

**RENEWABLE ENERGY SOURCE AMENDMENTS**

2010 GENERAL SESSION

STATE OF UTAH

**Chief Sponsor: Roger E. Barrus**

Senate Sponsor: J. Stuart Adams

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**LONG TITLE**

**General Description:**

This bill includes energy derived from municipal solid waste as a renewable energy source for purposes of Title 10, Chapter 19, Municipal Electric Utility Carbon Emission Reduction Act, and Title 54, Chapter 17, Energy Resource Procurement Act.

**Highlighted Provisions:**

This bill:

- ▶ changes the definition of "renewable energy source" in Title 10, Chapter 19, Municipal Electric Utility Carbon Emission Reduction Act, and Title 54, Chapter 17, Energy Resource Procurement Act, to include energy derived from municipal solid waste; and
- ▶ makes technical changes.

**Monies Appropriated in this Bill:**

None

**Other Special Clauses:**

None

**Utah Code Sections Affected:**

AMENDS:

**10-19-102**, as enacted by Laws of Utah 2008, Chapter 374

**54-17-601**, as enacted by Laws of Utah 2008, Chapter 374

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*Be it enacted by the Legislature of the state of Utah:*

Section 1. Section **10-19-102** is amended to read:

30           **10-19-102. Definitions.**

31           As used in this chapter:

32           (1) "Adjusted retail electric sales" means the total kilowatt-hours of retail electric sales  
33 of a municipal electric utility to customers in this state in a calendar year, reduced by:

34           (a) the amount of those kilowatt-hours attributable to electricity generated or  
35 purchased in that calendar year from qualifying zero carbon emissions generation and  
36 qualifying carbon sequestration generation;

37           (b) the amount of those kilowatt-hours attributable to electricity generated or  
38 purchased in that calendar year from generation located within the geographic boundary of the  
39 Western Electricity Coordinating Council that derives its energy from one or more of the  
40 following but that does not satisfy the definition of a renewable energy source or that  
41 otherwise has not been used to satisfy Subsection 10-19-201(1):

42           (i) wind energy;

43           (ii) solar photovoltaic and solar thermal energy;

44           (iii) wave, tidal, and ocean thermal energy;

45           (iv) except for combustion of wood that has been treated with chemical preservatives  
46 such as creosote, pentachlorophenol or chromated copper arsenate, biomass and biomass  
47 byproducts, including:

48           (A) organic waste;

49           (B) forest or rangeland woody debris from harvesting or thinning conducted to  
50 improve forest or rangeland ecological health and to reduce wildfire risk;

51           (C) agricultural residues;

52           (D) dedicated energy crops; and

53           (E) landfill gas or biogas produced from organic matter, wastewater, anaerobic  
54 digesters, or municipal solid waste;

55           (v) geothermal energy;

56           (vi) hydro-electric energy; or

57           (vii) waste gas and waste heat capture or recovery; and

58 (c) the number of kilowatt-hours attributable to reductions in retail sales in that  
59 calendar year from activities or programs promoting electric energy efficiency or conservation  
60 or more efficient management of electric energy load.

61 (2) "Amount of kilowatt-hours attributable to electricity generated or purchased in that  
62 calendar year from qualifying carbon sequestration generation," for qualifying carbon  
63 sequestration generation, means the kilowatt-hours supplied by a facility during the calendar  
64 year multiplied by the ratio of the amount of carbon dioxide captured from the facility and  
65 sequestered to the sum of the amount of carbon dioxide captured from the facility and  
66 sequestered plus the amount of carbon dioxide emitted from the facility during the same  
67 calendar year.

68 (3) "Banked renewable energy certificate" means a bundled or unbundled renewable  
69 energy certificate that is:

70 (a) not used in a calendar year to comply with this part or with a renewable energy  
71 program in another state; and

72 (b) carried forward into a subsequent year.

73 (4) "Bundled renewable energy certificate" means a renewable energy certificate for  
74 qualifying electricity that is acquired:

75 (a) by a municipal electric utility by a trade, purchase, or other transfer of electricity  
76 that includes the renewable energy attributes of, or certificate that is issued for, the electricity;  
77 or

78 (b) by a municipal electric utility by generating the electricity for which the renewable  
79 energy certificate is issued.

80 (5) "Commission" means the Public Service Commission.

81 (6) "Municipal electric utility" means any municipality that owns, operates, controls,  
82 or manages a facility that provides electric power for a retail customer, whether domestic,  
83 commercial, industrial, or otherwise.

84 (7) "Qualifying carbon sequestration generation" means a fossil-fueled generating  
85 facility located within the geographic boundary of the Western Electricity Coordinating

86 Council that:

87 (a) becomes operational or is retrofitted on or after January 1, 2008; and

88 (b) reduces carbon dioxide emissions into the atmosphere through permanent  
89 geological sequestration or through other verifiably permanent reductions in carbon dioxide  
90 emissions through the use of technology.

91 (8) "Qualifying electricity" means electricity generated on or after January 1, 1995  
92 from a renewable energy source if:

93 (a) (i) the renewable energy source is located within the geographic boundary of the  
94 Western Electricity Coordinating Council; or

95 (ii) the qualifying electricity is delivered to the transmission system of a municipal  
96 electric utility or a delivery point designated by the municipal electric utility for the purpose of  
97 subsequent delivery to the municipal electric utility; and

98 (b) the renewable energy attributes of the electricity are not traded, sold, transferred, or  
99 otherwise used to satisfy another state's renewable energy program.

100 (9) "Qualifying zero carbon emissions generation":

101 (a) means a generation facility located within the geographic boundary of the Western  
102 Electricity Coordinating Council that:

103 (i) becomes operational on or after January 1, 2008; and

104 (ii) does not produce carbon as a byproduct of the generation process;

105 (b) includes generation powered by nuclear fuel; and

106 (c) does not include renewable energy sources used to satisfy a target established  
107 under Section 10-19-201.

108 (10) "Renewable energy certificate" means a certificate issued in accordance with the  
109 requirements of Sections 10-19-202 and 54-17-603.

110 (11) "Renewable energy source" means:

111 (a) an electric generation facility or generation capability or upgrade that becomes  
112 operational on or after January 1, 1995 that derives its energy from one or more of the  
113 following:

- 114 (i) wind energy;
- 115 (ii) solar photovoltaic and solar thermal energy;
- 116 (iii) wave, tidal, and ocean thermal energy;
- 117 (iv) except for combustion of wood that has been treated with chemical preservatives
- 118 such as creosote, pentachlorophenol or chromated copper arsenate, biomass and biomass
- 119 byproducts, including:
  - 120 (A) organic waste;
  - 121 (B) forest or rangeland woody debris from harvesting or thinning conducted to
  - 122 improve forest or rangeland ecological health and to reduce wildfire risk;
  - 123 (C) agricultural residues;
  - 124 (D) dedicated energy crops; and
  - 125 (E) landfill gas or biogas produced from organic matter, wastewater, anaerobic
  - 126 digesters, or municipal solid waste;
  - 127 (v) geothermal energy located outside the state;
  - 128 (vi) waste gas and waste heat capture or recovery; [~~or~~]
  - 129 (vii) efficiency upgrades to a hydroelectric facility, without regard to the date upon
  - 130 which the facility became operational, if the upgrades become operational on or after January
  - 131 1, 1995; or
  - 132 (viii) municipal solid waste;
- 133 (b) any of the following:
  - 134 (i) up to 50 average megawatts of electricity per year per municipal electric utility
  - 135 from a certified low-impact hydroelectric facility, without regard to the date upon which the
  - 136 facility becomes operational, if the facility is certified as a low-impact hydroelectric facility on
  - 137 or after January 1, 1995, by a national certification organization;
  - 138 (ii) geothermal energy if located within the state, without regard to the date upon
  - 139 which the facility becomes operational; and
  - 140 (iii) hydroelectric energy if located within the state, without regard to the date upon
  - 141 which the facility becomes operational;

142 (c) hydrogen gas derived from any source of energy described in Subsection (11)(a) or  
143 (b);

144 (d) if an electric generation facility employs multiple energy sources, that portion of  
145 the electricity generated that is attributable to energy sources described in Subsections (11)(a)  
146 through (c); and

147 (e) any of the following located in the state and owned by a user of energy:

148 (i) a demand side management measure, as defined by Subsection 54-7-12.8(1) with  
149 the quantity of renewable energy certificates to which the user is entitled determined by the  
150 equivalent energy saved by the measure;

151 (ii) a solar thermal system that reduces the consumption of fossil fuels, with the  
152 quantity of renewable energy certificates to which the user is entitled determined by the  
153 equivalent kilowatt-hours saved, except to the extent the commission determines otherwise  
154 with respect to net-metered energy;

155 (iii) a solar photovoltaic system that reduces the consumption of fossil fuels with the  
156 quantity of renewable energy certificates to which the user is entitled determined by the total  
157 production of the system, except to the extent the commission determines otherwise with  
158 respect to net-metered energy;

159 (iv) a hydroelectric or geothermal facility, with the quantity of renewable energy  
160 certificates to which the user is entitled determined by the total production of the facility,  
161 except to the extent the commission determines otherwise with respect to net-metered energy;

162 (v) a waste gas or waste heat capture or recovery system other than from a combined  
163 cycle combustion turbine that does not use waste gas or waste heat, with the quantity of  
164 renewable energy certificates to which the user is entitled determined by the total production  
165 of the system, except to the extent the commission determines otherwise with respect to  
166 net-metered energy; and

167 (vi) the station use of solar thermal energy, solar photovoltaic energy, hydroelectric  
168 energy, geothermal energy, waste gas, or waste heat capture and recovery.

169 (12) "Unbundled renewable energy certificate" means a renewable energy certificate

170 associated with:

171 (a) qualifying electricity that is acquired by a municipal electric utility or other person  
172 by trade, purchase, or other transfer without acquiring the electricity for which the certificate  
173 was issued; or

174 (b) activities listed in Subsection (11)(e).

175 Section 2. Section **54-17-601** is amended to read:

176 **54-17-601. Definitions.**

177 As used in this part:

178 (1) "Adjusted retail electric sales" means the total kilowatt-hours of retail electric sales  
179 of an electrical corporation to customers in this state in a calendar year, reduced by:

180 (a) the amount of those kilowatt-hours attributable to electricity generated or  
181 purchased in that calendar year from qualifying zero carbon emissions generation and  
182 qualifying carbon sequestration generation;

183 (b) the amount of those kilowatt-hours attributable to electricity generated or  
184 purchased in that calendar year from generation located within the geographic boundary of the  
185 Western Electricity Coordinating Council that derives its energy from one or more of the  
186 following but that does not satisfy the definition of a renewable energy source or that  
187 otherwise has not been used to satisfy Subsection 54-17-602(1):

188 (i) wind energy;

189 (ii) solar photovoltaic and solar thermal energy;

190 (iii) wave, tidal, and ocean thermal energy;

191 (iv) except for combustion of wood that has been treated with chemical preservatives  
192 such as creosote, pentachlorophenol or chromated copper arsenate, biomass and biomass  
193 byproducts, including:

194 (A) organic waste;

195 (B) forest or rangeland woody debris from harvesting or thinning conducted to  
196 improve forest or rangeland ecological health and to reduce wildfire risk;

197 (C) agricultural residues;

- 198 (D) dedicated energy crops; and
- 199 (E) landfill gas or biogas produced from organic matter, wastewater, anaerobic
- 200 digesters, or municipal solid waste;
- 201 (v) geothermal energy;
- 202 (vi) hydroelectric energy; or
- 203 (vii) waste gas and waste heat capture or recovery; and
- 204 (c) the number of kilowatt-hours attributable to reductions in retail sales in that
- 205 calendar year from demand side management as defined in Section 54-7-12.8, with the
- 206 kilowatt-hours for an electrical corporation whose rates are regulated by the commission and
- 207 adjusted by the commission to exclude kilowatt-hours for which a renewable energy certificate
- 208 is issued under Subsection 54-17-603(4)(b).
- 209 (2) "Amount of kilowatt-hours attributable to electricity generated or purchased in that
- 210 calendar year from qualifying carbon sequestration generation," for qualifying carbon
- 211 sequestration generation, means the kilowatt-hours supplied by a facility during the calendar
- 212 year multiplied by the ratio of the amount of carbon dioxide captured from the facility and
- 213 sequestered to the sum of the amount of carbon dioxide captured from the facility and
- 214 sequestered plus the amount of carbon dioxide emitted from the facility during the same
- 215 calendar year.
- 216 (3) "Banked renewable energy certificate" means a bundled or unbundled renewable
- 217 energy certificate that is:
- 218 (a) not used in a calendar year to comply with this part or with a renewable energy
- 219 program in another state; and
- 220 (b) carried forward into a subsequent year.
- 221 (4) "Bundled renewable energy certificate" means a renewable energy certificate for
- 222 qualifying electricity that is acquired:
- 223 (a) by an electrical corporation by a trade, purchase, or other transfer of electricity that
- 224 includes the renewable energy attributes of, or certificate that is issued for, the electricity; or
- 225 (b) by an electrical corporation by generating the electricity for which the renewable

226 energy certificate is issued.

227 (5) "Electrical corporation":

228 (a) is as defined in Section 54-2-1; and

229 (b) does not include a person generating electricity that is not for sale to the public.

230 (6) "Qualifying carbon sequestration generation" means a fossil-fueled generating

231 facility located within the geographic boundary of the Western Electricity Coordinating

232 Council that:

233 (a) becomes operational or is retrofitted on or after January 1, 2008; and

234 (b) reduces carbon dioxide emissions into the atmosphere through permanent

235 geological sequestration or through another verifiably permanent reduction in carbon dioxide

236 emissions through the use of technology.

237 (7) "Qualifying electricity" means electricity generated on or after January 1, 1995

238 from a renewable energy source if:

239 (a) (i) the renewable energy source is located within the geographic boundary of the

240 Western Electricity Coordinating Council; or

241 (ii) the qualifying electricity is delivered to the transmission system of an electrical

242 corporation or a delivery point designated by the electrical corporation for the purpose of

243 subsequent delivery to the electrical corporation; and

244 (b) the renewable energy attributes of the electricity are not traded, sold, transferred, or

245 otherwise used to satisfy another state's renewable energy program.

246 (8) "Qualifying zero carbon emissions generation":

247 (a) means a generation facility located within the geographic boundary of the Western

248 Electricity Coordinating Council that:

249 (i) becomes operational on or after January 1, 2008; and

250 (ii) does not produce carbon as a byproduct of the generation process;

251 (b) includes generation powered by nuclear fuel; and

252 (c) does not include renewable energy sources used to satisfy the requirement

253 established under Subsection 54-17-602(1).

254 (9) "Renewable energy certificate" means a certificate issued under Section  
255 54-17-603.

256 (10) "Renewable energy source" means:

257 (a) an electric generation facility or generation capability or upgrade that becomes  
258 operational on or after January 1, 1995 that derives its energy from one or more of the  
259 following:

260 (i) wind energy;

261 (ii) solar photovoltaic and solar thermal energy;

262 (iii) wave, tidal, and ocean thermal energy;

263 (iv) except for combustion of wood that has been treated with chemical preservatives  
264 such as creosote, pentachlorophenol or chromated copper arsenate, biomass and biomass  
265 byproducts, including:

266 (A) organic waste;

267 (B) forest or rangeland woody debris from harvesting or thinning conducted to  
268 improve forest or rangeland ecological health and to reduce wildfire risk;

269 (C) agricultural residues;

270 (D) dedicated energy crops; and

271 (E) landfill gas or biogas produced from organic matter, wastewater, anaerobic  
272 digesters, or municipal solid waste;

273 (v) geothermal energy located outside the state;

274 (vi) waste gas and waste heat capture or recovery; [~~or~~]

275 (vii) efficiency upgrades to a hydroelectric facility, without regard to the date upon  
276 which the facility became operational, if the upgrades become operational on or after January  
277 1, 1995; or

278 (viii) municipal solid waste;

279 (b) any of the following:

280 (i) up to 50 average megawatts of electricity per year per electrical corporation from a  
281 certified low-impact hydroelectric facility, without regard to the date upon which the facility

282 becomes operational, if the facility is certified as a low-impact hydroelectric facility on or after  
283 January 1, 1995, by a national certification organization;

284 (ii) geothermal energy if located within the state, without regard to the date upon  
285 which the facility becomes operational; or

286 (iii) hydroelectric energy if located within the state, without regard to the date upon  
287 which the facility becomes operational;

288 (c) hydrogen gas derived from any source of energy described in Subsection (10)(a) or  
289 (b);

290 (d) if an electric generation facility employs multiple energy sources, that portion of  
291 the electricity generated that is attributable to energy sources described in Subsections (10)(a)  
292 through (c); and

293 (e) any of the following located in the state and owned by a user of energy:

294 (i) a demand side management measure, as defined by Subsection 54-7-12.8(1), with  
295 the quantity of renewable energy certificates to which the user is entitled determined by the  
296 equivalent energy saved by the measure;

297 (ii) a solar thermal system that reduces the consumption of fossil fuels, with the  
298 quantity of renewable energy certificates to which the user is entitled determined by the  
299 equivalent kilowatt-hours saved, except to the extent the commission determines otherwise  
300 with respect to net-metered energy;

301 (iii) a solar photovoltaic system that reduces the consumption of fossil fuels with the  
302 quantity of renewable energy certificates to which the user is entitled determined by the total  
303 production of the system, except to the extent the commission determines otherwise with  
304 respect to net-metered energy;

305 (iv) a hydroelectric or geothermal facility with the quantity of renewable energy  
306 certificates to which the user is entitled determined by the total production of the facility,  
307 except to the extent the commission determines otherwise with respect to net-metered energy;

308 (v) a waste gas or waste heat capture or recovery system, other than from a combined  
309 cycle combustion turbine that does not use waste gas or waste heat, with the quantity of

310 renewable energy certificates to which the user is entitled determined by the total production  
311 of the system, except to the extent the commission determines otherwise with respect to  
312 net-metered energy; and

313 (vi) the station use of solar thermal energy, solar photovoltaic energy, hydroelectric  
314 energy, geothermal energy, waste gas, or waste heat capture and recovery.

315 (11) "Unbundled renewable energy certificate" means a renewable energy certificate  
316 associated with:

317 (a) qualifying electricity that is acquired by an electrical corporation or other person  
318 by trade, purchase, or other transfer without acquiring the electricity for which the certificate  
319 was issued; or

320 (b) activities listed in Subsection (10)(e).