



1  
00:00:31,349 --> 00:00:29,349

okay

2  
00:00:33,670 --> 00:00:31,359

well is everyone back now you're all

3  
00:00:34,950 --> 00:00:33,680

watered and fed and everything i hope so

4  
00:00:36,709 --> 00:00:34,960

um thanks to everyone who's purchased a

5  
00:00:39,110 --> 00:00:36,719

copy of evans land they've all gone now

6  
00:00:40,389 --> 00:00:39,120

so that's really helped me out um

7  
00:00:41,990 --> 00:00:40,399

especially since i don't have to carry

8  
00:00:43,670 --> 00:00:42,000

any home now it's not it's not easy

9  
00:00:46,389 --> 00:00:43,680

transporting these things when you just

10  
00:00:48,630 --> 00:00:46,399

got your on foot and losing the coach

11  
00:00:49,430 --> 00:00:48,640

um now we're talking earlier about and

12  
00:00:51,110 --> 00:00:49,440

this

13  
00:00:53,590 --> 00:00:51,120

impending disaster which richard

14

00:00:55,110 --> 00:00:53,600

heinberg talks about in his book and

15

00:00:56,950 --> 00:00:55,120

he's i must say actually richard

16

00:00:58,470 --> 00:00:56,960

heinberg is one of the more rational and

17

00:01:00,389 --> 00:00:58,480

more moderate

18

00:01:02,630 --> 00:01:00,399

people within this discussion and i'll

19

00:01:04,469 --> 00:01:02,640

say more about that in a minute but um

20

00:01:06,230 --> 00:01:04,479

there is uh i think some of the ideas

21

00:01:07,910 --> 00:01:06,240

he's come out with are quite dangerous

22

00:01:09,109 --> 00:01:07,920

and i'm going to and this looks very

23

00:01:10,950 --> 00:01:09,119

grim what i've been talking about but

24

00:01:13,109 --> 00:01:10,960

i'm going to reveal why i don't agree

25

00:01:14,469 --> 00:01:13,119

with him and why there is hope

26

00:01:16,789 --> 00:01:14,479

in fact there's more than hope i think

27

00:01:18,630 --> 00:01:16,799

everything all this is preventable but

28

00:01:20,550 --> 00:01:18,640

let's go into some of these solutions

29

00:01:22,870 --> 00:01:20,560

that are mainstream in our society and

30

00:01:24,870 --> 00:01:22,880

how they've been suggested one of those

31

00:01:28,070 --> 00:01:24,880

is nuclear power now

32

00:01:29,830 --> 00:01:28,080

nuclear power has changed it's it's

33

00:01:31,749 --> 00:01:29,840

the way people see it in the last few

34

00:01:33,670 --> 00:01:31,759

years that is there are some people

35

00:01:36,149 --> 00:01:33,680

within the environmental movement now

36

00:01:38,310 --> 00:01:36,159

who are now pro-nuclear power which is

37

00:01:39,910 --> 00:01:38,320

quite remarkable when you consider how

38

00:01:41,910 --> 00:01:39,920

years ago you know the stickers nuclear

39

00:01:45,670 --> 00:01:41,920

powers no thanks we're on the back of

40

00:01:47,670 --> 00:01:45,680

every doormobile and every two cv and

41

00:01:49,670 --> 00:01:47,680

volkswagen beetle all the other kind of

42

00:01:51,990 --> 00:01:49,680

cliche cars these people drive

43

00:01:53,109 --> 00:01:52,000

um it really was new to pound no thanks

44

00:01:55,910 --> 00:01:53,119

it's all

45

00:01:57,910 --> 00:01:55,920

but um and of course disasters like um

46

00:02:01,190 --> 00:01:57,920

fukushima have illustrated that one of

47

00:02:03,830 --> 00:02:01,200

the disadvantages of nuclear power

48

00:02:06,069 --> 00:02:03,840

now um some environmentalists like um

49

00:02:07,830 --> 00:02:06,079

there's a man called mark linus

50

00:02:09,350 --> 00:02:07,840

who is a man who lives in oxford

51

00:02:12,630 --> 00:02:09,360

actually he's an environmental

52

00:02:13,589 --> 00:02:12,640

campaigner he's now pro nuclear power

53

00:02:15,350 --> 00:02:13,599

and he's

54

00:02:16,630 --> 00:02:15,360

he's split off from the green party and

55

00:02:18,949 --> 00:02:16,640

all these other people who are still

56

00:02:23,510 --> 00:02:18,959

anti-nuclear power there's another one

57

00:02:27,589 --> 00:02:25,510

slightly more cheerful

58

00:02:29,190 --> 00:02:27,599

and um well martin linus is a miserable

59

00:02:29,990 --> 00:02:29,200

yeah he really is

60

00:02:33,750 --> 00:02:30,000

um

61

00:02:35,750 --> 00:02:33,760

well alex jones calls him laura mambiat

62

00:02:37,509 --> 00:02:35,760

that's been the little twits not a man

63

00:02:39,509 --> 00:02:37,519

but a monster you've got to see that

64

00:02:41,670 --> 00:02:39,519

it's hilarious that right he's george

65

00:02:43,270 --> 00:02:41,680

monbiot rant is hilarious

66

00:02:45,589 --> 00:02:43,280

um

67

00:02:48,869 --> 00:02:45,599

but nuclear fishing power now the

68

00:02:51,190 --> 00:02:48,879

advantages are it is it doesn't release

69

00:02:54,070 --> 00:02:51,200

gases and noxious chemicals into the air

70

00:02:55,509 --> 00:02:54,080

and for the people who believe in

71

00:02:57,589 --> 00:02:55,519

carbon dioxide

72

00:02:59,270 --> 00:02:57,599

produce climate change its appeal is

73

00:03:00,550 --> 00:02:59,280

that it is carbon neutra is carbon

74

00:03:03,190 --> 00:03:00,560

neutral

75

00:03:05,110 --> 00:03:03,200

um george monbiot and mark lyoness

76  
00:03:06,390 --> 00:03:05,120  
support nuclear power primarily for that

77  
00:03:08,070 --> 00:03:06,400  
fact

78  
00:03:10,070 --> 00:03:08,080  
the disadvantages you only have to go

79  
00:03:11,509 --> 00:03:10,080  
and look at fukushima and you can see it

80  
00:03:13,830 --> 00:03:11,519  
or chernobyl

81  
00:03:15,589 --> 00:03:13,840  
in ukraine the disaster caused by the

82  
00:03:17,030 --> 00:03:15,599  
nuclear accidents in those places

83  
00:03:18,630 --> 00:03:17,040  
there's wind scale here in britain

84  
00:03:20,309 --> 00:03:18,640  
there's three mile island in the in the

85  
00:03:21,509 --> 00:03:20,319  
united states

86  
00:03:23,589 --> 00:03:21,519  
when something goes wrong with these

87  
00:03:25,430 --> 00:03:23,599  
things it really goes wrong

88  
00:03:27,589 --> 00:03:25,440

the industry will say it's safe they

89

00:03:29,670 --> 00:03:27,599

have all these safeguards

90

00:03:33,509 --> 00:03:29,680

but disasters happen disasters happen to

91

00:03:34,390 --> 00:03:33,519

see like in submarine k19 for example

92

00:03:36,309 --> 00:03:34,400

which

93

00:03:38,070 --> 00:03:36,319

killed nearly all of its crew over a

94

00:03:39,350 --> 00:03:38,080

period of a few years those that didn't

95

00:03:42,229 --> 00:03:39,360

die in the initial accident died of

96

00:03:43,110 --> 00:03:42,239

cancer later on

97

00:03:45,110 --> 00:03:43,120

um

98

00:03:46,949 --> 00:03:45,120

but that is nuclear that's a particular

99

00:03:49,110 --> 00:03:46,959

kind of nuclear powers nuclear fission

100

00:03:51,750 --> 00:03:49,120

power nuclear fission has been around

101  
00:03:53,589 --> 00:03:51,760  
for getting on it's been around

102  
00:03:54,710 --> 00:03:53,599  
since the middle of the 20th century now

103  
00:03:58,309 --> 00:03:54,720  
um

104  
00:03:59,350 --> 00:03:58,319  
we've basically what happens is they use

105  
00:04:02,149 --> 00:03:59,360  
they take

106  
00:04:05,030 --> 00:04:02,159  
materials like uranium these are heavy

107  
00:04:07,190 --> 00:04:05,040  
metals they they split the atoms and the

108  
00:04:09,270 --> 00:04:07,200  
atoms fly apart and they split other

109  
00:04:11,110 --> 00:04:09,280  
atoms and those atoms fly apart etc to

110  
00:04:12,070 --> 00:04:11,120  
get a chain reaction that releases the

111  
00:04:13,750 --> 00:04:12,080  
energy

112  
00:04:15,670 --> 00:04:13,760  
the dangers of that is the ionizing

113  
00:04:18,710 --> 00:04:15,680

radiation caused by that process of

114

00:04:20,789 --> 00:04:18,720

course and the toxic waste

115

00:04:23,590 --> 00:04:20,799

once these and once this nuclear fuel is

116

00:04:25,430 --> 00:04:23,600

spent it creates uh something called uh

117

00:04:27,270 --> 00:04:25,440

plutonium which is one of the most which

118

00:04:30,230 --> 00:04:27,280

is the most poisonous substance done to

119

00:04:31,670 --> 00:04:30,240

man um it can be used in nuclear weapons

120

00:04:34,390 --> 00:04:31,680

as well if it's stolen it can be used to

121

00:04:36,150 --> 00:04:34,400

make illicit nuclear weapons if

122

00:04:37,430 --> 00:04:36,160

if you believe there are such things as

123

00:04:39,670 --> 00:04:37,440

legitimacy

124

00:04:41,030 --> 00:04:39,680

non-illicit nuclear weapons um

125

00:04:42,710 --> 00:04:41,040

but basically they're very very

126  
00:04:44,629 --> 00:04:42,720  
dangerous then they're poisoned and they

127  
00:04:45,590 --> 00:04:44,639  
these have to be buried underground in

128  
00:04:47,030 --> 00:04:45,600  
vaults

129  
00:04:47,950 --> 00:04:47,040  
where they will have to be there for

130  
00:04:50,310 --> 00:04:47,960  
over

131  
00:04:52,629 --> 00:04:50,320  
300 000 years

132  
00:04:53,670 --> 00:04:52,639  
before they're safe

133  
00:04:55,189 --> 00:04:53,680  
and

134  
00:04:56,870 --> 00:04:55,199  
basically there's a finite amount you

135  
00:04:58,469 --> 00:04:56,880  
can only bury so much of this toxic

136  
00:05:00,390 --> 00:04:58,479  
stuff underground before it becomes a

137  
00:05:02,310 --> 00:05:00,400  
major environmental hazard

138  
00:05:04,390 --> 00:05:02,320

not just for us but for future

139

00:05:06,629 --> 00:05:04,400

generations

140

00:05:08,469 --> 00:05:06,639

next slide please

141

00:05:09,510 --> 00:05:08,479

but um there's other forms of nuclear

142

00:05:12,230 --> 00:05:09,520

power as well and one of those is

143

00:05:14,230 --> 00:05:12,240

nuclear fusion power now i'm very lucky

144

00:05:17,909 --> 00:05:14,240

in oxford because i live just a few

145

00:05:19,350 --> 00:05:17,919

miles away from one of the primary world

146

00:05:20,870 --> 00:05:19,360

world centers for nuclear fusion

147

00:05:22,790 --> 00:05:20,880

research this is the column center for

148

00:05:26,469 --> 00:05:22,800

fusion energy and their joint european

149

00:05:27,909 --> 00:05:26,479

taurus this is a photograph taken inside

150

00:05:30,710 --> 00:05:27,919

the jet

151

00:05:32,710 --> 00:05:30,720

reactor basically it's called a tokamak

152

00:05:33,510 --> 00:05:32,720

and um it's a nuclear it's a nuclear

153

00:05:36,629 --> 00:05:33,520

power

154

00:05:39,590 --> 00:05:36,639

very very different to the nuclear

155

00:05:41,189 --> 00:05:39,600

fission power plant firstly it's it runs

156

00:05:43,270 --> 00:05:41,199

off fusion instead of fission what

157

00:05:45,510 --> 00:05:43,280

happens is instead of splitting atoms

158

00:05:47,990 --> 00:05:45,520

apart it fuses them together

159

00:05:49,670 --> 00:05:48,000

and um this releases even more energy

160

00:05:52,310 --> 00:05:49,680

it's even more compact than nuclear

161

00:05:53,909 --> 00:05:52,320

efficient nuclear fission power is um

162

00:05:55,990 --> 00:05:53,919

about a thousand times as compact as

163

00:05:58,070 --> 00:05:56,000

coal and oil so it's this is about a

164

00:05:59,830 --> 00:05:58,080

thousand times as compact as nuclear

165

00:06:02,950 --> 00:05:59,840

fission so it's a million times as

166

00:06:04,230 --> 00:06:02,960

compact as coal and oil

167

00:06:06,070 --> 00:06:04,240

the um

168

00:06:07,909 --> 00:06:06,080

as you see here this is a picture on the

169

00:06:09,909 --> 00:06:07,919

left you see a cutaway that's that's it

170

00:06:11,749 --> 00:06:09,919

in operation that basically is fusing

171

00:06:13,909 --> 00:06:11,759

gas it fuses at enormously high

172

00:06:15,670 --> 00:06:13,919

temperatures millions of degrees that's

173

00:06:17,590 --> 00:06:15,680

a problem there's a lot of there's a lot

174

00:06:19,749 --> 00:06:17,600

of engineering obstacles to overcome to

175

00:06:21,990 --> 00:06:19,759

make this work because you need to get

176

00:06:23,749 --> 00:06:22,000

the gas which is fusing at a very very

177

00:06:24,870 --> 00:06:23,759

high temperature millions of degrees

178

00:06:26,629 --> 00:06:24,880

like i said

179

00:06:30,070 --> 00:06:26,639

there's a new production plant being

180

00:06:31,909 --> 00:06:30,080

built in france now called eta iter

181

00:06:33,430 --> 00:06:31,919

and that's going to take a while to

182

00:06:34,550 --> 00:06:33,440

build

183

00:06:38,390 --> 00:06:34,560

um

184

00:06:40,469 --> 00:06:38,400

the fuel is instead of heavy metals and

185

00:06:41,590 --> 00:06:40,479

things like that for instance uranium i

186

00:06:44,390 --> 00:06:41,600

should have pointed out in the previous

187

00:06:45,350 --> 00:06:44,400

slide uranium is going to run out before

188

00:06:46,950 --> 00:06:45,360

oil

189

00:06:48,469 --> 00:06:46,960

there's only about 25 years left of

190

00:06:51,590 --> 00:06:48,479

uranium in the ground which is another

191

00:06:53,029 --> 00:06:51,600

reason not to support nuclear fission

192

00:06:55,510 --> 00:06:53,039

power

193

00:06:58,230 --> 00:06:55,520

we've we passed peak uranium long time

194

00:07:00,230 --> 00:06:58,240

ago and now it's on decline

195

00:07:02,390 --> 00:07:00,240

deuterium is the fuel for nuclear fusion

196

00:07:03,909 --> 00:07:02,400

deuterium is extremely common it's one

197

00:07:06,309 --> 00:07:03,919

of the most common substances in the

198

00:07:10,309 --> 00:07:06,319

world it's found in water just plain

199

00:07:13,749 --> 00:07:11,990

it's but because of the engineering

200

00:07:15,350 --> 00:07:13,759

obstacles that are going to overcome

201  
00:07:17,029 --> 00:07:15,360  
it's a long long time before we're going

202  
00:07:19,029 --> 00:07:17,039  
to get power stations commercial power

203  
00:07:20,629 --> 00:07:19,039  
stations fueled off this stuff

204  
00:07:22,150 --> 00:07:20,639  
it won't come online for at least

205  
00:07:23,589 --> 00:07:22,160  
another 10 years it's still being built

206  
00:07:26,150 --> 00:07:23,599  
right now i've been following it on

207  
00:07:28,629 --> 00:07:26,160  
youtube the building of ito in france

208  
00:07:30,390 --> 00:07:28,639  
that's an experimental power plant once

209  
00:07:32,390 --> 00:07:30,400  
that's once that's proven to work i'll

210  
00:07:34,550 --> 00:07:32,400  
have to build a demonstration

211  
00:07:37,110 --> 00:07:34,560  
power-up plan demonstration power

212  
00:07:38,390 --> 00:07:37,120  
station separate from eta

213  
00:07:39,670 --> 00:07:38,400

that will be connected to the grid and

214

00:07:41,350 --> 00:07:39,680

then it's only after that they'll start

215

00:07:43,110 --> 00:07:41,360

building other power stations at other

216

00:07:44,469 --> 00:07:43,120

places and will have commercial nuclear

217

00:07:45,990 --> 00:07:44,479

fusion power we're talking probably the

218

00:07:49,029 --> 00:07:46,000

end of the century when they finally get

219

00:07:56,710 --> 00:07:50,469

um

220

00:07:59,350 --> 00:07:56,720

there's a there's a comedian called

221

00:08:01,510 --> 00:07:59,360

robert newman it was quite funny even

222

00:08:04,070 --> 00:08:01,520

i'd i disagree with him like the way i

223

00:08:05,350 --> 00:08:04,080

disagree with robert heinberg

224

00:08:08,469 --> 00:08:05,360

um

225

00:08:10,950 --> 00:08:08,479

dresses up as the devil and he goes

226

00:08:12,790 --> 00:08:10,960

there's no way out

227

00:08:14,150 --> 00:08:12,800

he's done that he's got this comedy show

228

00:08:15,350 --> 00:08:14,160

called a history of oil which is very

229

00:08:16,550 --> 00:08:15,360

very funny

230

00:08:18,629 --> 00:08:16,560

and that's

231

00:08:20,950 --> 00:08:18,639

kind of how we feel right now um that's

232

00:08:22,469 --> 00:08:20,960

kind of what is what it's like right now

233

00:08:23,830 --> 00:08:22,479

this is the graph which i was talking

234

00:08:25,909 --> 00:08:23,840

about earlier this is heinberg's graph

235

00:08:27,670 --> 00:08:25,919

this is the pessimistic doomsday

236

00:08:29,830 --> 00:08:27,680

prediction for the future based on his

237

00:08:32,709 --> 00:08:29,840

work and many others um

238

00:08:34,550 --> 00:08:32,719

as we see here population has continued

239

00:08:35,750 --> 00:08:34,560

to rise to a certain level

240

00:08:37,909 --> 00:08:35,760

it keeps going up and up and that

241

00:08:40,070 --> 00:08:37,919

resources shrink to nothing in other

242

00:08:42,389 --> 00:08:40,080

words that's the sugar gun and the east

243

00:08:44,470 --> 00:08:42,399

in the brewing and then environmental

244

00:08:46,870 --> 00:08:44,480

destruction reaches a point

245

00:08:48,550 --> 00:08:46,880

where it is irreparable and complete at

246

00:08:50,230 --> 00:08:48,560

that point energy production drops of

247

00:08:52,949 --> 00:08:50,240

course because

248

00:08:55,430 --> 00:08:52,959

the resources to create energy are gone

249

00:08:57,910 --> 00:08:55,440

and most chillingly of all population

250

00:08:59,910 --> 00:08:57,920

drops like the yeast in heinberg's

251  
00:09:04,070 --> 00:08:59,920  
analogy we all die

252  
00:09:07,990 --> 00:09:06,310  
untold it would be a disaster un

253  
00:09:10,070 --> 00:09:08,000  
unimaginable we have seven and a half

254  
00:09:11,430 --> 00:09:10,080  
maybe more people more billion people on

255  
00:09:13,670 --> 00:09:11,440  
the earth who suddenly

256  
00:09:15,269 --> 00:09:13,680  
have no supply of energy to have no

257  
00:09:16,949 --> 00:09:15,279  
supply of energy doesn't mean you just

258  
00:09:19,509 --> 00:09:16,959  
don't have you can't switch your lights

259  
00:09:21,269 --> 00:09:19,519  
on it means you don't have any food

260  
00:09:23,750 --> 00:09:21,279  
because our

261  
00:09:25,590 --> 00:09:23,760  
our um

262  
00:09:27,430 --> 00:09:25,600  
our food supply our farms are is

263  
00:09:29,030 --> 00:09:27,440

dependent on energy it's dependent on

264

00:09:30,790 --> 00:09:29,040

energy as i explained earlier because we

265

00:09:32,470 --> 00:09:30,800

now use tractors to pull plows instead

266

00:09:34,550 --> 00:09:32,480

of mules

267

00:09:36,230 --> 00:09:34,560

also we use oil as needed to produce the

268

00:09:38,070 --> 00:09:36,240

agrochemicals

269

00:09:38,949 --> 00:09:38,080

oil is needed to fuel the lorries which

270

00:09:42,230 --> 00:09:38,959

drive

271

00:09:43,030 --> 00:09:42,240

the food to the shops so we can buy it

272

00:09:44,710 --> 00:09:43,040

um

273

00:09:46,150 --> 00:09:44,720

because we don't we don't buy we don't

274

00:09:48,470 --> 00:09:46,160

have our own farms in the local area

275

00:09:51,110 --> 00:09:48,480

anymore some people do but not many we

276

00:09:53,990 --> 00:09:51,120

import stuff from across the world

277

00:09:55,670 --> 00:09:54,000

you know i saw some tomatoes in the shop

278

00:09:57,030 --> 00:09:55,680

the other day that came from zimbabwe

279

00:10:00,790 --> 00:09:57,040

tomatoes

280

00:10:02,150 --> 00:10:00,800

grow them in your greenhouse why are you

281

00:10:03,990 --> 00:10:02,160

bringing them from zimbabwe why don't

282

00:10:06,630 --> 00:10:04,000

the zimbabweans eat their tomatoes we

283

00:10:08,310 --> 00:10:06,640

are no no they're brought in from abroad

284

00:10:10,389 --> 00:10:08,320

that takes energy

285

00:10:13,509 --> 00:10:10,399

and it's calculated that for every

286

00:10:15,030 --> 00:10:13,519

single calorie food energy we consume

287

00:10:16,069 --> 00:10:15,040

seven calories of oil energy is

288

00:10:17,829 --> 00:10:16,079

necessary

289

00:10:19,750 --> 00:10:17,839

and that's risen because you don't have

290

00:10:22,310 --> 00:10:19,760

to go back about 50 years and it was

291

00:10:23,829 --> 00:10:22,320

like it was it was the other way around

292

00:10:27,829 --> 00:10:23,839

it was seven food calories per one

293

00:10:30,069 --> 00:10:27,839

calorie oil energy now it's reverse

294

00:10:32,550 --> 00:10:30,079

next slide please

295

00:10:34,470 --> 00:10:32,560

it goes by several names the collapse

296

00:10:36,630 --> 00:10:34,480

armageddon

297

00:10:37,990 --> 00:10:36,640

the fall is the most common ones words

298

00:10:40,550 --> 00:10:38,000

used

299

00:10:41,750 --> 00:10:40,560

and um richard heimberg talks about this

300

00:10:46,710 --> 00:10:41,760

in

301

00:10:48,710 --> 00:10:46,720

party's over he says um

302

00:10:50,230 --> 00:10:48,720

there are other people similar who are

303

00:10:53,350 --> 00:10:50,240

similar to heinberg in their in their

304

00:10:55,269 --> 00:10:53,360

views but i'm far more extreme

305

00:10:56,470 --> 00:10:55,279

they're fine they're far more extreme um

306

00:10:58,310 --> 00:10:56,480

they are

307

00:11:00,710 --> 00:10:58,320

for instance there's a man in finland

308

00:11:02,710 --> 00:11:00,720

called penti lincoln

309

00:11:05,670 --> 00:11:02,720

who

310

00:11:07,190 --> 00:11:05,680

is he's a self-confessed eco-fascist

311

00:11:09,030 --> 00:11:07,200

and he believes in order to prevent

312

00:11:11,670 --> 00:11:09,040

something like this

313

00:11:13,430 --> 00:11:11,680

he he recommends the nuclear bombardment

314

00:11:17,350 --> 00:11:13,440

of all the major cities in the world to

315

00:11:22,870 --> 00:11:17,360

kill off 90 of the world's population

316

00:11:27,030 --> 00:11:24,949

global um

317

00:11:28,550 --> 00:11:27,040

regime where people are not going to do

318

00:11:30,069 --> 00:11:28,560

anything they only transport be allowed

319

00:11:31,750 --> 00:11:30,079

his bikes and things like that he's very

320

00:11:33,509 --> 00:11:31,760

extreme but there's there's people who

321

00:11:35,910 --> 00:11:33,519

are listening to this man um there's a

322

00:11:37,670 --> 00:11:35,920

guy in america called sauron renner

323

00:11:39,430 --> 00:11:37,680

who often does speeches about this and

324

00:11:42,550 --> 00:11:39,440

he he has a catchphrase which is

325

00:11:44,550 --> 00:11:42,560

billions will die we will win and he's

326

00:11:46,230 --> 00:11:44,560

he's pretty similar to plenty lincoln

327

00:11:48,389 --> 00:11:46,240

and they have they have the they they

328

00:11:50,310 --> 00:11:48,399

have this analogy um there's this almost

329

00:11:51,190 --> 00:11:50,320

a slogan the slogans like this they use

330

00:11:54,550 --> 00:11:51,200

they say

331

00:11:55,990 --> 00:11:54,560

things like them when the ship goes down

332

00:11:59,190 --> 00:11:56,000

and there's a hundred people in the

333

00:12:01,269 --> 00:11:59,200

water drowning there's only one lifeboat

334

00:12:03,269 --> 00:12:01,279

it only holds ten people

335

00:12:05,509 --> 00:12:03,279

the haters of life are those who will

336

00:12:07,509 --> 00:12:05,519

reach their hands out to pull the people

337

00:12:09,269 --> 00:12:07,519

in the water aboard knowing that it will

338

00:12:10,470 --> 00:12:09,279

swamp the entire boat and cause everyone

339

00:12:12,150 --> 00:12:10,480

to drown

340

00:12:14,310 --> 00:12:12,160

the lovers of life are those who are

341

00:12:17,030 --> 00:12:14,320

willing to take the ship's axe and hack

342

00:12:18,389 --> 00:12:17,040

at the hands on the gunners

343

00:12:20,310 --> 00:12:18,399

it's really to

344

00:12:22,550 --> 00:12:20,320

the air of desperation is really quite

345

00:12:23,829 --> 00:12:22,560

funny i'm doing that voice

346

00:12:28,790 --> 00:12:23,839

i've got our drink after doing that

347

00:12:31,829 --> 00:12:30,310

the air of desperation is really

348

00:12:35,350 --> 00:12:31,839

incredible um

349

00:12:39,430 --> 00:12:36,710

heinberg won't go this far there are

350

00:12:41,430 --> 00:12:39,440

people calling for very extreme measures

351  
00:12:43,430 --> 00:12:41,440  
to prevent this

352  
00:12:46,629 --> 00:12:43,440  
including the external as i said the

353  
00:12:47,910 --> 00:12:46,639  
extermination of most of people on earth

354  
00:12:51,670 --> 00:12:47,920  
and i think there's

355  
00:12:55,910 --> 00:12:53,990  
i think there is an agenda to do that

356  
00:12:59,750 --> 00:12:55,920  
and this is being used not as the reason

357  
00:13:04,230 --> 00:13:02,230  
i'll explain i will explain um

358  
00:13:05,990 --> 00:13:04,240  
but basically the idea is and i think

359  
00:13:07,829 --> 00:13:06,000  
this is good this is being discussed in

360  
00:13:09,509 --> 00:13:07,839  
private now and seen publicly like

361  
00:13:11,509 --> 00:13:09,519  
people like renault and like linker and

362  
00:13:13,190 --> 00:13:11,519  
also bill gates in his own way is

363  
00:13:15,110 --> 00:13:13,200

actually quite extreme he's actually

364

00:13:15,910 --> 00:13:15,120

quite he's quite a radical when it comes

365

00:13:18,470 --> 00:13:15,920

to this sort of thing but they're

366

00:13:21,350 --> 00:13:18,480

basically saying that we need

367

00:13:23,110 --> 00:13:21,360

in order to prevent this from happening

368

00:13:24,710 --> 00:13:23,120

we need a global authoritarian

369

00:13:26,230 --> 00:13:24,720

government

370

00:13:29,110 --> 00:13:26,240

with a completely planned economy

371

00:13:31,030 --> 00:13:29,120

research resource-based industry

372

00:13:32,710 --> 00:13:31,040

and enter all national

373

00:13:35,030 --> 00:13:32,720

national boundaries and then to

374

00:13:36,550 --> 00:13:35,040

independent governments a single global

375

00:13:37,829 --> 00:13:36,560

authoritarian plan

376

00:13:39,509 --> 00:13:37,839

um a government which will organize

377

00:13:41,670 --> 00:13:39,519

everything

378

00:13:45,110 --> 00:13:41,680

now um

379

00:13:47,030 --> 00:13:45,120

and in other words a new world order

380

00:13:49,030 --> 00:13:47,040

you've probably heard this before this

381

00:13:51,509 --> 00:13:49,040

new world order is now the solution to

382

00:13:54,230 --> 00:13:51,519

this it's being seen as

383

00:13:55,509 --> 00:13:54,240

a necessary evil the ultimate evil but

384

00:13:57,670 --> 00:13:55,519

is necessary

385

00:13:59,189 --> 00:13:57,680

for the evil that's beyond ultimate

386

00:14:00,949 --> 00:13:59,199

if you don't support the new world order

387

00:14:02,870 --> 00:14:00,959

now you don't care about the planet you

388

00:14:05,590 --> 00:14:02,880

don't care about humanity or the planet

389

00:14:08,949 --> 00:14:06,870

and um

390

00:14:10,550 --> 00:14:08,959

this is really the sting in the tale

391

00:14:11,590 --> 00:14:10,560

that this

392

00:14:12,870 --> 00:14:11,600

everything that heinberg has been

393

00:14:14,389 --> 00:14:12,880

talking about and everything all these

394

00:14:16,069 --> 00:14:14,399

ideas are being

395

00:14:17,670 --> 00:14:16,079

is fueling the agenda for some people

396

00:14:20,790 --> 00:14:17,680

some people acting in good faith who

397

00:14:24,470 --> 00:14:23,509

to suggest a new world order to save the

398

00:14:27,990 --> 00:14:24,480

world

399

00:14:32,629 --> 00:14:30,710

i believe that some of these uh some

400

00:14:35,030 --> 00:14:32,639

measures are already underway

401  
00:14:36,710 --> 00:14:35,040  
chemtrails i don't know

402  
00:14:38,069 --> 00:14:36,720  
exactly what they are

403  
00:14:40,310 --> 00:14:38,079  
i don't know exactly what they're doing

404  
00:14:41,750 --> 00:14:40,320  
some people say they are there to

405  
00:14:44,710 --> 00:14:41,760  
they're a part of a climate change

406  
00:14:45,829 --> 00:14:44,720  
alleviation program to solar radiation

407  
00:14:47,829 --> 00:14:45,839  
management because they reflect rays

408  
00:14:49,350 --> 00:14:47,839  
back up into space some people say

409  
00:14:51,829 --> 00:14:49,360  
they're they're spreading biological

410  
00:14:53,670 --> 00:14:51,839  
material into the biosphere into the

411  
00:14:55,189 --> 00:14:53,680  
across the world to

412  
00:14:57,430 --> 00:14:55,199  
genetically alter

413  
00:14:59,509 --> 00:14:57,440

humans animals plants and everything

414

00:15:01,990 --> 00:14:59,519

else in order to

415

00:15:03,750 --> 00:15:02,000

to save the world from destruction

416

00:15:05,189 --> 00:15:03,760

i don't know what they are i just know

417

00:15:06,710 --> 00:15:05,199

i do know they exist and i do know

418

00:15:08,069 --> 00:15:06,720

they're bad news for us

419

00:15:10,230 --> 00:15:08,079

there's lots of different ideas to this

420

00:15:12,949 --> 00:15:10,240

i don't know what they are

421

00:15:15,110 --> 00:15:12,959

next slide please

422

00:15:16,150 --> 00:15:15,120

to genetically alter

423

00:15:18,870 --> 00:15:16,160

life

424

00:15:21,350 --> 00:15:18,880

so that it is in a new form

425

00:15:22,790 --> 00:15:21,360

which will make it more suitable to a

426

00:15:24,230 --> 00:15:22,800

future world

427

00:15:26,310 --> 00:15:24,240

this this new world order is not just

428

00:15:28,550 --> 00:15:26,320

going to be a political change and a

429

00:15:30,710 --> 00:15:28,560

political and economic revolution

430

00:15:33,590 --> 00:15:30,720

but also the intention is for it to be a

431

00:15:35,670 --> 00:15:33,600

biological revolution as well a change

432

00:15:38,389 --> 00:15:35,680

in what it means to be alive to what for

433

00:15:40,629 --> 00:15:38,399

what life means

434

00:15:42,710 --> 00:15:40,639

and we're eating already food which is

435

00:15:44,310 --> 00:15:42,720

not natural we're eating

436

00:15:46,550 --> 00:15:44,320

food which is created which which is

437

00:15:48,949 --> 00:15:46,560

genetically changed in the laboratory

438

00:15:50,870 --> 00:15:48,959

we're told it's safe

439

00:15:52,710 --> 00:15:50,880

but the people who say it's safe have

440

00:15:54,470 --> 00:15:52,720

are connected to the industry

441

00:15:57,670 --> 00:15:54,480

i think they have they're not people we

442

00:16:00,150 --> 00:15:57,680

can trust am i recording

443

00:16:01,350 --> 00:16:00,160

what am i doing

444

00:16:02,550 --> 00:16:01,360

sorry just one moment ladies and

445

00:16:04,629 --> 00:16:02,560

gentlemen

446

00:16:09,670 --> 00:16:04,639

i'm not recording i'm not

447

00:16:13,670 --> 00:16:11,990

so um

448

00:16:15,189 --> 00:16:13,680

that i think is

449

00:16:16,550 --> 00:16:15,199

is all part of this there's many other

450

00:16:19,110 --> 00:16:16,560

examples i could give which i don't have

451

00:16:20,829 --> 00:16:19,120

time to given out about how

452

00:16:23,350 --> 00:16:20,839

the world is changing the world is being

453

00:16:24,870 --> 00:16:23,360

artificially changed into a new form

454

00:16:27,749 --> 00:16:24,880

and lots of well-meaning people have

455

00:16:29,749 --> 00:16:27,759

been recruited into doing this

456

00:16:30,790 --> 00:16:29,759

because they believe they have to

457

00:16:33,749 --> 00:16:30,800

because of

458

00:16:37,910 --> 00:16:33,759

the danger that's facing us

459

00:16:41,749 --> 00:16:40,150

as the late great robert antoine wilson

460

00:16:43,670 --> 00:16:41,759

once said

461

00:16:45,749 --> 00:16:43,680

our planet is one increasingly

462

00:16:47,829 --> 00:16:45,759

resembling a huge maximum security

463

00:16:50,870 --> 00:16:47,839

prison the only intelligent choice is to

464

00:16:52,389 --> 00:16:50,880

plan a jailbreak

465

00:16:55,430 --> 00:16:52,399

so don't don't i care about the world

466

00:16:57,990 --> 00:16:55,440

too of course i do

467

00:16:59,670 --> 00:16:58,000

but the truth of the matter is

468

00:17:01,749 --> 00:16:59,680

as i said at the very beginning when i

469

00:17:03,269 --> 00:17:01,759

showed you a picture of richard heinberg

470

00:17:05,270 --> 00:17:03,279

or robert richard

471

00:17:07,510 --> 00:17:05,280

i don't agree with him i don't agree

472

00:17:09,110 --> 00:17:07,520

with any of these people

473

00:17:13,510 --> 00:17:09,120

the truth of the matter is the ship is

474

00:17:16,069 --> 00:17:13,520

not sinking it's being scuttled

475

00:17:17,270 --> 00:17:16,079

and the captain is the one behind the

476  
00:17:19,110 --> 00:17:17,280  
scuttling

477  
00:17:20,710 --> 00:17:19,120  
he's doing it so he can trick us into

478  
00:17:22,789 --> 00:17:20,720  
the water

479  
00:17:24,470 --> 00:17:22,799  
and into the lifeboat

480  
00:17:27,029 --> 00:17:24,480  
so we can

481  
00:17:31,270 --> 00:17:27,039  
hack our hands with axes

482  
00:17:35,110 --> 00:17:33,029  
you can take the lifeboat and run a much

483  
00:17:36,950 --> 00:17:35,120  
tighter ship on board that lifeboat with

484  
00:17:38,150 --> 00:17:36,960  
fewer people than he did on board the

485  
00:17:41,750 --> 00:17:38,160  
ship

486  
00:17:43,510 --> 00:17:41,760  
to adapt the renault lincoln analogy

487  
00:17:45,270 --> 00:17:43,520  
if we end up in that lifeboat or in the

488  
00:17:48,310 --> 00:17:45,280

sea then

489

00:17:49,190 --> 00:17:48,320

because and there's no other way to put

490

00:17:55,590 --> 00:17:49,200

it

491

00:17:59,909 --> 00:17:58,390

now what we what we need

492

00:18:03,110 --> 00:17:59,919

really is a new energy source we need an

493

00:18:05,110 --> 00:18:03,120

energy source which is abundant

494

00:18:06,870 --> 00:18:05,120

if infinite or at least very abundant

495

00:18:09,909 --> 00:18:06,880

that is cheap

496

00:18:11,750 --> 00:18:09,919

that is not environmentally friendly

497

00:18:13,669 --> 00:18:11,760

and is easy to access and very very

498

00:18:14,390 --> 00:18:13,679

powerful so that we can it can replace

499

00:18:15,430 --> 00:18:14,400

oil

500

00:18:20,950 --> 00:18:15,440

and so

501  
00:18:25,270 --> 00:18:23,110  
but there is you see there is

502  
00:18:26,870 --> 00:18:25,280  
this energy source

503  
00:18:30,150 --> 00:18:26,880  
there always has been the means to

504  
00:18:35,270 --> 00:18:31,750  
exists and it can be created out the

505  
00:18:39,669 --> 00:18:37,590  
energy that's clean completely clean not

506  
00:18:42,549 --> 00:18:39,679  
environmentally damaging in any way

507  
00:18:44,150 --> 00:18:42,559  
it's free doesn't cost anything

508  
00:18:45,990 --> 00:18:44,160  
it's very simple

509  
00:18:47,350 --> 00:18:46,000  
to access it's so it's very you don't

510  
00:18:49,830 --> 00:18:47,360  
have to

511  
00:18:51,750 --> 00:18:49,840  
terms of

512  
00:18:53,430 --> 00:18:51,760  
generating it unlike fossil fuels just

513  
00:18:57,510 --> 00:18:53,440

cost a lot of money

514

00:19:00,470 --> 00:18:57,520

and it's available in infinite amounts

515

00:19:02,710 --> 00:19:00,480

the means to access this energy are

516

00:19:04,230 --> 00:19:02,720

so in some cases surprisingly simple you

517

00:19:06,070 --> 00:19:04,240

don't need a large hadron collider or

518

00:19:07,590 --> 00:19:06,080

some big power station you can do it

519

00:19:09,669 --> 00:19:07,600

very simply you could

520

00:19:11,190 --> 00:19:09,679

do it in your home

521

00:19:13,590 --> 00:19:11,200

you can do a very very simple piece of

522

00:19:15,350 --> 00:19:13,600

engineering very basic and

523

00:19:16,710 --> 00:19:15,360

it's even present in nature it's been

524

00:19:17,750 --> 00:19:16,720

observed

525

00:19:19,669 --> 00:19:17,760

in some

526

00:19:21,430 --> 00:19:19,679

weather conditions

527

00:19:25,110 --> 00:19:21,440

and even some animals and plants have

528

00:19:27,029 --> 00:19:25,120

evolved to use it

529

00:19:28,549 --> 00:19:27,039

now scientists

530

00:19:31,750 --> 00:19:28,559

in the mainstream

531

00:19:33,190 --> 00:19:31,760

they will call it over unity

532

00:19:35,029 --> 00:19:33,200

over unt

533

00:19:36,390 --> 00:19:35,039

this basically is like it's a scientific

534

00:19:37,669 --> 00:19:36,400

heresy because

535

00:19:38,549 --> 00:19:37,679

it is

536

00:19:39,909 --> 00:19:38,559

taking

537

00:19:41,510 --> 00:19:39,919

more energy out of the system than you

538

00:19:43,590 --> 00:19:41,520

put in this should be impossible there

539

00:19:45,510 --> 00:19:43,600

are laws the laws of thermodynamics laws

540

00:19:47,669 --> 00:19:45,520

of the confidence conservation of energy

541

00:19:51,029 --> 00:19:47,679

laws of entropy etc which are meant to

542

00:19:51,039 --> 00:19:54,710

um

543

00:19:56,789 --> 00:19:55,510

but

544

00:19:59,909 --> 00:19:56,799

recently we've been hearing about the

545

00:20:01,990 --> 00:19:59,919

zero point energy that

546

00:20:03,830 --> 00:20:02,000

physicists are saying that there is an

547

00:20:06,310 --> 00:20:03,840

energy field in the universe even if you

548

00:20:08,150 --> 00:20:06,320

take away all the thermal energy from it

549

00:20:09,830 --> 00:20:08,160

you're left with something we're told

550

00:20:11,510 --> 00:20:09,840

it's not accessible you can't tap it you

551

00:20:13,430 --> 00:20:11,520

can't use it what if you can i think you

552

00:20:19,430 --> 00:20:13,440

can what if you can what if there was a

553

00:20:22,230 --> 00:20:20,549

now

554

00:20:23,669 --> 00:20:22,240

you might say to me well ben this is

555

00:20:25,510 --> 00:20:23,679

it's wonderful this new invention that's

556

00:20:27,110 --> 00:20:25,520

just come along well you know it's great

557

00:20:28,549 --> 00:20:27,120

but it's not a new invention that's just

558

00:20:30,549 --> 00:20:28,559

come along

559

00:20:33,830 --> 00:20:30,559

it's been around for a very very long

560

00:20:35,990 --> 00:20:33,840

time we're talking over a century now

561

00:20:37,750 --> 00:20:36,000

close to a century and a half plans

562

00:20:39,190 --> 00:20:37,760

for devices like this date back before

563

00:20:43,029 --> 00:20:39,200

the age of oil even when we were in the

564

00:20:44,390 --> 00:20:43,039

age of coal in the industrial revolution

565

00:20:46,149 --> 00:20:44,400

um i'm going to

566

00:20:48,789 --> 00:20:46,159

give you a few examples and i'm going to

567

00:20:50,950 --> 00:20:48,799

start with a um

568

00:20:53,669 --> 00:20:50,960

with a particular case which i'm sure

569

00:20:55,590 --> 00:20:53,679

will make future school children smirk

570

00:20:56,870 --> 00:20:55,600

in their science lessons

571

00:20:59,270 --> 00:20:56,880

because i'm going to talk to you about

572

00:21:02,390 --> 00:20:59,280

george a piggott

573

00:21:03,990 --> 00:21:02,400

he was famous for levitating his balls

574

00:21:05,190 --> 00:21:04,000

and don't worry the next slide is not

575

00:21:07,990 --> 00:21:05,200

going to be what you think it's going to

576

00:21:10,230 --> 00:21:08,000

be next slide please

577

00:21:11,830 --> 00:21:10,240

this is george a pigeon in 1903 he

578

00:21:14,230 --> 00:21:11,840

applied for a patent

579

00:21:15,510 --> 00:21:14,240

because he found a way to levitate steel

580

00:21:16,549 --> 00:21:15,520

balls

581

00:21:18,390 --> 00:21:16,559

using

582

00:21:19,909 --> 00:21:18,400

electric electric currents so this is

583

00:21:20,950 --> 00:21:19,919

what's known as an electrogravitic

584

00:21:22,310 --> 00:21:20,960

effect

585

00:21:24,390 --> 00:21:22,320

you may have you may have heard of

586

00:21:26,950 --> 00:21:24,400

thomas townsend brown

587

00:21:28,630 --> 00:21:26,960

and things that he's discovered

588

00:21:30,630 --> 00:21:28,640

this is similar this is basically

589

00:21:33,510 --> 00:21:30,640

electric electrical energy is

590

00:21:37,750 --> 00:21:33,520

transferred into a

591

00:21:39,590 --> 00:21:37,760

a system which for some reason somehow

592

00:21:41,270 --> 00:21:39,600

grab the gravitational field on that

593

00:21:42,789 --> 00:21:41,280

object is reduced

594

00:21:45,029 --> 00:21:42,799

or even cancelled out allowing it to

595

00:21:46,310 --> 00:21:45,039

levitate to lift into the air something

596

00:21:47,350 --> 00:21:46,320

that should be impossible but the

597

00:21:51,270 --> 00:21:47,360

electrical

598

00:21:52,870 --> 00:21:51,280

prevents gravity from accessing that so

599

00:21:56,390 --> 00:21:52,880

essentially it's like

600

00:21:58,870 --> 00:21:56,400

it's a perfect aircraft it lifts up

601  
00:22:00,950 --> 00:21:58,880  
next slide please

602  
00:22:03,110 --> 00:22:00,960  
this is another example more recent this

603  
00:22:04,230 --> 00:22:03,120  
is from the 1990s in tampere university

604  
00:22:06,789 --> 00:22:04,240  
finland

605  
00:22:07,909 --> 00:22:06,799  
they found that they could

606  
00:22:10,789 --> 00:22:07,919  
they could

607  
00:22:12,630 --> 00:22:10,799  
create a ring of magnets and spin them

608  
00:22:13,990 --> 00:22:12,640  
very very fast and hang out that's a

609  
00:22:15,750 --> 00:22:14,000  
weight over the top of it you can see

610  
00:22:17,110 --> 00:22:15,760  
this is a one stone weight hanging over

611  
00:22:19,430 --> 00:22:17,120  
the top of it

612  
00:22:21,110 --> 00:22:19,440  
and when this was spinning this ring was

613  
00:22:23,990 --> 00:22:21,120

spinning at a certain rate

614

00:22:27,110 --> 00:22:24,000

that weight would lose

615

00:22:28,230 --> 00:22:27,120

four and a half ounces of weight

616

00:22:30,149 --> 00:22:28,240

when it's hanging over this spinning

617

00:22:33,350 --> 00:22:30,159

magnet that's impossible a one stone

618

00:22:34,950 --> 00:22:33,360

weight loses four and a half ounces

619

00:22:37,350 --> 00:22:34,960

we should point out what weight is

620

00:22:39,029 --> 00:22:37,360

weight is not mass weight is actually an

621

00:22:40,950 --> 00:22:39,039

effect of gravity

622

00:22:43,430 --> 00:22:40,960

it's an effect when when a mass is in

623

00:22:45,590 --> 00:22:43,440

the gravitational field it puts pressure

624

00:22:47,669 --> 00:22:45,600

on anything beneath it

625

00:22:48,950 --> 00:22:47,679

in this case the floor my weight on the

626

00:22:51,270 --> 00:22:48,960

floor because i'm a mass in the

627

00:22:53,029 --> 00:22:51,280

gravitational field

628

00:22:54,310 --> 00:22:53,039

that's that's what weight is and this

629

00:22:56,549 --> 00:22:54,320

weight was reduced that should be

630

00:22:58,070 --> 00:22:56,559

impossible it could only happen if the

631

00:23:01,430 --> 00:22:58,080

gravitational

632

00:23:02,310 --> 00:23:01,440

earth was in some way reduced around

633

00:23:05,350 --> 00:23:02,320

that

634

00:23:07,830 --> 00:23:05,360

big steel block

635

00:23:09,669 --> 00:23:07,840

next slide please

636

00:23:12,310 --> 00:23:09,679

it's not possible to discuss the

637

00:23:13,750 --> 00:23:12,320

evolution of alternative esoteric energy

638

00:23:15,750 --> 00:23:13,760

without talking about this man this is

639

00:23:18,230 --> 00:23:15,760

nikola tesla

640

00:23:20,390 --> 00:23:18,240

he was born in 1856 in serbia and in

641

00:23:21,430 --> 00:23:20,400

1884 he moved to the united states of

642

00:23:23,270 --> 00:23:21,440

america

643

00:23:24,310 --> 00:23:23,280

where you me he didn't have he didn't

644

00:23:25,750 --> 00:23:24,320

have a job he didn't have a penny when

645

00:23:27,990 --> 00:23:25,760

he arrived but he very quickly earned an

646

00:23:29,590 --> 00:23:28,000

income because he was a genius in terms

647

00:23:31,270 --> 00:23:29,600

of electricity

648

00:23:32,470 --> 00:23:31,280

even as a small child he used to go out

649

00:23:34,710 --> 00:23:32,480

and he's used to walk through

650

00:23:37,270 --> 00:23:34,720

thunderstorms watching the lightning

651  
00:23:40,070 --> 00:23:37,280  
because he was so fascinated by it

652  
00:23:43,029 --> 00:23:40,080  
he sweated a business with thomas edison

653  
00:23:46,230 --> 00:23:43,039  
and they later became rivals

654  
00:23:50,390 --> 00:23:47,830  
basically he's what he discovered the

655  
00:23:52,230 --> 00:23:50,400  
reason he'd gone into trouble was

656  
00:23:53,430 --> 00:23:52,240  
because he discovered that there is

657  
00:23:55,029 --> 00:23:53,440  
energy

658  
00:23:56,070 --> 00:23:55,039  
he didn't he was one of the people who

659  
00:23:58,630 --> 00:23:56,080  
discovered

660  
00:24:00,870 --> 00:23:58,640  
that energy to run electrical power can

661  
00:24:02,870 --> 00:24:00,880  
come out of the fabric of the universe

662  
00:24:05,669 --> 00:24:02,880  
but also that he went public with it he

663  
00:24:08,230 --> 00:24:05,679

spoke out about it

664

00:24:09,990 --> 00:24:08,240

it's funny about tesla because um this

665

00:24:11,430 --> 00:24:10,000

man really ought to be as famous as

666

00:24:12,710 --> 00:24:11,440

albert einstein he ought to be a

667

00:24:14,789 --> 00:24:12,720

household name

668

00:24:16,549 --> 00:24:14,799

and he he has achieved success i mean

669

00:24:19,110 --> 00:24:16,559

for instance he invented an alternating

670

00:24:22,870 --> 00:24:19,120

current that we use today but also the

671

00:24:25,110 --> 00:24:22,880

the unit of magnetic power is the tesla

672

00:24:26,390 --> 00:24:25,120

um the the name the number the word for

673

00:24:28,470 --> 00:24:26,400

the units of magnetic power is named

674

00:24:31,350 --> 00:24:28,480

after him strangely enough though um

675

00:24:33,669 --> 00:24:31,360

when i was a porter at my hospital

676  
00:24:35,190 --> 00:24:33,679  
they know about this because

677  
00:24:37,430 --> 00:24:35,200  
the we have magnets of the hospital and

678  
00:24:39,590 --> 00:24:37,440  
things like the mri scanners and i was

679  
00:24:41,510 --> 00:24:39,600  
talking to a radiographer once

680  
00:24:42,630 --> 00:24:41,520  
and he was boasting about his new

681  
00:24:44,630 --> 00:24:42,640  
machine that had just been delivered

682  
00:24:45,830 --> 00:24:44,640  
this five million pound mri scan i've

683  
00:24:49,190 --> 00:24:45,840  
just been installed in the hospital he

684  
00:24:50,390 --> 00:24:49,200  
says that's a 3.5 t magnet and it's one

685  
00:24:51,909 --> 00:24:50,400  
of the most powerful magnets in the

686  
00:24:53,750 --> 00:24:51,919  
world

687  
00:24:56,310 --> 00:24:53,760  
and it's all mine and stuff like that

688  
00:24:58,070 --> 00:24:56,320

and i said and i said to them all

689

00:24:59,190 --> 00:24:58,080

what's that what's what does the t stand

690

00:25:01,350 --> 00:24:59,200

for

691

00:25:03,750 --> 00:25:01,360

he says i don't know we just say we just

692

00:25:06,149 --> 00:25:03,760

measure magnetic fields and t's like uh

693

00:25:08,070 --> 00:25:06,159

most a fridge magnet is a few micro teas

694

00:25:10,310 --> 00:25:08,080

and you get like uh different magnets

695

00:25:12,950 --> 00:25:10,320

there's humidity and and things like

696

00:25:14,470 --> 00:25:12,960

that and this is 3.5 ts

697

00:25:15,669 --> 00:25:14,480

and the funny thing is was this the

698

00:25:18,070 --> 00:25:15,679

funny thing is this guy's a trained

699

00:25:19,669 --> 00:25:18,080

radiographer he must have had uh studied

700

00:25:20,710 --> 00:25:19,679

science at school to a considerable

701  
00:25:22,070 --> 00:25:20,720  
level to

702  
00:25:23,350 --> 00:25:22,080  
be allowed on the radio for a training

703  
00:25:24,630 --> 00:25:23,360  
course

704  
00:25:26,230 --> 00:25:24,640  
um

705  
00:25:28,149 --> 00:25:26,240  
he didn't know what t stood for and i'm

706  
00:25:30,310 --> 00:25:28,159  
a hospital porter and i've got a gcsc in

707  
00:25:32,149 --> 00:25:30,320  
english which i left school at 16. i

708  
00:25:34,070 --> 00:25:32,159  
know it stands for tesla

709  
00:25:35,750 --> 00:25:34,080  
so why they shawn into t it's not like

710  
00:25:36,789 --> 00:25:35,760  
tesla's a long name it's not like he's

711  
00:25:39,190 --> 00:25:36,799  
called

712  
00:25:40,549 --> 00:25:39,200  
teslaroski bondarensky

713  
00:25:45,350 --> 00:25:40,559

if that was his name yeah it's short

714

00:25:46,710 --> 00:25:45,360

next to t it's tesla so i need 3.5 tesla

715

00:25:48,710 --> 00:25:46,720

i think they want to write this guy out

716

00:25:49,510 --> 00:25:48,720

of history i think they they want to

717

00:25:51,830 --> 00:25:49,520

even

718

00:25:54,549 --> 00:25:51,840

mainstream they want to try and

719

00:25:58,789 --> 00:25:56,230

nikola tesla was promised he carried out

720

00:26:00,470 --> 00:25:58,799

with several experiments um

721

00:26:04,390 --> 00:26:00,480

some of which are still classified today

722

00:26:06,470 --> 00:26:04,400

after 120 years in some cases

723

00:26:09,590 --> 00:26:06,480

um

724

00:26:13,350 --> 00:26:09,600

now he said he his discovery his gift of

725

00:26:18,950 --> 00:26:15,669

that made him a lot of enemies

726  
00:26:20,070 --> 00:26:18,960  
including people like jp morgan

727  
00:26:21,990 --> 00:26:20,080  
and

728  
00:26:25,669 --> 00:26:22,000  
several other major power brokers

729  
00:26:30,070 --> 00:26:27,990  
there's a it's really really a

730  
00:26:31,669 --> 00:26:30,080  
sad story but they destroyed them they

731  
00:26:33,590 --> 00:26:31,679  
brought them down

732  
00:26:37,750 --> 00:26:33,600  
jp morgan very famous he said if i can't

733  
00:26:42,230 --> 00:26:40,390  
nikola tesla died in 1943 penniless at

734  
00:26:44,710 --> 00:26:42,240  
the age of seven i think he was 70

735  
00:26:46,149 --> 00:26:44,720  
something and he died um

736  
00:26:47,350 --> 00:26:46,159  
basically he was living in a hotel room

737  
00:26:48,630 --> 00:26:47,360  
and he had just enough money for his

738  
00:26:50,950 --> 00:26:48,640

bills

739

00:26:52,630 --> 00:26:50,960

now before the even the undertakers were

740

00:26:54,789 --> 00:26:52,640

allowed into the room to take the body

741

00:26:56,390 --> 00:26:54,799

away to the funeral parlor the fbi

742

00:26:58,870 --> 00:26:56,400

sealed the door went in there and

743

00:27:01,830 --> 00:26:58,880

confiscated all tesla's books his papers

744

00:27:03,029 --> 00:27:01,840

everything he had his equipment was gone

745

00:27:07,909 --> 00:27:03,039

and we don't know where it went still

746

00:27:12,470 --> 00:27:11,029

an exciting place i think

747

00:27:14,149 --> 00:27:12,480

there are many other examples i can talk

748

00:27:16,070 --> 00:27:14,159

about um

749

00:27:18,310 --> 00:27:16,080

who have also

750

00:27:19,350 --> 00:27:18,320

delved into this area of research some

751

00:27:21,110 --> 00:27:19,360

of them a lot of them are not

752

00:27:22,710 --> 00:27:21,120

professional scientists so they don't

753

00:27:23,830 --> 00:27:22,720

have a career to ruin because if you're

754

00:27:25,750 --> 00:27:23,840

a professional

755

00:27:27,269 --> 00:27:25,760

academic and you get into this you're

756

00:27:29,029 --> 00:27:27,279

you're finished

757

00:27:30,870 --> 00:27:29,039

people like brewster palmer john keeley

758

00:27:33,029 --> 00:27:30,880

thomas townsend brown i just mentioned

759

00:27:34,630 --> 00:27:33,039

we've gone into electro good but ticks

760

00:27:35,830 --> 00:27:34,640

this is a man who's still alive today

761

00:27:37,590 --> 00:27:35,840

and is still working in this field it's

762

00:27:39,110 --> 00:27:37,600

john hutchison

763

00:27:40,710 --> 00:27:39,120

and he's quite well known thanks to

764

00:27:42,310 --> 00:27:40,720

andrew johnson and

765

00:27:45,350 --> 00:27:42,320

dr judy wood and i'll talk more about

766

00:27:46,789 --> 00:27:45,360

those in a minute because um

767

00:27:49,830 --> 00:27:46,799

the kind of research we're talking about

768

00:27:53,909 --> 00:27:49,840

here can be used i think is being used

769

00:27:57,590 --> 00:27:55,830

come next slide close

770

00:27:59,750 --> 00:27:57,600

i think it's getting windier isn't it

771

00:28:02,870 --> 00:27:59,760

let's see the wind's getting worse

772

00:28:04,230 --> 00:28:02,880

now and this guy here is um he's

773

00:28:06,710 --> 00:28:04,240

he's a sport of the english defense

774

00:28:09,669 --> 00:28:06,720

league as you can see that's ed I that

775

00:28:11,430 --> 00:28:09,679

says um that's um ed I stands for edward

776

00:28:13,110 --> 00:28:11,440

leads scalding his name is led with

777

00:28:16,149 --> 00:28:13,120

leeds garland

778

00:28:19,110 --> 00:28:16,159

and he's a very interesting chap indeed

779

00:28:20,549 --> 00:28:19,120

um he came from he comes from latvia and

780

00:28:22,230 --> 00:28:20,559

in the early 20th century he moved to

781

00:28:24,230 --> 00:28:22,240

the united states

782

00:28:26,470 --> 00:28:24,240

and he uh

783

00:28:28,310 --> 00:28:26,480

he was interested in chat because he

784

00:28:31,029 --> 00:28:28,320

before he left lafayette he was engaged

785

00:28:33,750 --> 00:28:31,039

and married to a young lady called agnes

786

00:28:35,510 --> 00:28:33,760

agnes scuff that was her name

787

00:28:37,510 --> 00:28:35,520

and basically didn't work out they had a

788

00:28:40,070 --> 00:28:37,520

very acrimonious breakup

789

00:28:42,230 --> 00:28:40,080

and he basically never got over it

790

00:28:43,750 --> 00:28:42,240

and um

791

00:28:45,350 --> 00:28:43,760

i think he says he was such an eccentric

792

00:28:46,870 --> 00:28:45,360

man he dealt with it differently to how

793

00:28:48,389 --> 00:28:46,880

other blokes would most of the blokes go

794

00:28:50,070 --> 00:28:48,399

out they get drunk they cry on their

795

00:28:51,830 --> 00:28:50,080

friend's shoulder for a couple of days

796

00:28:53,830 --> 00:28:51,840

and they get on with their life this guy

797

00:28:55,830 --> 00:28:53,840

didn't this guy built a monument to his

798

00:28:57,669 --> 00:28:55,840

lost love

799

00:29:00,549 --> 00:28:57,679

he built he built what's known as coral

800

00:29:02,630 --> 00:29:00,559

castle in florida

801

00:29:03,669 --> 00:29:02,640

he built his monument is built on coral

802

00:29:05,909 --> 00:29:03,679

rock

803

00:29:08,549 --> 00:29:05,919

which he built single-handedly working

804

00:29:09,990 --> 00:29:08,559

at night and if you see it

805

00:29:11,350 --> 00:29:10,000

it seems hard to believe that someone

806

00:29:14,070 --> 00:29:11,360

could actually construct something like

807

00:29:15,750 --> 00:29:14,080

this what's interesting about it is that