WEBVTT

1 00:00:02.980 --> 00:00:03.823 - We're all set.

2 00:00:05.160 --> 00:00:06.990 - Okay so, thanks Heidi.

3 00:00:06.990 --> 00:00:10.273 So, I'm Robert Dubrow, for those of you who don't know me.

4 00:00:11.255 --> 00:00:13.540 I'm co-chair of the School of Public Health

5 00:00:13.540 --> 00:00:16.060 Sustainability Committee that I co-chair

6 00:00:16.060 --> 00:00:18.160 that committee with Heidi.

7 00:00:18.160 --> 00:00:21.670 And this is a very informal gathering

8 00:00:21.670 --> 00:00:24.330 to provide the community with information

9 00:00:24.330 --> 00:00:26.533 about electric vehicles.

10 00:00:27.950 --> 00:00:30.420 So, just real briefly, and most of you

11 00:00:30.420 --> 00:00:34.920 probably know this already, but electric vehicles

12 00:00:34.920 --> 00:00:39.290 have very important environmental and climate advantages.

13 00:00:39.290 --> 00:00:43.203 First of all in use they are zero emissions,

14 00:00:44.940 --> 00:00:48.296 but secondly, if they're charged with electricity

15 00:00:48.296 --> 00:00:51.500 that's generated from renewable energy

16 00:00:51.500 --> 00:00:54.533 then they're truly zero emissions,

17 00:00:55.610 --> 00:01:00.040 whereby they're not generating greenhouse gas emissions

18 00:01:00.040 --> 00:01:02.223 in any way.

19 00:01:03.868 --> 00:01:05.790 And in fact, most of you have probably heard

20 00:01:05.790 --> 00:01:10.790 that the state of California now has a policy

21 00:01:11.300 --> 00:01:15.920 that starting in 2035, it will be illegal

22 00:01:15.920 --> 00:01:20.616 to sell an internal combustion engine

23 00:01:20.616 --> 00:01:23.200 vehicle in California.

24 00:01:23.200 --> 00:01:25.990 So, they all will have to be electric vehicles.

25 00:01:25.990 --> 00:01:27.300 Sorry, those are new vehicles.

26 00:01:27.300 --> 00:01:29.233 Used vehicles will still be permitted.

27 00:01:30.770 --> 00:01:35.770 So, today we have panelists who own electric vehicles.

28 00:01:38.280 --> 00:01:43.280 The panelists are me, Paul Cleary, Denise Meyer,

29 00:01:48.870 --> 00:01:51.850 Dean Stanvermund and I'm looking

30 00:01:51.850 --> 00:01:53.580 to see if Cassidy made it.

31 00:01:53.580 --> 00:01:55.660 Cassidy said she wasn't feeling well this morning

32 00:01:55.660 --> 00:01:57.063 so she may not have made it.

33 00:01:58.350 --> 00:02:01.360 Okay, so I guess there are, we have four panelists.

34 00:02:01.360 --> 00:02:04.720 And so, some of the issues you probably

35 00:02:04.720 --> 00:02:08.180 wanna hear about are things like,

36 00:02:08.180 --> 00:02:09.600 what's it like to drive?

37 00:02:09.600 --> 00:02:10.460 Is it different?

38 00:02:10.460 --> 00:02:11.840 How convenient is it?

39 00:02:11.840 --> 00:02:15.060 What's the cost compared to a conventional

40 00:02:15.060 --> 00:02:16.623 gasoline powered vehicle?

41 00:02:17.760 --> 00:02:19.560 How about maintenance?

42 00:02:19.560 --> 00:02:22.980 Issues like that, and so I thought we could start

43 00:02:22.980 --> 00:02:26.240 just by going around to the panelists

44 00:02:26.240 --> 00:02:28.170 and having you just comment on whatever

45 00:02:28.170 --> 00:02:31.410 you think you'd like to say

46 00:02:31.410 --> 00:02:35.240 about your experience of driving an electric vehicle.

47 00:02:35.240 --> 00:02:38.683 So maybe we could start with Paul Cleary.

48 00:02:41.388 --> 00:02:43.970 - Okay, those are good, first of all,

49 00:02:43.970 --> 00:02:44.803 thanks for organizing this.

50 00:02:44.803 --> 00:02:47.020 Those are good topics.

51 00:02:47.020 --> 00:02:51.590 I would say the question I get asked most often

52 00:02:51.590 --> 00:02:53.616 is the convenience.

53 00:02:53.616 --> 00:02:56.510 I own a Tesla and so, the performance

54 00:02:56.510 --> 00:02:59.010 is as good or better than any car

55 00:02:59.010 --> 00:03:00.610 I've ever owned.

56 00:03:00.610 --> 00:03:01.860 So that's not an issue.

57 00:03:01.860 --> 00:03:04.590 But the question comes up, is it a hassle?

58 00:03:04.590 --> 00:03:06.210 How convenient it is?

59 00:03:06.210 --> 00:03:10.900 My car has about a 270 mile range

60 00:03:12.640 --> 00:03:13.610 and I've learned that you have

61 00:03:13.610 --> 00:03:15.040 to think about it a little,

62 00:03:15.040 --> 00:03:19.190 but less and less as charging stations become available.

63 00:03:19.190 --> 00:03:21.410 Tesla has supercharging stations

64 00:03:21.410 --> 00:03:24.850 and then there's stations really all over.

65 00:03:24.850 --> 00:03:28.160 For example, when I take my car

66 00:03:28.160 --> 00:03:30.470 there's a charging station at the airport

67 00:03:30.470 --> 00:03:31.840 which they charge for free.

68 00:03:31.840 --> 00:03:36.020 If I go on the train there's a charging station

69 00:03:36.020 --> 00:03:38.220 in the New Haven train station.

70 00:03:38.220 --> 00:03:40.650 There's one at my grocery store, which is Bishop's.

71 00:03:40.650 --> 00:03:42.770 There's one at the garden center.

72 00:03:42.770 --> 00:03:46.800 There's even one at the local brewery in Bradford.

73 00:03:46.800 --> 00:03:51.800 And increasingly there are charging stations

74 00:03:52.400 --> 00:03:54.250 throughout the country.

75 00:03:54.250 --> 00:03:57.300 So, Tesla is every, almost every month

76 00:03:57.300 --> 00:04:00.140 expanding the number of stations

77 00:04:00.140 --> 00:04:03.320 and for example, I just checked on my phone

78 00:04:03.320 --> 00:04:06.860 before we started, I have like four different apps,

79 00:04:06.860 --> 00:04:09.590 the car washes list where the charging stations are.

80 00:04:09.590 --> 00:04:14.590 There's an app called Flex Share, Charge Hub

81 00:04:16.390 --> 00:04:18.500 and Connect, all of them if you click on them

82 00:04:18.500 --> 00:04:20.990 they'll tell you where charging stations

83 00:04:20.990 --> 00:04:24.310 with different capacity and so on are.

84 00:04:24.310 --> 00:04:28.670 And I would say I've never had to do much more

85 00:04:28.670 --> 00:04:32.736 than just be aware of it except a couple years ago

86 00:04:32.736 --> 00:04:34.350 whenever I was skiing in New Hampshire

87 00:04:34.350 --> 00:04:36.100 I got sort of on the end of my charge

88 00:04:36.100 --> 00:04:37.330 and had a little bit difficulty.

89 00:04:37.330 --> 00:04:40.610 But they're adding charge stations in those areas.

90 00:04:40.610 --> 00:04:43.760 My neighbor, Erol Frickrick, has driven

91 00:04:43.760 --> 00:04:46.330 to the DC area and back without any issues.

92 00:04:46.330 --> 00:04:50.207 So, it's really quite convenient.

93 00:04:50.207 --> 00:04:55.207 Because of the way the cars are run

94 00:04:55.440 --> 00:04:58.110 there's almost no maintenance in my car.

95 00:04:58.110 --> 00:04:59.290 You don't have any fluids.

96 00:04:59.290 --> 00:05:01.360 You don't have, except for brakes,

97 00:05:01.360 --> 00:05:05.480 a lot of the mechanical issues are obviated.

98 00:05:05.480 --> 00:05:08.046 So, I've had a couple little things

99 00:05:08.046 --> 00:05:11.070 to take care of, like the door sticking and so on.

100 00:05:11.070 --> 00:05:15.300 But, there're many fewer maintenance issues

101 00:05:15.300 --> 00:05:20.050 and the cost, to be honest, I haven't gone

102 00:05:20.050 --> 00:05:22.620 into the sharp pencil part of it.

103 00:05:22.620 --> 00:05:27.610 People claim that it is cheaper than electricity.

104 00:05:27.610 --> 00:05:30.010 When I lived in Bradford I put in solar panels,

105 00:05:30.010 --> 00:05:32.770 so it was, basically I was charging my car

106 00:05:32.770 --> 00:05:35.880 from the sun, so I wasn't using

107 00:05:35.880 --> 00:05:40.880 the non-renewable resources that have to use,

108 00:05:42.380 --> 00:05:44.050 that are used to run power plants.

109 00:05:44.050 --> 00:05:47.120 So I would say on those issues that you raised,

110 00:05:47.120 --> 00:05:48.400 the cost is less.

111 00:05:48.400 --> 00:05:52.610 The convenience is, I have to think about it a little bit,

112 00:05:52.610 --> 00:05:54.830 but I would say it's become almost seamless.

113 00:05:54.830 --> 00:05:56.260 I plug in the car every night,

114 00:05:56.260 --> 00:05:57.850 I get up and I go and I've never,

115 00:05:57.850 --> 00:06:00.100 with maybe one or two exceptions

116 00:06:00.100 --> 00:06:02.520 a couple years ago on long trips,

117 00:06:02.520 --> 00:06:04.160 I've never had any issues

118 00:06:04.160 --> 00:06:05.508 with getting charged.

119 00:06:05.508 --> 00:06:08.623 Tesla has this thing called super chargers.

120 00:06:09.470 --> 00:06:13.240 So well, I can go to Hartford Airport and back

121 00:06:14.210 --> 00:06:16.160 without charging, but if I'm going

122 00:06:16.160 --> 00:06:19.730 to go somewhere in New York and it's

123 00:06:19.730 --> 00:06:22.820 a little bit longer and at super charger station

124 00:06:22.820 --> 00:06:25.090 I can charge 80% of the car in 20 minutes.

125 00:06:25.090 --> 00:06:27.230 So, I stop, get a cup of coffee or get

126 00:06:27.230 --> 00:06:29.507 something to eat, come back out

127 00:06:29.507 --> 00:06:31.210 and the car's charged and ready to go.

128 00:06:31.210 --> 00:06:35.830 So I'm just absolutely ecstatic about it and pleased

129 00:06:35.830 --> 00:06:37.480 and I think it's very functional.

130 00:06:37.480 --> 00:06:40.513 I'll stop to see if anyone has any questions.

131 00:06:45.760 --> 00:06:47.850 - [Questioner] Yeah Brian, I have a question.

132 00:06:47.850 --> 00:06:51.640 Do you ever find that these charging stations are filled up

133 00:06:51.640 --> 00:06:53.880 with other people trying to charge up

134 00:06:53.880 --> 00:06:57.310 and you don't have access to one of 'em?

135 00:06:57.310 --> 00:07:00.472 - I would say, I would say a year ago

136 00:07:00.472 --> 00:07:02.070 I would say that has never happened.

137 00:07:02.070 --> 00:07:04.910 As people get interested in it, it has.

138 00:07:04.910 --> 00:07:07.470 So for example, it used to be you'd go

139 00:07:07.470 --> 00:07:09.990 to the train station and you get free charging.

140 00:07:09.990 --> 00:07:13.690 The charging station was down on the ground floor,

141 00:07:13.690 --> 00:07:15.290 which was the closest spot and there

142 00:07:15.290 --> 00:07:16.653 was never anyone there.

143 00:07:17.560 --> 00:07:19.910 Once or twice or three times recently

144 00:07:19.910 --> 00:07:22.983 when I've gone to the train station it's been full,

145 00:07:22.983 --> 00:07:24.973 which to me is a good thing.

146 00:07:25.850 --> 00:07:29.720 On the other hand, the apps will tell you

147 00:07:29.720 --> 00:07:32.240 whether or not there're spots available or not.

148 00:07:32.240 --> 00:07:35.480 So, it used to be go to a Tesla station

149 00:07:35.480 --> 00:07:36.430 and there'd be no cars.

150 00:07:36.430 --> 00:07:40.140 Now you go and I would say once or twice

151 00:07:40.140 --> 00:07:41.740 I haven't been able to get in and I had

152 00:07:41.740 --> 00:07:44.110 to go get a cup of coffee and wait or something.

153 00:07:44.110 --> 00:07:48.840 But it's being compensated for by the proliferation

154 00:07:48.840 --> 00:07:50.133 of charging stations.

155 00:07:52.560 --> 00:07:54.055 - I have one quick question.

156 00:07:54.055 --> 00:07:56.112 - Go ahead Brian.

157 00:07:56.112 --> 00:07:59.470 - I'm just wondering if like I have always heard this

158 00:07:59.470 --> 00:08:03.950 about electric cars, and other batteries as well,

159 00:08:03.950 --> 00:08:08.050 like over time does the capacity diminish?

160 00:08:08.050 --> 00:08:12.622 Like your 270 miles, a year ago was it 290

161 00:08:12.622 --> 00:08:14.690 and then a year from now, will it be 250,

162 00:08:14.690 --> 00:08:17.033 or does that not so much happen any more?

163 00:08:18.980 --> 00:08:22.110 - The answer is certainly yes,

164 00:08:22.110 --> 00:08:24.360 with the caveat that we don't really know.

165 00:08:24.360 --> 00:08:27.970 And what I mean by that, one thing I didn't mention is

166 00:08:27.970 --> 00:08:30.570 the capacity goes down dramatically in cold weather.

167 00:08:31.700 --> 00:08:33.440 So, of the times I've had the trouble,

168 00:08:33.440 --> 00:08:35.430 as I said, I went to New Hampshire skiing

169 00:08:35.430 --> 00:08:37.070 and it was nighttime, it was cold,

170 00:08:37.070 --> 00:08:39.390 the heater was on and the batteries

171 00:08:39.390 --> 00:08:40.700 just don't perform as well.

172 00:08:40.700 --> 00:08:42.980 So, that's one factor.

173 00:08:42.980 --> 00:08:45.410 My car has gone down, you know, it used to be,

174 00:08:45.410 --> 00:08:47.680 when I got it it was like 274.

175 00:08:47.680 --> 00:08:50.900 Now it's like 268 or something.

176 00:08:50.900 --> 00:08:52.480 My car is like four or five years old.

177 00:08:52.480 --> 00:08:57.480 But, I don't think we really know how fast

178 00:08:57.630 --> 00:09:01.520 or how far the Tesla batteries deteriorate,

179 00:09:01.520 --> 00:09:04.260 but any battery does.

180 00:09:04.260 --> 00:09:06.120 That's almost certainly going to happen,

181 00:09:06.120 --> 00:09:07.900 but I don't think we have, others may have

182 00:09:07.900 --> 00:09:12.900 different experiences, but I'm at like 268 or something.

183 00:09:13.340 --> 00:09:17.550 You can start to see it ebb away, but we don't know,

184 00:09:17.550 --> 00:09:19.205 if I keep the car 10 years,

185 00:09:19.205 --> 00:09:22.900 we don't know yet, I don't think.

186 00:09:22.900 --> 00:09:24.800 Others may have different experiences.

187 00:09:25.868 --> 00:09:29.536 - I'd like to chime in, can you hear me?

188 00:09:29.536 --> 00:09:34.536 So, we've had a 2000.

189 00:09:34.590 --> 00:09:36.310 - I can barely hear you, Stan.

190 00:09:36.310 --> 00:09:37.143 - Oh, I'm sorry.

191 00:09:47.360 --> 00:09:48.193 Is that better.

192 00:09:48.193 --> 00:09:49.313 - No, can't hear you at all.

193 00:09:51.937 --> 00:09:53.900 No, when you had the headphones on

194 00:09:53.900 --> 00:09:55.393 we could at least hear you.

195 00:10:02.306 --> 00:10:03.806 - Is that working?

196 00:10:08.320 --> 00:10:10.593 - We can barely hear you.

197 00:10:16.240 --> 00:10:17.723 - It's not working.

198 00:10:20.335 --> 00:10:24.773 It's not working.

199 00:10:27.690 --> 00:10:28.523 - No.

200 00:10:31.380 --> 00:10:33.360 It's getting a little better.

201 00:10:33.360 --> 00:10:35.700 - Okay, if you can hear me I'll just speak up.

202 00:10:35.700 --> 00:10:38.043 Can you hear me okay now?

203 00:10:38.930 --> 00:10:39.763 - Yes, much better.

204 00:10:39.763 --> 00:10:41.199 - Okay, I'm sorry about that.

205 00:10:41.199 --> 00:10:46.199 I am still trying to figure out

206 00:10:46.340 --> 00:10:47.390 this new headphones.

207 00:10:47.390 --> 00:10:52.390 But, we had a 2002 Prius and nobody knew

208 00:10:57.690 --> 00:10:59.980 how long the batteries were going to last

209 00:11:01.600 --> 00:11:04.720 and I gave that car away this year

210 00:11:06.487 --> 00:11:11.040 mostly because it needed a catalytic converter

211 00:11:11.040 --> 00:11:14.680 and a bunch of other, needed about $1800

212 00:11:14.680 --> 00:11:17.630 worth of non-battery related upgrades

213 00:11:17.630 --> 00:11:20.130 and I just, I wanted to buy an electric car,

214 00:11:20.130 --> 00:11:24.268 so I gave it to a friend who's an amateur

215 00:11:24.268 --> 00:11:27.250 car repair guy.

216 00:11:27.250 --> 00:11:32.120 So, we had predictions that the most it would last,

217 00:11:35.030 --> 00:11:37.250 this battery would be 100,000 miles

218 00:11:37.250 --> 00:11:40.600 and when I gave it away it was 130,000 miles.

219 00:11:40.600 --> 00:11:43.677 There was a slight diminishing

220 00:11:43.677 --> 00:11:48.677 in performance in the car,

221 00:11:49.480 --> 00:11:51.810 not so much that I could really notice it,

222 00:11:51.810 --> 00:11:56.000 but the folks at the Toyota dealership told me.

223 00:11:56.000 --> 00:11:59.640 And I do believe that it's unknown,

224 00:11:59.640 --> 00:12:04.640 just as Paul said, the extent to which these new era

225 00:12:05.390 --> 00:12:08.823 batteries in electric cars, as opposed to hybrid cars,

226 00:12:09.850 --> 00:12:13.710 will last, but I have to say, I'm terribly optimistic

227 00:12:13.710 --> 00:12:18.710 because all of the predictions of prior era

228 00:12:18.730 --> 00:12:22.840 technology since 2002 is a long time ago

229 00:12:22.840 --> 00:12:24.520 in the battery field.

230 00:12:24.520 --> 00:12:26.550 All of the dire predictions that they would

231 00:12:26.550 --> 00:12:29.710 only last five, 10 years were completely wrong.

232 00:12:29.710 --> 00:12:33.090 And so, I'm pretty optimistic that this

233 00:12:33.090 --> 00:12:37.300 new technology are going to be long acting batteries,

234 00:12:41.170 --> 00:12:44.343 shall we say, the EverReady Bunny.

235 00:12:46.308 --> 00:12:49.060 - I have one comment I think is pertinent to this

236 00:12:49.060 --> 00:12:52.053 and then I'd like to turn it over to Denise.

237 00:12:53.060 --> 00:12:55.713 So, we decided, we bought our,

238 00:12:56.850 --> 00:12:59.080 we got our electric vehicle, which is

239 00:12:59.080 --> 00:13:03.400 a Chevy Bolt, at the beginning of 2020

240 00:13:03.400 --> 00:13:06.890 and we decided to do a three year lease

241 00:13:08.160 --> 00:13:11.580 because the reason is that I'm predicting

242 00:13:11.580 --> 00:13:14.530 that battery technology has been improving

243 00:13:14.530 --> 00:13:17.260 and I think it's gonna keep improving.

244 00:13:17.260 --> 00:13:21.333 So I didn't wanna kind of lock in for the longer term.

245 00:13:22.760 --> 00:13:25.643 And so, that's kind of one approach to this.

246 00:13:26.533 --> 00:13:29.890 For one thing, in three years I don't think

247 00:13:31.280 --> 00:13:33.630 deterioration of the battery performance

248 00:13:33.630 --> 00:13:35.940 is gonna be an issue over just three years.

249 00:13:35.940 --> 00:13:40.370 And secondly, my guess, my prediction is that the range

250 00:13:40.370 --> 00:13:45.370 is gonna keep improving so that if two or three

251 00:13:46.010 --> 00:13:48.860 years from now, the range, the typical range

252 00:13:48.860 --> 00:13:53.303 might be 350 miles instead of 250, let's say.

253 00:13:56.390 --> 00:13:57.510 So anyway, that was one comment.

254 00:13:57.510 --> 00:13:59.970 So now, let me turn it over to Denise

255 00:13:59.970 --> 00:14:00.987 and you can talk about it.

256 00:14:00.987 --> 00:14:03.200 Why don't you say what kind of car you own

257 00:14:03.200 --> 00:14:04.813 and talk about your experience?

258 00:14:05.790 --> 00:14:10.220 - So, I came in on more of a budget plan.

259 00:14:10.220 --> 00:14:15.220 I have a 2016 C-Max which was put out by Ford.

260 00:14:15.440 --> 00:14:17.410 I think they've discontinued the model.

261 00:14:17.410 --> 00:14:19.310 It is a plug-in hybrid.

262 00:14:19.310 --> 00:14:22.920 So, it's plug-in electric and gas engine.

263 00:14:22.920 --> 00:14:26.210 So it's much smaller battery capacity,

264 00:14:26.210 --> 00:14:29.750 but I can go without stops and starts,

265 00:14:29.750 --> 00:14:33.518 I can go 23, 24 miles on pure battery.

266 00:14:33.518 --> 00:14:36.600 If I am doing errands around town

267 00:14:36.600 --> 00:14:38.270 and stopping and starting the car

268 00:14:38.270 --> 00:14:39.870 I'll get more like 18 'cause that's

269 00:14:39.870 --> 00:14:41.343 a bigger pull on the battery.

270 00:14:42.490 --> 00:14:45.790 What I discovered is 90% of my driving

271 00:14:45.790 --> 00:14:49.548 is very local and so my gas costs went way down

272 00:14:49.548 --> 00:14:54.548 and I did the math about three years ago,

273 00:14:54.770 --> 00:14:57.760 I'm not entirely sure that I did it right,

274 00:14:57.760 --> 00:15:01.740 but my calculations was it was like 60 cents

275 00:15:01.740 --> 00:15:06.740 at that point to charge for 24 miles

276 00:15:08.220 --> 00:15:12.850 as opposed to, at that time, $3 for a gallon of gas.

277 00:15:12.850 --> 00:15:17.850 So, I also discovered that 90% of my driving

278 00:15:18.420 --> 00:15:22.463 is very local, so I buy very little gas.

279 00:15:24.140 --> 00:15:29.130 My charging experiences have not been as rosy as Paul's.

280 00:15:29.130 --> 00:15:33.147 Yeah lots, there are very few charging stations.
281 00:15:33.147 --> 00:15:37.970 When I was carpooling I could get one way
282 00:15:37.970 --> 00:15:40.690 on battery, but I couldn't get back,
283 00:15:40.690 --> 00:15:43.433 very few charging stations in New Haven.
284 00:15:44.360 --> 00:15:46.410 Guildford Train Station does not have one.
285 00:15:46.410 --> 00:15:48.920 Milford has one, or has two, but one
286 00:15:48.920 --> 00:15:52.090 is usually broken and they're not
287 00:15:52.090 --> 00:15:53.833 real good about maintaining them.
288 00:15:54.690 --> 00:15:56.960 There's really only a couple in Guildford,
289 00:15:56.960 --> 00:15:59.870 so when I'm home and it's in the garage
290 00:16:03.481 --> 00:16:05.140 it's great, but it takes a little more planning
291 00:16:05.140 --> 00:16:07.950 I think, depending on where you are
292 00:16:07.950 --> 00:16:09.470 and what you're doing.
293 00:16:09.470 --> 00:16:11.900 The Ford doesn't have that super charge,
294 00:16:11.900 --> 00:16:15.560 but again, the technology is changing so fast
295 00:16:15.560 --> 00:16:18.890 that I probably, my next car, which hopefully
296 00:16:18.890 --> 00:16:21.010 won't be for another five or six years,
297 00:16:21.010 --> 00:16:22.640 will probably be all electric
298 00:16:22.640 --> 00:16:24.800 and I'm hoping that infrastructure is better.
299 00:16:24.800 --> 00:16:28.811 But, as a point of entry into a technology,
300 00:16:28.811 --> 00:16:31.580 I love the C-Max.
301 00:16:31.580 --> 00:16:34.700 As Paul said, without the combustion engine,
302 00:16:34.700 --> 00:16:37.223 the maintenance costs are much lower.
303 00:16:39.670 --> 00:16:42.390 There's just, you don't have to have
304 00:16:42.390 --> 00:16:44.190 all those oil changes and all those
305 00:16:44.190 --> 00:16:45.620 other routine things.
306 00:16:45.620 --> 00:16:49.610 So, and it's a really nice plus,
307 00:16:49.610 --> 00:16:53.340 it's a quiet car when it's on battery.
308 00:16:53.340 --> 00:16:54.453 It's a quiet ride.
309 00:16:57.010 --> 00:16:59.160 - I have a question about charging at home.
310 00:17:01.410 --> 00:17:02.600 Home charging.

311 00:17:02.600 --> 00:17:04.240 That's available I know for Tesla.

312 00:17:04.240 --> 00:17:07.210 I'm not sure for others, but you do have

313 00:17:07.210 --> 00:17:10.660 to get a special device to charge it from your home, no?

314 00:17:10.660 --> 00:17:14.070 - On my Ford I didn't have a 220 outlet,

315 00:17:14.070 --> 00:17:16.553 so I just go into a regular 120.

316 00:17:17.452 --> 00:17:20.420 I've just put in a 220, so I can buy

317 00:17:20.420 --> 00:17:22.470 a new adapter and do that if I want.

318 00:17:22.470 --> 00:17:25.040 But, it takes six hours on a 120

319 00:17:25.040 --> 00:17:26.620 to charge for that 20 miles.

320 00:17:26.620 --> 00:17:27.673 So, it's you know.

321 00:17:28.652 --> 00:17:32.490 - When you do that do your lights dim in your house?

322 00:17:32.490 --> 00:17:33.323 - Nope.

323 00:17:33.323 --> 00:17:34.309 - Good.

324 00:17:34.309 --> 00:17:35.770 Thanks.

325 00:17:35.770 --> 00:17:38.100 - Paul, did you wanna say something?

326 00:17:38.100 --> 00:17:40.810 - I was just gonna comment on a couple things Denise said.

327 00:17:40.810 --> 00:17:44.840 First of all, since I'm purely electric

328 00:17:44.840 --> 00:17:48.060 I would find it impractical to do the 115.

329 00:17:48.060 --> 00:17:51.407 It would just take a day or two to charge it up.

330 00:17:51.407 --> 00:17:55.310 So, we put in 220, but I think as Daniel just noted

331 00:17:55.310 --> 00:17:57.520 it's not a big deal.

332 00:17:57.520 --> 00:18:00.124 You just run a 220, you probably have it on your dryer

333 00:18:00.124 --> 00:18:02.700 or appliance, you just put, I just put a plug

334 00:18:02.700 --> 00:18:06.180 in the garage and charged it.

335 00:18:06.180 --> 00:18:09.290 But, to Denise's first point, what her typical

336 00:18:09.290 --> 00:18:10.680 driving is, when I was buying my car

337 00:18:10.680 --> 00:18:12.084 I was going, well, what if do this

338 00:18:12.084 --> 00:18:14.020 and what if I go to Washington

339 00:18:14.020 --> 00:18:14.853 and what if I do this?

340 00:18:14.853 --> 00:18:17.580 And he says look, why don't you tell me

341 00:18:17.580 --> 00:18:20.483 what you do in a typical week or month.

342 00:18:21.450 --> 00:18:24.300 And when I did that it was quite instructive

343 00:18:24.300 --> 00:18:27.960 'cause the reality is well, I go to work every day,

344 00:18:27.960 --> 00:18:30.750 so I didn't need to, I don't need to charge at work.

345 00:18:30.750 --> 00:18:32.640 I charge at home.

346 00:18:32.640 --> 00:18:34.394 I go to the airport, used to go to the airport

347 00:18:34.394 --> 00:18:38.370 three, four times a month, but I could go there and back.

348 00:18:38.370 --> 00:18:40.830 And it's instructive.

349 00:18:40.830 --> 00:18:42.364 I think anyone on the call should just write down

350 00:18:42.364 --> 00:18:45.890 what you do with a vehicle in the course of a month.

351 00:18:45.890 --> 00:18:49.996 My guess is, it's like Denise, it's much more local

352 00:18:49.996 --> 00:18:53.652 than one worries about when you're saying,

353 00:18:53.652 --> 00:18:56.610 what's the boundary condition of the car.

354 00:18:56.610 --> 00:19:00.480 Your typical use is usually much lower.

355 00:19:00.480 --> 00:19:05.480 I never used actually the charge at the local grocer

356 00:19:07.590 --> 00:19:10.084 or the garden center and stuff, 'cause I just

357 00:19:10.084 --> 00:19:13.070 go out and do the things I do, go to work,

358 00:19:13.070 --> 00:19:14.600 come back, I don't go to work anymore,

359 00:19:14.600 --> 00:19:16.860 but used to go to the office and come back,

360 00:19:16.860 --> 00:19:18.920 just charge it at home.

361 00:19:18.920 --> 00:19:21.440 And the only time I really would charge

362 00:19:21.440 --> 00:19:23.670 it in the train station mainly 'cause it was free

363 00:19:23.670 --> 00:19:24.510 and it was kinda cool.

364 00:19:24.510 --> 00:19:25.560 I'd go to New York for the day

365 00:19:25.560 --> 00:19:27.050 and come back with a charged car.

366 00:19:27.050 --> 00:19:29.730 But, most of the things you can do

367 00:19:29.730 --> 00:19:32.483 in very limited radius as Denise indicated.

368 00:19:33.730 --> 00:19:35.284 - Yeah, just to build on that.

369 00:19:35.284 --> 00:19:38.510 As I said, we've owned the car since

370 00:19:38.510 --> 00:19:40.720 the beginning of 2020 and of course,

371 00:19:40.720 --> 00:19:44.700 it's been special circumstances, but we've never

372 00:19:44.700 --> 00:19:46.220 used an outside charger.

373 00:19:46.220 --> 00:19:47.970 We've only charged at home.

374 00:19:47.970 --> 00:19:52.970 And the range is about 240 miles on the Chevy Bolt.

375 00:19:55.200 --> 00:19:59.233 And so, actually we never have taken a trip,

376 00:19:59.233 --> 00:20:02.870 that round trip has been more than 240 miles,

377 00:20:02.870 --> 00:20:04.571 except for one time.

378 00:20:04.571 --> 00:20:07.088 We traveled to Burlington, Vermont

379 00:20:07.088 --> 00:20:10.710 and in that case we decided the easiest thing,

380 00:20:10.710 --> 00:20:14.704 simplest, which is about 275 miles one way

381 00:20:14.704 --> 00:20:16.740 and we decided the easiest thing to do

382 00:20:16.740 --> 00:20:19.340 would be to rent the car, conventional car.

383 00:20:19.340 --> 00:20:22.004 So, that's what we did.

384 00:20:22.004 --> 00:20:26.310 I think a disadvantage of the Bold compared to Tesla

385 00:20:26.310 --> 00:20:30.510 is that, Paul, correct me if I'm wrong,

386 00:20:30.510 --> 00:20:34.310 but I believe those super charger charging stations

387 00:20:34.310 --> 00:20:35.510 are Tesla specific.

388 00:20:35.510 --> 00:20:36.910 Do you know if that's the case?

389 00:20:36.910 --> 00:20:38.444 - Yeah, that's correct.

390 00:20:38.444 --> 00:20:40.040 They are, I don't know, they operate

391 00:20:40.040 --> 00:20:42.450 at something like 450 volts or something.

392 00:20:42.450 --> 00:20:44.870 Yeah, they're Tesla specific.

393 00:20:44.870 --> 00:20:48.920 - Yeah, the Bolt doesn't charge,

394 00:20:48.920 --> 00:20:52.220 have a charging station that charges that fast.

395 00:20:52.220 --> 00:20:55.084 So, that's what made it more kind of inconvenient

396 00:20:55.084 --> 00:20:59.570 to take a trip to Burlington because I believe

397 00:20:59.570 --> 00:21:02.500 the fastest, it's called a level three

398 00:21:02.500 --> 00:21:06.910 charging station, for the Bolt only does

399 00:21:06.910 --> 00:21:11.910 about 20 miles, only puts on about 20 miles an hour.

400 00:21:13.180 --> 00:21:15.760 So obviously, to fully charge it you'd have

401 00:21:15.760 --> 00:21:17.289 to do it overnight.

402 00:21:17.289 --> 00:21:20.660 So anyway, that is a disadvantage.

403 00:21:20.660 --> 00:21:22.550 But we actually decided up front

404 00:21:22.550 --> 00:21:24.520 that, and we did that calculation,

405 00:21:24.520 --> 00:21:28.560 like how often do we really travel very far.

406 00:21:28.560 --> 00:21:30.270 And the answer was we don't.

407 00:21:30.270 --> 00:21:32.024 And we decided we'd just rent a car

408 00:21:32.024 --> 00:21:34.900 when we needed to and we still save

409 00:21:34.900 --> 00:21:36.050 a lot of money I think.

410 00:21:37.572 --> 00:21:39.890 - I should add, when I got my car

411 00:21:39.890 --> 00:21:42.210 the super chargers were free.

412 00:21:42.210 --> 00:21:45.340 So, if I'm going to New York I stop in Milford,

413 00:21:45.340 --> 00:21:46.892 plug it in, get a cup of coffee

414 00:21:46.892 --> 00:21:50.023 or if I go to the train station it's free.

415 00:21:50.970 --> 00:21:53.570 They now charge and to be honest,

416 00:21:53.570 --> 00:21:54.403 I don't know what the charge is.

417 00:21:54.403 --> 00:21:56.674 So, if you buy a Tesla tomorrow morning

418 00:21:56.674 --> 00:22:00.684 there's a charge for using the super charger.

419 00:22:00.684 --> 00:22:02.460 It almost had to happen.

420 00:22:02.460 --> 00:22:03.930 I couldn't see how it was sustainable

421 00:22:03.930 --> 00:22:06.893 to have free charging to some people.

422 00:22:07.750 --> 00:22:09.850 They'll go just charge their car only

423 00:22:09.850 --> 00:22:12.064 at the super charger if they're near one.

424 00:22:12.064 --> 00:22:17.064 - They may give you a year of free charging, Paul.

425 00:22:18.193 --> 00:22:19.026 - Okay.

426 00:22:21.460 --> 00:22:23.350 - I wanna make one other comment and then see

427 00:22:23.350 --> 00:22:26.000 if Stan wants to talk specifically

428 00:22:26.000 --> 00:22:27.910 about your experiences.

429 00:22:27.910 --> 00:22:29.400 It was about up front cost.

430 00:22:29.400 --> 00:22:30.950 We haven't dealt with that yet.

431 00:22:31.870 --> 00:22:34.914 So I could just, I could talk about the Bolt,

432 00:22:34.914 --> 00:22:37.880 which I can say runs great.

433 00:22:37.880 --> 00:22:40.040 I love it's really quiet, as Denise

434 00:22:40.040 --> 00:22:41.670 was talking about.

435 00:22:41.670 --> 00:22:45.836 I love the quiet ride and it has really good pick up.

436 00:22:45.836 --> 00:22:50.830 I'd say it performs better than any gasoline

437 00:22:50.830 --> 00:22:52.333 powered car I've ever owned.

438 00:22:53.370 --> 00:22:56.492 But so, the cost, a new Bolt costs,

439 00:22:56.492 --> 00:22:58.250 well it depends on the features,

440 00:22:58.250 --> 00:23:03.237 but the average Bolt is roughly $38,000 to $40,000,

441 00:23:04.280 --> 00:23:09.280 and we got a deal kind of, we bought new 2019

442 00:23:10.820 --> 00:23:13.680 in early 2020, so they gave us a good deal.

443 00:23:13.680 --> 00:23:17.130 And so, for the lease, for the three year lease

444 00:23:17.130 --> 00:23:19.676 the total amount that we're paying over the three years

445 00:23:19.676 --> 00:23:23.424 is about $11,000.

446 00:23:23.424 --> 00:23:25.203 That's pretty good for three years.

447 00:23:26.680 --> 00:23:31.030 And so, I think some are more affordable than others,

448 00:23:31.030 --> 00:23:35.010 but EVs are becoming more and more affordable.

449 00:23:35.010 --> 00:23:36.820 So Stan, do you wanna talk a little bit

450 00:23:36.820 --> 00:23:37.920 about your experience?

451 00:23:39.420 --> 00:23:44.420 - My experience mimics Paul's almost exactly.

452 00:23:44.650 --> 00:23:48.360 In fact, Paul was an inspiration for our thinking

453 00:23:48.360 --> 00:23:51.620 about the electric vehicle 'cause we had owned

454 00:23:51.620 --> 00:23:56.200 exclusively owned, hybrid vehicles since 2002,

455 00:23:56.200 --> 00:23:57.820 all of our cars were hybrids.

456 00:23:57.820 --> 00:24:00.960 Out two sons, my wife and myself.

457 00:24:00.960 --> 00:24:03.596 And we really thought that wasn't enough

458 00:24:03.596 --> 00:24:07.940 given the circumstance of global warming

459 00:24:07.940 --> 00:24:12.210 and we looked at the plug-in hybrids

460 00:24:13.470 --> 00:24:16.440 and Denise did a great job reviewing

461 00:24:16.440 --> 00:24:20.084 the pluses there.

462 00:24:20.084 --> 00:24:22.790 You can do all of your local travel.

463 00:24:22.790 --> 00:24:25.350 Maybe you're commuting, all electric.

464 00:24:25.350 --> 00:24:27.330 And then, if you have to go to Burlington, Vermont

465 00:24:27.330 --> 00:24:29.040 you're in a hybrid.

466 00:24:29.040 --> 00:24:31.923 So, it's kinda the best of both worlds.

467 00:24:34.740 --> 00:24:39.740 Currently just out of philosophy

468 00:24:39.770 --> 00:24:43.460 because we went solar in our house

469 00:24:44.876 --> 00:24:48.403 and so we thought if we went solar in our cars.

470 00:24:49.392 --> 00:24:52.059 (garbled audio)

471 00:24:53.850 --> 00:24:56.720 So, that was the biggest gift for him we could make

472 00:24:57.920 --> 00:25:01.800 and since at this stage in my life

473 00:25:01.800 --> 00:25:04.320 finances are not the biggest challenge.

474 00:25:04.320 --> 00:25:08.280 I have the resources to go somewhere in my house

475 00:25:08.280 --> 00:25:11.250 and to buy an electric car, I thought

476 00:25:12.264 --> 00:25:13.920 it would be a good thing to do.

477 00:25:13.920 --> 00:25:18.600 And the experience with the car is absolutely remarkable.

478 00:25:18.600 --> 00:25:21.110 It's almost like a sports car.

479 00:25:21.110 --> 00:25:24.530 It's so lively and so responsive.

480 00:25:24.530 --> 00:25:27.120 It has so little maintenance attached to it.

481 00:25:27.120 --> 00:25:29.920 It really seemed like we were making a leap

482 00:25:29.920 --> 00:25:32.830 into a whole new advanced technology

483 00:25:32.830 --> 00:25:36.810 that is unambiguously the wave of the future

484 00:25:36.810 --> 00:25:40.100 and we were just dazzled at how mature

485 00:25:40.100 --> 00:25:42.063 that technology was already.

486 00:25:43.410 --> 00:25:47.900 The first time that we took it on a trip

487 00:25:47.900 --> 00:25:51.670 I had forgotten to plug it in and it was winter

488 00:25:51.670 --> 00:25:55.020 and my wife had a 6 a.m. flight to Puerto Rico

489 00:25:55.020 --> 00:25:58.280 and we stayed at the airport just for her convenience.

490 00:25:58.280 --> 00:26:00.090 And then I was driving to work to have

491 00:26:00.090 --> 00:26:05.090 my meeting with Heidi and I ran out of energy.

492 00:26:05.280 --> 00:26:08.163 It was somewhere around Wallingford,

493 00:26:09.420 --> 00:26:12.710 my car told me I was done.

494 00:26:12.710 --> 00:26:16.440 And I found on the web the nearest

495 00:26:16.440 --> 00:26:17.770 charging station, which happened

496 00:26:17.770 --> 00:26:19.897 to be a Choate School, for those of you

497 00:26:19.897 --> 00:26:21.690 who know where Choate is.

498 00:26:21.690 --> 00:26:24.299 So, I plugged in there for an hour

499 00:26:24.299 --> 00:26:26.890 and got enough to limp my way

500 00:26:26.890 --> 00:26:31.890 to the university and it was not a super charger,

501 00:26:33.030 --> 00:26:35.010 it was just a conventional charging.

502 00:26:35.010 --> 00:26:37.200 I had to figure out how to sign up

503 00:26:37.200 --> 00:26:42.040 and sync my credit card and just some pretty basic stuff.

504 00:26:42.040 --> 00:26:46.830 And I had my meeting with Heidi as I was pacing

505 00:26:46.830 --> 00:26:49.860 the Choate parking lot 'cause I called her instead.

506 00:26:49.860 --> 00:26:53.430 So, there was a humorous element to it.

507 00:26:53.430 --> 00:26:57.860 And then on my way home I barely had enough,

508 00:26:57.860 --> 00:27:00.110 so I stopped at a local Greek diner

509 00:27:00.110 --> 00:27:02.560 that has a Tesla plug-in.

510 00:27:02.560 --> 00:27:05.640 So it was that one untoward experience

511 00:27:05.640 --> 00:27:07.680 the very first week that we owned the car

512 00:27:07.680 --> 00:27:09.743 where I didn't know what I was doing.

513 00:27:10.770 --> 00:27:15.010 Beyond that, it's been a year of smooth sailing

514 00:27:15.010 --> 00:27:19.810 and really no problems at all, easy to find charger.

515 00:27:19.810 --> 00:27:22.570 It's easy to charge them up, super charger,

516 00:27:22.570 --> 00:27:24.490 as Paul said, 20 minutes.

517 00:27:24.490 --> 00:27:29.353 Conventional chargers, you can plug it in for an hour.

518 00:27:37.340 --> 00:27:38.710 - Thanks, Stan.

519 00:27:38.710 --> 00:27:40.270 Daniel, did you wanna say anything?

520 00:27:40.270 --> 00:27:42.623 You've posted a few comments.

521 00:27:45.353 --> 00:27:50.353 - Yeah, so I mean, I've had a Bolt for about three years.

522 00:27:52.870 --> 00:27:56.280 I put in some of the, here I was just writing

523 00:27:56.280 --> 00:27:59.420 another comment, road trips you do have

524 00:27:59.420 --> 00:28:01.163 to do some work ahead of time,

525 00:28:02.100 --> 00:28:05.160 but it's usually something you can figure out.

526 00:28:05.160 --> 00:28:08.380 Here, I'll just type in that comment I was gonna send.

527 00:28:08.380 --> 00:28:10.550 Other thing, let me just type it up

528 00:28:10.550 --> 00:28:12.240 'cause it'll be easier to write than to say,

529 00:28:12.240 --> 00:28:13.510 but I think people should think

530 00:28:13.510 --> 00:28:18.510 about their energy plans that they're using.

531 00:28:18.530 --> 00:28:21.623 So, let me put in the chat about that.

532 00:28:23.080 --> 00:28:23.913 - Okay thanks.

533 00:28:25.680 --> 00:28:29.440 One thing I wanted to say is it's really great

534 00:28:29.440 --> 00:28:32.328 never having to go to a gas station.

535 00:28:32.328 --> 00:28:36.100 I can't imagine ever attending a gas station

536 00:28:36.100 --> 00:28:41.100 again in my life or ever owning a gasoline powered vehicle.

537 00:28:41.480 --> 00:28:46.480 I mean, the EVs are just so much more fun to drive

538 00:28:46.660 --> 00:28:50.110 and more convenient in so many ways

539 00:28:50.110 --> 00:28:54.270 except you know, for the ranges if you have

540 00:28:54.270 --> 00:28:57.363 to go on a longer trip, at least for me in the Bolt.

541 00:29:00.100 --> 00:29:05.080 So, are there any questions, comments, concerns?

542 00:29:05.080 --> 00:29:07.840 Feel free to raise anything, any kind of issues

543 00:29:07.840 --> 00:29:08.676 that you'd like.

544 00:29:08.676 --> 00:29:11.087 - Denise had her hand up.

545 00:29:11.087 --> 00:29:12.028 - Okay.

546 00:29:12.028 --> 00:29:13.350 - I did.

547 00:29:13.350 --> 00:29:16.930 One advantage of my kinda hybrid was of course,

548 00:29:16.930 --> 00:29:17.940 I could go on a trip.

549 00:29:17.940 --> 00:29:21.760 And last year I actually drove to the south,

550 00:29:21.760 --> 00:29:26.000 to Alabama, and I think if you're going to travel

551 00:29:26.000 --> 00:29:28.850 to that part of the country you probably

552 00:29:28.850 --> 00:29:30.270 are gonna have a lot more problems

553 00:29:30.270 --> 00:29:31.893 than you did in the northeast.

554 00:29:32.870 --> 00:29:36.143 I did not see one charging station south of Pennsylvania.

555 00:29:39.088 --> 00:29:42.400 - I have a friend with a new electric car

556 00:29:42.400 --> 00:29:45.870 and he went from Tennessee to California

557 00:29:46.710 --> 00:29:49.650 and he managed it well, but only because he

558 00:29:49.650 --> 00:29:51.493 planned very carefully,

559 00:29:52.610 --> 00:29:55.670 for exactly the reason that Denise outlined.

560 00:29:55.670 --> 00:29:59.630 And he told me he barely made his planned

561 00:29:59.630 --> 00:30:02.148 charging station in Arkansas.

562 00:30:02.148 --> 00:30:05.930 You know, just made it with a few miles to spare,

563 00:30:05.930 --> 00:30:06.763 so to speak.

564 00:30:08.488 --> 00:30:11.930 And he just mapped it out and he just decided

565 00:30:11.930 --> 00:30:13.990 this is where I recharge and have dinner.

566 00:30:13.990 --> 00:30:16.400 This is where I recharge, et cetera.

567 00:30:16.400 --> 00:30:20.530 So, Denise is right that we are well endowed

568 00:30:20.530 --> 00:30:23.370 in the northeast and people should feel

569 00:30:23.370 --> 00:30:25.170 very comfortable getting an electric car

570 00:30:25.170 --> 00:30:27.108 in terms of the logistics of being able to charge

571 00:30:27.108 --> 00:30:29.110 if they make a longer trip.

572 00:30:29.110 --> 00:30:30.610 But, most of us charge at home

573 00:30:31.500 --> 00:30:33.890 'cause we're not going more than 200 miles

574 00:30:33.890 --> 00:30:34.973 in a given day.

575 00:30:38.316 --> 00:30:40.610 - The problem with that is that it's a technology

576 00:30:40.610 --> 00:30:43.660 that's very suitable for suburban homeowners

577 00:30:43.660 --> 00:30:46.160 and very difficult for apartment dwellers.

578 00:30:46.160 --> 00:30:46.993 - That's true.

579 00:30:46.993 --> 00:30:49.350 That's one reason my son has not gotten

580 00:30:49.350 --> 00:30:52.590 an electric car 'cause he's in a townhouse

581 00:30:52.590 --> 00:30:56.276 and he's not controlling his parking garage

582 00:30:56.276 --> 00:30:58.860 and he has yet to negotiate

583 00:30:58.860 --> 00:31:00.883 that with the homeowners association,

584 00:31:03.636 --> 00:31:05.886 so you're absolutely right.

585 00:31:08.168 --> 00:31:10.156 - I have a question.

586 00:31:10.156 --> 00:31:11.540 - Yeah, go ahead.

587 00:31:11.540 --> 00:31:13.970 - I actually wanna, I actually had looked

588 00:31:13.970 --> 00:31:15.670 into gettin' a Tesla.

589 00:31:15.670 --> 00:31:18.700 I actually went and test drove it and I was

590 00:31:18.700 --> 00:31:22.110 kinda really impressed with how nice it drove.

591 00:31:22.110 --> 00:31:24.500 But, I'm actually have a 70 mile commute

592 00:31:24.500 --> 00:31:29.500 and I kind of was sort of put away

593 00:31:31.760 --> 00:31:33.820 from an electric car after we had

594 00:31:33.820 --> 00:31:34.910 that big power outage.

595 00:31:34.910 --> 00:31:36.310 And like I would not even have been able

596 00:31:36.310 --> 00:31:37.470 to get to work.

597 00:31:37.470 --> 00:31:39.233 How would I have charged my car?

598 00:31:39.233 --> 00:31:41.410 How would I have been able to go?

599 00:31:41.410 --> 00:31:45.086 So, that was kind of, I'm kind of worried about that,

600 00:31:45.086 --> 00:31:47.660 with the power outages we have.

601 00:31:47.660 --> 00:31:50.793 I mean, I was out of power for six days.

602 00:31:50.793 --> 00:31:53.430 So, how can you guys, were you guys able

603 00:31:53.430 --> 00:31:56.720 to charge at, I guess, I don't know how long

604 00:31:56.720 --> 00:31:57.983 you guys lost power.

605 00:31:59.060 --> 00:32:02.870 - That's actually, thanks for raising that point.

606 00:32:02.870 --> 00:32:05.120 That's really quite important that when we have

607 00:32:05.120 --> 00:32:06.676 these power outages you're always reminded

608 00:32:06.676 --> 00:32:09.108 how much you're dependent on power.

609 00:32:09.108 --> 00:32:12.720 When I used to live in Bradford and we had

610 00:32:12.720 --> 00:32:15.298 the big storm and we had power out

611 00:32:15.298 --> 00:32:18.600 for about a week or so I couldn't use the car.

612 00:32:18.600 --> 00:32:21.340 You're right, until the power was on.

613 00:32:21.340 --> 00:32:23.140 I have a generator where we are now

614 00:32:23.140 --> 00:32:27.160 'cause we lose power couple times a year.

615 00:32:27.160 --> 00:32:28.750 But that is a down side.

616 00:32:28.750 --> 00:32:30.240 If your power goes out and you don't have

617 00:32:30.240 --> 00:32:33.890 alternative power you can't drive after a while,

618 00:32:33.890 --> 00:32:38.680 with the exception, I guess, what I did one time

619 00:32:38.680 --> 00:32:41.010 was I went in, I parked going into work,

620 00:32:41.010 --> 00:32:42.988 I went into work, parked at the train station,

621 00:32:42.988 --> 00:32:45.010 plugged it in to park.

622 00:32:45.010 --> 00:32:48.210 I guess there, Denise can say, I'm not aware

623 00:32:48.210 --> 00:32:51.940 of all the Yale charging stations now.

624 00:32:51.940 --> 00:32:52.773 That's what I did.

625 00:32:52.773 --> 00:32:53.900 I went into the train station and plugged

626 00:32:53.900 --> 00:32:55.340 it in and it charged and did that

627 00:32:55.340 --> 00:33:00.320 for the remaining time after, while the power was out.

628 00:33:00.320 --> 00:33:02.740 And now I have a generator.

629 00:33:02.740 --> 00:33:04.153 That's a real consideration.

630 00:33:05.060 --> 00:33:08.860 - Yeah, Martina, I would think that a plug-in hybrid

631 00:33:08.860 --> 00:33:11.340 might be a really really great option for you

632 00:33:12.640 --> 00:33:15.720 because they do have plug-in hybrids now

633 00:33:15.720 --> 00:33:18.510 that have a much longer range.

634 00:33:18.510 --> 00:33:20.920 And I don't know it off the top of my head,

635 00:33:20.920 --> 00:33:22.820 but if you could find a plug-in hybrid

636 00:33:22.820 --> 00:33:25.859 that had 160 mile battery range

637 00:33:25.859 --> 00:33:30.859 and you would always have the gas engine as a backup.

638 00:33:33.360 --> 00:33:35.940 - One thing, this is gonna sound a little silly,

639 00:33:35.940 --> 00:33:39.147 but one thing I actually did for a while was

640 00:33:39.147 --> 00:33:41.983 Milford has super charging stations.

641 00:33:43.155 --> 00:33:45.006 Milford's not next door, but it's only

642 00:33:45.006 --> 00:33:48.180 an extra 10 or 15 minutes really, so I'd drive

643 00:33:48.180 --> 00:33:52.180 towards going to Milford, get something for breakfast

644 00:33:52.180 --> 00:33:53.013 or a cup of coffee.

645 00:33:53.013 --> 00:33:54.670 The car would be totally charged up.

646 00:33:54.670 --> 00:33:57.075 Go to work, go home and so, that's another way

647 00:33:57.075 --> 00:33:58.010 of doing it.

648 00:33:58.010 --> 00:34:01.000 At least with Tesla there are enough super

649 00:34:01.000 --> 00:34:03.670 charger stations around.

650 00:34:03.670 --> 00:34:06.250 Another trip I make regularly is going up to Boston.

651 00:34:06.250 --> 00:34:07.793 There's two or three places,

652 00:34:08.690 --> 00:34:11.050 well three or four places that I routinely use

653 00:34:11.050 --> 00:34:14.590 going up there to do round trips to Boston.

654 00:34:14.590 --> 00:34:16.766 You have to plan it, as others have said,

655 00:34:16.766 --> 00:34:20.130 but it's very very manageable if you just

656 00:34:20.130 --> 00:34:21.830 give it a little thought.

657 00:34:21.830 --> 00:34:25.190 - So, those charging station are usually working

658 00:34:25.190 --> 00:34:26.510 even during power outages?

659 00:34:26.510 --> 00:34:28.417 I was wondering about that because I go by

660 00:34:28.417 --> 00:34:31.320 the Milford Mall every day on the way

661 00:34:31.320 --> 00:34:32.533 in and on the way out.

662 00:34:35.360 --> 00:34:37.230 - It's a good question.

663 00:34:37.230 --> 00:34:40.010 I've never run into them not working,

664 00:34:40.010 --> 00:34:43.530 but I'm sure there's I don't know.

665 00:34:43.530 --> 00:34:44.810 They must go out.

666 00:34:44.810 --> 00:34:47.690 They do have big solar panels and battery arrangements,

667 00:34:47.690 --> 00:34:48.750 so I don't know if they'll operate

668 00:34:48.750 --> 00:34:50.163 when power goes out or not.

669 00:34:54.310 --> 00:34:57.255 - The reason it was not a consideration for me

670 00:34:57.255 --> 00:34:59.905 is I have favorable public transportation

671 00:34:59.905 --> 00:35:01.800 near my home.

672 00:35:01.800 --> 00:35:02.690 I have a bus

673 00:35:06.015 --> 00:35:09.090 and I have a train that's not so very far.

674 00:35:09.090 --> 00:35:10.553 So, I have backup.

675 00:35:11.535 --> 00:35:16.250 So I could take a chance on a one week power outage

676 00:35:16.250 --> 00:35:21.250 with an electric vehicle because of that.

677 00:35:21.430 --> 00:35:24.860 And actually, this is all false pretenses.

678 00:35:24.860 --> 00:35:26.747 The electric car is actually my wife's

679 00:35:26.747 --> 00:35:31.747 and I still have a, I have a 2005 Prius.

680 00:35:31.970 --> 00:35:34.350 But, I use her car when she's not

681 00:35:34.350 --> 00:35:36.040 gonna be using it on a given day.

682 00:35:36.040 --> 00:35:37.940 She's retired and doesn't travel,

683 00:35:37.940 --> 00:35:40.260 doesn't drive each and every day.

684 00:35:40.260 --> 00:35:42.840 So I try to use the electric car as much as possible.

685 00:35:42.840 --> 00:35:47.305 But, if we let's say the Prius was in the shop

686 00:35:47.305 --> 00:35:49.775 or we get rid of the Prius.

687 00:35:49.775 --> 00:35:52.442 (garbled audio)

688 00:35:57.270 --> 00:35:59.166 - Lauren asked if there were tax incentives.

689 00:35:59.166 --> 00:36:01.610 My guess is Rob or someone else knows this

690 00:36:01.610 --> 00:36:02.443 better than I do.

691 00:36:02.443 --> 00:36:04.798 When I bought my Tesla there were

692 00:36:04.798 --> 00:36:07.040 pretty substantial tax incentives,

693 00:36:07.040 --> 00:36:09.026 but I was under the impression they expired

694 00:36:09.026 --> 00:36:13.150 a few years ago, but maybe someone else knows.

695 00:36:13.150 --> 00:36:15.115 At the time there were both federal and state

696 00:36:15.115 --> 00:36:19.250 incentives and my impression was both of those expired

697 00:36:19.250 --> 00:36:21.130 not long after I bought my car.

698 00:36:21.130 --> 00:36:22.730 Rob, do you know how those work?

699 00:36:22.730 --> 00:36:25.190 - You know, I believe they're vehicle specific.

700 00:36:25.190 --> 00:36:28.510 So, once a certain number of cars have been sold

701 00:36:28.510 --> 00:36:30.650 of a particular type they expire.

702 00:36:30.650 --> 00:36:33.750 So for example, I couldn't get any kind

703 00:36:33.750 --> 00:36:36.090 of tax incentive for the Bolt because they had

704 00:36:36.090 --> 00:36:36.923 sold enough of them.

705 00:36:36.923 --> 00:36:39.330 But, I don't know the specifics really.

706 00:36:39.330 --> 00:36:43.240 I've lost track about what the amount is, et cetera.

707 00:36:43.240 --> 00:36:45.750 Does anyone know the answer to that?

708 00:36:45.750 --> 00:36:48.240 - I don't know currently, but when I bought mine

709 00:36:48.240 --> 00:36:52.467 in 2016 I got $9000 in incentives.

710 00:36:52.467 --> 00:36:53.973 So, it's worth looking at.

711 00:36:54.999 --> 00:36:59.999 - There's actually a web page where you can look it up.

712 00:37:04.340 --> 00:37:06.820 The Department of Energy and Environmental Protection.

713 00:37:06.820 --> 00:37:09.580 It's called Cheaper and I think it gives you

714 00:37:09.580 --> 00:37:11.810 exactly, you can look up the models and everything

715 00:37:11.810 --> 00:37:15.810 and tells you if there's any incentive or not,

716 00:37:15.810 --> 00:37:17.253 if you get any rebates.

717 00:37:19.970 --> 00:37:22.415 - Several people have written comments

718 00:37:22.415 --> 00:37:25.190 about difficulty of charging at Yale

719 00:37:25.190 --> 00:37:26.630 and should Yale be encouraging it.

720 00:37:26.630 --> 00:37:29.244 I wonder if that's something the committee,

721 00:37:29.244 --> 00:37:32.650 I don't know if that's too heavy a lift,

722 00:37:32.650 --> 00:37:35.119 or is that something the committee could raise?

723 00:37:35.119 --> 00:37:38.500 My guess is it's not on a lotta people's radar screen.

724 00:37:38.500 --> 00:37:43.500 But, I think Tesla, if enough people petition,

725 00:37:44.280 --> 00:37:47.810 you know, they will respond and put charging stations

726 00:37:47.810 --> 00:37:48.643 in certain places.

727 00:37:48.643 --> 00:37:50.220 I don't know what their policy now is,

728 00:37:50.220 --> 00:37:53.780 but I wonder if Yale would do something

729 00:37:53.780 --> 00:37:57.840 about expanding the number of charging stations,

730 00:37:57.840 --> 00:37:59.803 not just for Tesla, but for wide.

731 00:38:01.140 --> 00:38:02.570 - I mean, that would be easy enough

732 00:38:02.570 --> 00:38:06.790 for us to raise that with the Yale Office of Sustainability

733 00:38:06.790 --> 00:38:09.220 and see if it's something they're already

734 00:38:09.220 --> 00:38:11.180 thinking about or not.

735 00:38:11.180 --> 00:38:14.893 I think that certainly makes a lot of sense to do that.

736 00:38:19.050 --> 00:38:21.200 All right, any other questions or comments?

737 00:38:29.210 --> 00:38:33.213 Okay, so if not I think we could wrap up.

738 00:38:35.120 --> 00:38:36.520 Let's see, here's something.

739 00:38:37.770 --> 00:38:40.473 Martina just posted the website.

740 00:38:41.479 --> 00:38:45.630 All right, well thanks everyone

741 00:38:45.630 --> 00:38:47.580 and I hope you found this to be

742 00:38:47.580 --> 00:38:49.765 a useful discussion and I'd encourage

743 00:38:49.765 --> 00:38:53.610 you all to go out and buy an electric vehicle.

744 00:38:53.610 --> 00:38:54.573 It's really fun.

745 00:38:55.687 --> 00:38:57.437 - It's the new version of Car Talk.

746 00:38:59.330 --> 00:39:03.470 - And let's get Yale to provide more charging stations.

747 00:39:03.470 --> 00:39:05.500 I think that's a very good project.

748 00:39:05.500 --> 00:39:06.453 - Yeah, I agree.

749 00:39:07.310 --> 00:39:08.600 Thanks everyone.

750 00:39:08.600 --> 00:39:10.199 - [Group] Thanks everyone.

751 00:39:10.199 --> 00:39:11.807 - Good talking to you.

752 00:39:11.807 --> 00:39:14.070 Sorry it's not in person, but always good to talk.

753 00:39:14.070 --> 00:39:14.903 - Yeah.

754 00:39:14.903 --> 00:39:15.736 - Thank you.