatment plants.
233

234 **Renewable Energy System Permit** – Permit developed by the Department, and approved, as
235 needed, by the County Board.
236
237

238 **Roof Pitch** – The final exterior slope of a building roof calculated by the rise over the run,
239 typically but not exclusively expressed in twelfths, such as 3/12, 9/12, or 12/12.
240

241 **Rotor** – A system of airfoils connected to a hub that rotates around an axis.
242

243 **Rotor Blades** – See Airfoil.
244

245 **Rotor Diameter (RD)** – The diameter of the circle described by the moving rotor blades.
246

247 **School** – As defined in Minnesota Statute 120A.05, as amended, and private schools excluding
248 home school sites.

249

250 **Solar Cell** – The basic unit of a photovoltaic solar panel.

251

252 **Solar Collector** – A device, structure, or part of a device or structure for which the primary
253 purpose is to transform solar radiant energy into thermal, mechanical, chemical, or electrical
254 energy.

255

256 **Solar Daylighting** – A device specifically designed to capture and redirect the visible portion of
257 the solar spectrum, while controlling the infrared portion, for use in illuminating interior building
258 spaces in lieu of artificial lighting.

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260 **Solar Easement** – A right, whether or not stated in the form of a restriction, easement,
261 covenant, or condition, in any deed, will, or other instrument executed by or on behalf of any
262 owner of land or solar sky space for the purpose of ensuring adequate exposure of a solar
263 energy system as defined in Section 216C.06, Subdivision 17, to solar energy. Required
264 contents of a Solar Easement are defined in Minnesota Statute Section 500.30.

265

266 **Solar Energy** – Radiant energy received from the sun that can be collected in the form of heat
267 or light by a solar collector.

268

269 **Solar Energy Device** – A system or series of mechanisms designed primarily to provide
270 heating, cooling, electrical power, mechanical power, solar daylighting or to provide any
271 combination of the foregoing by means of collecting and transferring solar generated energy into
272 such uses either by active or passive means. Said systems may also have the capacity to store
273 energy for future utilization. Passive solar energy systems shall clearly be designed as a solar
274 energy device, such as a trombe wall, and not merely part of a normal structure, such as a
275 window.

276

277 **Solar Energy System** – A set of devices that the primary purpose is to collect solar energy and
278 convert and store it for useful purposes including heating and cooling buildings or other energy-
279 using processes, or to produce generated power by means of any combination of collecting,
280 transferring, or converting solar energy. This definition also includes structural design features,
281 the purpose of which is to provide daylight for interior lighting.

282

283 **Solar Energy System, Accessory Use** – A solar energy system that is secondary to the
284 primary use of the parcel on which it is located and which is directly connected to or designed to
285 serve the energy needs of the primary use. Excess power may be sold to a power company.

286

287 **Solar Energy System, Active** – A solar energy system whose primary purpose is to harvest
288 energy by transforming solar energy into another form of energy or transferring heat from a
289 collector to another medium using mechanical, electrical, or chemical means.

290

291 **Solar Energy System, Building Integrated** – An active solar energy system that is an integral
292 part of a principal or accessory building, rather than a separate mechanical device, replacing or
293 substituting for an architectural or structural component of the building. Such systems include,
294 but are not limited to, solar energy systems that function as roofing materials, windows,
295 skylights, wall mounted, and awnings.

296

297 **Solar Energy System, Grid-Intertie** – A photovoltaic solar energy system that is connected to
298 an electric circuit served by an electric utility company.

300 **Solar Energy System, Ground-Mounted** – A solar collector, or collectors, located on the
301 surface of the ground. The collector or collectors may or may not be physically affixed, or
302 attached to the ground. Ground-mounted systems include pole-mounted systems. These
303 systems are not considered an agricultural structure for purposes of this Ordinance.

304

305 **Solar Energy System, Large** – A solar energy system with a nameplate capacity of forty (40)
306 kilowatts or more.

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308 **Solar Energy System, Off-Grid** – A photovoltaic solar energy system in which the circuits
309 energized by the solar energy system are not electrically connected in any way to electric
310 circuits that are served by an electric utility company.

311

312 **Solar Energy System, Passive** – A solar energy system that captures solar light or heat
313 without transforming it to another form of energy or transferring the heat via a heat exchanger.

314

315 **Solar Energy System, Photovoltaic** – An active solar energy system that converts solar
316 energy directly into electricity.

317

318 **Solar Energy System, Primary Use** – A solar energy system which is the primary land use for
319 the parcel on which it is located and which generates power for sale to a power company, or
320 other off-premise consumer.

321

322 **Solar Energy System, Reflecting** – A solar energy system that employs one or more devices
323 designed to reflect solar radiation onto a solar collector. This definition includes systems of
324 mirrors that track and focus sunlight onto collectors located at a focal point. The collectors may
325 be thermal or photovoltaic.

326

327 **Solar Energy System, Roof-Mounted** – A solar collector, or collectors, located on the roof of a
328 building or structure. The collector or collectors may or may not be physically affixed, or
329 attached to the roof.

330

331 **Solar Energy System, Small** – A solar energy system with a nameplate capacity of forty (40)
332 kilowatts or less and has a total surface area greater than ten (10) square feet.

333

334 **Solar Farm** – The primary land use of the parcel is for a solar array. Solar farms are composed
335 of multiple solar panels on multiple mounting systems (poles or racks), and generally have an
336 (Alternating Current (AC) rated capacity greater than 1 Megawatt (1 MW).

337

338 **Solar Heat Exchanger** – A component of a solar energy device that is used to transfer heat
339 from one substance to another, either liquid or gas.

340

341 **Solar Hot Air System** – Also referred to as solar air heat; or a solar furnace. An active solar
342 energy system that includes a solar collector to provide direct supplemental space heating by
343 heating and re-circulating conditioned building air. The most efficient performance typically
344 means vertically mounted on a south-facing wall.

345

346 **Solar Hot Water System** – Also referred to as a solar thermal. A system that includes a solar
347 collector and heat exchanger that heats or preheats water for building heating systems or other

348 hot water needs, including domestic hot water and hot water for commercial or industrial
349 purposes.

350
351 **Solar Mounting Devices** – Devices that allow the mounting of a solar collector onto a roof
352 surface, wall, or the ground.

353
354 **Structure** – Any building or appurtenance, including decks, except aerial or underground utility
355 lines, such as sewer, electric, telephone, telegraph, gas lines, towers, poles, and other
356 supporting facilities.

357
358 **Substations** – Any electrical facility designed to convert electricity produced by wind turbines
359 for interconnection with transmission lines.

360
361 **Total Name Plate Capacity** – The total of the maximum rated output of the electrical power
362 production equipment for a WECS project.

363
364 **Total Height** – The highest point, above ground level, reached by a rotor tip or any other part of
365 the WECS.

366
367 **Tower Facility** – Any structure that may include a tower, antenna(s), equipment buildings,
368 anchor points and other related equipment used by broadcast services and/or wireless
369 telecommunications services and/or data collection devices. These facilities are regulated in
370 Section 21 of the Faribault County Zoning Ordinance.

371
372 **Transmission Line** – Those electrical power lines that carry voltages of at least 69,000 volts
373 (69 KV) and are primarily used to carry electric energy over medium to long distances rather
374 than directly interconnecting and supplying electric energy to retail customers. (Substation to
375 grid intersection) would be required to follow General Regulations, **Section 15 – General**
376 **Guidelines** of the Zoning Ordinance.

377
378 **Wind Easement** – A right, whether or not stated in the form of a restriction, easement,
379 covenant, or condition, in and deed, will, or other instrument executed by or on behalf of any
380 owner of land or airspace for the purpose of ensuring adequate exposure of a wind power
381 system to the winds.

382
383 **Wind Energy Conversion System or WECS** – Any device such as a wind charger, windmill, or
384 wind turbine which converts wind energy to a form of usable energy.

385
386 **Wind Energy Conversion System – Commercial** – A WECS of equal to or greater than 100
387 kW (10MW) in total name plate generating capacity and/or any WECS over 200’.

388
389 **Wind Energy Conversion System - Non-Commercial** – A WECS of less than 100 kW (.01
390 MW) in total name plate generating capacity, and under 200’.

391
392 **Wind Energy Conversion Systems, Large - LWECS** – Large Wind Energy Conversion
393 Systems, or “LWECS” means any combination of WECS with a combined nameplate capacity of
394 5,000 kilowatts (5MW) or more

395
396 **Wind Energy Conversion Systems, Small - SWECS** – Small Wind Energy Conversion
397 Systems, or “SWECS” means any combination of WECS with a combined nameplate capacity

398 of 5,000 kilowatts (5MW) or less. These systems are permitted by the local government unit.

399

400 **Wind Energy Conversion System Tower** – Towers include vertical structures to which the
401 nacelle and rotor are attached.

402

403 **Wind Energy Conversion System Tower Height** – The distance from the top of the WECS
404 foundation to the rotor blade at its highest point.

405

406 **Wireless Telecommunication** – Any ground or roof mounted structure built for the purposes of
407 supporting, elevating or attaching antenna(s) for broadcasting of cellular, personal
408 communications, specialized mobilized radio, enhanced specialized mobilized radio, paging,
409 and similar services. For all sections of this Ordinance, wireless telecommunication shall not be
410 considered a public utility.

411

412 **Wind Turbine** – A wind turbine is any piece of electrical generating equipment that converts the
413 kinetic energy of blowing wind into electrical energy through the use of airfoils or similar devices
414 to capture the wind.

415

416 **Zoning Ordinance** – The Faribault County Zoning Ordinance.

417

418 **Conversion Chart** –

419

Power (kilowatts)	Power (megawatts)
0 kW	0 MW
1 kW	0.001 MW
10 kW	0.01 MW
100 kW	0.1 MW
1000 kW	1 MW
10000 kW	10 MW
100000 kW	100 MW
1000000 kW	1000 MW

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SECTION 6 PERMITTING PROCEDURES

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425 Renewable Energy System Permits, Conditional Use permits, and Variances shall be applied for
426 and reviewed under the procedures established in the Faribault County Zoning Ordinance and
427 Minnesota Statutes Chapter 394, except where noted below.

428

429 **Subdivision 1 Permit Requirements**

430
431 No person, business, firm or corporation shall construct, install, alter, or expand any Renewable
432 Energy System in Faribault County without first obtaining the required permits.

- 433
434 1. A “Renewable Energy System Permit” is required for all systems in the following
435 categories:
436 Wind Energy Conversion System Non-Commercial in the A-2 General Ag. District
437 Solar Energy System, Small
438
439 i) Except in the case where:
440 (a) Systems have a total surface area of ten (10) square feet and less, and are
441 forty (40) kW and less:
442
443 a. Are exempt from this Ordinance.
444
445 (b) Systems have a total surface area between ten (10) square feet and one
446 hundred twenty (120) square feet, and are forty (40) kW and less:
447
448 a. Are allowed within all districts without a permit.
449 b. Are NOT allowed to be constructed in any road easement/right-of
450 way.
451 c. Must be compliant with all property lines.
452
453 2. Systems that have a total surface area between ten(10) square feet and one hundred
454 twenty (120) square feet, are **ground or pole mounted**, and are forty (40) kW and less:
455
456 a. Are required to obtain a “Partial Renewable Energy System Permit”.
457 b. Must meet all setback requirements pertinent to the district where the system is
458 being constructed.
459
460 3. In addition to a Renewable Energy System Permit, a Conditional Use Permit is required
461 for all systems in the following categories:
462 Wind Energy Conversion System Non-Commercial and Commercial
463 Solar Energy Systems, Large and Reflecting
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465
466 4. Refer to Section 7, Subdivision 1 and Subdivision 2 for a detailed chart.

467
468 **Subdivision 2 Permit Standards**

469
470 A Renewable Energy System Permit will be amended, as necessary, and approved by the
471 County Board. These permits will be supplied to the applicant by the Department.
472

473
474 **Subdivision 3 General Standards**

475
476 All Renewable Energy Systems must follow all General Standards listed in Section 8 and
477 Section 9 of this Ordinance.
478

479 **Subdivision 4 Fees**

481 The fee schedule shall be established, and may be reviewed and revised periodically, by the
482 County Board.

483

484 **Subdivision 5** **Development Agreement**

485

486 A Development Agreement will be required for any Large or Commercial Wind Energy
487 Conversion System and for any Large Solar Energy System.

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524 **SECTION 7 DISTRICT REGULATIONS FOR WECS AND SOLAR ENERGY SYSTEMS**

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526 **Subdivision 1** **Permitted, Conditionally Permitted, and Not Allowed WECS**

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528 WECS will be Permitted (P), Conditionally Permitted (CP) or Not Allowed (NA) based on the
529 generating capacity and land use district as established in the table below:

530

DISTRICT	NON-COMMERCIAL WECS	COMMERCIAL WECS
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Agricultural Districts:		
A-1 Shoreland	Conditionally Permitted	Not Allowed
A-2 General	Permitted	Conditionally Permitted
Residential Districts:		
R-1 Rural	Conditionally Permitted	Not Allowed
R-2 Shoreland	Conditionally Permitted	Not Allowed
R-3 Manufactured Home Park	Conditionally Permitted	Not Allowed
Business Districts:		
B-1 Highway Service	Conditionally Permitted	Conditionally Permitted
B-2 General	Conditionally Permitted	Conditionally Permitted
Industry Districts:		
I-1 Light	Conditionally Permitted	Conditionally Permitted
I-2 Heavy	Conditionally Permitted	Conditionally Permitted
Floodplain:	Not Allowed	Not Allowed

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Subdivision 2 Permitted, Conditionally Permitted, and Not Allowed Solar Energy Systems

Non-Reflecting Solar Energy Systems will be Permitted (P), Conditionally Permitted (CP) or Not Allowed (NA) based on the generating capacity and land use district as established in the table below:

DISTRICT	SMALL	LARGE	REFLECTING
Agricultural Districts:			
A-1 Shoreland	Permitted	Conditionally Permitted	Not Allowed
A-2 General	Permitted	Conditionally Permitted	Conditionally Permitted
Residential Districts:			
R-1 Rural	Permitted	Not Allowed	Not Allowed
R-2 Shoreland	Permitted	Not Allowed	Not Allowed
R-3 Manufactured Home Park	Conditionally Permitted	Conditionally Permitted	Conditionally Permitted
Business Districts:			
B-1 Highway Service	Permitted	Conditionally Permitted	Not Allowed
B-2 General	Permitted	Conditionally Permitted	Not Allowed
Industry Districts:			
I-1 Light	Permitted	Conditionally Permitted	Not Allowed
I-2 Heavy	Permitted	Conditionally Permitted	Not Allowed
Floodplain:	Not Allowed	Not Allowed	Not Allowed

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Subdivision 3 Permitted and Conditional Uses for Reflecting Solar Energy Systems

Reflecting Solar Energy Systems are only allowed in the A-2 General Agriculture Zoning District through the Conditional Use Process.

SECTION 8 SETBACKS AND GENERAL STANDARDS FOR WECS

Subdivision 1 WECS SETBACKS **The setback shall be measured from future road easement/rights-of-way if a planned change or expansion is known.

All WECS shall adhere to the setbacks established in the following table:

	Non-Commercial	Commercial
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Participating Property Boundaries	1.1 times the total height	1.25 times the total height
Non-Participating Project Boundaries	3 x 5 rotor diameter	3 x 5 rotor diameter
Dwelling(s) (Residence)(s)	750 feet minimum or sufficient distance to meet noise standards. Whichever is greater	1,000 feet minimum or sufficient distance to meet noise standards. Whichever is greater
Road Easement/Rights-of-Way (ROW)[**] Trails	250' from edge of Public Road Easement/ROW or 1.1 times the total height, whichever is greater	250' from edge of Public Road Easement/ROW or 1.1 times the total height, whichever is greater
Other Rights-of-Way (Railroads, power lines, communication towers, etc)	1.1 times the total height	To be considered by the Planning Commission
Public conservation lands managed as grasslands	50'	600 feet or as determined by the Planning Commission
Wetlands, USFW Types III, IV, and V	50'	600 feet or as determined by the Planning Commission
Public Drainage Systems	30' from the centerline of any buried public drainage tile system, and 50' from the top edge of an open public ditch	As specified in the Public Drainage System Protection Agreement
Noise Standard	Minnesota Rule 7030	Minnesota Rule 7030

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Subdivision 2 Additional Setbacks

1. Public and Private Airports including Heliports – No turbines or associated facilities shall be located so as to create an obstruction to navigable airspace of public and private airports or helipads. Setbacks or other limitations determined in accordance with MN/DOT Office of Aeronautics and FAA Requirements, and the Airport Zoning Ordinances as established throughout the county.
2. The setback for new dwellings (unless it is owned by the applicant) shall be reciprocal in that no dwelling shall be constructed within the same setback as a new turbine would need to meet to an existing dwelling.
3. Substations and Accessory Structures or Facilities not located within the road easement/right-of-way, must have a centerline of road setback of 100' and are required to be consistent with the filing requirements outlined in Section 15, General Regulations of the Zoning Ordinance. These shall not be considered Essential Services.

Subdivision 3 Safety and Design Standards

1. Engineering Certification is required within the Development Agreement. Manufacturer's engineer or another qualified engineer shall certify that the turbine, foundation and tower design of the WECS is within accepted professional standards, given local soil and climate conditions.
2. Clearance – Rotor blades or airfoils must maintain at least 30 feet of clearance between

577 their lowest point and the ground.

578

579 3. Warnings – For all Commercial WECS, a sign or signs shall be posted on the tower,
580 transformer and substation warning of high voltage. Signs with emergency contact
581 information shall also be posted on the turbine or at another suitable point.

582

583 **Subdivision 4 Height Standards**

584

585 1. All WECS 200' and over will be required to meet the FAA Tall Tower Standards.

586

587 2. Review Title 14, Code of Federal Regulations, FAA, Part 77.13, as amended,
588 Construction or Alteration Requiring Notice.

589

590 **Subdivision 5 Tower Configuration Standards**

591

592 1. All WECS shall be installed with a tubular, monopole type tower.

593

594 2. Color and Finish – All wind turbines that are part of WECS shall be white, grey, or
595 another non-obtrusive color. Blades may be black in order to facilitate deicing. Finishes
596 shall be matte or non-reflective.

597

598 3. Lighting must comply with FAA Advisory Circular 70/7460-1K, as amended, Obstruction
599 Marking and Lighting.

600

601 4. Other Applicable Standards:

602

603 a. Feeder lines, including communications that are equal to or less than 35 kV in
604 capacity, installed as part of a WECS shall be located in the road easement/right
605 of way, and buried [where reasonably feasible]. These shall not be considered an
606 Essential Service.

607

608 b. Other signage on site shall comply with the Zoning Ordinance. The manufacture's
609 or owner's company name and/or logo may be placed upon the WECS nacelle.

609

610 c. Solid and hazardous wastes, including but not limited to crates, packaging
611 materials, damaged or worn parts, as well as used oils and lubricants, shall be
612 removed from the site and disposed of in accordance with all applicable local,
613 state and federal regulations.

613

614 5. Orderly Development – Upon issuance of a Conditional Use Permit, all Commercial
615 WECS shall notify the MN Geospatial Information Office Staff of the project location and
616 details on the survey form specified by the Environmental Quality Board.

617

618 6. All WECS shall comply with Minnesota Rules 7030, as amended, governing noise.

619

620 7. Electrical codes and standards for all WECS and accessory equipment and facilities shall
621 comply with the National Electrical Code and other applicable standards.

622

623 8. Federal Aviation Administration (FAA) – All WECS shall comply with FAA standards and
624 permits.

624

625 9. Uniform Building Code – All WECS shall comply with the Uniform Building Code adopted
626 by the State of Minnesota.

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10. Fire Protection and Emergency Services – Prior to initiating construction activity related to the WECS project, the applicant will communicate and coordinate with local fire, emergency services, and Faribault County their needs and plans related to all aspects of the WECS project to assure adequate preparedness and response is executed in the event these services are required.

11. 911 Address – A 911 address will be issued for each wind turbine or access road included in a project.

12. Interference - The applicant shall mitigate interference with electromagnetic communications, such as radio, telephone, microwaves, or television signals caused by any WECS. The applicant shall notify all communication tower operators within two miles of the proposed WECS location upon application to the County for permits. No WECS shall be constructed so as to interfere with County 911, ARMER systems or Minnesota Department of Transportation microwave transmissions.

Subdivision 6 Discontinuation, Decommissioning, and Modification Plans

1. Discontinuation - All WECS shall be considered as discontinued use after one (1) year without energy production unless a plan is developed and submitted to the Department outlining the steps and schedule for returning the WECS to service. All WECS and accessory facilities shall be removed to ground level within 90 days of the discontinuation of use.
2. Decommissioning Plan - Each Commercial WECS shall have a Decommissioning Plan outlining the anticipated means and cost of removing WECS at the end of their serviceable life or upon becoming a discontinued use. This plan must include the following:
 - a. The cost estimates shall be made by a competent party; such as a Professional Engineer, a contractor capable of decommissioning or a person with suitable expertise or experience with decommissioning.
 - b. The plan shall also identify the financial resources that will be available to pay for the decommissioning and removal of the WECS and accessory facilities.
 - c. Timeframe.
3. Modification Plans – If at any time a WECS is modified beyond original application, a modification plan must be developed and submitted to the Department and reviewed by the Planning Commission for approval.

Subdivision 7 Avoidance and Mitigation of Damages to Public Infrastructure

If determined by the Department or the Planning Commission that the project may impact the County’s public infrastructure, the Applicant will be required to complete the Development Agreement, Road Use and Repair Agreement, that includes approval by the Highway Engineer, and the Public Drainage System Protection Agreement. These agreements and any other required agreements shall be completed, and included at the time of application for a Conditional Use Permit to the Department.

Subdivision 8 Pre-Construction Meeting

677
678 Applicants for Commercial WECS will be required to conduct a Pre-Construction meeting prior
679 to construction commencement with a written notice identifying the date, time and place of
680 meeting and be sent to the following individuals a minimum of fourteen (14) days prior to said
681 meeting:

- 682 a. Township Chairman
 - 683 b. Faribault County Engineer
 - 684 c. Faribault County Sheriff/Emergency Management Director
 - 685 d. Faribault County Zoning Administrator
 - 686 e. County Commissioner of the District
 - 687 f. Others as deemed necessary
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716 **SECTION 9 GENERAL STANDARDS FOR SOLAR ENERGY SYSTEMS**

717 **Subdivision 1 General Standards for All Solar Energy Systems**

- 720 1. Systems with a total surface area less than ten (10) square feet, and less than forty (40)
721 kW are allowed within all districts without a permit, but are not allowed to be constructed
722 in any road easement/right-of-way, and must be compliant with all property lines.
- 723
- 724 2. Systems with a total surface area from ten (10) to one hundred twenty (120) square feet,
725 and less than forty (40) kW, and are pole or ground mounted, must meet all setback
726 requirements pertinent to the zoning district where the system is being installed.

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3. Systems shall be designed and operated in a manner that protects public safety.
 4. Systems shall be in compliance with any applicable Local, State and Federal regulatory Standards, including, but not limited to, the State of Minnesota Building Code, as amended, and the National Electric Code, as amended.
 5. Systems that result in the creation of one (1) or more acres of impervious surface, must comply with the MPCA Construction Stormwater Permit Requirements.
 6. Systems shall not be used to display advertising, including; signage, streamers, pennants, spinners, advertising reflectors, ribbons, tinsel, balloons, flags, banners or similar materials. The manufacturers and equipment information, warning, or indication of ownership shall be allowed on any equipment of the solar energy system provided they comply with the prevailing sign regulations.
 7. Tree removal shall be minimized and mitigated in accordance with Conditional Use Permit requirements. But removal shall at no time exceed twenty-five percent (25%) of any trees within 100' of the solar array footprint.
 8. The applicant shall submit a decommissioning plan, per the standards of this Ordinance, with the permit application.
 9. Systems within the airport influence zone, as designated by the Minnesota Department of Transportation or applicable Airport Safety Ordinance, must comply with FAA standards and permits and are prohibited from creating or causing interference with the operations of airplanes, or makes it difficult for pilots to maneuver as a result of glare or otherwise endangers the landing, take off, or maneuvering of aircraft.

756 **Subdivision 2 Small Solar Energy Systems**

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758 In addition to the General Standards, the following standards shall apply to Small Solar Energy
759 Systems:

- 760
761 1. All elements of the system shall meet or exceed all district regulations based on the
762 applicable zoning district.

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765 **Subdivision 3 Large Solar Energy Systems**

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767 In addition to the General Standards, the following standards shall apply to Large Solar Energy
768 Systems:

- 769
770 1. All elements of the system shall meet or exceed all district regulations based on the
771 applicable zoning district.
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773 2. Meet the requirements of the MPCA Construction Stormwater Permit requirements.
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775 3. Meet the requirements for erosion and sediment control.
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4. The manufacturer's engineer or another qualified engineer shall certify that the foundation and design of the solar energy system is within accepted professional standards, given local soil and climate conditions.
 5. Power and communication lines running between banks of solar collectors and to electric substations or interconnections with buildings shall be buried underground. Exemptions may be granted in instances where shallow bedrock, water courses, or other elements of the natural landscape interfere with the ability to bury lines.
 6. Vegetative screening of the system may be required as a part of the conditions of approval. It shall be based on the proximity of the system to residential buildings and to abutting public easement/right-of-way. The vegetation shall consist of canopy and conifer trees.
 7. Fire Protection and Emergency Services – Prior to initiating construction activity related to the Large Solar Energy project, the applicant will communicate and coordinate with local fire, emergency services, and Faribault County their needs and plans related to all aspects of the project to assure adequate preparedness and response is executed in the event these services are required.
 8. 911 Address – A 911 address will be issued for each access road included in a project.

799 **Subdivision 4 Accessory Use Solar Energy Systems**

800
801 In addition to the General Standards, the following standards shall apply to Accessory Use Solar
802 Energy Systems:

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1. Must meet all setback and impervious surface requirements pertinent to accessory structures for the zoning district.
 2. Shall not be located nearer the front lot line than the dwelling on the lot. This requirement shall apply to the following zoning districts.
 - A. A-1, Shoreland Agricultural
 - B. A-2, General Agricultural
 - C. R-1, Rural Residential
 - D. R-2, Shoreland Residential

814 **Subdivision 5 Primary Use Solar Energy Systems**

815
816 In addition to the General Standards, the following standards shall apply to Primary Use Solar
817 Energy Systems:

- 818
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821
1. Must meet all setback and impervious surface requirements pertinent to the zoning district.

822 **Subdivision 6 Building Integrated Solar Energy Systems**

823
824 For purposes of this Ordinance, Building Integrated Solar Energy Systems are an integral part of
825 a dwelling or accessory building rather than a separate mechanical device, replacing or
826 substituting for an architectural or structural component of the building. These include systems

827 that function as roofing materials, windows, and skylights. If there is no change in the height or
828 width of the structure, these systems would not require a Zoning/Building Permit.

829
830 **Subdivision 7 Ground-Mounted and Pole-Mounted Solar Energy Systems**

831
832 In addition to the General Standards, the following standards shall apply to Ground-Mounted
833 and Pole-Mounted Solar Energy Systems:

- 834
- 835 1. Must meet all setback requirements pertinent to the zoning district.
 - 836 2. Shall not exceed twenty (20) feet in height when oriented at maximum design tilt.
 - 837 3. Shall not extend into the side-yard, rear-yard, or road easement/right-of-way setback
838 when oriented at minimum design tilt.
 - 839 4. Shall not extend into the side-yard, rear-yard, or road easement/right-of-way setback
840 when oriented at minimum design tilt.
 - 841 4. Shall not have a total collector surface of area exceeding fifty percent (50%) of the
842 footprint of the dwelling, or the largest structure currently on the parcel when a dwelling is
843 not present, in the following zoning districts:
 - 844 A. A-1, Shoreland Agricultural
 - 845 B. A-2, General Agricultural
 - 846 C. R-1, Rural Residential
 - 847 D. R-2, Shoreland Residential
 - 848 5. Shall have natural ground cover under and between the collectors and surrounding the
849 system's foundation or mounting device(s).
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853 **Subdivision 8 Roof-Mounted Solar Energy Systems**

854
855 In addition to the General Standards, the following standards shall apply to Roof-Mounted Solar
856 Energy Systems:

- 857
- 858 1. Shall not exceed by more than four (4) feet the maximum allowed height in any zoning
859 district.
 - 860 2. In addition to the structure setback, the collector surface and mounting devices shall not
861 extend beyond the exterior perimeter of the structure on which the system is mounted or
862 built, except for when such an extension is designed as an awning.
 - 863 3. The collector and racking that have a greater pitch than the roof surface shall be set back
864 from all roof edges by at least two (2) feet.
 - 865 4. Exterior piping for roof-mounted solar hot water systems may extend beyond the
866 perimeter of the structure on side and rear yard exposures.
 - 867 5. Shall not cover more than eighty percent (80%) of the south-facing or flat roof upon which
868 the collectors are mounted. Excluding building-integrated systems.
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874 **Subdivision 9 Reflecting Solar Energy Systems**

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876 In addition to the General Standards, the following standards shall apply to Reflecting Solar
877 Energy Systems:

- 878
- 879 1. Shall be designed and operated to prevent the misdirection of reflected solar radiation
880 onto adjacent or nearby property, public roads, or other areas open to the public.
881
 - 882 2. Shall not be permitted to be located within Zone C as designated in the Blue Earth Airport
883 Zoning Ordinance, as amended.
884

885 **Subdivision 10 Wall-Mounted Solar Energy Systems**

886

887 In addition to the General Standards, the following standard shall apply to Wall-Mounted Solar
888 Energy Systems:

- 889
- 890 1. Shall cover no more than twenty-five percent (25%) of any exterior wall facing a front
891 yard in the following districts:
 - 892 A. R-1, Rural Residential
 - 893 B. R-2, Shoreland Residential
894

895 **Subdivision 11 Photovoltaic Solar Energy Systems**

896

897 In addition to the General Standards, the following standards shall apply:

- 898
- 899 1. The electrical disconnect switch shall be clearly identified and unobstructed.
900
 - 901 2. No Grid-Intertie System shall be installed until documentation has been given to the
902 Zoning Administrator that the owner has notified the utility company of the customer's
903 intent to install an interconnected customer-owned generator. Documentation may
904 consist of an interconnection agreement or a written explanation from the utility provider
905 or contractor outlining why an interconnection agreement is not necessary. Off-grid
906 systems are exempt from this requirement.
907
 - 908 3. Must have an Underwriters Laboratory (UL) listing and Solar Hot Water Systems must
909 have a Solar Rating & Certification Corporation (SRCC) rating.

910 **Subdivision 12 Avoidance and Mitigation of Damages to Public Infrastructure**

911

912 If determined by the Department or the Planning Commission that the project may impact the
913 County's public infrastructure, the Applicant will be required to complete the Development
914 Agreement, Road Use and Repair Agreement, that includes approval by the Highway Engineer,
915 and the Public Drainage System Protection Agreement. These agreements or other required
916 agreements shall be completed, and included at the time of application for a Conditional Use
917 Permit to the Department.
918

919 **Subdivision 13 Pre-Construction Meeting**

920

921 Applicant for Commercial WECS will be required to conduct a Pre-Construction meeting prior to
922 construction commencement with a written notice identifying the date, time and place of meeting
923 and be sent to the following individuals a minimum of fourteen (14) days prior to said meeting:

- 924 a. Township Chairman
- 925 b. Faribault County Engineer

- 926 c. Faribault County Sheriff/ Emergency Management Director
- 927 d. Faribault County Zoning Administrator

928
929 **Subdivision 14 Decommissioning**

930
931 A Decommissioning Plan may be required as part of a Renewable Energy System Permit, as
932 outlined below:

933
934 1. For Small Solar Energy Systems less than 40 kW, which do not require a Conditional Use
935 Permit, a decommissioning plan will not be required.

936
937 2. For Large Solar Energy Systems greater than 40 kW that require a CUP, and all systems
938 more than 40 kW, a decommissioning plan will be included as part of the application
939 requirements, and shall consist of the following:

940
941 a. Outline of the anticipated means and cost of removing the system at the end of its
942 serviceable life or upon its becoming a discontinued use. The cost estimates shall
943 be made by a competent party, such as a professional engineer, a contractor
944 capable of decommissioning or a person with suitable expertise or experience with
945 decommissioning. The plan shall also identify the financial resources that will be
946 available to pay for the decommissioning and removal of the system.

947
948 b. Decommissioning of the system must occur within sixty (60) days from either the
949 end of the system's serviceable life; or when the system becomes a discontinued
950 use.

951
952 c. Decommissioning shall consist of the following:

953
954 The removal of the system's foundation. An exemption from this requirement may
955 be granted by the Conditional Use Permit granting authority if it is determined that
956 the removal of the foundation will significantly increase erosion and/or significantly
957 disrupt vegetation on the site.

958
959 Disposal of all solid and hazardous waste in accordance with Local, State, and
960 Federal Waste Disposal Regulations.

961
962 The stabilization of soils and/or re-vegetation of the site as necessary to minimize
963 erosion. The Conditional Use Permit granting authority may allow the owner to
964 leave landscaping or designated below-grade foundations in order to minimize
965 erosion and disruption of vegetation.

966
967 3. A system shall automatically be considered a discontinued use after one (1) year without
968 energy production, unless a plan is developed and submitted to the Zoning Administrator
969 outlining the steps and schedule for returning the system to service.

970
971 4. The Board may require the posting of a bond, letter of credit, or the establishment of an
972 escrow account to ensure proper decommissioning.

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974 5. Additional decommissioning requirements may be added as additional conditions on a
975 Conditional Use Permit, as deemed necessary.

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SECTION 10 ENFORCEMENT, VIOLATIONS, REMEDIES AND PENALTIES

Enforcement of the Renewable Energy Ordinance shall be done in accordance with process and procedures established in the Faribault County Zoning Ordinance.

SECTION 11 REPEAL AND RECOMMENDATIONS

Where this Ordinance imposes greater restrictions than any other ordinance, the provisions of this Ordinance shall prevail. All other ordinances inconsistent with this Ordinance are hereby repealed to the extent of the inconsistency only.

The Faribault County Planning Commission, after proper notice and publication, held a public hearing on the adoption of this Ordinance on the 14th of June, 2016. After hearing public testimony and with due deliberation, the Planning Commission voted to recommend adoption of this Ordinance to the Faribault County Board of Commissioners.

SECTION 12 ADOPTION

1028 The Faribault County Board of Commissioners, after proper notice and publication, held a public
1029 hearing on the adoption of this Ordinance on the 19th day of July, 2016, at the Faribault County
1030 Courthouse. After hearing public testimony and with due deliberation, the Faribault County
1031 Board of Commissioners voted to adopt this Ordinance.
1032

1033 **SECTION 13 EFFECTIVE DATE**

1034 This Ordinance shall be in full force and effect from and after July 19, 2016 of the date of its
1035 passage and publication according to law, whichever occurs first.
1036

1037 Dated this 19th day of July, 2016.
1038

1039 _____
1040 Chair
1041 Faribault County Board of Commissioners
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1048 ATTEST:
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1051 _____
1052 Clerk to the Board