

**JOINT RESOLUTION - RENEWABLE ENERGY
SYSTEM**

2009 GENERAL SESSION

STATE OF UTAH

Chief Sponsor: Patricia W. Jones

House Sponsor: _____

LONG TITLE

General Description:

This joint resolution of the Legislature addresses renewable energy systems.

Highlighted Provisions:

This resolution:

- ▶ directs the State Energy Program to assess the need for model solar and geothermal ordinances at the local government level and to report to the Legislature on its process for assessing the need;
- ▶ urges local governments to adopt a model ordinance for wind energy projects; and
- ▶ directs that a copy of the resolution be sent to the State Energy Program.

Special Clauses:

None

Be it resolved by the Legislature of the state of Utah:

WHEREAS, the state has established a target of 20 percent renewable energy electricity generation by the year 2025;

WHEREAS, it is the policy of the state to encourage the development of independent and qualifying power production and cogeneration facilities, to promote a diverse array of economical and sustainable energy resources in an environmentally acceptable manner, and to conserve our finite and expensive energy resources and provide for their most efficient and



28 economic utilization;

29 WHEREAS, the state wishes to provide clarity to the process of developing renewable
30 energy projects and to reduce the bureaucratic and permitting burden for Utah residents,
31 businesses, and local governments in developing renewable energy;

32 WHEREAS, the state finds that wind, geothermal, and solar energy are abundant,
33 renewable, and non-polluting energy resources;

34 WHEREAS, wind, geothermal, and solar energy systems can help to offset growing
35 energy and peak power demands;

36 WHEREAS, the state wishes to advance the use of wind, geothermal, and solar energy
37 by all of its citizens, businesses, and industries;

38 WHEREAS, properly designed renewable energy installation ordinances can help
39 communities facilitate greater access to wind, geothermal, and solar energy;

40 WHEREAS, it is the goal of the state to develop wind, geothermal, and solar power,
41 while preserving farmlands and agricultural enterprises and adjoining residential and
42 commercial developments as compatible adjoining uses, and the public health, safety, and
43 general welfare will be protected and promoted by this ordinance;

44 WHEREAS, the state recognizes that the renewable energy industry is growing and can
45 continue to benefit the state economically, and efforts to streamline renewable energy
46 installations encourages economic development in the state;

47 WHEREAS, solar working groups meet quarterly throughout the state as administered
48 by the State Energy Program; and

49 WHEREAS, geothermal working groups meet quarterly throughout the state as
50 administered by the State Energy Program:

51 NOW, THEREFORE, BE IT RESOLVED that the State Energy Program be directed to
52 assess the need for a model solar ordinance through a consensus building stakeholder process
53 to include, if considered useful, the development of a model solar ordinance.

54 BE IT FURTHER RESOLVED that the State Energy Program be directed to report the
55 findings of the consensus building stakeholder process and any resulting model solar ordinance
56 to the Legislature no later than November 30, 2009.

57 BE IT FURTHER RESOLVED that the State Energy Program be directed to assess the
58 need for a geothermal ordinance through a consensus building stakeholder process to include,

59 if considered useful, the development of a model geothermal ordinance.

60 BE IT FURTHER RESOLVED that the State Energy Program be directed to report the
61 findings of the consensus building stakeholder process to the Legislature no later than
62 November 30, 2009.

63 BE IT FURTHER RESOLVED that a copy of this joint resolution be sent to the State
64 Energy Program.

65 BE IT FURTHER RESOLVED that the Legislature strongly urges local governments
66 that wish to develop ordinances for wind energy projects to adopt the following model
67 ordinance language as appropriate for their jurisdictions.

68 **SMALL AND LARGE WIND SYSTEMS ORDINANCE**

69 **1.0 Purpose**

70 The purpose of this [model] ordinance is to establish minimum requirements and
71 regulations for the placement, construction, and modification of small wind energy
72 systems, large wind energy systems, and wind metering towers and equipment as
73 defined herein, while promoting the safe, effective, and efficient use of such systems.

74 **2.0 Definitions**

75 **Abandoned:** A wind energy system or project shall be considered abandoned when,
76 once installed fails to operate for 24 months.

77 **Height:** The height of a wind turbine measured from natural grade to the tip of the rotor
78 blade at its highest point.

79 **Large Wind Energy System:** All equipment, machinery, and structures utilized in
80 connection with the conversion of wind to electricity. This includes, but is not limited
81 to, storage, electrical collection and supply equipment, transformers, service and access
82 roads, and one or more wind turbines, which has a rated nameplate capacity greater than
83 100kW.

84 **Meteorological Tower (Met tower):** A temporary tower, housing or supporting wind
85 measuring equipment for the purpose of establishing the viability of the wind generated
86 energy by measuring and monitoring wind velocity, direction, shear, duration, intensity,
87 and regularity.

88 **Permit Granting Authority:** The board of appeals or zoning administrator.

89 **Rated Nameplate Capacity:** The maximum rated output of electric power production

90 equipment. This output is typically specified by the manufacturer with a "nameplate"
91 on the equipment rated in Watts or British Thermal Units (BTUs).

92 **Small Wind Energy System:** All equipment, machinery, and structures utilized in
93 connection with the conversion of wind to electricity. This includes, but is not limited
94 to, storage, electrical collection and supply equipment, transformers, service and access
95 roads, and one or more wind turbines, which has a rated nameplate capacity of 100 kW
96 or less.

97 **Special Permit Granting Authority:** The special permit granting authority shall be the
98 board of city council, planning board, or zoning administrator as designated by zoning
99 ordinance or by-law for the issuance of special permits, or by this section for the
100 issuance of special permits to construct and operate small wind energy systems.

101 **Special Use Permit:** A permit provided by the special permitting authority for
102 nonconforming small wind systems (e.g. a small wind system that does not meet the
103 criteria for small wind systems set forth by this ordinance).

104 **Zoning:** Ordinances and bylaws adopted by cities and towns to regulate the use of land,
105 buildings, and structures to the full extent of the independent constitutional powers of
106 cities and towns to protect the health, safety, and general welfare of their present and
107 future inhabitants.

108 **Zoning administrator:** A person designated by the board of appeals pursuant to
109 section 13 to assume certain duties of said board.

110 **3.0 General Requirements -- Small Wind Energy System**

111 **3.1 Design Standards**

112 **3.1.1 Height**

113 The height of small wind energy systems shall not exceed 200 feet in height without
114 prior approval from the permit granting authority.

115 **3.1.2 Setbacks**

116 Small wind energy systems shall be set back at a distance equal to 110% of the total
117 height of system from all inhabited structures, overhead utility lines, property lines, and
118 public roads or public rights-of-ways.

119 **3.1.3 Setback Waivers**

120 The building inspector may reduce the minimum setback distance if written permission

121 is granted by permit granting authority.

122 **3.1.4 Minimum Blade Height**

123 The minimum height of the lowest extent of a turbine blade shall be 30 feet above the
124 ground.

125 **3.1.5 Color and Finish**

126 The wind energy system shall be a neutral color that blends with the environment.
127 Gray, beige, and white are recommended.

128 **3.1.6 Lighting**

129 Small wind energy systems shall be lighted only if required by the Federal Aviation
130 Administration. Lighting of other parts of the small wind energy system shall be
131 limited to that required for safety and operational purposes.

132 **3.1.7 Signage and Advertising**

133 Signs and advertising shall be restricted to reasonable identification of the
134 manufacturer, operator of the small wind energy system, utility, and safety signs.

135 **3.1.8 Access**

136 No tower shall have a climbing apparatus within 10 feet of the ground. All access
137 doors or access ways to towers and electrical equipment shall be locked.

138 **3.1.9 Noise**

139 The small wind energy system and associated equipment shall not exceed 60 dBA as
140 measured from the nearest neighboring inhabitable structure.

141 **3.2 Siting Conditions and Property Maintenance**

142 **3.2.1 Land Clearing, Soil Erosion, and Habitat Impacts**

143 If the permitting granting authority has standards for land clearing, soil erosion control,
144 and habitat impact mitigation and/or habitat reclamation, those same standards should
145 apply. If the Permit Granting Authority does not have previously prescribed standards,
146 the following is recommended for adoption.

147 Clearing of natural vegetation shall be limited to that which is necessary for the
148 construction, operation, and maintenance of the small wind energy system and is
149 otherwise prescribed by applicable laws, regulations, and ordinances. Once the system
150 is operational, any land that has been disturbed and is not necessary for the functioning
151 of the system shall be reclaimed with natural vegetation immediately. Soil erosion is to

152 be mitigated by the use of silt fencing, the captured product of which can be used in the
153 vegetation reclamation.

154 **3.2.2 Minimum Lot Size**

155 Small wind energy systems that are less than 80 feet in height may be constructed on
156 lots one acre or less. If the small wind energy system is greater than 80 feet in height,
157 the system must be constructed on a lot greater than one acre.

158 **3.2.3 System Conditions**

159 The applicant shall maintain the small wind energy system in good condition.
160 Maintenance shall include, but not be limited to, painting, mechanical/electrical repairs,
161 structural repairs, and security measures.

162 **3.2.4 Removal and Decommissioning Requirements**

163 Any small wind energy system, which has reached the end of its useful life or has been
164 abandoned, shall be removed. A small wind energy system shall be considered
165 abandoned when it fails to operate for 24 months. Upon a Notice of Abandonment
166 issued by the Building Inspector, the small wind energy system owner will have 60 days
167 to provide sufficient evidence that the system has not been abandoned, or the Permit
168 Granting Authority shall have the authority to enter the owner's property and remove
169 the system at the owner's expense.

170 Once the system has been removed the owner is then responsible for land reclamation
171 using the natural vegetation that was removed or disturbed upon construction of the
172 project. To the greatest extent possible, the land shall be fully returned to its natural
173 state within five years of the removal and decommissioning of the project.

174 **3.3 Permit Granting Authority Issued Permits**

175 **3.3.1 Building Permits**

176 Small wind energy systems shall be constructed as provided in this section by first
177 obtaining a building permit from the appropriate Permit Granting Authority.

178 **3.3.2 Modifications**

179 Any physical modification to an existing and permitted wind energy system that
180 materially alters the size and/or type of wind turbines or other equipment shall require a
181 permit modification under this ordinance. Replacement of an already permitted turbine
182 with a similar size and height will not require a permit modification.

183 **3.3.3 Conditional Use Permits (CUP)**

184 A conditional use permit may be granted in the case where a proposed small wind
185 energy system or project does not satisfy the standard criteria of the building permit set
186 forth under this ordinance. The applicant must then seek review and petition the Permit
187 Granting Authority for a Conditional Use Permit. This CUP variance from the standard
188 building permit criteria will only be applicable to that specific non-conforming project.

189 **3.3.4 Expiration**

190 A permit issued pursuant to this ordinance shall expire if:

191 (a) the small wind energy system is not installed and functioning within 24 months
192 from the date the permit is issued; or

193 (b) the small wind energy system is abandoned.

194 **3.3.5 Violations**

195 It is unlawful for any person to construct, install, or operate a small wind energy system
196 that is not in compliance with this ordinance or with any condition contained in a
197 building permit issued pursuant to this ordinance. Small wind energy systems installed
198 prior to the adoption of this ordinance are exempt.

199 **3.3.6 Administration and Enforcement**

200 (a) This ordinance shall be administered and enforced by the Building Inspector or
201 other official as designated by the Permit Granting Authority.

202 (b) The Building Inspector may enter any property for which a building permit has
203 been issued under this ordinance to conduct an inspection to determine whether the
204 conditions stated in the permit have been met.

205 **3.4 Compliance with Laws, Ordinances, and Regulations**

206 The construction and operation of all such proposed small wind energy systems shall be
207 consistent with all applicable local, state, and federal requirements, including all
208 applicable safety, construction, environmental, electrical, communications,
209 and FAA aviation requirements.

210 **4.0 General Requirements -- Large Wind Energy Systems and Projects**

211 **4.1 Design Standards**

212 **4.1.1 Height**

213 The height of large wind energy systems shall not exceed 450 feet in height without

214 prior approval from the Permit Granting Authority.

215 **4.1.2 Setbacks**

216 Large wind energy systems shall be set back a distance equal to 110% of the total height
217 of system from all inhabited structures, overhead utility lines, property lines, and public
218 roads or public rights-of-ways.

219 **4.1.3 Setback Waivers**

220 The building inspector may reduce the minimum setback distance if written permission
221 is granted by the Permit Granting Authority.

222 **4.1.4 Minimum Blade Height**

223 The minimum height of the lowest extent of a turbine blade shall be 30 feet above the
224 ground surface.

225 **4.1.5 Color and Finish**

226 The large wind energy system shall be a neutral color that blends with the environment.
227 Gray, beige, and white are recommended.

228 **4.1.6 Lighting**

229 Large wind energy systems and projects shall be lighted only if required by the Federal
230 Aviation Administration. Lighting of other parts of the large wind energy system shall
231 be limited to that required for safety and operational purposes.

232 **4.1.7 Signage and Advertising**

233 Signs and advertising shall be restricted to reasonable identification of the
234 manufacturer, operator of the large wind energy system, utility, and safety signs.

235 **4.1.8 Access**

236 No tower shall have a climbing apparatus that is external of the pole, within 10 feet of
237 the ground. All access doors or access ways to towers and electrical equipment shall be
238 kept locked for safety purposes.

239 **4.1.9 Noise**

240 The large wind energy system and associated equipment shall not exceed 60 dBA as
241 measured from the nearest neighboring inhabitable structure.

242 **4.2 Siting Conditions and Property Maintenance**

243 **4.2.1 Land Clearing, Soil Erosion, and Habitat Impacts**

244 If the Permit Granting Authority has standards for land clearing, soil erosion control,

245 and habitat impact mitigation and/or habitat reclamation, those same standards should apply. If
246 the Permit Granting Authority does not have previously prescribed standards, the following is
247 recommended for adoption.

248 Clearing of natural vegetation shall be limited to that which is necessary for the
249 construction, operation, and maintenance of the large wind energy system and is
250 otherwise prescribed by applicable laws, regulations, and ordinances. Once the system
251 is operational, any land that has been disturbed and is not necessary for the functioning
252 of the system shall be reclaimed with natural vegetation immediately. Soil erosion is to
253 be mitigated by the use of silt fencing, any accumulated product of which can be used in
254 the site reclamation.

255 **4.2.3 System Conditions**

256 The applicant shall maintain the large wind energy system and/or project in good
257 condition. Maintenance shall include, but not be limited to, painting, structural repairs,
258 and security measures.

259 **4.2.4 Removal and Decommissioning Requirements**

260 Any large wind energy system and/or project, which has reached the end of its useful
261 life or has been abandoned, shall be removed. A large wind energy system or project
262 shall be considered abandoned when it fails to operate for 24 months. Upon a Notice of
263 Abandonment issued by the Building Inspector, the large wind energy system or project
264 owner will have 60 days to provide sufficient evidence that the system has not been
265 abandoned or the Permit Granting Authority shall have the authority to enter the
266 owner's property and remove the system at the owner's expense.

267 **4.2.5 Reclamation**

268 Once the system has been removed the owner is then responsible for land reclamation
269 using the natural vegetation that was removed or disturbed upon construction of the
270 project. To the greatest extent possible, the land shall have returned to its natural state
271 within five years of the removal and decommissioning of the project.

272 **4.3 Permit Granting Authority Issued Permits**

273 A large wind energy system shall be constructed as provided in this section by first
274 obtaining a permit from the Permit Granting Authority. Permit applications for project
275 expansions shall be based on the total nameplate capacity including the existing project.

276 **4.3.1 Modifications**

277 Any physical modification to an existing and permitted wind energy system that
278 materially alters the size and/or type of wind turbines or other equipment shall require a
279 permit modification under this ordinance. Replacement of an already permitted turbine
280 with a similar size and height will not require a permit modification.

281 **4.3.2 Conditional Use Permits**

282 A conditional use permit may be granted in the case where a proposed large wind
283 energy system or project does not satisfy the standard criteria of the building permit set
284 forth under this ordinance. The applicant must then seek review of, and petition the
285 Permit Granting Authority for a Conditional Use Permit. This CUP variance from the
286 standard building permit criteria will only be applicable to that specific non-conforming
287 project.

288 **4.3.3 Expiration**

289 A permit issued pursuant to this ordinance shall expire if:

- 290 (a) the large wind energy system or project is not installed and functioning within 48
291 months from the date the permit is issued; or
- 292 (b) the large wind energy system or project is abandoned.

293 **4.3.4 Violations**

294 It is unlawful for any person to construct, install, or operate a large wind energy system
295 or project that is not in compliance with this ordinance or with any condition contained
296 in a building permit issued pursuant to this ordinance. Large wind energy systems
297 installed prior to the adoption of this ordinance are exempt.

298 **4.3.5 Administration and Enforcement**

- 299 (a) This ordinance shall be administered and enforced by the Building Inspector or
300 other official as designated by the Permit Granting Authority.
- 301 (b) The Building Inspector may enter any property for which a building permit has
302 been issued under this ordinance to conduct an inspection to determine whether the
303 conditions stated in the permit have been met.

304 **4.3.6 Penalties**

305 Any person who fails to comply with any provision of this ordinance or a building
306 permit issued, pursuant to this ordinance, shall be subject to enforcement and penalties

307 as allowed by applicable law.

308 **4.4 Compliance with Laws, Ordinances, and Regulations**

309 The construction and operation of all such proposed large wind energy systems shall be
310 consistent with all applicable local, state, and federal requirements, including all
311 applicable safety, construction, environmental, electrical, communications,
312 and FAA aviation requirements.

313 **5.0 General Requirements -- Temporary Meteorological Towers (Met towers)**

314 **5.1 Permitted Use by Rule**

315 Met tower installations shall be considered a permitted use in all zoning districts where
316 the following criteria are met.

317 (1) Applicants shall submit the following information to the Permit Granting Authority
318 prior to commencing any installation or construction:

319 (a) a site plan drawn at an appropriate scale with the following information:

320 (i) the perimeter and dimensions of the property;

321 (ii) the names and locations of all streets, roads, or highways on or contiguous to the
322 property;

323 (iii) the locations of all easements or rights-of-way on the property;

324 (iv) the names and locations of all rivers, streams, or waterways on or contiguous to the
325 property;

326 (v) the use, location, and dimension of all structures on the property (include distance
327 from all proposed structures to the property lines);

328 (vi) a scale; and

329 (vii) a north arrow.

330 (2) In addition to other applicable provisions set forth in these regulations, approval of
331 met tower applications shall be subject to the following requirements:

332 (a) All necessary zoning certificates and building permits shall be applied for and
333 issued, and all structural reviews shall be completed by the Permit Granting Authority
334 prior to construction.

335 (b) The met tower shall be constructed in conformity with all applicable FAA
336 regulations and all FAA notices and approvals shall be received and submitted to the
337 Permit Granting Authority prior to any construction.

338 (c) Applicants shall furnish evidence that applicable rights-of-way have been granted
339 for access to the met tower across any private, state, or BLM lands. For BLM
340 right-of-way grants, applicants may furnish a copy of the signed BLM Right-of-Way
341 Grant application together with evidence that applicable fees have been tendered to the
342 BLM.

343 (d) The met tower shall be in place for a period not exceeding three years. Applicants
344 shall provide the Permit Granting Authority with 90 days prior written notice of
345 removal of the tower.

346 (e) In the event the applicant desires to relocate the met tower, the applicant shall
347 receive prior written approval from the Permit Granting Authority and furnish
348 coordinates for the new tower location.

349 (f) If the applicant desires to extend the tower usage period, a request for an extension
350 must be submitted in writing 90 days prior to the expiration of this permit to the Permit
351 Granting Authority for consideration.

352 (g) The met tower shall not physically obstruct or encumber any road, power line, or
353 pipeline easement.

Legislative Review Note
as of 12-19-08 11:11 AM

Office of Legislative Research and General Counsel

S.J.R. 1 - Joint Resolution - Renewable Energy System

Fiscal Note

2009 General Session

State of Utah

State Impact

Enactment of this bill will not require additional appropriations.

Individual, Business and/or Local Impact

Enactment of this bill likely will not result in direct, measurable costs and/or benefits for individuals, businesses, or local governments.
