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RENEWABLE ENERGY - METHANE GAS

2010 GENERAL SESSION

STATE OF UTAH

Chief Sponsor: Christine F. Watkins

Senate Sponsor: David P. Hinkins

LONG TITLE

General Description:

This bill addresses the treatment of electrical energy derived from certain methane gas as a renewable energy source under Title 10, Chapter 19, Municipal Electric Utility Carbon Emission Reduction Act, and Title 54, Chapter 17, Energy Resource Procurement Act.

Highlighted Provisions:

This bill:

- ▶ provides that electrical energy derived from methane gas from certain coal mine facilities is among the types of waste gases considered as a renewable energy source under Title 10, Chapter 19, Municipal Electric Utility Carbon Emission Reduction Act, and Title 54, Chapter 17, Energy Resource Procurement Act; 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:

10-19-102. Definitions.

As used in this chapter:

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

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

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

(i) wind energy;

(ii) solar photovoltaic and solar thermal energy;

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

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

(A) organic waste;

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

(C) agricultural residues;

(D) dedicated energy crops; and

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

(v) geothermal energy;

(vi) hydro-electric energy; or

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

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

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

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

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

73 (b) carried forward into a subsequent year.

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

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

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

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

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

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

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

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

90 geological sequestration or through other verifiably permanent reductions in carbon dioxide
91 emissions through the use of technology.

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

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

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

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

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

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

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

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

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

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

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

111 (11) "Renewable energy source" means:

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

115 (i) wind energy;

116 (ii) solar photovoltaic and solar thermal energy;

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

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

- 121 (A) organic waste;
- 122 (B) forest or rangeland woody debris from harvesting or thinning conducted to improve
123 forest or rangeland ecological health and to reduce wildfire risk;
- 124 (C) agricultural residues;
- 125 (D) dedicated energy crops; and
- 126 (E) landfill gas or biogas produced from organic matter, wastewater, anaerobic
127 digesters, or municipal solid waste;
- 128 (v) geothermal energy located outside the state;
- 129 (vi) waste gas and waste heat capture or recovery~~[;or]~~ whether or not it is renewable,
130 including methane gas from:
- 131 (A) an abandoned ~~§~~→ [or-working] ←~~§~~ coal mine; or
- 132 (B) a coal degassing operation associated with a state-approved mine permit; or
- 133 (vii) efficiency upgrades to a hydroelectric facility, without regard to the date upon
134 which the facility became operational, if the upgrades become operational on or after January
135 1, 1995;
- 136 (b) any of the following:
- 137 (i) up to 50 average megawatts of electricity per year per municipal electric utility from
138 a certified low-impact hydroelectric facility, without regard to the date upon which the facility
139 becomes operational, if the facility is certified as a low-impact hydroelectric facility on or after
140 January 1, 1995, by a national certification organization;
- 141 (ii) geothermal energy if located within the state, without regard to the date upon which
142 the facility becomes operational; and
- 143 (iii) hydroelectric energy if located within the state, without regard to the date upon
144 which the facility becomes operational;
- 145 (c) hydrogen gas derived from any source of energy described in Subsection (11)(a) or
146 (b);
- 147 (d) if an electric generation facility employs multiple energy sources, that portion of the
148 electricity generated that is attributable to energy sources described in Subsections (11)(a)
149 through (c); and
- 150 (e) any of the following located in the state and owned by a user of energy:
- 151 (i) a demand side management measure, as defined by Subsection 54-7-12.8(1) with

152 the quantity of renewable energy certificates to which the user is entitled determined by the
153 equivalent energy saved by the measure;

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

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

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

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

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

172 (12) "Unbundled renewable energy certificate" means a renewable energy certificate
173 associated with:

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

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

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

179 **54-17-601. Definitions.**

180 As used in this part:

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

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

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

191 (i) wind energy;

192 (ii) solar photovoltaic and solar thermal energy;

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

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

197 (A) organic waste;

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

200 (C) agricultural residues;

201 (D) dedicated energy crops; and

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

204 (v) geothermal energy;

205 (vi) hydroelectric energy; or

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

207 (c) the number of kilowatt-hours attributable to reductions in retail sales in that
208 calendar year from demand side management as defined in Section 54-7-12.8, with the
209 kilowatt-hours for an electrical corporation whose rates are regulated by the commission and
210 adjusted by the commission to exclude kilowatt-hours for which a renewable energy certificate
211 is issued under Subsection 54-17-603(4)(b).

212 (2) "Amount of kilowatt-hours attributable to electricity generated or purchased in that
213 calendar year from qualifying carbon sequestration generation," for qualifying carbon

214 sequestration generation, means the kilowatt-hours supplied by a facility during the calendar
215 year multiplied by the ratio of the amount of carbon dioxide captured from the facility and
216 sequestered to the sum of the amount of carbon dioxide captured from the facility and
217 sequestered plus the amount of carbon dioxide emitted from the facility during the same
218 calendar year.

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

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

223 (b) carried forward into a subsequent year.

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

226 (a) by an electrical corporation by a trade, purchase, or other transfer of electricity that
227 includes the renewable energy attributes of, or certificate that is issued for, the electricity; or

228 (b) by an electrical corporation by generating the electricity for which the renewable
229 energy certificate is issued.

230 (5) "Electrical corporation":

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

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

233 (6) "Qualifying carbon sequestration generation" means a fossil-fueled generating
234 facility located within the geographic boundary of the Western Electricity Coordinating
235 Council that:

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

237 (b) reduces carbon dioxide emissions into the atmosphere through permanent
238 geological sequestration or through another verifiably permanent reduction in carbon dioxide
239 emissions through the use of technology.

240 (7) "Qualifying electricity" means electricity generated on or after January 1, 1995
241 from a renewable energy source if:

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

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

245 corporation or a delivery point designated by the electrical corporation for the purpose of
246 subsequent delivery to the electrical corporation; and

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

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

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

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

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

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

255 (c) does not include renewable energy sources used to satisfy the requirement
256 established under Subsection 54-17-602(1).

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

258 (10) "Renewable energy source" means:

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

262 (i) wind energy;

263 (ii) solar photovoltaic and solar thermal energy;

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

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

268 (A) organic waste;

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

271 (C) agricultural residues;

272 (D) dedicated energy crops; and

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

275 (v) geothermal energy located outside the state;

276 (vi) waste gas and waste heat capture or recovery[~~;~~~~or~~] whether or not it is renewable,
277 including methane gas from:

278 (A) an abandoned ~~§~~~~→~~ ~~[or-working]~~ ~~←~~~~§~~ coal mine; or

279 (B) a coal degassing operation associated with a state-approved mine permit; or

280 (vii) efficiency upgrades to a hydroelectric facility, without regard to the date upon
281 which the facility became operational, if the upgrades become operational on or after January
282 1, 1995;

283 (b) any of the following:

284 (i) up to 50 average megawatts of electricity per year per electrical corporation from a
285 certified low-impact hydroelectric facility, without regard to the date upon which the facility
286 becomes operational, if the facility is certified as a low-impact hydroelectric facility on or after
287 January 1, 1995, by a national certification organization;

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

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

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

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

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

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

301 (ii) a solar thermal 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
303 equivalent kilowatt-hours saved, except to the extent the commission determines otherwise
304 with respect to net-metered energy;

305 (iii) a solar photovoltaic system that reduces the consumption of fossil fuels with the
306 quantity of renewable energy certificates to which the user is entitled determined by the total

307 production of the system, except to the extent the commission determines otherwise with
308 respect to net-metered energy;

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

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

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

319 (11) "Unbundled renewable energy certificate" means a renewable energy certificate
320 associated with:

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

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

Legislative Review Note
as of 1-19-10 1:47 PM

Office of Legislative Research and General Counsel

H.B. 192 - Renewable Energy - Methane Gas

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.
