

BRITISH COLUMBIA UTILITIES COMMISSION  
IN THE MATTER OF THE UTILITIES COMMISSION ACT  
R.S.B.C. 1996, CHAPTER 473

And

An Inquiry into the Regulation of  
Electric Vehicle Charging Service

KELOWNA, B.C.  
March 6<sup>th</sup>, 2018

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**Community Input Session**

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BEFORE:

D. Morton,	Chair/Panel Chair
A. Fung,	Commissioner
H. Harowitz,	Commissioner

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**KELOWNA, B.C.**  
**March 6, 2018**

**(PROCEEDINGS COMMENCE AT 6:08 P.M.)**

THE CHAIRPERSON: Good evening, everyone, and everyone who is here in the room in Kelowna and also good evening to all those who are listening online. Thank you very much for coming out and listening to the community input session here in Kelowna for the electric vehicle charging service inquiry. My name is Dave Morton, I'm the Chair of the Panel for this inquiry and also the chair and CEO of the Commission. And with me is Anna Fung and Howard Harowitz, they are both commissioners and they are my fellow Panel members.

We're not going to have much to say tonight, you may be relieved to know. But what we're going to do is turn it over to -- our Commission staff have a short presentation to give and then after that we're going to invite you to make your comments or if you have any questions that you would like to ask staff of their presentations, please feel free to do that.

So on that note, Patrick, am I handing it over to you? Patrick Wruck. Please go ahead, Patrick, thanks.



1 captured and the cost of that infrastructure to  
2 provide electricity to these charging stations? How  
3 is that going to be taken out of the equation from the  
4 distribution, and commercial, and industrial present  
5 system that we have?

6 And two, it seems like Fortis also have a  
7 monopoly almost on this, because they have the  
8 utility. So I'm not quite sure how other companies  
9 would actually get into a regulated -- how this would  
10 fit in with a regulated market. And if it's a  
11 monopoly, seems like -- you know, we look at gas  
12 stations today, and we almost think that they have a  
13 monopoly, because when the gas goes up in Kelowna,  
14 every single station the gas goes up, so.

15 I guess those are my two main concerns, is  
16 how this will be dealt with as a monopoly and also how  
17 the impacts on the grid system will be. Thank you.

18 THE CHAIRPERSON: Thank you, sir.

19 Do we have any owners of electric vehicles  
20 that would like to share their thoughts?

21 **SUBMISSIONS BY MR. BOND:**

22 MR. BOND: Good evening.

23 THE CHAIRPERSON: Good evening.

24 MR. BOND: My name is Travis Bond, B-O-N-D.

25 THE CHAIRPERSON: Hi, Travis.

26 MR. BOND: And I drive a Nissan Leaf and I love my car.

1 I have a Tesla on order, I'm hoping it comes. If  
2 Trump doesn't get rid of NAFTA, but anyway, that's a  
3 different issue.

4 I really appreciate the opportunity of the  
5 leadership to come together and talk about being at  
6 the front end of a curve that is -- it's inevitable.  
7 I have ICE cars, I have a 1968 Mustang, but the car  
8 that I prefer to drive is the EV.

9 And it turns out that in my family and with  
10 the friendship group -- here's a other couple friends  
11 of mine -- the EV thing has kind of taken off. I'm a  
12 vice principle in Penticton and have two staff members  
13 now who have bought EVs. And the reality is is that  
14 if you've had an opportunity to drive one there's no  
15 question that in the course of my lifetime it's going  
16 to be an infrastructure worth investing into.

17 To help offset maybe some pressures on the  
18 utility, I've also installed solar panels on my home.  
19 And so, there's a lot of people in the community in  
20 the Okanagan here who are very keen on being a leader  
21 in the province and on the front end leading curve,  
22 rather than following from behind trying to play catch  
23 up, especially with the number of EVs that are already  
24 on order waiting to come into the province.

25 So I just appreciate the opportunity and  
26 the conversation and I hope that together we'll be

1 sort of forward thinking. Thank you.

2 THE CHAIRPERSON: Thank you. A couple of questions, sir.

3 MR. BOND: Yes.

4 THE CHAIRPERSON: Just curious, did you install the solar  
5 panels -- you're a net metering customer I assume,  
6 with the solar panels?

7 MR. BOND: Smart meter, yeah.

8 THE CHAIRPERSON: Did you install those after you  
9 purchased the Leaf or did you have those on your home  
10 already?

11 MR. BOND: No, I purchased the Leaf first, and then drove  
12 it for about a year before investing in solar. And  
13 it's kind of -- again, the solar thing, I'm sure a lot  
14 of people here, if you're interested, it's just  
15 thinking forward. It's about having the ability to  
16 lay money out ahead of time, that it's going to take  
17 me time to get back, but to me it's the right thing to  
18 do in a forward-thinking society that we pursue all  
19 options around energy.

20 **Proceeding Time 6:24 p.m. T4**

21 THE CHAIRPERSON: Right. So do you find that the  
22 incremental saving from the solar panel, does that  
23 offset your cost of electricity for your vehicle?

24 MR. BOND: Oh, yeah. An electric car does not cost a lot  
25 to power.

26 THE CHAIRPERSON: Yes, okay.

1 MR. BOND: I net gain significant energy from my solar  
2 system than what my car takes, for sure.

3 THE CHAIRPERSON: Right, okay. Yes, thanks.

4 MR. BOND: Okay?

5 COMMISSIONER FUNG: I have a question. Where do you  
6 charge your car now? Your --

7 MR. BOND: I charge -- that's a great question, actually.  
8 I think it will speak to maybe the last comment. I  
9 charge my car 95 percent of the time at my house. So,  
10 the infrastructure in the valley, it's important for  
11 when you're, you know, traveling. An example is  
12 coming to Kelowna, because I'm in Penticton. And this  
13 city actually doesn't have a very good charging  
14 network right now. But in the city of Penticton we  
15 have a supercharger in Summerland. I believe we have  
16 three or four Level 2 chargers. There's Level 2  
17 chargers also in Penticton. But I know that for me  
18 when we come to Kelowna, for example, it's a little  
19 bit more tricky. Which is partly why I am doing the  
20 Tesla thing, because you get the range.

21 But the new products that are on the market  
22 right now, and there's a lot coming up for 2020, have  
23 got significant range increases. But the reality is,  
24 just Family Day weekend, had a friend of mine come  
25 from Vancouver, has the Kia Soul, which is an EV. Not  
26 hybrid. And couldn't bring that car, because the

1 infrastructure just wasn't quite reliable yet.

2 But the reality is, as families my age, I'm  
3 40, us and down, we're looking hard at this. And I  
4 see people who are 40 and plus, and they're  
5 considering it, or doing it as well. So -- am I  
6 right?

7 UNIDENTIFIED MALE SPEAKER: He doesn't look 40.

8 COMMISSIONER FUNG: Yeah. When you say you charge at  
9 home, is it a Level 1 or Level 2 that you have at  
10 home?

11 MR. BOND: I have a Level 2 at my house. Yeah.

12 COMMISSIONER FUNG: Okay. Thank you.

13 THE CHAIRPERSON: Do you have any thoughts on whether  
14 Fortis should develop an infrastructure, or whether it  
15 should be open for anyone to -- any provider of EV  
16 services?

17 MR. BOND: That's a big question, I guess. I mean, I  
18 just see it being a service to the community, and  
19 whether it's Fortis or if it's Tesla doing their own  
20 private system or network --

21 THE CHAIRPERSON: Yes, it doesn't matter, yeah.

22 MR. BOND: To me, it doesn't matter. I just like that  
23 there's options.

24 THE CHAIRPERSON: Right.

25 MR. BOND: And I think that we embrace change, and like I  
26 said, I have ICE cars. But I also have an EV, and I

1           would prefer to drive it.

2   THE CHAIRPERSON:    Sure.  I appreciate that.

3   MR. BOND:       Yeah.  Thank you.

4   THE CHAIRPERSON:    Thank you very much.

5   COMMISSIONER FUNG:   Thank you.

6   **SUBMISSIONS BY MR. MEIKLEJOHN:**

7   MR. MEIKLEJOHN:    Hi.  My name is Cal Meikeljohn, M-E-I-K-  
8           L-E-J-O-H-N.  I wanted to follow my next-door  
9           neighbour.

10  THE CHAIRPERSON:    Okay.

11  MR. MEIKLEJOHN:    So I think we win the prize for being  
12           the closest speakers tonight.

13                    I'm an architect.  I also live in  
14           Penticton.  I have four cars, I have two electrics.  
15           Travis bought his before I bought mine.  I have a Fiat  
16           500 electric only, plug in, about 80 kilometers of  
17           range.  I have -- I've had it for about eight months,  
18           and I have a BMW I-3 which I've had for two months.  
19           It has the range extender version.

20                    Obviously I like cars because I have  
21           several of them, but I bought the electrics to do my  
22           part, and I don't know if I was thinking of electric  
23           before I saw the neighbour driving his Leaf, but that  
24           was part of it.

25                    I've managed to drive the -- about 3,000  
26           kilometres, with putting about 9 litres of gas in my

1           one car, because I could not get the Manning Park  
2           recharging station to work. So that was my one use of  
3           gas. And I bought the first electric car, drove it  
4           for a while, and then realized in my work - I'm an  
5           architect, I travel all over - I just could not count  
6           on the vehicle charging stations to work.

7   THE CHAIRPERSON:    Yes.

8   MR. MEIKLEJOHN:    Which is good, because I couldn't get  
9           one to work.

10                    I guess I'm also thinking about the impact  
11           of the transition from internal combustion engine to  
12           electric, assuming that that is really going to happen  
13           completely, from not necessarily regulatory but also  
14           an urban planning point of view. For example, home  
15           charging versus rapid charging. We plug in at night,  
16           but not all the time. And I think in terms of that  
17           load curve stuff, it makes unbelievable sense for us  
18           to park at home, charge at night, when the demand is  
19           really low, and then drive away and be charged up  
20           while people awake are using electricity. So I think  
21           in general planning, it makes very good sense.

22                    And in that way I think -- I'm not sure if  
23           it's your job, but I think you could support the idea  
24           that -- the idea of installing at least the  
25           infrastructure for home charging be mandatory in new  
26           construction, single-family residence, multi-family.



1 parking, at home or in residential condos, apartments  
2 that I think should have plugins, that's one thing.  
3 But I think in public stations it should be you charge  
4 and you leave. That's why I'm really happy to have my  
5 Level 3 charger. I can get, you know, 80 percent in  
6 half an hour, 40 minutes at the most. So I think  
7 those are what we should sort of focus on for  
8 infrastructure and planning as charging stations  
9 essentially replace gas stations.

10 My home energy costs me 10, 15 cent a  
11 kilowatt. I buy it or it's free for about 35 cents a  
12 kilowatt. I kind of have figured out what it costs  
13 me, I don't know if it's 40 cents if I have to pay for  
14 it, or if about a 40 miles per gallon equivalent. It  
15 doesn't really matter right now, but I think that will  
16 be the question and I don't have an answer should it  
17 be regulated and how that gets controlled, but I do  
18 think it's something to be worried about.

19 I have a Greenlots card. They are  
20 ChargePoint, Greenlots and FLO are three different  
21 providers that I'm aware of. I don't quite understand  
22 how they get paid, or how they make money, or don't  
23 make money. I'd like them to be as simple as  
24 possible. I like the card swipes, I've got two of  
25 them. I use my phone app and that works, except in  
26 Manning Park where I couldn't get cell reception. So

1 I think it would be nice if those are all sort of  
2 standardized somehow to make it work for everybody.

3 And then I think one thing that would be  
4 really good, especially with relating to charge and  
5 go, is somehow you should be notified. And I do get  
6 notified that my charging is done, but you should get  
7 pinged or something to say move your car, move along.  
8 Because I think in future, as we go from one percent,  
9 to five percent, or ten percent, that's ten times as  
10 many people that may be looking and you've got to keep  
11 people moving through. And I think the question came  
12 out, "I think you should be charged for the energy you  
13 extract from the system, not the time." Because then  
14 it turns into a parking lot and I think that's the  
15 wrong approach.

16 I think that's all the notes that I've  
17 made, so if you have any questions of me, I'll be  
18 happy to answer.

19 THE CHAIRPERSON: Yeah, a couple questions.

20 MR. MIKELJOHN: Sure.

21 THE CHAIRPERSON: Earlier on you used I think Manning  
22 Park as an example of the charging station that was  
23 out of commission.

24 MR. MIKELJOHN: Yeah. I don't know, I couldn't make it  
25 work. And it could be me because I was brand new at  
26 the process.

1 THE CHAIRPERSON: Yeah, sure. Understood. But is that  
2 common?

3 MR. MIKELJOHN: It was common for me to not quite figure  
4 out how to make them work. So I think everybody knows  
5 gas, right? You go up, you pump the card, and then  
6 pump, and go. Here, you put in your card, you swipe.  
7 Do you pick your CHAdEMO or your CCS or what first,  
8 and do you plug in first or try to -- it's not clear.  
9 So --

10 THE CHAIRPERSON: Right. And there's no operator around  
11 or --

12 MR. MIKELJOHN: There's no operator around to talk. I  
13 think once I called somebody and it was -- they were  
14 there. But, so I'm not complaining, but it's just it  
15 would be nice if they all worked the same, they all  
16 plugged in the same. I know we're going to have at  
17 least two different charging ports, but that's -- or  
18 three because of Tesla, but that's probably okay.

19 THE CHAIRPERSON: Also you talked a little bit about  
20 moving away from the charger once you're filled up, so  
21 to speak, if that's the right metaphor.

22 MR. MIKELJOHN: Yeah, yeah. Right.

23 THE CHAIRPERSON: Is that a big problem also?

24 MR. MIKELJOHN: So far?

25 THE CHAIRPERSON: Never had to wait. Always -- I need to  
26 charge, I go, there's a spot, I can charge. And I

1       either am killing time, thinking of half an hour and  
2       I'll go move, or I leave it there and, oh, I forgot  
3       about it, and I've got an e-mail reminding me to go  
4       get my car. So I am -- so far haven't been annoyed by  
5       someone in a spot that's full. But I was happy that  
6       there was one charging station down here, but lots of  
7       vehicles parked in front of charging stations that  
8       were charging.

9       THE CHAIRPERSON:    Yeah, I noticed that too. Yes, yeah.

10      MR. MIKELJOHN:     So it's like, "Oh my god, hope you're not  
11      here." But, yeah, so, so far that hasn't been a  
12      problem. I think that's one of the problems that  
13      we're going to have.

14      THE CHAIRPERSON:    Yeah

15      MR. MIKELJOHN:     Yeah.

16      THE CHAIRPERSON:    So would charging by time help to  
17      mitigate that?

18      MR. MIKELJOHN:     In my opinion, yes.

19      THE CHAIRPERSON:    As opposed to what?

20      MR. MIKELJOHN:     Sorry, no, no, no. I think for me I just  
21      think it's fair to charge by --

22      THE CHAIRPERSON:    Right.

23      MR. MIKELJOHN:     Yeah.

24      THE CHAIRPERSON:    But charging by time though would give  
25      some mode of -- sorry. Charging by time would give  
26      some motivation to move away from the charger.

1 MR. MIKELJOHN: True, but that --

2 MR. BROWN: Not necessarily, because once your car is  
3 full it's free, right?

4 THE CHAIRPERSON: No, not if you're paying by time.

5 MR. MIKELJOHN: Yeah.

6 THE CHAIRPERSON: For the amount of time --

7 MR. BROWN: (inaudible/off mic)

8 THE CHAIRPERSON: Yeah.

9 MR. MIKELJOHN: In my world -- sorry, sorry to interrupt.

10 THE CHAIRPERSON: It's okay.

11 MR. MIKELJOHN: But I'm thinking in my world I just want  
12 to charge and go. And they are two different things,  
13 and that's why I'm thinking about if you're going to  
14 park for long periods of time at your house, at your  
15 condo, at your apartment, the hotel, that's where you  
16 have slow charge and who cares how long you're there  
17 because you're likely gone the next morning. Again,  
18 that's my neophyte take on the situation.

19 **Proceeding Time 6:36 p.m. T6**

20 THE CHAIRPERSON: Do you have a question?

21 COMMISSIONER FUNG: No, thank you.

22 THE CHAIRPERSON: Thank you, sir. Much appreciated.

23 COMMISSIONER FUNG: Thank you.

24 **SUBMISSIONS BY MR. BROWN:**

25 MR. BROWN: Hi, there. My name is Steve Brown, B-R-O-W-  
26 N, just like the colour.

1                               Yeah, I too have a Nissan Leaf. I'm from  
2                               Summerland, not too far away from here.

3   THE CHAIRPERSON:     Mm-hmm.

4   MR. BROWN:     So, I apologize, I've got a whole bunch of  
5                               different scattered notes, and --

6   THE CHAIRPERSON:     That's okay.

7   MR. BROWN:     -- a lot of things on my mind, but I'll just  
8                               -- I'll try to go through them one by one, if I can.

9   THE CHAIRPERSON:     Yes, take your time, sir, yes.

10   MR. BROWN:     Yeah, for sure. So, a couple of things just  
11                              alluding to what that other gentleman mentioned. I've  
12                              actually taken my Leaf to Vancouver and back, and lots  
13                              -- and a number of other places that are sort of a  
14                              longer distance. One thing I experienced as well --  
15                              actually I had issues at Manning Park as well,  
16                              actually, but I did notice that some of the metering  
17                              sites, or the chargers, were only -- they only worked  
18                              with my phone. And other ones only worked with the  
19                              card, and it was really frustrating, because it just  
20                              -- it was -- and it was even funny. Some of them even  
21                              worked -- I had my wife with me, thankfully, and she  
22                              has an Apple phone and I have an Android phone. There  
23                              was even a station where it didn't even work with my  
24                              Android phone, but it worked with her Apple phone.  
25                              So, things like that, like, you know. And again,  
26                              there is websites, like as you're probably aware, like

1 PlugShare and things like that, that will sort of --  
2 that will have some notes about whether the charging  
3 station is up, or people can comment, which is  
4 excellent. But again, that's a huge issue, right?

5 If there is -- talking about anxiety,  
6 right? If you're going a long distance, and I'm not  
7 sure -- you know, if someone said, "Well, I'm not sure  
8 if there's a gas station there, but there might be,"  
9 you know, would you make the trip with that vehicle?

10 And we're trying to encourage people to  
11 choose environmentally responsible ways to travel,  
12 right? And so that needs to be amended if it can be.

13 Another example I'll give you to is the  
14 disconnect. Now, it's one thing to set up a charger  
15 in a location. But it's who looks after that charger.  
16 And I'll give you an example. So in Penticton there  
17 was a -- there's a Level 3 charger there, okay? So  
18 it's a quick charger. And it was down for quite some  
19 time. So I went onto the -- it happened to be  
20 Greenlots, okay? That was supposedly in charge of  
21 this particular station. And so it was down for quite  
22 a while. Like, so, for the first week, I was, like,  
23 "Okay, it's down." And there was a number of comments  
24 on this Greenlots website on the comments section  
25 saying, "Yeah, it's down, I don't know what's going  
26 on, we phoned Greenlots and they haven't done

1 anything, dah-dah-dah-dah." So I phoned Greenlots as  
2 well.

3 And then after, I think it was a week or  
4 two, I thought, you know what, I'm going to do a  
5 little more digging here. So I phoned -- I thought,  
6 like, who is actually in charge of this? So I phoned  
7 the municipality of Penticton and it turns out that  
8 they -- like, Greenlots hadn't even contacted the  
9 municipality, and it was actually the municipality of  
10 Penticton that was actually responsible to send their  
11 guys out to look at it, to reboot it. Okay?

12 So there was a big disconnect there as  
13 well. So I would say if you -- again, if you're going  
14 to set up the system, it's got to be extremely clear  
15 who's responsible for the maintenance of the system to  
16 keep it up, right? Like, we have to keep those gas  
17 pump tanks filled for the customers. You've got to  
18 make sure that power is working properly, and it has  
19 to be easily accessible.

20 Now, the second one which the other  
21 gentleman also mentioned was all the different cars,  
22 right? There's a number of different providers that  
23 offer the charging services, as you're aware, right,  
24 I'm sure. But again, to have like one universal card  
25 that would work or, hey, why not just be like a gas  
26 station, whether it's Shell or Petro-Can or whatever,

1       you can use a debit or credit card. Maybe make that a  
2       requirement, so that if you forget -- if your phone  
3       isn't charged up, and you had an app on your phone,  
4       and it doesn't -- you know, it doesn't work, or again,  
5       it just eliminates another variable, right? It's  
6       another -- that's maybe a universal payment method,  
7       perhaps, maybe?

8                   Another thing that I put down here is, you  
9       obviously want to future-proof your chargers, right?  
10      And so the young lady here talked about the different  
11      chargers, like Level 1, 2, and 3. But we're actually  
12      kind of beyond that now, right? As I'm sure you know.  
13      But we're up to 480 volts and 800 amps. And a lot of  
14      the newer vehicles are going to be, I believe, more  
15      than 400 volts -- or, sorry, 480 volts and more of an  
16      800 amp charging. Which again for you guys, you're  
17      going to need to make sure that obviously you're --  
18      the systems are beefy enough and things like that.  
19      But I don't think you want to put all these systems  
20      in, because there's a number of car manufacturers  
21      right now that are promising that their newer vehicles  
22      are going to -- you know, are going to have that  
23      higher charging rate, because it's a selling feature,  
24      right? So people don't have to wait too long, so.

25                   Another one -- yeah. Yeah, and again I  
26      don't think this pertains to you, but it might, so

1 I'll just comment on it. I know -- I believe in the  
2 UK they have even required -- there's some legislation  
3 that actually requires some of the gas stations to  
4 actually have a fast-charge charger, at least one in  
5 each gas station, in certain areas. You probably know  
6 about that already.

7 THE CHAIRPERSON: Sorry -- I'm sorry to interrupt you.

8 MR. BROWN: Yeah.

9 THE CHAIRPERSON: Are you aware of gas stations here that  
10 -- here in B.C. outside the --

11 MR. BROWN: I've never seen one.

12 THE CHAIRPERSON: You've never seen one.

13 MR. BROWN: Never seen one. No, that's not -- not at  
14 this time.

15 THE CHAIRPERSON: So it's not a model that they're  
16 picking up on then, is it?

17 MR. BROWN: Yeah, no, I don't think so. And it was  
18 interesting. I watched -- I mean, I probably watch  
19 way too much YouTube stuff on electric vehicles,  
20 because that's -- I really, I think it's kind of neat.  
21 But yeah, the one I saw, Shell was actually sort of --  
22 they had a little thing promoting it. But I think it  
23 was only because of legislation had already come in.

24 THE CHAIRPERSON: Yes. Yeah. Okay.

25 **Proceeding Time 6:36 p.m. T7**

26 MR. BROWN: So -- yeah. And I guess -- well, I don't

1 know, can I ask you guys questions? Or is that okay?  
2 Or --  
3 THE CHAIRPERSON: Sure.  
4 MR. BROWN: Okay. Does VW, like, with -- I know that  
5 there's a big settlement obviously in the States, but  
6 I'm just wondering with Canada, what kind of funding  
7 is -- are they bringing any funding to the table for  
8 Canada and B.C. specifically for these chargers?  
9 THE CHAIRPERSON: The gas companies, you mean?  
10 MR. BROWN: No, Volkswagen.  
11 THE CHAIRPERSON: Volkswagen? I don't know.  
12 MR. BROWN: You don't know.  
13 THE CHAIRPERSON: I can't --  
14 MR. BROWN: Okay, because as you -- you're probably  
15 familiar with this, but obviously with the settlement,  
16 right, with the whole --  
17 THE CHAIRPERSON: Right.  
18 MR. BROWN: -- VW scandal with the emission cheating  
19 scandal that went on.  
20 THE CHAIRPERSON: Yes.  
21 MR. BROWN: The deal, obviously -- at least that the U.S.  
22 -- that they made with the U.S. was they're going to  
23 spend billions of dollars on a charging infrastructure  
24 network. I was just wondering if that was -- okay.  
25 THE CHAIRPERSON: Don't know.  
26 MR. BROWN: We don't know. Sorry, just give me one sec

1 here to look at notes.

2 Oh, yeah, that's what I was also was going  
3 to say. In Germany there's an interesting situation  
4 not too long ago where they prevented Tesla from  
5 putting any more chargers in. Because they just  
6 changed the legislation there to require all charging  
7 stations to have -- I believe it's either CCS or  
8 CHAdeMO, I can't remember, as well. It has to.

9 THE CHAIRPERSON: Mm-hmm. Mm-hmm.

10 MR. BROWN: Now, here's what I would say to that. I can  
11 see why they did that, in a way, because obviously you  
12 want to standardize. And I think we do want to  
13 standardize. However, I do also believe in a free  
14 market, so to speak, a little bit, right? And Tesla  
15 -- so I guess I don't think it's fair. I don't own a  
16 Tesla but I don't think it's necessarily fair, because  
17 they went out and invested that huge amount of  
18 infrastructure, billions of dollars, around the world,  
19 being a leader in this, and then for them to get hit  
20 by a government regulation after the facts, stating  
21 that if any -- if there was any new -- like, you know,  
22 the old ones were grandfathered, but if any new  
23 chargers in the future have to be dual standard,  
24 right? Because they were one of the pioneers, I  
25 guess.

26 So, I would say, you know, whatever rules

1           that you choose, like, stick with them. You know?  
2           Don't -- I don't think it's fair to change it  
3           midstream, especially to the early -- to the people  
4           that have invested big amounts of money in the start,  
5           I guess.

6   COMMISSIONER FUNG:    So is your point that the early  
7           adapters shouldn't be penalized for the investment  
8           they've made?

9   MR. BROWN:            Correct.

10   COMMISSIONER FUNG:    Okay, thank you.

11   MR. BROWN:            Yes, exactly that. Yeah.

12                         And, yeah. And on that note, I guess, I  
13           mean, I guess I don't want there to necessarily be a  
14           monopoly, but again, if a certain car manufacturer  
15           wants to -- like Tesla, for example, wants to have  
16           their own charging plug, I guess they can do that,  
17           right? And I mean, and you're probably aware, with  
18           China, though, there was a mandate, and they said,  
19           "Well, no, you have to change it." They did actually  
20           add another plug. And that will happen with time, but  
21           that's still their choice, right? It's a free market,  
22           so -- that's okay.

23                         Let's see here. Sorry. Oh, yeah, one  
24           other thing I was going to mention because there was  
25           the talk about the time for when you actually charge  
26           your car, and how that's charged for. An interesting

1           thing that Tesla's done that I know about is, they  
2           were having an issue, so they had a number of charging  
3           stations, especially on the Interstate down in the  
4           states, where they were getting people that would --  
5           they would park there, the car would charge in, you  
6           know, half an hour, or 50 minutes, or whatever, and  
7           they would go for dinner and they'd be an hour and a  
8           half. And so the people coming in were -- you know,  
9           had to wait.

10                        So one of the neat things they did was they  
11           said, "You can park there as long as your car is  
12           charging, and it's actually free, right?" But as soon  
13           as your car stops charging, and it will send a little  
14           note -- it will send a little message to your app,  
15           saying the car is finished, right? It gives you an  
16           update of where your status is on your battery charge.  
17           Soon as that happens, then you start paying. Right?  
18           So, and you could do -- again, you could do the same  
19           thing as was sort of discussed, I guess, with -- by  
20           the gentleman there about charging for just for --  
21           just time, I guess, as well, if you wanted to, I  
22           suppose. And that would maybe motivate people, I  
23           guess. But anyway, interesting. Yeah, that's a good  
24           one.

25                        Oh, yeah. One other thing I've noticed,  
26           like, just looking on the forums again, and different

1 websites and things, like, people talking about a  
2 really, really large sort of flat rate up front. I  
3 don't necessarily think that's fair. Because I've  
4 been in situations before where I -- for example, if  
5 I'm going through West Kelowna, or Westbank, right?  
6 And I need to -- I might need to top up my car, and I  
7 probably only need to top it up for ten minutes, just  
8 to make sure that I can get home no problem, right?  
9 But sometimes they'll have a flat rate that basically  
10 equates 30 minutes, right? So, I don't necessary  
11 think that's fair. Just because -- because again,  
12 it's -- what I end up doing is, I usually end up just  
13 sitting there for 30 minutes, because I'm a cheap  
14 farmer, right? But you know, but I just feel like,  
15 why are they penalizing me? I want to go in. I only  
16 need to grab the power I need, and then I want to get  
17 out of there.

18 But the interesting thing is that you're  
19 almost creating -- you're almost -- not forcing me,  
20 but because I'm trying to get my money's worth, if you  
21 will, I'm staying there for half an hour when there  
22 might be another car that's pulled up that's waiting  
23 to charge. There's a bit of an irony there, right?

24 So, yeah, I'm just not -- anyway.

25 THE CHAIRPERSON: Yeah.

26 MR. BROWN: Does that make sense?

1 THE CHAIRPERSON: Yeah.

2 **Proceeding Time 6:47 p.m. T08**

3 MR. BROWN: Okay. Yeah. I would say -- I guess maybe my  
4 last comment, I think, would be I think we have to  
5 remember that the public right now heavily subsidizes  
6 fossil fuel through government subsidies, through tax  
7 breaks and incentives to big drilling companies, as  
8 well as even infrastructure to get that fuel to all --  
9 like through the distribution system, right, which is  
10 usually B-train semi trucks, right, which use our  
11 public roads. Now, I understand that there is a gas  
12 tax. But, again, to incentivize people to start using  
13 it, right?

14 I mean we have -- you know, there's just  
15 two different conduits, right? There's the road,  
16 which is a conduit for the fuel trucks to get where  
17 they need to go. And there's the electricity -- the  
18 electrical power poles to get the electricity from the  
19 dam or whatever it may be, hydroelectric, to that  
20 filling station. And I guess me as a taxpayer, I  
21 haven't had too much of a problem I guess, maybe --  
22 well, maybe I have, of supporting fossil fuel interest  
23 to make our economy go around. And I would say to you  
24 that I definitely would, you know, not be worried I  
25 guess about subsidizing, at least to start, some of  
26 that infrastructure for electric car charging

1 stations, so. I think it's only fair, actually.

2 COMMISSIONER FUNG: Actually, I'm going to challenge you  
3 a little bit on that one.

4 MR. BROWN: Sure, yeah, go for it.

5 COMMISSIONER FUNG: Because we've had submissions from  
6 gas -- well, people who drive gasoline cars.

7 MR. BROWN: For sure.

8 COMMISSIONER FUNG: Who say, "Why should I have to  
9 subsidize these EV drivers for the electricity that  
10 they're consuming? I drive a gasoline car and I pay  
11 through the roof for it, so why are you getting a  
12 subsidy?"

13 MR. BROWN: So I'm just going to clear -- so how am I  
14 getting a subsidy right now?

15 COMMISSIONER FUNG: Because currently a lot of the EV  
16 stations are not charging for electricity at all.

17 MR. BROWN: Right.

18 COMMISSIONER FUNG: And yet you're using that electricity  
19 for free.

20 MR. BROWN: Right. And then I would respond with that by  
21 saying I'm providing you clear air and what is that  
22 worth, right? So again, we have to -- you know, there  
23 is a cost, though, to driving an internal combustion  
24 motor and that cost, in my opinion anyway and I've  
25 looked at quite a few studies, is much, much higher,  
26 right? And so I have three little daughters, okay?

1           And I want to make sure -- we're, you know, we're on  
2           this ball that's in space right here and this is the  
3           only planet that we have, okay? So what is that  
4           worth, you know? So for me it's really high, you  
5           know. And if I got over to -- if I look at pictures  
6           or look at videos in China right now and look at the  
7           amount of smog that's in some of these countries or  
8           whatever, you know, I'm sorry but, you know, that  
9           doesn't hold any water for me. But I can see where  
10          they're coming from short term maybe. But I mean we  
11          have to breathe, right? So.

12       COMMISSIONER FUNG:    Thank you.

13       THE CHAIRPERSON:    Thank you very much, that's very  
14          informative. I appreciate it.

15       **SUBMISSIONS BY MR. CONDON:**

16       MR. CONDON:        Good evening. My name is Terrance Condon,  
17          C-O-N-D-O-N. For the record, I'm a councillor in the  
18          District of Peachland, just a few kilometres down the  
19          road, but I am not here as a representative of the  
20          district. I am here to tell you some of the things  
21          that we are doing and to offer some suggestions in  
22          terms of issues that should be concerning the  
23          Commission.

24                        We have a project at the moment that got  
25          delayed by the weather. It was supposed to be  
26          installed in late October, is now being installed for

1           20<sup>th</sup> of May, which will include two Level 2 charging  
2           stations in a public parking lot in Peachland. The  
3           delivery system that we have chosen is -- uses --  
4   COMMISSIONER HAROWITZ:   Sorry, Terrance, can I ask you a  
5           question?  
6   MR. CONDON:    Sure.  
7   COMMISSIONER HAROWITZ:    You say "we", so it's the  
8           municipality when you're -- that's doing this?  
9   MR. CONDON:    Yes.  
10   COMMISSIONER HAROWITZ:    Okay.  
11   MR. CONDON:    Yeah. The municipality has chosen a  
12           delivery system that uses a smart phone and a free  
13           download application on the smart phone. It will deal  
14           with the issue of charging or not charging variable  
15           rates on certain times. And it will also deal with  
16           the issue of the timing of the occupancy of that  
17           particular station, to the extent that while it's  
18           charging, our proposal currently under discussion is  
19           to provide the charging for free for an interim  
20           period. Can't tell how long that interim period might  
21           be.  
22                            But the application will in fact inform the  
23           smart phone holder and car driver that the charging is  
24           completed. And you can set the alarm for minutes or  
25           for any time prior because it measures the rate of  
26           charge and the fill that is being given to the

1 vehicle. So ten minutes -- pick a number, ten minutes  
2 before the anticipated fill completion time an alarm  
3 sounds on the user's smart phone, tells them, "Go and  
4 move the car." Actually, it just tells them that  
5 filling is expected to be completed in the next ten  
6 minutes.

7 **Proceeding Time 6:53 p.m. T09**

8 But system does actually allow you -- as one  
9 of the other speakers said -- to change from a metering  
10 rate to a parking rate. So if they don't pick up  
11 their car at the appropriate time, you can now start  
12 charging for parking if you wish. The systems do have  
13 that flexibility.

14 THE CHAIRPERSON: Sir, how does it know that the car is  
15 parked there? I assume that the nozzle still has to  
16 be in contact with the car.

17 MR. CONDON: Exactly.

18 THE CHAIRPERSON: But I could go and take the nozzle, and  
19 put it back, and walk away and --

20 MR. CONDON: You could indeed.

21 THE CHAIRPERSON: Yeah.

22 MR. CONDON: And you could park a fossil fuel driven  
23 vehicle there.

24 THE CHAIRPERSON: Exactly, yeah.

25 MR. CONDON: But for those people who are trying to be  
26 good --

1 THE CHAIRPERSON: Understood, yeah.

2 MR. CONDON: -- good community citizens, who simply do  
3 want to fill their vehicle and get on their way, it is  
4 a mechanism that allows them to understand when their  
5 vehicle is going to be filled and at what point they  
6 need to get back to move it.

7 THE CHAIRPERSON: Right. But have you considered a bylaw  
8 that would prevent someone from parking there that's  
9 not charging or hasn't otherwise been charging and  
10 paid?

11 MR. CONDON: That brings up a whole issue of enforcement,  
12 which adds another level of expense. And all of this  
13 stuff is going to be a learning experience for all of  
14 us.

15 THE CHAIRPERSON: Yeah. Yeah, it'll be interesting,  
16 yeah.

17 MR. CONDON: This is an evolutionary process and my  
18 advice to everybody involved in this, based on the  
19 scars on my back from previous projects, is to not  
20 move too fast and understand the issues with which  
21 you're dealing.

22 THE CHAIRPERSON: Yeah, very wise.

23 MR. CONDON: We don't -- we've not had a charging station  
24 in Peachland. We tried desperately to get one with  
25 the support of the utility companies, but because  
26 there was one in Summerland and there was one in

1 Westbank, they weren't prepared to sink the money into  
2 putting one in Peachland which is about equidistant  
3 from each of them.

4 THE CHAIRPERSON: Is that BC Hydro in Peachland?

5 MR. CONDON: Yeah.

6 THE CHAIRPERSON: Yeah.

7 MR. CONDON: I think that the issues for the Commission  
8 should be on a much more broad basis. I believe that  
9 some of the infrastructure issues in terms of should  
10 the *BC Building Code* carry a requirement for pre-  
11 wiring for these kinds of things is the kind of issue  
12 that you should be dealing with, as is the question of  
13 where are these things to be placed and -- "these  
14 things," where are these charging stations to be  
15 placed on major highways such that we do get  
16 essentially a universal coverage of the province. And  
17 it may be incumbent upon the Commission to recommend  
18 some kinds of subsidies for the more out of the way  
19 places that may not be used as frequently or as  
20 popular for private or municipal construction.

21 The issue of universality applies in two --  
22 to me, in two areas. From an infrastructure point of  
23 view I think it's important that there are few and  
24 clear standards for the delivery of the product in  
25 terms of the kinds of plugin and the physical shape of  
26 the devices that do this. The car manufacturers seem

1 to have got around to acknowledging that with the  
2 manner in which they supply these things now,  
3 including Tesla, who I'm told from a chum who has one,  
4 that there is an adaptor that he can fit onto his  
5 vehicle that will allow him to use other stations.

6 So I think that's the kind of thing that  
7 the Commission needs to wrestle with in turn. I don't  
8 know any of the technology that goes behind it, but I  
9 do know that you shouldn't be pushing a plug with  
10 square pins into a receptacle with round holes. That  
11 just -- there's a safety issue that goes on there that  
12 we need to make sure just can't occur.

13 Additionally from a consumer's point of  
14 view, I think this needs to be some standardisation of  
15 operation. The issue was brought up by two previous  
16 speakers about the inability to connect to the system.  
17 And I think that that's something that with a little  
18 guidance this industry can be channeled to provide an  
19 easily understood operating system that is not  
20 designed for and buy engineers. We've all experienced  
21 those, where we're told that these things are  
22 intuitive and you end up wanting to pitch whatever it  
23 is you're using through the window in front of you.

24 **Proceeding Time 6:58 p.m. T10**

25 So I think it is worthwhile that there are  
26 some standards set in terms of whether or not it's

1 simply that there needs to be a button on the screen  
2 that provides step-by-step instruction. That, if it's  
3 a screen-based application, would be the easiest thing  
4 to do in my observation.

5 The last point that I have was the question  
6 of -- it's been posed that a municipality such as  
7 Peachland, offering the charging stations, can, in  
8 fact, by virtue of the selling has become a Hydro re-  
9 seller. And we're not interested in that kind of  
10 status. All we are interested in doing is providing a  
11 consumer benefit currently for free. If we get enough  
12 traffic and it becomes something that is going to cost  
13 the municipality a significant amount of money, I can  
14 assure you that we will make the necessary changes to  
15 charge for the product. But there won't be any  
16 question of profit involved from the municipality.  
17 That's not the kind of business that we are in. It  
18 will be a recovery issue. But it may come that we  
19 need to do that.

20 Our intent at the moment is to put this in  
21 operation formally on the 20<sup>th</sup> of May with -- I don't  
22 know if any of you are aware of the Peachland World of  
23 Wheels Car Show, but it's an annual event that  
24 attracts many many people and is quite a spectacle in  
25 this part of the world. We intend to open the station  
26 formally at that point, together with a display of EV

1 vehicles and all the rest of the hoopla that goes with  
2 it. But the idea being that, certainly for the  
3 foreseeable future, the invitation is to come to  
4 Peachland on your way to wherever you need to go and  
5 top up and stay a while and enjoy our facilities. And  
6 it's not in our anticipation in the first few years of  
7 operation that we will be needing to charge, but we do  
8 need the right to be able to cost recovery if that  
9 does become necessary.

10 The maintenance of the system that we have  
11 chosen is the responsibility of the supplier, and  
12 that's part of the contractual obligation. I can't  
13 remember what the speed of response is but it's part  
14 of the contractual obligation. So the idea that  
15 something should be out of commission for X number of  
16 days, we can't contemplate that to the extent that  
17 we've made that part of the -- well, we didn't make  
18 it. That was part of the standard agreement.

19 And their stations are monitored 24/7. So  
20 if there's a breakdown in one of them, they get -- I'm  
21 not sure how they get it, but they get an instant  
22 electronic message that says one of the Peachland 2  
23 stations is down, so they need to get there and fix  
24 it.

25 That's about it.

26 COMMISSIONER HOROWITZ: I have a few questions, if I

1           may.

2   MR. CONDON:        Sure.

3   COMMISSIONER HOROWITZ:    Is it a matter of public record  
4       what the investment is in that station?

5   MR. CONDON:        Not yet.  But it's not -- actually, yes, it  
6       is.  Each of the station installations cost us about  
7       -- the installation, which is a two-pronged  
8       installation, cost us about \$15,000 plus the cost of a  
9       pedestal.  The supply of infrastructure to that point  
10      is part of another project.  So what that would be  
11      independently I can't tell you.

12   COMMISSIONER HOROWITZ:    And you own the land.

13   MR. CONDON:        And we own the land, yes.

14   COMMISSIONER HOROWITZ:    The second question, and I think  
15      you alluded to this, but just for clarity, so at this  
16      state it's something in the context of EV is an  
17      emerging market.  At some point if we get to high  
18      penetration and conceivably virtually all the vehicles  
19      on the road are electric, I mean at some point your  
20      offering is going to be swamped and that's why you're  
21      saying we envision that somewhere down the road we may  
22      well turn around and be charging for the energy.

23   MR. CONDON:        Yes, that is true, but I hope the state  
24      that we get to is that we're finding that the  
25      municipality's contribution, shall we say, to the move  
26      towards non-fossil fuel and reduction of greenhouse

1 gasses, because this project is part of the  
2 municipality's provincial commitment to the reduction  
3 of greenhouse gasses. So we hope what will occur  
4 first is a demand for further charging station.

5 COMMISSIONER HOROWITZ: Well, I guess that's where I'm  
6 leading, is has council gone so far as to think, "Is  
7 the next wave that we would add more", or that "By  
8 then we'd expect that other folks have stepped in with  
9 more stations and therefore ours maybe just becomes  
10 one of many?" Or is that further down that your  
11 planning has taken you?

12 **Proceeding Time 7:04 p.m. T11**

13 MR. CONDON: Well, some of us have thought that far,  
14 but it's not a council position. I would tell you  
15 that the council position is to encourage the use of  
16 EVs by the installation of these stations and to offer  
17 charging for free for the foreseeable term, with the  
18 expectation that we will monitor and measure what's  
19 going on to see what kind of benefit these provide to  
20 our citizens and given that these installations are in  
21 the downtown core, whether or not there's a  
22 recognition of any increased business activity as a  
23 result -- or any visitor/tourist activity as a result  
24 of this.

25 So I would tell you that we are making  
26 these installations with an eye to keeping a watching

1           brief over the next couple of years to determine  
2           whether or not we should either install these things,  
3           more of these things in different locations, or  
4           whether or not it's just costing us in terms of  
5           maintenance and -- cost of Hydro is not, from my  
6           investigation with the Town of Summerland and some of  
7           the Kootenay towns where they do have these stations,  
8           it's not significant in terms of the numbers of  
9           charging hours and the cost of the electricity. So I  
10          would think that the actual cost of electricity would  
11          be not contemplated for a three year term, at least.

12   COMMISSIONER HOROWITZ:     Thank you.

13   COMMISSIONER FUNG:         I have a couple of questions, Mr.  
14          Condon.

15   MR. CONDON:             Sure.

16   COMMISSIONER FUNG:         As I understand it, these stations  
17          that you have now in Peachland, they are level 2  
18          chargers, they are not level 3, right?

19   MR. CONDON:             No.

20   COMMISSIONER FUNG:         Okay, I just want to clarify that.  
21          And secondly, do you have a view as to whether or not  
22          the utilities ought to be permitted to go into this  
23          business of installing EV stations and charging for  
24          them, or do you think the free market should reign,  
25          including municipalities and other suppliers?

26   MR. CONDON:             That's a good question. I think that the

1           utilities have a place in terms of social  
2           responsibility to encourage the reduction of  
3           greenhouse gasses and a move away from fossil fuels  
4           and the promotion of EVs. So I think that there is a  
5           place for them to encourage, as they have been.  
6           Whether or not you use -- the reason we went to a  
7           Level 2 was because of the cost.

8   COMMISSIONER FUNG:       Right.

9   MR. CONDON:           The Level 3 DC charger that I tried to get  
10           funded by Hydro, they told me was going to be \$85,000.  
11           So I don't know whether or not that was a "Why don't  
12           you go away while you can still walk," or whether that  
13           was a reasonable -- I can't -- I know that the Level 3  
14           are significantly more because of the conversation of  
15           the electricity but I couldn't believe that it was  
16           going to be that much. But given that they had Level  
17           3 in Summerland and in Westbank, and we're 12  
18           kilometres from one and 18 kilometres from the other,  
19           they were telling me to go away.

20   MR. BROWN:       A Level 2, you mean, right? You said Level  
21           3.

22   COMMISSIONER FUNG:       No, the Level 3 ones.

23   MR. CONDON:       They have Level --

24   MR. BROWN:       No, they don't. Summerland has Level 2  
25           only.

26   COMMISSIONER FUNG:       Oh, there you go.

1 MR. CONDON: Isn't the one by the library --

2 MR. BROWN: There's three of them and they are all Level  
3 2. And there's no Level 3s.

4 MR. CONDON: Okay. Anyway, I tried to get one and they  
5 said, yes, they would help but it would be at a cost  
6 of \$85,000. They weren't prepared to help us.

7 THE CHAIRPERSON: But Westbank has Level 3.

8 MR. CONDON: It does, by St. George's Church.

9 THE CHAIRPERSON: Or West Kelowna, sorry.

10 MR. CONDON: Any other questions?

11 THE CHAIRPERSON: Are you concerned -- and this is not  
12 just a question for you and Peachland, but it would be  
13 a general question too. Are you concerned about  
14 vandalism?

15 MR. CONDON: Well, any time you make an installation  
16 like that, it does become an issue. Are we concerned?

17 THE CHAIRPERSON: Is it something you've considered, let  
18 me put it that way.

19 MR. CONDON: There's not much we can do about because  
20 first of all, touch wood, Peachland is in the  
21 fortunate position of not having a great deal of  
22 vandalism and -- it's not a high crime area.

23 THE CHAIRPERSON: I understand.

24 MR. CONDON: So we're a little luckier than some other  
25 locations. We have considered the idea of vandalism  
26 and the issue is being insured, for lack of a better

1 term, by the supplier of the equipment. So to that  
2 extent, it is not an issue.

3 It is an issue in terms of the social  
4 responsibility that we have. Unless you monitor these  
5 things by some physical mechanism 24/7, you have no  
6 idea when it's going to occur.

7 **Proceeding Time 7:09 p.m. T12**

8 THE CHAIRPERSON: I understand.

9 Okay. Councillor Condon, thank you very  
10 much for sharing that. And it sounds like a really  
11 interesting project and we wish you all the best with  
12 it.

13 MR. CONDON: Next time you're back in town I'll show you  
14 the scars.

15 THE CHAIRPERSON: Okay. Thank you.

16 MR. EVANS: Hi there.

17 THE CHAIRPERSON: Hi.

18 **SUBMISSIONS BY MR. EVANS:**

19 MR. EVANS: My name is Grant Evans, E-V-A-N-S. I too  
20 drive an Nissan Leaf, first generation Nissan Leaf.  
21 And I think it's probably the best purchase I've ever  
22 made. We love to drive it. We love that every time  
23 we go and run our errands or drop the kids off at  
24 their events and whatever, that we are driving clean.  
25 And so that's one of our big motivators, on top of the  
26 fact that in the long run it is cheaper to drive.

1 I have a few points that I'd like to touch  
2 on. First one with range. One of the early things  
3 that was preventing people from purchasing EVs was  
4 that lack of range and range anxiety. Well, that  
5 issue is no longer now with the technology that we  
6 have. With all of the new EVs that are coming out,  
7 whether it's the new generation Nissan Leaf, the  
8 Teslas, the Hyundai Ioniq, whatever it is, the range  
9 is to the point now where it's equivalent to an ICE, a  
10 gasoline powered vehicle. And so because of that we  
11 are going to see a lot more people purchasing EVs in a  
12 very, very short amount of time.

13 Even in our small social group, that has  
14 been the one issue that has prevented people. In the  
15 older generation, my parents and other older people,  
16 that's been the one thing that's prevented them from  
17 purchasing was the lack of range. Now that we have  
18 the range, we need to provide the infrastructure in  
19 order to support this many more people that would be  
20 driving EVs.

21 As far as demand goes, I know we have some  
22 new EV stations, charging stations, that one of which  
23 -- or at the new Loon Lake rest station -- or rest  
24 stop up on the Coquihalla Connector, where they're  
25 putting in two Level 3s and one Level 2. When I heard  
26 that I was a little excited, but I was also a little

1 bit upset because I think it's shortsighted. I think  
2 that two Level 3s is not enough. Because five years  
3 from now there's going to be lineups there and as we  
4 see in many parts of Ontario and Quebec already. I'm  
5 part of a Nissan Leaf Facebook group and everything  
6 I'm reading is that when people are going to charge in  
7 more populated areas, many are having to wait.  
8 They're having to line up and they don't have another  
9 option because we don't have the infrastructure in  
10 place yet. And so that's going to be an issue and I  
11 think it's going to happen a lot faster than we think  
12 it's going to happen.

13 So as far as infrastructure goes, I'm in  
14 favour of the free market. The reason is, is the more  
15 people we can get involved with putting in EV  
16 stations, the better, in my opinion. I think it's  
17 going to create more competition as far as -- which  
18 should keep the rates reasonable. That being said,  
19 there's charging stations in parts of eastern Canada  
20 where people are having to pay through the nose just  
21 to charge. Most of our stations here are about 35  
22 cents a kilowatt and in other places it's way, way  
23 more than that, which is significantly more than, you  
24 know, for instance people who are charging at home  
25 where it's anywhere from 10 to 15 cents.

26 So having that competition I think would be

1 great as far as keeping the price down. However, it  
2 will bring in a larger amount of infrastructure  
3 faster.

4 Additionally, the -- you know, we have --  
5 there are chargers being planned to put, again, at the  
6 old Coquihalla toll booth. Again, I haven't heard yet  
7 how many they're planning on there, but the thousands  
8 and thousands of vehicles that travel that every  
9 single day, is it going to be enough? I don't know.  
10 I mean when we hear Tesla putting in, you know, eight  
11 to ten stations in one location, I feel like we're  
12 falling behind already.

13 Now, again, Tesla is, you know, it's its  
14 own company and it's got a lot of money behind it I  
15 suppose, but it is -- at this point anyway, it's  
16 dedicated for Tesla vehicles only. There's been talk  
17 and rumours that perhaps it might be opened up for  
18 other EVs, but we're not seeing that yet and time will  
19 tell I suppose on that.

20 THE CHAIRPERSON: Sir, sorry, excuse me. Do you know who  
21 is putting in these charging stations at Loon Lake and  
22 at the toll booth?

23 MR. EVANS: I'm not sure actually who's putting them in.  
24 I mean my assumption, because it was a rest area, that  
25 the province was --

26 THE CHAIRPERSON: Yeah, okay.

1 MR. EVANS: But I'm not sure.

2 THE CHAIRPERSON: And there would be charge for the  
3 charge -- cost for the energy, presumably?

4 MR. EVANS: We don't --

5 THE CHAIRPERSON: Don't know that either, okay.

6 MR. EVANS: I haven't heard one way or the other. Again,  
7 the Loon Lake ones I know are opening this spring.  
8 The rest stop itself is open already, but this spring  
9 is when they're -- and I haven't heard if there's a  
10 cost attached or not.

11 Now, and again, people have mentioned  
12 around the issue of having cell service. So for  
13 instance the Manning Park, there's no cell service so  
14 you have to have a card to swipe there or you can't  
15 start the charger. So whether or not that could be an  
16 issue along parts of the Coquihalla or the Connector,  
17 because there are some spots there where you don't  
18 have signal as well.

19 I believe that charging for power, used and  
20 not time, would be the way to go. The reason I say  
21 that is because every car charges at a different rate.  
22 So my Nissan Leaf, 6.6 kilowatts versus Teslas,  
23 they're up to 17.2 kilowatts. So very, very different  
24 as far as how much power you're drawing. So to say  
25 you're doing it in time would definitely not be  
26 equitable because my car charges a lot slower. So

1 charging on power used I think would be the way to go.  
2 Another thing to keep in mind as well when  
3 -- you know, as different places are thinking of  
4 putting in chargers, I know when we're out driving we  
5 decide where we're going to go and eat dinner based on  
6 where a charger is. Right? If I go to a hotel -- I  
7 was at a hotel a couple of weeks ago, I went to a  
8 hotel that has charging in its underground. So the  
9 more businesses understand this I think we're going to  
10 see more and more charging stations move into  
11 different businesses. It's a huge draw. And, again,  
12 as the number of EV drivers increases we're going to  
13 see that more and more.

14 **Proceeding Time 7:17 p.m. T13**

15 One of the other things, one of the  
16 thoughts I had as well jut around the availability of  
17 charging stations, we're all reliant when we travel on  
18 DriveBC, so even adding charging stations to DriveBC  
19 on the map, and also, you know, obviously whether they  
20 are Tesla chargers only or if they have CCS or they  
21 have CHAdeMO, letting drivers know, I think, could be  
22 really beneficial. Whether or not they could get it  
23 to the point where you can see whether or not a  
24 charging station is in use, that would be a wonderful  
25 thing.

26 You know, if I go to PlugShare, the

1 PlugShare app, you can often see whether or not a  
2 station is in use. So something like that I think  
3 would be hugely beneficial for the future.

4 One of the other things I think would be  
5 important for a lot of people, most people have no  
6 idea about electric vehicles, how they function, how  
7 you charge them. Most people think you plug them into  
8 a wall at home and that's how you charge them.  
9 There's not really much in the way of education, so  
10 one of the ideas would be that for new EV purchases  
11 that there'd be some sort of education program around  
12 charging infrastructure. What does that look like?  
13 And dealers could say, "Okay, you can go to this  
14 website and find out about it." Or if you want to do  
15 it in person, maybe there is something available to  
16 them, where older generation can go and learn about  
17 that infrastructure and what that looks like.

18 You know, we've already heard this evening  
19 that it's difficult understanding what the process  
20 looks like, whether you plug in first or you need to  
21 swipe first or, you know, fire up your ap. So having  
22 that education piece, I think, is really important, so  
23 that people aren't as worried or as scared about  
24 moving into the future.

25 Yeah, so I guess what I would end with here  
26 is just the concern around, now that our range is here

1 and we are starting to see more and more manufacturers  
2 with EVs, whether or not we need to have some sort of  
3 plan in place so that infrastructure can keep up so as  
4 to now prevent people from wanting to go down this  
5 route, because it is inevitable. EVs are here to  
6 stay. We've heard this from experts all over the  
7 world.

8 You know, it was compared often to -- there  
9 was a documentary that we watched where it talked  
10 about the horse and cart versus the automobile and how  
11 in just a matter of a few years how fast that changed  
12 and transformed and it's being compared to that very  
13 thing, that now that it's here and it's started, it's  
14 going to explode.

15 COMMISSIONER HOROWITZ: So I think I heard you say that  
16 you're in favour of the free market dealing with this.  
17 Help me understand your thinking around saying that  
18 and at the same time making sure that there's enough  
19 infrastructure to support the growth and demand.  
20 Because I'm thinking at the extreme, for example, in  
21 less travelled highways and areas of the province  
22 where the private sector might say, "Well, that's  
23 great, but I'm going to have five charges a day."  
24 It's not worth putting a station here, and yet to your  
25 point, we need to have the stations so that we can  
26 have higher adoption.



1           nobody had an EV. Now there's at least seven of us  
2           that have EVs. And once people are educated -- and I  
3           think education is the piece. Once people have that  
4           education piece there, they start to realize the  
5           benefits of EVs.

6   COMMISSIONER FUNG:           Thank you.

7   COMMISSIONER HOROWITZ:       Do you now shun anybody who  
8           doesn't?

9   MR. EVANS:           We give some of our friends a hard time who  
10          still drive their big trucks.

11   THE CHAIRPERSON:          Thank you very much, Mr. Evans.  
12          Really appreciate it.

13   MR. EVANS:           Thanks.

14   MR. BROWN:           I forgot something.

15   THE CHAIRPERSON:          Please come back, yeah.

16   MR. BROWN:           I don't want to monopolize the time here  
17          but --

18   THE CHAIRPERSON:          No problem.

19   **SUBMISSIONS BY MR. BROWN (Continued):**

20   MR. BROWN:           Yeah, just as we were talking about cars  
21          parking in places where they shouldn't necessarily  
22          park. That's going to become more and more of an  
23          issue. Actually a good example is tonight. So we  
24          brought one of our Leafs and we pretty much got iced  
25          by all the cars. I kind of like nosed in to one of  
26          the spots, but pretty much all of them were taken up

1 by regular internal combustion cars.

2 Now, having gone to a number of different  
3 charging stations around the province, let me give you  
4 a piece of advice. There's two different main signs  
5 that I've seen that are where charging stations are,  
6 and I'll give you this sheet of paper. But there's  
7 one -- sorry, I'm not an artist. But there's one sign  
8 that has a "P" like the usual "No Parking" sign, okay?  
9 It says "No Parking" and then in small letters or  
10 small words it says, "Except for electric vehicles  
11 while charging" below that. Okay?

12 Then there's another sign and it says "EV  
13 parking only" and then it has a picture of a plug with  
14 like a car. I haven't done any statistics on this,  
15 but I will tell -- I can -- yeah. But I am very  
16 confident because I've been in so many different  
17 charging stations, the one with the "P" with the "No  
18 Parking" sign and then with "Electric Vehicle charging  
19 only", very rare that I've seen an internal combustion  
20 car parked there.

21 The other sign with the "EV Parking Only"  
22 with the big plug and the car, super common. So  
23 again, it's because that "No Parking" is a fairly  
24 universal thing and says "Except for Electric  
25 Vehicle", so as soon as people drive by, I think, is  
26 that they see that sign, "Oh, it's no parking" and

1           they just kind of move on.

2                       But there's even a number of times at the  
3           hospital. We had to go visit a number of people at  
4           the hospital in Kelowna here and they don't have the  
5           "No Parking" one, they just have the "EV Parking Only"  
6           and almost every time. So interesting thing to note,  
7           maybe.

8   COMMISSIONER FUNG:       Not surprising though, because  
9           people ignore "Residents Only Parking" signs all the  
10          time.

11   MR. BROWN:       Yeah. Right, exactly. Yeah, for sure. And  
12          probably the thing, "Oh, well, I'll probably  
13          automatically get a ticket if I park here. It says  
14          'No Parking'." Right?

15                       So anyway, one other thing. Maybe you've  
16          seen it and maybe you haven't. But there is tons of  
17          YouTube videos on everything obviously, I know. But  
18          one I'd really encourage you guys to watch, because  
19          I've watched hundreds, if not thousands of different  
20          YouTube videos of electric cars, is one by Tony Seba.  
21          Maybe you've already seen that. But anyway I wrote it  
22          down here for you.

23   THE CHAIRPERSON:       Okay.

24   MR. BROWN:       Okay, so I'll give --

25   THE CHAIRPERSON:       Yeah.

26   MR. BROWN:       And I also wrote down -- sorry.

1 THE CHAIRPERSON: It's okay. I appreciate it. Okay.

2 MR. BROWN: This is one that really works.

3 THE CHAIRPERSON: I appreciate it, thank you. I also  
4 like your term that you got "iced". Is that a  
5 reference to internal combustion engines, is it?

6 MR. BROWN: Yeah, that's the term.

7 THE CHAIRPERSON: Thanks.

8 MR. EVANS: Just so you know, that Facebook group, it's  
9 just over 1400 members.

10 THE CHAIRPERSON: Okay, for the Canadian one?

11 MR. EVANS: Yeah, the Nissan Leaf Canada.

12 COMMISSIONER FUNG: Nissan Leaf.

13 THE CHAIRPERSON: Great, thank you.

14 So are there any other artists in the  
15 audience? Anyone else want to share their thoughts?

16 **SUBMISSIONS BY MR. MEIKLEJOHN (Continued):**

17 MR. MEIKELJOHN: The one comment that I heard, I think  
18 it was Commissioner Fung talked about, the interest of  
19 the public utility and why they'd invest in this and  
20 I'm thinking, but they all sell electricity. So this  
21 is not -- I would say it's seeing the future and  
22 seeing the -- if we're at 2 percent now, what happens  
23 when we get to 50 percent. How much electricity are  
24 we going to be able to sell. To me they should be  
25 seeing stars and get excited about the potential sales  
26 of electricity to run the whole system. So, that's

1 all.

2 COMMISSIONER FUNG: They are. So the question is  
3 whether we should allow them to come into the market  
4 and essentially monopolize it.

5 MR. MEIKELJOHN: I don't have an opinion, sorry.

6 COMMISSIONER FUNG: Okay, thank you.

7 COMMISSIONER HOROWITZ: To be clear, the utilities will  
8 be providing the electricity to the charging station.  
9 It's whether or not the charging station is owned by  
10 and operated by the utility or it's a third party  
11 that's taking that electricity and reselling it.

12 **Proceeding Time 7:28 p.m. T15**

13 MR. BROWN: What about the --

14 COMMISSIONER FUNG: Go to the mike, please.

15 MR. BROWN: You were saying the utilities are going to  
16 provide the power, right?

17 COMMISSIONER HOROWITZ: If it's in the grid as opposed  
18 to someone who has, for example, a solar panel and  
19 charges at home.

20 COMMISSIONER FUNG: That's right.

21 THE CHAIRPERSON: The existing utilities already have an  
22 monopoly on selling grid sourced electricity and that  
23 wouldn't change. So this is a value -- what we are  
24 looking at here is a value-added service on top of  
25 that, which would be the, you know, the \$80,000 or  
26 whatever it is for the charging station, or \$15,000,

1           and then the ability to offer the electricity that  
2           comes out of the other end of that. But it doesn't  
3           change the underlying ---

4 MR. BROWN:       Upstream doesn't change.

5 THE CHAIRPERSON:    Yes.

6                       Was there someone --

7 COMMISSIONER FUNG:   Yes, the lady.

8 **SUBMISSIONS BY MS. LOHMANN:**

9 MS. LOHMANN:       Hello. I'm Meagan Lohmann, L-O-H-M-A-N-N,  
10           and I'm with the Community Energy Association. We are  
11           registered as an interested party and will be making a  
12           written submission, but I'm here and can't hold myself  
13           back, so I'm coming up.

14                     So I've had the pleasure over the past  
15           couple of years to be working with three regional  
16           districts in the Kootenays on behalf of 31 local  
17           governments to deploy a network of electric vehicle  
18           charging in that region. So our full plan is 13 DC  
19           Fast Chargers and 40 Level 2s. And the motivation of  
20           those local governments was really out of a desire to  
21           connect to the existing network that was deployed  
22           originally by BC Hydro to support tourism and economic  
23           development in the Kootenays.

24                     So it really -- the commitment of the  
25           initiative which is called Accelerate Kootenays is  
26           really the extent to which our local governments and

1 regional districts are willing to engage in the field  
2 of electric vehicle infrastructure. It was their  
3 intent to demonstrate that leadership and create a  
4 base network that could then be built off of, whether  
5 through additional investment by utilities or perhaps  
6 a non-regulated scenario of private industry.

7 But I just wanted to sort of highlight some  
8 of the barriers or reasons that the local governments  
9 are sort of ending their commitment on supporting  
10 electric vehicle infrastructure. We represent rural  
11 communities and communities of small to medium size,  
12 which presents a variety of challenges in supporting  
13 this type of deployment.

14 First and foremost, when we were  
15 considering the ownership model of our fast charging  
16 stations, demand charges were the first barrier that  
17 we came across for municipal ownership of the  
18 infrastructure. Under the local government act,  
19 municipalities, of course, can resell electricity. A  
20 big barrier to just that piece of it is that no fast  
21 charging infrastructure currently has government of  
22 Canada approved meters. So that is a concern in  
23 charging for kilowatt-based metering.

24 Yeah, the demand charges in the areas where  
25 there would be -- you know, we mentioned low usage is  
26 five per say. We're seeing like five per month in

1       some of locations, because of the rural nature. Those  
2       stations are required for regional travel but you'll  
3       never get the revenue to the pay off the demand  
4       charges that would be seen by anyone not as a utility.

5               Local governments have a requirement for  
6       asset renewal for the lifetime of the infrastructure,  
7       so that would mean small local government, and \$85,000  
8       is pretty good for a fast charging deployment. So you  
9       should have taken that deal.

10              But to reinvest that, as a small community  
11       with a population of, say, 600 people, that's about  
12       ten grand a year over ten years to dedicate into that  
13       asset renewal fund, which is just simply not in the  
14       budget for a lot of those small communities.

15              The familiarity around the level of  
16       electrical requirement in the servicing is beyond the  
17       capacity of a lot of small to medium sized  
18       communities. And for all of these reasons, we pursued  
19       partnerships with utilities in our service areas,  
20       that's BC Hydro and Fortis, in order to come to a  
21       partnership to own and operate the stations. And as a  
22       result, we've got entities that are well-equipped and  
23       very knowledgeable around high voltage electricity,  
24       owning and operating these stations in areas where  
25       local governments and the communities just don't have  
26       that expertise and capacity.

1                   As you know, Fortis has their hourly rate  
2 approval, so that applies to five of our stations in  
3 the West Kootenay.

4                   Also with the utilities as partners, on  
5 behalf of the local governments we've really advocated  
6 and sort of pushed for certain service level  
7 agreements to be reflected, both in our site host  
8 agreements and between our organization on behalf of  
9 the local governments, to avoid scenarios where  
10 infrastructure was down for prolonged periods of time.

11   **Proceeding Time 7:33 p.m. T16**

12                   It's not necessary for a station to be down for more  
13 than a month should the entire thing need to be  
14 replaced. So what we wanted to do was ensure that in  
15 the case of a minor or major failure that there was a  
16 response plan in place and that a service level  
17 agreement would be held to by the utilities.

18                   What I'm foreseeing is a challenge moving  
19 forward in terms of monitoring our network is the lack  
20 of available data from ICBC around vehicle sales.  
21 Mileage, as we all know, data is not collected on the  
22 annual vehicle kilometres traveled of personal  
23 vehicles. That level of detail in the data would be  
24 very helpful for us to understand the distances that  
25 are being traveled by electric vehicles in our region  
26 and across the province.

1 I guess on the networking I just wanted to  
2 comment that, you know, this is early in the  
3 development of networks in general for electric  
4 vehicle charging infrastructure. And we're seeing now  
5 of the federal government in grant applications a  
6 requirement to demonstrate interoperability, or that  
7 ability to use a card across networks, or offer an  
8 alternative opportunity to pay for charging, whether  
9 it's a QR code, or a phone call, or perhaps even  
10 swiping a credit card. So I think we're seeing  
11 direction from the federal government wanting to  
12 encourage the industry to move towards  
13 interoperability. And that's certainly something we'd  
14 like to encourage through future procurement  
15 processes.

16 I did want to address also the fact of at  
17 home charging and the majority, at least in our area,  
18 charging is done at home. And that's because we don't  
19 have a lot of multifamily residential buildings or  
20 stratas that are, you know, existing in these smaller  
21 communities. We're hearing in other areas of the  
22 province -- and perhaps the reason that there's line  
23 ups in some of the urban centres is because a lack of  
24 infrastructure at strata owned or multiunit  
25 residential buildings. So looking at the ability for  
26 a rate to be applied to a residence of MERBS or

1 stratas where charging infrastructure is harder to  
2 come by.

3 On Level 2 infrastructure, the 40 Level 2s  
4 that we're deploying in the Kootenays, we are  
5 requiring that they are actually offered for free for  
6 the first two years at minimum. And the reason for  
7 that is, again, because we know majority of our  
8 residents who own electric vehicles will be charging  
9 at home and that a big intent of the Level 2 network  
10 is for destination charging. So encouraging tourism,  
11 economic development in the small communities. And so  
12 we're seeing Level 2 infrastructure as a, I guess an  
13 asset or a service that's being offered by private  
14 sector because it's cheap to operate or public because  
15 they want to encourage increased visits to their  
16 community.

17 I think that covers about it.

18 COMMISSIONER FUNG: How did you land on the two-year  
19 requirement?

20 MS. LOHMANN: That's the extent of our funding.

21 COMMISSIONER FUNG: Oh, okay.

22 MS. LOHMANN: Yeah. So it's -- and at that time we're  
23 suggesting that local governments consider, you know,  
24 whether they do need to recover costs. It's such a  
25 small cost to provide that service when people are  
26 coming to the community and spending a lot more at the

1 local retail and restaurants.

2 THE CHAIRPERSON: What was the name of your organization,  
3 sorry?

4 MS. LOHMANN: Community Energy Association.

5 THE CHAIRPERSON: So that's a not for profit?

6 MS. LOHMANN: Yeah.

7 THE CHAIRPERSON: And you said that you've got funding  
8 for these 40 Level 2 stations. So where's the funding  
9 come from?

10 MS. LOHMANN: And 13 Fast Chargers, yeah.

11 THE CHAIRPERSON: Yeah.

12 MS. LOHMANN: A variety of sources, from Federation of  
13 Canadian Municipalities, Columbia Basin Trust, the  
14 utilities are partners, the province of B.C.

15 THE CHAIRPERSON: And ARCAN?

16 MS. LOHMANN: No.

17 THE CHAIRPERSON: No, okay. And where are these,  
18 generally speaking, being deployed? Are they deployed  
19 within municipalities or on the highway or --

20 MS. LOHMANN: Yeah. So of the 13 locations, 10 of them  
21 are on municipal property. We found that the easiest  
22 to negotiate lease agreements. So the utilities own  
23 the infrastructure, they lease the ten-metre squared  
24 location from the local government. Two of them are  
25 proposed in national parks and one is on a private  
26 site. It's actually a gas station, so that was sort

1 of the first --

2 THE CHAIRPERSON: That would be the first then, wouldn't  
3 it?

4 MS. LOHMANN: Yeah. Yeah.

5 THE CHAIRPERSON: Yeah. So do you -- and do you pay the  
6 normal -- what rate do you pay Hydro and Fortis for  
7 the electricity?

8 MS. LOHMANN: Because they're owned and operated by the  
9 utilities, that's their -- they manage it, yeah.

10 THE CHAIRPERSON: Okay.

11 MS. LOHMANN: And that is because it was -- you know,  
12 because of all the barriers that I identified around  
13 the demand charges, the asset renewal, the local  
14 governments were not I guess willing to take on that  
15 risk of -- the financial risk.

16 THE CHAIRPERSON: Right. So you have an agreement with  
17 the utilities and they -- and you pay the capital  
18 costs of the charging station.

19 MS. LOHMANN: Yeah.

20 THE CHAIRPERSON: And then they install it, and they  
21 operate it, and they provide the electricity for it,  
22 and they don't recover any --

23 MS. LOHMANN: For a ten-year timeframe is the commitment.

24 THE CHAIRPERSON: And they don't -- no cost recovery from  
25 a customer for ten years, you said? You said two  
26 years?

1 MS. LOHMANN: Well, Fortis has their rate approval for  
2 the five stations.

3 COMMISSIONER FUNG: The five stations.

4 THE CHAIRPERSON: Right.

5 MS. LOHMANN: For the operate -- to cover -- it's a  
6 revenue neutral --

7 THE CHAIRPERSON: Understood, yeah.

8 MS. LOHMANN: Yeah.

9 THE CHAIRPERSON: But then I think you said there was 40  
10 of these?

11 MS. LOHMANN: There's 40 Level 2s, which are owned and  
12 operated by the municipalities. Those are a much  
13 lower risk and lower cost piece of infrastructure to  
14 own and operate.

15 **Proceeding Time 7:39 p.m. T17**

16 THE CHAIRPERSON: Okay.

17 COMMISSIONER HAROWITZ: So I'm a little unclear. You  
18 said you got funding for two years, it's a ten year  
19 project. So if your funding ended in two years who  
20 owns the asset and who's then --

21 MS. LOHMANN: Yeah, the utility. So we had -- the  
22 project timeline is two years to deploy the station,  
23 do our marketing and outreach, education component.

24 COMMISSIONER HAROWITZ: Right, okay.

25 MS. LOHMANN: We have agreements now with the utilities  
26 that they will carry on the long-term ownership and

1 operation of the site.

2 COMMISSIONER HAROWITZ: So would it be correct to say  
3 then that you're providing funding to the utility to  
4 get them -- to get to the point where they're going to  
5 own and install -- install and own the facility?

6 MS. LOHMANN: We have paid for the installation and -- it  
7 was the desire of the local governments and the  
8 regional districts to partner with the utilities, to  
9 avoid their risk associated with ownership of BC Fast  
10 Charging infrastructure.

11 COMMISSIONER HAROWITZ: So, even if your funding runs  
12 out, you will still hold title to the charging station  
13 after two years?

14 MS. LOHMANN: The utilities will.

15 COMMISSIONER HAROWITZ: Fully paid for?

16 MS. LOHMANN: Yeah.

17 COMMISSIONER HAROWITZ: By you?

18 MS. LOHMANN: Yeah, by the funding partners, which  
19 includes utilities themselves.

20 COMMISSIONER HAROWITZ: Okay.

21 MS. LOHMANN: Yeah.

22 COMMISSIONER FUNG: No, but there's a distinction between  
23 the Level 2 zone and the Level 3.

24 MS. LOHMANN: That's right.

25 COMMISSIONER FUNG: Yeah, that's the difference, right?  
26 Because the Level 3s are owned by utilities.

1 MS. LOHMANN: That's correct.

2 COMMISSIONER FUNG: But not the Level 2s.

3 MS. LOHMANN: That's correct.

4 COMMISSIONER FUNG: Level 2s you built -- you paid for,  
5 that's yours, as I understand it.

6 MS. LOHMANN: The Level 2, there's a fund -- there's  
7 funding, matched funding for local governments, who  
8 will own and operate that infrastructure, yeah.

9 COMMISSIONER FUNG: Okay, thank you.

10 THE CHAIRPERSON: Thank you very much. Much appreciated.

11 MS. LOHMANN: Thanks.

12 THE CHAIRPERSON: And thanks for participating further in  
13 this proceeding.

14 MS. LOHMANN: Yes.

15 THE CHAIRPERSON: Is there anyone else that would --

16 MR. CAWLEY: If I may.

17 THE CHAIRPERSON: You may.

18 MR. CAWLEY: Because I did go first.

19 THE CHAIRPERSON: You did.

20 MR. CAWLEY: So I might as well finish up.

21 THE CHAIRPERSON: You may as well wrap it up, yeah.

22 **SUBMISSIONS BY MR. CAWLEY (Continued):**

23 MR. CAWLEY: Might as well wrap it up, yeah.

24 Well, we've got a lot of privileged people  
25 in this audience today. A lot of electric vehicles.  
26 I wasn't aware either that restaurants and businesses

1           were offering electricity and charge ups for free.

2   THE CHAIRPERSON:    This hotel right here.

3   MR. CAWLEY:        Yeah.

4   THE CHAIRPERSON:    The chargers downstairs.

5   MR. CAWLEY:        So I guess -- I did a couple of quick  
6                    calculations and the charge for Level 3, you say you  
7                    could do like a Tesla in 40 minutes. We got something  
8                    there? So that equates to 25 kilowatt hours in one  
9                    hour --

10   THE CHAIRPERSON:    You're not going to have the Panel do  
11                    math here, are you?

12   MR. CAWLEY:        Sorry?

13   THE CHAIRPERSON:    You're not going to make the Panel do  
14                    math here, are you?

15   MR. CAWLEY:        No, no. I'm just equating that one charge  
16                    is almost equivalent to one single family dwelling  
17                    energy for the full day. And I'm also startled by the  
18                    amount of people who say that there's going to be a  
19                    big rush on electric vehicles, which give me great  
20                    concern. So, I guess one of my issues is how does the  
21                    Utility Commission intend to keep the genie in the  
22                    bottle and let the utilities keep up with this demand,  
23                    because it looks like it's a staggering amount of  
24                    energy that could be released.

25                    And two, how do you actually -- again it  
26                    comes back to the cost of infrastructure with regards

1 to giving free energy from a restaurant. They've got  
2 a plugin station and they're just getting that energy  
3 from -- and paying it on their regular utility bill.

4 THE CHAIRPERSON: Yes.

5 MR. CAWLEY: And there are people who can't even afford a  
6 car in this province, and almost can't even afford  
7 their utility bill. So how is it fair for them to pay  
8 for the infrastructure upgrades for these electric  
9 vehicles, and how would you actually identify each of  
10 the businesses that are actually giving free  
11 electricity away, or even installing these rapid  
12 chargers that actually give you one single family  
13 dwelling house in a single 40-minute charge. It's an  
14 incredible amount of burden that I see.

15 So that's really an observation from what  
16 I've heard tonight, and I guess the last observation I  
17 would make is, and favourable one, but governments  
18 make an awful lot of money, revenue out of gasoline.  
19 And the more people that move over from electric  
20 vehicles, from a gasoline source, means a drop in  
21 revenue for the government.

22 So I guess somewhere down the line there's  
23 going to be either taxation or it's -- you can't tax  
24 electric vehicles because that's -- that's almost  
25 disincentivizing people to go green, but I don't know,  
26 eventually in ten years time or twenty years time

1 when, you know, 50 percent of the population are  
2 driving around in electric vehicles, and there's no  
3 revenue from gasoline, I guess those taxpayers are  
4 going to pay even more money, so. Just an  
5 observation. Thank you.

6 **Proceeding Time 7:44 p.m. T18**

7 THE CHAIRPERSON: Those are good questions, Mr. Cawley,  
8 and we're going to try to address at least some of  
9 those in our report. So thank you very much.

10 And I also would like to thank every one  
11 who came out tonight, and for those still listening on  
12 the internet, I'd like to thank you also. And we've  
13 heard a lot of good information and good comments  
14 tonight, and we certainly appreciate it.

15 So I hope you all have a safe drive home,  
16 electric or otherwise, and once again thank you.

17 **(PROCEEDINGS ADJOURNED AT 7:45 P.M.)**

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I HEREBY CERTIFY THAT THE FORGOING  
is a true and accurate transcript  
of the proceedings herein, to the  
best of my skill and ability.

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A.B. Lanigan, Court Reporter

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March 8<sup>th</sup>, 2018