

1 **RENEWABLE ENERGY SOURCE AMENDMENTS**

2 2010 GENERAL SESSION

3 STATE OF UTAH

4 **Chief Sponsor: Roger E. Barrus**

5 Senate Sponsor: J. Stuart Adams

7 **LONG TITLE**

8 **General Description:**

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

12 **Highlighted Provisions:**

13 This bill:

- 14 ▶ changes the definition of "renewable energy source" in Title 10, Chapter 19,
15 Municipal Electric Utility Carbon Emission Reduction Act, and Title 54, Chapter
16 17, Energy Resource Procurement Act, to include energy derived from municipal
17 solid waste; and
- 18 ▶ makes technical changes.

19 **Monies Appropriated in this Bill:**

20 None

21 **Other Special Clauses:**

22 None

23 **Utah Code Sections Affected:**

24 **AMENDS:**

25 **10-19-102**, as enacted by Laws of Utah 2008, Chapter 374

26 **54-17-601**, as enacted by Laws of Utah 2008, Chapter 374



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

29 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 purchased
35 in that calendar year from qualifying zero carbon emissions generation and qualifying carbon
36 sequestration generation;

37 (b) the amount of those kilowatt-hours attributable to electricity generated or purchased
38 in that calendar year from generation located within the geographic boundary of the Western
39 Electricity Coordinating Council that derives its energy from one or more of the following but
40 that does not satisfy the definition of a renewable energy source or that otherwise has not been
41 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 improve
50 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, or
82 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 under
107 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 improve
122 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 from
135 a certified low-impact hydroelectric facility, without regard to the date upon which the facility
136 becomes operational, if the facility is certified as a low-impact hydroelectric facility on or after
137 January 1, 1995, by a national certification organization;
- 138 (ii) geothermal energy if located within the state, without regard to the date upon which
139 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 the
145 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 of
165 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 purchased
181 in that calendar year from qualifying zero carbon emissions generation and qualifying carbon
182 sequestration generation;

183 (b) the amount of those kilowatt-hours attributable to electricity generated or purchased
184 in that calendar year from generation located within the geographic boundary of the Western
185 Electricity Coordinating Council that derives its energy from one or more of the following but
186 that does not satisfy the definition of a renewable energy source or that otherwise has not been
187 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 improve
196 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 54-17-603.

255 (10) "Renewable energy source" means:

256 (a) an electric generation facility or generation capability or upgrade that becomes

257 operational on or after January 1, 1995 that derives its energy from one or more of the
258 following:

259 (i) wind energy;

260 (ii) solar photovoltaic and solar thermal energy;

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

262 (iv) except for combustion of wood that has been treated with chemical preservatives

263 such as creosote, pentachlorophenol or chromated copper arsenate, biomass and biomass

264 byproducts, including:

265 (A) organic waste;

266 (B) forest or rangeland woody debris from harvesting or thinning conducted to improve

267 forest or rangeland ecological health and to reduce wildfire risk;

268 (C) agricultural residues;

269 (D) dedicated energy crops; and

270 (E) landfill gas or biogas produced from organic matter, wastewater, anaerobic

271 digesters, or municipal solid waste;

272 (v) geothermal energy located outside the state;

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

274 (vii) efficiency upgrades to a hydroelectric facility, without regard to the date upon

275 which the facility became operational, if the upgrades become operational on or after January

276 1, 1995; or
277 (viii) municipal solid waste;
278 (b) any of the following:
279 (i) up to 50 average megawatts of electricity per year per electrical corporation from a
280 certified low-impact hydroelectric facility, without regard to the date upon which the facility
281 becomes operational, if the facility is certified as a low-impact hydroelectric facility on or after
282 January 1, 1995, by a national certification organization;
283 (ii) geothermal energy if located within the state, without regard to the date upon which
284 the facility becomes operational; or
285 (iii) hydroelectric energy if located within the state, without regard to the date upon
286 which the facility becomes operational;
287 (c) hydrogen gas derived from any source of energy described in Subsection (10)(a) or
288 (b);
289 (d) if an electric generation facility employs multiple energy sources, that portion of the
290 electricity generated that is attributable to energy sources described in Subsections (10)(a)
291 through (c); and
292 (e) any of the following located in the state and owned by a user of energy:
293 (i) a demand side management measure, as defined by Subsection 54-7-12.8(1), with
294 the quantity of renewable energy certificates to which the user is entitled determined by the
295 equivalent energy saved by the measure;
296 (ii) a solar thermal system that reduces the consumption of fossil fuels, with the
297 quantity of renewable energy certificates to which the user is entitled determined by the
298 equivalent kilowatt-hours saved, except to the extent the commission determines otherwise
299 with respect to net-metered energy;
300 (iii) a solar photovoltaic system that reduces the consumption of fossil fuels with the
301 quantity of renewable energy certificates to which the user is entitled determined by the total
302 production of the system, except to the extent the commission determines otherwise with
303 respect to net-metered energy;
304 (iv) a hydroelectric or geothermal facility with the quantity of renewable energy
305 certificates to which the user is entitled determined by the total production of the facility,
306 except to the extent the commission determines otherwise with respect to net-metered energy;

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

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

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

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

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

Legislative Review Note
as of 1-20-10 1:11 PM

Office of Legislative Research and General Counsel

H.B. 228 - Renewable Energy Source Amendments

Fiscal Note

2010 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.
