

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

KAMLOOPS, B.C.
March 5th, 2018

Community Input Session

BEFORE:

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

VOLUME 1

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KAMLOOPS, B.C.

March 5, 2018

(PROCEEDINGS COMMENCE AT 6:17 P.M.)

THE CHAIRPERSON: My name is Dave Morton and with me is Anna Fung and Howard Horowitz. We are the British Columbia Utilities Commission Panel for this inquiry into electric vehicle charging. I'd like to thank you two gentlemen for joining us tonight, we appreciate it.

As I'm sure you've been told, if there's anything you would like to -- any remarks you'd like to make, you're more than welcome to. But we're going to start this off with a presentation about the Commission and about the inquiry and what we're trying to achieve.

So I will turn it over to Patrick. Yes, thank you, Patrick Wruck. Thank you.

(PRESENTATION GIVEN BY PATRICK WRUCK)

(PRESENTATION GIVEN BY YOLANDA DOMINGO)

(PRESENTATION GIVEN BY PATRICK WRUCK)

Proceeding Time 6:37 p.m. T03

THE CHAIRPERSON: Thank you, Patrick, and thank you all for coming. Is there anything that anyone would like to say? As Patrick indicated, if you have any comments, if you have any ideas on other areas that the inquiry should cover, if you have any personal

1 experiences with charging stations that you wanted to
2 share, we'd be happy to hear what you have to say. Or
3 if you prefer not to do that, you can always send an
4 e-mail to us and put your comments in the e-mail and
5 that will appear on the record also.

6 And I notice that there was no time for
7 questions. If you have any questions about the
8 presentation that you would like to ask Patrick or
9 Yolanda, you're welcome to do that too.

10 So there's a mike here if anyone would like
11 to -- yes, please, sir.

12 MR. HARSHMAN: Sorry, can I ask you a question? I'm
13 fairly naïve.

14 THE HEARING OFFICER: Can I ask you to use the mike,
15 please? Because we're broadcasting. Just say your
16 name and your last name, please.

17 **SUBMISSIONS BY MR. HARSHMAN:**

18 MR. HARSHMAN: Ron Harshman, H-A-R-S-H-M-A-N. My
19 questions are pretty naïve. Coming from Ontario,
20 that's a pretty bad situation there. Will there
21 always be clean energy in B.C., or do you see
22 yourselves going nuclear?

23 THE CHAIRPERSON: Well, there's no provision to go
24 nuclear. The *Clean Energy Act* prohibits any nuclear
25 energy in British Columbia.

26 MR. HARSHMAN: Oh, okay, thank you. Will the cost of

1 the cars change? That is, if we get a bunch of -- all
2 of a sudden everybody buys the cars, do you see our
3 rates changing?

4 THE CHAIRPERSON: That's not really an area that the
5 Commission is involved in, but I'd be happy if staff
6 have any comments on that, if they would like to chime
7 in.

8 Price of vehicles, isn't that what you
9 said?

10 MR. HARSHMAN: Yeah, if all of a sudden these things --
11 the future is bad in terms of fossil fuels. Everybody
12 says let's go electric and --

13 THE CHAIRPERSON: Sorry, your question would it have an
14 effect on rates or cost of cars?

15 MR. HARSHMAN: Yeah, yeah, exactly. Do you think that
16 you're going to keep it flat because of obviously in
17 the future it's better to go electric?

18 MS. DOMINGO: Are you asking about the cost of the
19 vehicle?

20 MR. HARSHMAN: The cost of your rates for electricity.
21 Are my rates going to all of a sudden go up because
22 you think this is a cash crop?

23 MS. DOMINGO: Well, I don't think rate setting is
24 established that way. We look at -- you know, the
25 utilities are allowed to recover their cost of doing
26 business and that's part of the regulatory model and

1 regulatory framework.

2 So we do have a very thorough process and
3 we, at any time, review any utility's rates, who wants
4 to increase their rates.

5 MR. HARSHMAN: I see. Okay.

6 THE CHAIRPERSON: Sir, that is one of the areas of this
7 inquiry, though, is to look at the impact. When
8 Yolanda was talking earlier about the impact on the
9 grid, for example, of electric vehicle charging, one
10 of the impacts is the amount of energy it uses, and
11 the time of the day that it uses the energy. That may
12 or may not put an additional strain on generation
13 facilities. And so one of the areas of this inquiry
14 is to look at rate structures that could help to
15 mitigate any negative effects.

16 And we don't have any conclusions, but one
17 of things that we're doing is we're looking to gather
18 evidence from other jurisdictions; you mentioned
19 Ontario, for example, and any other jurisdictions that
20 have had experience in that area.

21 MR. HARSHMAN: Sure.

22 COMMISSIONER HAROWITZ: Just to add to what David said,
23 that we sometimes take for granted what we know when
24 we've been involved in this for some time, but David
25 made the point about also when the energy is consumed,
26 because obviously we have peaks and valleys in the

1 current shape of when people use energy. You know,
2 typically first thing in the morning and then when
3 they come home from work. So depending on when the
4 charging does or doesn't take place, it may in fact
5 tax at the peak or it may fill in the trough. If
6 that's something you all knew, then fair enough. But
7 I just thought I'd make that clear.

8 MR. HARSHMAN: Okay. Another naïve question, I've heard
9 that if all of a sudden my condo unit gets 50 electric
10 vehicles, there's going to be some kind of immense
11 drain on the system. They won't be able to supply
12 those 50 vehicles. Is that true?

13 THE CHAIRPERSON: I don't think I could possibly answer
14 that question. It would depend on your particular
15 building, what it's been wired for and what it's been
16 designed for. But probably, generally speaking, if
17 it's an older building, that may well be true, I would
18 think.

19 MR. HARSHMAN; Okay. One more question. Do you see
20 solar electric panels in your future?

21 THE CHAIRPERSON: Yes, there are some solar electric
22 facilities in British Columbia, not as many as there
23 are in more sunny areas, although I recognize that we
24 are in one of the more sunny areas in the province
25 right now.

26 So, as I understand it also, prices of

1 solar are dropping so presumably that would drive
2 adoption upwards. What a target penetration rate is,
3 I don't know, I couldn't say, but I believe that there
4 is solar and there is an increasing use of solar.

5 MR. HARSHMAN: Thank you.

6 **Proceeding Time 6:43 p.m. T04**

7 THE CHAIRPERSON: Sir?

8 MR. NANSON: Good evening.

9 THE CHAIRPERSON: Good evening.

10 **SUBMISSIONS BY MR. NANSON:**

11 MR. NANSON: My name is Brock Nanson, N-A-N-S-O-N. I'm a
12 professional engineer and I own an electric vehicle.
13 I've had one for three years, a Tesla and I also have
14 a little BMW that I use as well around town.

15 I'm not really sure of the format here, if
16 I can just ramble with new ideas?

17 THE CHAIRPERSON: Yes, please.

18 MR. NANSON: Is that really what we're trying to do here?

19 THE CHAIRPERSON: Yes. Sir, is your BMW electric also
20 you said?

21 MR. NANSON: Yes, the I3. It's not the one with the
22 range extender engine, so it's 120 kilometres.

23 THE CHAIRPERSON: No, please say whatever you would
24 like.

25 COMMISSIONER FUNG: Could I just ask you question?

26 MR. NANSON: Sure.

1 COMMISSIONER FUNG: Those vehicles that you have
2 currently, are they purely electric?

3 MR. NANSON: Yes.

4 COMMISSIONER FUNG: They are not hybrids.

5 MR. NANSON: Exactly.

6 COMMISSIONER FUNG: Thank you.

7 MR. NANSON: Yeah, that was the intent when I bought the
8 first one was I didn't want any burning fuel any more,
9 so I didn't get a hybrid or a range extender.

10 So I use solar panels on the roof of my
11 house. That was part of the deal when I bought the
12 car was I was going to be generating my own power and
13 with a 5.2 kilowatt solar array, I generate about
14 30,000 kilometres a year off my roof. It's grid tied,
15 so it goes back to the grid and what I'm not making
16 now, I'm pulling back because it's pretty dark out
17 there these days and they're covered in snow.

18 But I think that that does speak to where
19 you would be going with supply. I think some people,
20 especially those people that don't own electric
21 vehicles just assume that as soon as everybody drives
22 electric we'll need another 16 dams and probably a
23 nuclear reactor or two, and that's just not reality.

24 I tend to charge at night. My vehicles
25 also have the ability to determine when -- or I can
26 set them to charge when I want them to. So if I know

1 -- for instance, some jurisdictions have time of use
2 charge. If I know that it's cheaper at night or
3 there's more capacity on the grid, it's easy enough
4 for me to just tell it start charging at midnight,
5 2:00 a.m., whatever. Or figure it out yourself and be
6 done by the time I leave at 8:00 a.m., and the cars
7 will typically do that.

8 So I think there's a lot of value in
9 recognizing that solar is going to be a big part of
10 this, and the ability to charge when you want to
11 charge. Meaning that -- the comment earlier was made
12 about commercial ventures wanting to charge during the
13 day. Well, they might be able to, but they could have
14 solar on their rooves or they could be drawing from
15 solar. And the key to that is not penalizing people
16 for putting solar on their rooves. And there are
17 some areas in the States where they put a lot of weird
18 surcharges on there in an attempt to basically push
19 solar out of the industry. I guess these are the big
20 corporations that see their bread and butter being
21 eaten up pretty fast by the solar industry. They
22 don't like it.

23 And certainly if you go to -- was it Nevada
24 or Arizona, some of those states with huge solar
25 potential are actually preventing people from putting
26 it on the roof by making it ridiculously expensive

1 through these surtaxes, surcharges. So, as you get
2 into this, I think you want to recognize that a lot of
3 EV drivers put solar up. And I've seen some
4 statistics on it, and it's close to a third in some
5 areas will put solar on the roof.

6 So as far as what comes back to the grid,
7 there's a lot of potential there. But the catch is,
8 you can't penalize them for doing that.

9 THE CHAIRPERSON: Your solar is all tied to the grid,
10 though, is that correct?

11 MR. NANSON: That's correct.

12 THE CHAIRPERSON: And so you're a net metering customer?

13 MR. NANSON: Net metering, yeah.

14 THE CHAIRPERSON: Okay.

15 MR. NANSON: And I've been participating in that -- I
16 forget what their calling it. That little program
17 that Hydro has got right now to try to shed some power
18 at certain times.

19 THE CHAIRPERSON: Right.

20 MR. NANSON: Right. And it's actually been quite
21 successful. It's easy for me because I come home and
22 I usually plug in right away. So I now just say, I'll
23 charge later and it's fine. It works out quite well.

24 Another thought that you might want to look
25 at, and it's getting a big old or long in the tooth
26 now, but I don't know whether anybody has every looked

1 at what Better Place, Shai Agassi was doing ten years
2 ago. The company is dead now, it just didn't work
3 out. He was one of the early guys looking to put
4 electric vehicles on the road in a big way. He was
5 based in Israel and he got Renault building electric
6 cars and they had batter swop stations at the time.

7 Now, the company died but they did have a
8 lot of interesting ideas. Shai Agassi actually comes
9 from the computer industry. SAP Software is one of
10 the big guys in that group. And along the way he
11 realized a smart grid was going to be incredibly
12 important. You had to be able to find a way to allow
13 the cars to talk to the grid. And it was touched on
14 in the screen here when they said the vehicle to grid
15 technology, V to G.

16 Typically you're not going to see that
17 happen because batteries in the cars have a limited
18 number of cycles, recharge cycles. And if you have a
19 warranty of so many years, the manufacturer does not
20 want to be swapping out your battery for free because
21 you've been selling it back to the grid on a daily
22 basis.

23 So I think there's going to be an issue
24 with that. It's probably not going to happen for
25 quite some time. But the ability to have the car talk
26 to the grid and the grid tell it when it's okay to

1 charge, or even for the car to tell it, "I need so
2 many kilowatt hours, and I need them by a certain
3 time," and allow the grid to say, "Well, we've got
4 extra power right now, you can have it."

5 So actually looking into what Better Place
6 did, or what their model was might be quite
7 educational because they did have a lot of really good
8 ideas earlier.

9 THE CHAIRPERSON: Sorry, that was Better Place?

10 MR. NANSON: It was called Better Place, yeah.

11 THE CHAIRPERSON: And the gentleman's name was?

12 MR. NANSON: Shai Agassi, S-H-A-I A-G-A-S-S-A-I, I
13 think.

14 THE CHAIRPERSON: Okay, thank you.

15 MR. NANSON: I'm trying to think where else. My brain is
16 a little scattered.

17 **Proceeding Time 6:49 p.m. T5**

18 As far as driving around goes, and there's
19 mention there of range anxiety, there's a lot of that.
20 Especially with the original cars that don't have a
21 lot of range. The newer ones, the Teslas, not a big
22 deal.

23 What people do see, though, is a real lack
24 of charging opportunities. And the real key ones are
25 the fast charge. The DC Fast Charge stations. Most
26 of the cars out there today will accept that. They

1 aren't nearly as fast as what the Tesla will allow.
2 The Tesla model is brilliant. That's really what
3 everybody should be looking to build. But the level 2
4 stuff that you find all over the place, not overly
5 useful unless you're staying overnight, or just trying
6 to top up a little bit here and there.

7 The Fast Charge stations on the road today,
8 I guess they're fairly expensive to install. I
9 wouldn't doubt that there are some charges associated
10 with the peak rate, a peak rate charge. I'm not sure
11 whatever you call it, but where you draw a lot of
12 power in a big hurry, but typically don't draw any.
13 So I think you get charged extra for that, or
14 corporations would. Companies that have that sort of
15 weird power consumption.

16 THE CHAIRPERSON: They wouldn't -- possibly. Not on the
17 residential rate, you wouldn't.

18 MR. NANSON: No, I'm not talking residential, I'm talking
19 about the DC Fast Charge stations, which wouldn't be
20 in your home.

21 THE CHAIRPERSON: Yes. Yes.

22 MR. NANSON: Because you would be pulling, you know, 50
23 kilowatts per.

24 THE CHAIRPERSON: Yes.

25 MR. NANSON: Which just isn't likely. But if somebody
26 was putting that in, at their place of business, or if

1 the city of Kamloops was doing it, I suspect that they
2 would probably get nailed with some extra charges for
3 those peak demands that these things would cause,
4 especially when there's a bunch of them lined up.

5 THE CHAIRPERSON: Yes, you're paying a capacity charge,
6 they make -- yes.

7 MR. NANSON: Yeah. The other thing we've seen is that
8 the ones that are out there today, Fortis is aligned
9 with some in the Kootenays, BC Hydro's aligned with
10 some in the rest of the province. The per-kilowatt
11 hour rate is actually pretty extreme, to the point
12 that I think some people look at it and say, "Really?
13 Is this a better route to go than just simply burning
14 gas?"

15 THE CHAIRPERSON: You're talking about the rate charge at
16 the charging stations?

17 MR. NANSON: At the DC Fast Charge stations.

18 THE CHAIRPERSON: Yes, okay.

19 MR. NANSON: Because I guess those are the only ones that
20 are mandated, because Hydro and Fortis are utilities.

21 THE CHAIRPERSON: Yes.

22 MR. NANSON: They can charge for it, everybody else has
23 to give it away. That's part of why you're here --

24 THE CHAIRPERSON: Yes.

25 MR. NANSON: -- the big reason, I guess, why you're here.

26 THE CHAIRPERSON: Yes.

1 MR. NANSON: I think right now in the Hydro area, I think
2 it's, what, 35 cents a kilowatt hour? Which is three
3 times the highest you pay at home.

4 THE CHAIRPERSON: Right.

5 MR. NANSON: For the privilege of charging faster and
6 from what I've seen, and again I'm not really sure of
7 these numbers, but what I did see suggests that Fortis
8 was actually significantly higher than that. That's
9 not something you want to see happen.

10 THE CHAIRPERSON: So at 35 cents a kilowatt hour, does
11 that make your car not as economic as gasoline? I'm
12 sorry, I don't know the -- I can't do the calculation
13 in my head here, but --

14 MR. NANSON: Hard to say. I'm not sure where it would
15 fit.

16 THE CHAIRPERSON: Yes.

17 MR. NANSON: But as far as being competitive with other
18 forms of charging, you know, if I can do this at home,
19 anywhere between 8 and 12, why would I do it for 35?
20 I might just rent a car with a gas engine in it.

21 THE CHAIRPERSON: Yes. Yes.

22 MR. NANSON: So the real question here is, what does it
23 actually cost to run one of those DC Fast Charge
24 stations? I know you have to amortize the cost, and
25 they're quite unreliable, so far. But at what point
26 is it becoming basically a cash cow?

1 THE CHAIRPERSON: Right. You say they're quite
2 unreliable? Is that what you said?
3 MR. NANSON: Yes. So far, that's what we're seeing.
4 THE CHAIRPERSON: Yes. Yes.
5 MR. NANSON: You know, they'll install one in one
6 location. It goes down, for whatever reason, if it
7 can't communicate to authenticate your RFID card and
8 charge you, so it just doesn't do anything.
9 THE CHAIRPERSON: Yes.
10 MR. NANSON: The one in Kamloops went down -- well, it
11 was down for about three months, I think.
12 THE CHAIRPERSON: Three months?
13 MR. NANSON: Before they got it fixed.
14 THE CHAIRPERSON: And who operates that? Is that a Hydro
15 -- BC Hydro facility?
16 MR. NANSON: Well, that's a BC Hydro one, but it seems
17 like there's a lot of disagreement over who should
18 really be looking after it.
19 THE CHAIRPERSON: Right.
20 MR. NANSON: At least that's what I gathered. City of
21 Kamloops sponsors it, but they weren't allowed to
22 actually touch it.
23 THE CHAIRPERSON: Yes.
24 MR. NANSON: BC Hydro had to do it, and the story was
25 they had one guy for the province that knows how to
26 fix them, and he got around to it when he could.

1 Which was three months. I think he had to swap it
2 out.

3 THE CHAIRPERSON: Right.

4 MR. NANSON: So if somebody drives to town, or is driving
5 through town, expects to be able to charge and
6 continue, if the one unit in town isn't working,
7 suddenly you're here for the day instead of for the
8 hour.

9 THE CHAIRPERSON: Mm-hmm.

10 MR. NANSON: So that's a big problem when you look at the
11 whole "range anxiety" idea.

12 THE CHAIRPERSON: So is it fair to say that not many
13 electric vehicle owners do long-distance driving in
14 their vehicles?

15 MR. NANSON: Unless they're driving a Tesla, they
16 probably aren't.

17 THE CHAIRPERSON: Right.

18 MR. NANSON: The little I-3 that I have, if I want it
19 serviced, I have to take it to Vancouver.

20 THE CHAIRPERSON: Yeah.

21 MR. NANSON: I'm not going down there any time soon. I'm
22 more likely to put it in the back of a truck,
23 actually, to get it there. Because I cannot find
24 enough of the Fast Track stations --

25 THE CHAIRPERSON: Right.

26 MR. NANSON: -- now, to get me there. Almost. Almost.

1 THE CHAIRPERSON: Yes. As long as they're open and as
2 long as they're --
3 MR. NANSON: Functional.
4 THE CHAIRPERSON: -- functioning, yes.
5 MR. NANSON: But right now, the Coquilhalla's a no.
6 THE CHAIRPERSON: Yes.
7 MR. NANSON: Because the one that's supposed to be going
8 in somewhere just this side of the toll booth, I think
9 it's at Britton Lakes, or -- I forget what it's
10 called. Britton Lake?
11 THE CHAIRPERSON: Yes.
12 MR. NANSON: That one, I think, is on the -- it's in our
13 CAN site as being one that's coming.
14 THE CHAIRPERSON: Right.
15 MR. NANSON: That would help. Get to Hope, there's no
16 CCS. It's only CHAdEMO. So I'm out of luck there.
17 If I go the other route, Cache Creek has nothing.
18 THE CHAIRPERSON: Yes.
19 MR. NANSON: The nearest one is Spences Bridge. That's a
20 bit of a jump, to get from Kamloops to Spences Bridge.
21 And there's one in Boston Bar, and again, the same
22 problem with Hope.
23 So it would be -- well, I don't know if I'd
24 do it in a day. Probably wouldn't. It would be a
25 very long day if I did. But if it was a Tesla, I
26 leave with a full charge, I pull into Hope and I

1 charge for 30 minutes to have enough to get to
2 Vancouver and back again on the way home.

3 THE CHAIRPERSON: Yes.

4 MR. NANSON: You know, that's my -- you know, I can go
5 and have lunch, or breakfast.

6 THE CHAIRPERSON: Tesla has its own charging
7 infrastructure in Hope, I assume.

8 MR. NANSON: Oh, yes. Tesla has the supercharger
9 network. You're not entirely familiar with that?

10 THE CHAIRPERSON: I know they have a network, but they
11 have it in Hope, obviously, is what you're --

12 MR. NANSON: Yes. They have it in Kamloops, they have it
13 in Merritt, they have it in Hope. There's one in
14 Tsawwassen now.

15 THE CHAIRPERSON: Yes.

16 MR. NANSON: Supposedly something else going into
17 Vancouver. They're building out at an incredibly high
18 rate. Once those are there and you can just fly.

19 **Proceeding Time 6:55 p.m. T6**

20 COMMISSIONER FUNG: And how do they charge you for their
21 charging stations?

22 MR. NANSON: Well, that's actually interesting, because
23 originally you bought -- paid an extra \$2,000, which
24 is what I did back in 2015, and they gave you
25 supercharging for the life of the car anywhere in
26 North America.

1 THE CHAIRPERSON: Yeah, unlimited.

2 MR. NANSON: Unlimited, yeah. They don't want you to use
3 it as a gas station. They do expect that you are
4 charging at home, and this is for distance travel.
5 Which is fair enough. Since that time, because they
6 seem the Model 3 coming, that model isn't going to
7 work for them. They are charging. And it depends on
8 where you are.

9 So for instance in B.C., because BCUC
10 doesn't allow them to just charge the power, what
11 they're doing because the batteries tend to taper
12 their charge rate, as they get more full it slows
13 down, what they've done is said, okay, if you are
14 charging anywhere from, I don't know what it is, 60
15 kilowatts to 120 kilowatts, it's so much a minute. If
16 you're charging it under that it's less per minute.
17 So the idea is that it is going to average out to be
18 somewhat reasonable compared to what the power is
19 actually costing them, but they're getting around
20 "selling power", quote, unquote.

21 THE CHAIRPERSON: That's why we're here.

22 MR. NANSON: Exactly.

23 COMMISSIONER HAROWITZ: Sorry, I didn't quite understand,
24 you said they're not selling the power?

25 MR. NANSON: They're selling the use of the supercharger
26 by the minute --

1 COMMISSIONER HAROWITZ: I see, okay.

2 MR. NANSON: -- and not by the power consumed. So
3 depending on the rate that goes into the car they give
4 you two different rate categories.

5 COMMISSIONER HAROWITZ: So it's a timed rate but based on
6 what level of charge your vehicle currently has?

7 MR. NANSON: Yeah. Above a certain power range, as
8 you're in a better -- and below when it's getting
9 full, and it's supposed to average out to something
10 reasonable.

11 THE CHAIRPERSON: But you say that's coming in the
12 future?

13 MR. NANSON: It's actually there now for the newer cars.

14 THE CHAIRPERSON: Yeah, okay.

15 MR. NANSON: Yeah.

16 THE CHAIRPERSON: Oh, the ones that they didn't sell the
17 \$2,000 package with?

18 MR. NANSON: Exactly. They're backing away from that
19 model now just because of the cost. And, you know,
20 when they build an installation they're doing at least
21 six or eight stalls of 120 kilowatts as opposed to the
22 DC Fast charge that we see for all the other cars that
23 do 50 kilowatts and there would be one, you know. So
24 there's a huge order of magnitude difference in the
25 cost investment.

26 THE CHAIRPERSON: Right.

1 COMMISSIONER FUNG: So as an electric car user, do you
2 know where all the high-speed chargers are throughout
3 the province?

4 MR. NANSON: Pretty much. Tesla has it built in, it's
5 hard baked into the navigation system. So you can
6 tell it, "I'm going here," and it'll say, "Stop here
7 for ten minutes, stop there for 20," and guide you
8 there. There is an app out there -- well, there's a
9 few of them, but the one that seems to be the go-to is
10 called PlugShare. And that shows every charging
11 opportunity you could imagine, whether it's a DC Fast
12 charge, a Tesla station, a Level 2, or somebody with a
13 120 volt socket that they've made available to you.
14 Next to useless, but it's there.

15 THE CHAIRPERSON: That takes quite a while to charge up
16 with that I'm sure.

17 MR. NANSON: Yeah, very, very slow.

18 COMMISSIONER FUNG: But they don't tell you if it's
19 functional, if it's been taken out of service, broken?

20 MR. NANSON: Not very quickly. Tesla knows, it will tell
21 you how many of the stalls are in use. The other
22 ones, the DC Fast charge system, they seem to have
23 some kind of a connection back to the mothership that
24 tells them when somebody is connected. If one fails,
25 it's really up to that person that's noticed to try to
26 make a note of it and advise others, and like notes in

1 the PlugShare app to say, "Watch out, this thing is
2 dead. I've notified the company" or "I haven't," and
3 hopefully it will show up again in a few months if
4 it's Kamloops.

5 COMMISSIONER FUNG: Thank you.

6 COMMISSIONER HAROWITZ: Thank you very much.

7 MR. NANSON: Thank you.

8 THE CHAIRPERSON: Much appreciated, sir. Thank you, Mr.
9 Nanson.

10 **Proceeding Time 6:59 p.m. T7**

11 **SUBMISSIONS BY MR. OWEN:**

12 MR. OWEN: My name is Trevor Owen, O-W-E-N. I don't have
13 a lot to say. Whenever I have a question I always ask
14 Brock. And I don't own an electric vehicle yet, but
15 I'm hoping to get one as soon as I can find the one
16 that I can afford. And my main comment really is I
17 think the government should make electric vehicles as
18 attractive as possible. And if there's a way that
19 you, as part of the process, can keep the rates and
20 the costs for recharging on long-range trips, then
21 we'll get on with the change from fossil fuels to
22 electricity sooner rather than later, because
23 obviously the planet needs it urgently.

24 So that's my main thing, is that we should
25 keep that idea or focus in mind when we're deciding on
26 these things. We don't want to make it difficult, and

1 maybe \$9 or 35 cents per kilowatt hour is already
2 seeing people are just in there to make the money and
3 that's going to discourage people from changing and we
4 need everyone to change.

5 That's all I really had to say. Thank you.

6 THE CHAIRPERSON: Thank you, sir. Thank you.

7 Please, ma'am.

8 MS. KABLOONA: Hi there.

9 THE CHAIRPERSON: Hi.

10 **SUBMISSIONS BY MS. KABLOONA:**

11 MR. NANSON: I'm Cheryl Kabloona, the last name is K-A-B-
12 L-O-O-N-A. I'm with the BC Sustainable Energy
13 Association, I chair the Kamloops chapter. But I want
14 you to know I'm not speaking for the BC Sustainable
15 Energy Association.

16 THE CHAIRPERSON: Okay.

17 MS. KABLOONA: We have a -- we're represented as
18 interveners later in this process.

19 THE CHAIRPERSON: You're intervening, yes. Yeah.

20 MS. KABLOONA: So I'm here mainly as an individual. And
21 I also have an electric vehicle. It's a plug-in Smart
22 car, purely electric.

23 So our members of the BC Sustainable Energy
24 Association are all very concerned to see the
25 transition to electrified transportation happen
26 quickly, because right now in B.C. 40 percent of our

1 greenhouse gas emissions come from transportation, and
2 personal vehicles and also commercial vehicles can be
3 operated through electricity, and so we'd like that
4 transition to happen as fast as possible.

5 I'll tell you a little bit about what I can
6 do with my car. It has a fairly small range. The
7 manufacturer says 118 kilometres. And I've never
8 driven it close to that limit, I always make sure I
9 get home before it gets anywhere near that maximum
10 range. It's a city car. So here in Kamloops I can't
11 really get anywhere outside of Kamloops and return.
12 Like I can't take it on a trip. There are no other
13 cities -- no cities close enough for that to work.

14 And it's a very basic car that doesn't take
15 fast charging, it takes a Level 1 or a Level 2. So if
16 I were to get to -- I don't know if Merritt is even
17 that close, but if I could get to Merritt I'd have to
18 sit there for five hours and wait for the car to
19 recharge, so it would make a very, very long trip of
20 several days getting to Vancouver. But I do know a
21 friend, I have a friend who took a Chevy Volt through
22 the Fraser Canyon to Vancouver just about a month ago
23 during the winter. So it's not impossible.

24 And, let's see. I charge at home. And
25 that's the easiest thing for me. And I wanted to
26 mention that most EV owners do charge at home. So I

1 think range anxiety may be more a problem with the
2 general public than it is with the owners of the EVs,
3 because EV owners will know -- will make sure they can
4 get home to where they can charge or they'll have a
5 particular charging station maybe at work where they
6 can charge. So they have their -- they have in their
7 head where they'll be charging their vehicle. And at
8 least here in a city like Kamloops it's not that
9 difficult to get to a charging station.

10 And I think -- I'd like you to consider the
11 question -- like I think you will be considering the
12 question of whether the people who are providing a
13 charging station should be considered a utility. And
14 I would like them to at least be able to charge enough
15 to recoup the cost of providing a charging station and
16 maybe make a bit of money on top of that.

17 **Proceeding Time 7:05 p.m. T8**

18 It doesn't make sense to me that a gas
19 station can sell fuel but they're exempt from the --
20 from being considered a public utility. Whereas right
21 now providing a charging station, you are a utility,
22 according to the letter of the law. Is that right?

23 THE CHAIRPERSON: Yeah, there's an exemption in the
24 *Utilities Commission Act* for, generally speaking, for
25 anyone that's selling petroleum products. And I can't
26 say exactly why the exemption exists, but I believe

1 it's because the thought was that there is other
2 regulation that covers petroleum products. I'll turn
3 to our lawyer for confirmation of that, but --

4 Yes. Yes.

5 MS. KABLOONA: Pardon, I didn't hear what you said.

6 THE CHAIRPERSON: It's supposedly a competitive market,
7 gas stations. Yes.

8 MS. KABLOONA: Oh, okay. Yeah, well, anyway, right now I
9 believe it's only the municipalities and employers who
10 can provide charging to people and charge for it, like
11 charge money for it. So everybody else, say the hotel
12 that wants to attract EV drivers, they have a charging
13 station, well, they're -- that's something they've had
14 to foot the bill for, and they're providing
15 electricity for nothing. And I think we need to open
16 it up a little more, so that they have more options,
17 and we'd probably see more charging stations that way.

18 And I would hope you will also consider if
19 you can encourage the installation of charging
20 stations at multi-unit residential buildings. Right
21 now it's quite difficult. Like, as a person who might
22 want to buy an EV, and if you live in a multi-unit
23 building, it's a big hassle to figure out how you can
24 charge your vehicle. And it -- yeah, very difficult
25 to be a private individual trying to charge a vehicle
26 at a big condo or apartment building.

1 So if you can find a way to perhaps
2 regulate so that charging stations are included in
3 places like that, and it would go along well with the
4 B.C. Energy Step Code that is looking at regulating
5 how -- and setting up a system where our homes are
6 built to better energy standards. So we're -- we need
7 to build our buildings so they're more energy
8 efficient, and also find ways that people can use the
9 electric vehicles in them.

10 THE CHAIRPERSON: Thank you.

11 MS. KABLOONA: I think that's about all I had. Yeah. Do
12 you have any questions for me?

13 THE CHAIRPERSON: Yes, I do, Ms. Kabloona. I think you
14 said that your vehicle can't use a DC Fast Charging
15 station, is that correct?

16 MS. KABLOONA: That's right, yes.

17 THE CHAIRPERSON: So even if there was a more extensive
18 network of them, it wouldn't do you any good, is that
19 --

20 MS. KABLOONA: Correct, with this car.

21 THE CHAIRPERSON: With this car, yes.

22 MS. KABLOONA: Yes. Yeah.

23 THE CHAIRPERSON: Yes.

24 MS. KABLOONA: I think maybe some day in the future I'd
25 like to get a car with better range --

26 THE CHAIRPERSON: Right.

1 MS. KABLOONA: So I could take it on trips and then I
2 would care about fast charging stations.

3 THE CHAIRPERSON: Yes, yes.

4 MS. KABLOONA: And anybody wants to take a car on a trip.
5 I have kept my older car just for that reason. If
6 we're going to go somewhere out of town --

7 THE CHAIRPERSON: Right.

8 MS. KABLOONA: -- I'll use my old 1998 Civic.

9 THE CHAIRPERSON: Right. Yes. How old is your electric
10 vehicle?

11 MS. KABLOONA: It's a 2014 vehicle.

12 THE CHAIRPERSON: 2014. But it's basically marketed as a
13 city car, as you say, is that it?

14 MS. KABLOONA: They didn't say that in the -- well, I
15 bought it from a friend. She --

16 THE CHAIRPERSON: Right. And they didn't tell you that.

17 MS. KABLOONA: Well, no, no, no. It's not a secret.

18 THE CHAIRPERSON: Yeah.

19 MS. KABLOONA: The specs on the car say clearly the range
20 is 118 kilometers.

21 THE CHAIRPERSON: Yes, yes.

22 MS. KABLOONA: So if you're -- if you notice that, and
23 think about it --

24 THE CHAIRPERSON: Yes. Fair enough.

25 MS. KABLOONA: I had a very funny experience with the
26 dealership. The car is supposed to be -- go through a

1 maintenance check every spring and the first -- when I
2 bought the car, I think, in -- oh, I bought it from my
3 friend in 2016, I think. So the first year there was
4 no problem, I took the car in to the dealership here
5 and they did the maintenance here.

6 Then the next year I called them to make an
7 appointment and they said, "Sorry, we don't have
8 anybody here who can do that for you. Why don't you
9 take it to Kelowna?" So, this is the dealer asking me
10 if I could take it to Kelowna. "No, actually, I can't
11 take it to Kelowna." So they put it on a truck and
12 took it to Kelowna for me. It's a little tricky being
13 in this leading edge, using electric vehicles. So you
14 have glitches like that come up, and so I think we're
15 all looking forward to the day when EVs are more
16 common and they're easier to use.

17 THE CHAIRPERSON: Yes.

18 MS. KABLOONA: But they're great now anyway. I really
19 enjoy driving my little EV.

20 THE CHAIRPERSON: Very good. Great.

21 MS. KABLOONA: Thank you.

22 THE CHAIRPERSON: Thank you very much, ma'am.

23 MS. KABLOONA: Okay.

24 **Proceeding Time 7:12 p.m. T9**

25 THE CHAIRPERSON: Appreciate it.

26 Is there anyone else that has anything that

1 they would like to add? No?

2 MS. COLEMAN: I just came in, but --

3 THE CHAIRPERSON: Please come to the mike. This is being
4 transcribed, so if you could come to the mike and
5 state your name, we would appreciate it.

6 **SUBMISSIONS BY MS. COLEMAN:**

7 MS. COLEMAN: Heidi Coleman. I just came in. But I do
8 have --

9 THE CHAIRPERSON: C-O-L-E-M-A-N?

10 MS. COLEMAN: C-O-L-E-M-A-N.

11 THE CHAIRPERSON: Thank you.

12 MS. COLEMAN: I have a Nissan LEAF.

13 THE CHAIRPERSON: Mm-hmm.

14 MS. COLEMAN: It's been three years. And there's just a
15 few of us in town, and so I saw this in the paper just
16 yesterday, I've been away, so I just noticed -- this
17 was in the paper and I could get here now.

18 THE CHAIRPERSON: Thank you coming. I'm sorry that you
19 missed most of it.

20 MS. COLEMAN: Yes, I know.

21 THE CHAIRPERSON: The transcript will be on the website
22 if you'd like to --

23 MS. COLEMAN: Okay. So I do use the -- I have -- I just
24 plug in at my house. I do the trickle charge. I
25 don't own anything fancier. But I do use the ones
26 that are around town, up at the TCC. I wish there

1 were more. I've driven all the way to Vernon. And
2 I've driven to Merritt. I understand now I can do the
3 Fraser. I would like more of them around. That's --
4 I mean, it's so wonderful. I just came back from
5 Montreal where I see so many of them, because a lot of
6 the delivery companies, food delivery trucks and
7 stuff, are using them to bop around town, and just for
8 my life here with my husband and son, it's so amazing.
9 It's just -- and when I need to go somewhere further,
10 I -- sometimes I borrow a car and trade with my
11 friends, and they love it. And sometimes I rent. But
12 I just -- we need more stations so I can get further.

13 That's it. Thank you.

14 THE CHAIRPERSON: Okay. Thank you, ma'am.

15 Okay, well, thank you, everyone, for
16 joining us tonight. We really appreciate your
17 participation. It means a lot of us, and it really
18 helps us to fill out the facts that we need to look at
19 for our inquiry.

20 So as Patrick and Yolanda told you, or
21 explained earlier, this inquiry will be looking --
22 will be going to other communities to get input. And
23 we've invited evidence from interveners, and at the
24 end of the day we'll be writing a report. So please
25 feel free to check back on our website. You can read
26 all the information that's filed with us, and you can

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follow the progres. And if you have any more comments that you'd like to submit, feel free to submit them at any time.

So, I hope you all have a really great evening. Again, thank you very much for coming out.

(PROCEEDINGS ADJOURNED AT 7:14 P.M.)

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



A.B. Lanigan, Court Reporter

March 5th, 2018