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Official Report of Debates (Hansard)

Wednesday 7 November 2001

**Select committee on
alternative fuel sources**

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Chair: Doug Galt
Clerk: Tonia Grannum

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LEGISLATIVE ASSEMBLY OF ONTARIO

SELECT COMMITTEE ON
ALTERNATIVE FUEL SOURCES

Wednesday 7 November 2001

ASSEMBLÉE LÉGISLATIVE DE L'ONTARIO

COMITÉ SPÉCIAL DES SOURCES
DE CARBURANTS DE REMPLACEMENT

Mercredi 7 novembre 2001

The committee met at 1005 in room 228.

SUBCOMMITTEE REPORT

The Chair (Mr Doug Galt): I call the meeting of the select committee on alternative fuel sources to order. Our first item on the agenda is the subcommittee report. Would someone like to move and read the subcommittee report?

Mr Steve Gilchrist (Scarborough East): I'd be pleased to do that.

Your subcommittee on committee business met on Wednesday, October 31, 2001, and recommends the following:

(1) That the Ministry of the Environment, Environment Canada, Jack Gibbons of the Ontario Clean Air Alliance and the Alliance of Canadian Manufacturers be invited to appear before the committee on Wednesday, November 21, 2001, in room 151 of the main Legislative Building. If room 151 is not available on November 21, then these presenters would be invited to appear on Monday, November 19, 2001, in room 151 of the main Legislative Building. Each presenter would be allotted 15 minutes for their presentation followed by 15 minutes for questions from the committee.

(2) That the Ministry of Municipal Affairs and Housing, Ministry of Training, Colleges and Universities, Management Board of Cabinet, Ministry of Finance property tax branch and the Ministry of Economic Development and Trade be invited to appear before the committee on Wednesday, November 28, 2001, in room 151 of the main Legislative Building. If room 151 is not available on November 28, then the ministries would be invited to appear on Monday, November 26, 2001, in room 151 of the main Legislative Building. Each ministry would be allotted 20 minutes for their presentation, including time for questions from the committee.

(3) That the Association of Municipalities of Ontario (AMO), the Ontario Hospital Association (OHA), the Municipal Electric Association and the Canadian Urban Transit Association be invited to appear before the committee on Wednesday, December 5, 2001, in room 151 of the main Legislative Building. If room 151 is not available on December 5, then the presenters would be invited to appear on Monday, December 3, 2001, in room 151 of the main Legislative Building. Each presenter would be allotted 30 minutes for their presentation, including time for questions from the committee.

(4) That Navigant Consulting Ltd will present their interim report to the full committee on Wednesday, December 12, 2001.

The Chair: I'd like to make a couple of comments relating to the report. You'll notice there's some confusion on which room and which day. I have talked to Mr Bradley, Chair of the standing committee on government agencies, and he is willing to give up room 151 on Wednesdays provided the subcommittee of that committee is willing. He is checking them out. I forgot to phone and check with him prior to coming to this meeting. It's in the works. We'll try and get something a little smoother than this to work with prior to the actual date. One of the problems they have is, they don't know who they may call before them until the Friday prior to it. We'll do the best we can to get it to work out.

The other is, on 1, 2 and 3, just so it's a little easier to understand, number 1 for November 21 is really on the topic of emissions trading reductions; topic 2, the theme that day is talking with other ministries and it's really on policy and policy directions; item 3, on December 5, we're talking with the MUSH sector as it relates to policy; and of course on December 12 we're looking at Navigant Consulting coming back with their report at that time. Instead of having four days to meet, we're down to three. The items the committee has suggested over and above these, we're certainly more than willing to meet with those people come February.

Any comments other than that on the subcommittee report? Everybody comfortable? Those in favour? Those opposed? Carried.

INTERIM REPORTS

NAVIGANT CONSULTING LTD

The Chair: I think what we'll do is change the order of the agenda that's before you and we'll go on now to the briefing by Navigant. We'll do the finalizing of the report, if that's OK by the committee. If there are no objections, we'll do that.

We have with us Mitchell Rothman, Henry Sandels and John Dalton. If we have trouble keeping you straight—you have our names up, but maybe you can help some of the committee members keep straight who's who and mention your names once in a while.

Congratulations on successfully winning the contract. We look forward to working with you. You may want to make some introductory comments to the committee getting started, and then the next hour and a half, hour and three quarters is yours.

1010

Mr Mitch Rothman: I'm Mitch Rothman. Next on my left is Henry Sandels and on his left is John Dalton. I'm going to let John talk for a minute while I try to figure out how to get this projector working.

The Chair: Those who are in the audience, if you're having some difficulty seeing the screen as it's being presented, I certainly don't mind if you go over to the side or move a chair around, stand up, whatever. I think we're relatively informal with this presentation.

Mr John Dalton: Hopefully everyone has copies of the materials that were passed out. I think the purpose today really is to help us, given that we have a limited amount of time available to us and—

The Chair: We're still searching for your handout.

Mr Dalton: I gave it to Tonia.

Interjection.

The Chair: Everybody but me?

Mr Dalton: It has our logo on the left-most corner and has a Select Committee on Alternative Fuel Sources title on top. Briefing on Scope of Policy Issues—exactly.

What we would like to do today is to have you help us focus our work over the next month. We do have a limited amount of time available. We've quickly been through the interim report, and one conclusion that quickly comes from reviewing all that material—and I'm sure you're probably better aware of this than I after sitting through the various hearings—is that there is a wide range of alternatives in policy initiatives that could be pursued.

What we would like you to help us do is to make sure of the focus that we're proposing today. We've identified a short list of alternatives, and we'd like to get your feedback in terms of whether you think we've missed anything and potentially whether we've included anything that really doesn't have that potential. That's really what we're trying to do today. That gets us to the introduction.

Mr Rothman: Thank you, John. The first slide really just reiterates what John just said, that we want to talk about defining alternative fuel sources here and to talk about the objectives, mostly with a view toward limiting at least our research to a defined number of technologies that have the greatest potential for producing some good results in Ontario in terms of alternative fuels. We've already done some screening of that and come up with a short list of technologies that we would like to discuss with you so that we can agree on where we're going to focus our efforts.

As the Chair just said, you're expecting a report from us on December 7. From the hearings you've already had, you know there's a very wide range of alternatives that have been proposed to this committee already. For us

to be effective, we need to be able to focus those alternatives on a manageable number.

When we talk about defining objectives, look first at the committee's mandate as it is stated, and it's there—I'm sure you know it better than I—"investigate, report and recommend ways of supporting the development and application of environmentally friendly, sustainable alternatives to our existing fossil fuel sources." That can translate into some broad objectives which were stated in the committee's own interim report: increasing the use of alternative fuels, reducing reliance on fossil fuels and reducing the environmental effects of fossil fuels. Those may be different things. You can reduce the environmental effects of fossil fuels without reducing their use by either end-of-the-pipe cleanup or by greater efficiency or by switching the kinds of fossil fuels you use; to promote energy conservation and efficiency, to use cost-effective methods of implementing alternative energy use; and finally, to support R&D.

As I said, we need to focus the finite time and resources that Navigant Consulting has. We thought it would help to look for an objective statement that implements those policy initiatives that implement that mandate. We have two kinds of potential objective statements. One is a broader statement, to reduce the environmental effects of fossil fuel use, and the other is to reduce the primary demand in Ontario for fossil fuels.

Primary demand is the demand for the fuel itself. When we talk about primary demand for coal, for example, it's the coal used in electricity generation. There's very little primary demand for coal in Ontario other than for electricity generation. Relatively little coal, for example, is used for home heating. When we talk about primary demand, we're talking about the use of the fuel itself rather than the use of electricity which might be derived from the primary use of the fuel. In talking about primary demand, we're going back to the source of the fuel.

The second statement, the statement of reducing primary demand for fossil fuel use in Ontario, is, we think, preferable because it focuses better on reducing fossil fuel use itself. A statement of reducing the environmental impact, as I said, could mean using, for example, end-of-the-tailpipe cleanup techniques. It could mean simply switching one fossil fuel for another. It could mean using the fossil fuels in different ways or different places without reducing their primary demand.

Looking at, first of all, again the need to narrow the range and to think about what we mean by alternatives to fossil fuels, we think that adopting an objective of reducing the primary demand for fossil fuels makes some sense, at least for our research. Of course the committee will direct us on that as well, but the committee directs its own research and next steps.

Mr Dalton: At this point, we'd really like some feedback. Is the committee in agreement? Do we think that's an appropriate focus for our work?

The Chair: Comments?

Mr Gilchrist: If you're asking as a mechanism to deal with the objectives that are listed in the previous slide as

opposed to something that's supplants the objectives, I couldn't agree with you more that number 2 is the direction you have to go. Clearly, if you're going to inspire a change in fuels, we can't waste our time talking about how we make existing fuels better. That may be part of the short-term solution. While you're not on that particular topic right now, I'm going to suggest that one of the considerations you could give, and the assistance you could give us when you draft your report, are what are the short-term, the medium-term and the long-term potential changes? I absolutely accept that number 1 may be applicable in the short term. There are ways to perhaps force every gasoline company to use 10% ethanol, force diesel fuel to include an additive package that allows ethanol, that in and of itself would eliminate 92% of particulate. That's 92% of the diesel problem solved right there. The longer-term goal, though, I think has to be number 2. To some extent, you might have to build number 1 in as a premise behind your short-term goals, but I really think your emphasis should be on number 2.

Mr Rothman: Your examples are really number 2. Your examples are substituting some of the existing fossil fuel in gasoline and diesel, substituting non-fossil fuels for some of the existing fossil fuels.

Mr Gilchrist: Touché. You're right.

1020

Mr Rothman: Number 1 would be making existing diesel engines burn cleaner rather than removing—

Mr Gilchrist: Perhaps I could give you an example at number 1 then. The railroads are using a form of diesel fuel that's 10 times worse than what is used in automotive applications. That's a pure substitution of fossil fuels, but it could be a recommendation that within six months the railroads are forced to switch to cleaner forms of diesel fuel. But again, I am agreeing with your point that number 2 has to be our primary focus.

Mr Rothman: Certainly, as you said at the beginning, we see this objective as a way to focus the objectives that were listed in the previous line.

The Chair: I think you're doing a neat job with grouping them. It helps the committee work with them. We brought these objectives from the original mandate to put a little flesh around it, and you're taking it one step further by grouping them. I think it's going to be helpful to the committee.

Ms Marilyn Churley (Toronto-Danforth): I agree with the comments just made, but in number 1, "To reduce environmental effects of fossil fuel usage," I'm just wondering how the concept of conservation and efficiency—which I'm pleased to see you have—would fit into that. Obviously, it's a huge part of the problem and the issue.

Mr Rothman: Sure, and one of the reasons for stating it as, "To reduce primary demand for fossil fuels," rather than something like, "To maximize the use of non-fossil fuels," is to allow for conservation and efficiency, because conservation and efficiency reduce the demand for all fuels and reduce the demand for fossil fuels primarily, because most of the primary demand that fuels the

energy being conserved is fossil. If electricity is being conserved, on the margin, most of the time, it's a fossil fuel in Ontario. If home heating fuel is being conserved, that's in general either electricity, which comes from a primary fossil fuel demand, or natural gas, which itself is a fossil fuel, or oil, which again is a fossil fuel. So the statement, "To reduce primary demand for fossil fuels," was chosen so it would include efficiency and conservation directly.

Mr John Hastings (Etobicoke North): If you're trying to encapsulate the committee's struggling approach to too many objectives, what I find disappointing about this is that you're lacking—there's no emphasis, no reference even, to the economic potential of moving from a fossil-based economy to a non-fossil-fuel-based economy. Or am I to imply that it's in there? If you go back to other reports, they've had all this stuff in it. The hydrogen folks' report of 1980 had this stuff in it, and it's sitting over in the legislative library for somebody to do another thesis on. I'm not primarily interested here in seeing that be the outcome.

If that's what we're going to be doing, to put it quite bluntly, I think we're missing the boat. I think we need to have a financial emphasis in there, not only on air quality improvements—clean air—but how you get there financially. When this is given to ministers or to anybody to look at, they're going to say, "Where are the financial implications here?" How do we get from a fossil-fuel-based economy to one 10, 15 years out—hopefully a lot less, but given how I see things going, I think it's probably going to be at least 10 years. How do we get there? What are the best effective fossil fuel additives or biofuels that move you from where we are to where we want to get?

The other thing is, where's the job creation or export potential? If we focus on this the way it is, we'll have a report that shows how we can improve little Ontario, and I don't see how we'll be importing the equipment, as we're already doing in wind energy, for the future; the same with solar. We should be a net exporter of this stuff.

Those are my considerations.

The Chair: May I make a suggestion at this point? I think it would be preferable if you made the presentation to us, because as I glance through here, I think there are answers to a lot of the questions that have been put forward. I think you've already learned lesson number one: don't stop and give them a chance to ask questions. If the committee is in agreement, I would like you to go through, and then we'll get into a general discussion, because I think some of the things now being asked will be answered in your presentation. Any objections to that? Thank you very much. You may proceed.

Mr Rothman: Thank you, Mr Chair. Mr Hastings, just to respond briefly to you, I think you have a good point in that the statement could well be, "To reduce primary demand for fossil fuels in a cost-effective way" or "in a cost-efficient way." I think that's implicit here, and we didn't put it in explicitly.

OK. Given that, we looked at alternative fuels and technologies for each of the energy-using sectors, look-

ing at electricity generation, transportation fuels, and space heating and cooling. Then we also recognize, as Mr Gilchrist said, that we want to have both short-term and long-term programs, programs that can be effective immediately and programs that will require a longer time to take effect and have a longer-term view to them.

We came up, from a number of sources, both from presentations to this committee and from our own sources, with a very long list of potential alternative fuels and technologies. In some cases, for example, in cogeneration, most cogeneration—not all, but most cogeneration—uses fossil fuels. However, cogeneration uses fossil fuels to accomplish two end uses that previously had been done by two separate fossil fuels. Cogeneration uses fossil fuels both to make electricity and to produce heat for process or space heating use. Cogeneration reduces or can reduce, depending on its efficiency and what it displaces, the total use of fossil fuels, not only by switching from one fossil fuel to another but also by getting essentially greater conversion efficiency out of the fossil fuel being used in the cogeneration. Some cogeneration can use biomass—wood waste and other non-fossil fuels—but most of it would be expected to use a fossil fuel.

So this is a long list—this is only the first page of a long list—that we will be going through, that we have gone through and will discuss later.

This is the second page of a long list. You can see that some of the things on this long list might be included under one or another of the definitions. For example, the use of natural gas and propane as vehicle fuels is effectively switching from one fossil fuel to another. That has desirable environmental impacts in that both natural gas and propane have lower emissions than refined petroleum products, but they are again switching from one fossil fuel to another.

We wanted to look at that long list. We don't have the resources or time to do a good job of what you'll see in terms of assessing both economic and technical potential and looking at potential policies for that long a list of potential alternatives, so we've done a screen on that long list to come up with a shorter list of technologies that we propose to research in more depth. The criteria are as listed here. We've looked first at, "Does it make a difference to environmental impact?" Secondly, "Is there technical potential in the province?" If you've heard about all these barriers analyses and seen all these kinds of things before, you probably have heard the term "technical potential," but let me make it clear. What we mean here by "technical potential" is, how much of this technology could be used if we ignored its cost and simply substituted it for all the available use in the province? That's the definition of "technical potential." It's the available total, ignoring cost, of all potential applications in the province.

1030

"Economic potential" is how much of that technical potential can be realized at costs that are equal to or below those of existing uses. So when we say "economic

potential," it's how much works now? Economic potential has the timeline to it that Mr Gilchrist talked about; that is, a technology that might not be economic now could be expected to become economic in the future, under future cost conditions. So there's a time aspect to economic potential.

The screening criterion of incremental impact is: if we find a technology that can have significant environmental impact, that has technical potential, that is economic, you would expect such a technology to be implemented already; and if it is already being implemented, or if it is in the process of being implemented on a wide scale and additional policies to promote it aren't likely to have a big incremental impact on it, then we're saying, "Let's turn our attention to something else. Let's turn our attention to some other good thing that needs attention, rather than this one that doesn't need attention."

This is just a schematic of how we did that screening, and it really goes through the sequence I just talked about. We look at the technology: what is its environmental performance? What is its cost? And that comes to technical potential. If it's a short-term technology, we wouldn't address the infrastructure requirements; if it's a long-term technology, we would. Then, given all that, we assess its economic potential, and then have a test. Is it economic under that? If it's economic—we didn't put the incremental screen in here—and not being implemented, then there must, by definition, be some barriers. That's how we define barriers. A barrier is something that is impeding the implementation of a technology that has economic potential. It may be a time barrier, or it may be other kinds of barriers. We then would identify the barriers and identify policies to address them. Our report right now is kind of somewhere between the "Assess Technical Potential" and the triangle.

We have done a quick screen of what we think has economic potential. We haven't done the more detailed assessment we might need. Some of the technologies we have put into this screen might wind up failing on the basis of economic potential, but we have done that screen in order to get down to a list we can look at in more detail.

Barriers: as I said, once we identify the technologies, you have to look for the barriers. You have to ask, if this is such a good technology—it has lower environmental impact and it has the same as or lower cost than existing technologies—why isn't it being implemented? There are a wide range of barriers that could prevent its implementation. We've done reports in the past looking at such barriers in particular areas, and we will do that again. We have looked at classified barriers as market institutional barriers or regulatory barriers, and those, especially the institutional barriers and to some extent all three of those barriers, can be addressed by policy initiatives. You have to identify them before you can address them, but that's in the next step.

Our short list—this is the first page of a two-page short list, which isn't quite so short as we perhaps had hoped—is the result of that screening. We took out of

that long list any of the fuels that we thought didn't meet the criteria we had shown you as screening criteria earlier. So you'll see that three of the biomass fuels, the geothermal—the ground source heat pumps—all of the cogeneration, small-scale hydro, two of the solar technologies, some of the biomass vehicle fuels, wind and of course energy efficiency remain on the short list.

Once we agree on the short list—and that's what we're hoping to do today, to ask you, in the end, are there things that you would like struck off the list or things you would like added to it—we would produce a report that essentially follows this template for each of the fuels; that is, we would describe how much it's being used now, what its potential is, efficiency and emissions implications, its reliability. We would identify the barriers and look throughout other jurisdictions for examples of policies that have been used to overcome those barriers and then finally identify and evaluate policies for Ontario for each, again, of these technologies.

Finally, this last slide is a proposed outline for the report we would make on December 7, which would essentially go through, in the introduction and the second bullet, much of what we've already done, much of what we've done and reported to you here—though we would have it written up, not in PowerPoint slides—and then the last three bullets would be the result of our further work.

I think that pretty well concludes what I had to say. John, did you want to add anything to that?

The Chair: No other comments? OK. Thank you very much. Just from the Chair's point of view, I think it's kind of neat the way you have grouped it and pulled it together. Some of those thoughts were running through my mind, but you actually have it down on paper and have packaged it for us.

We'll go around the various committee members, get their comments on what you've presented and see if in the next hour or so we can get some agreement.

Mr Jerry J. Ouellette (Oshawa): On the list of alternative fuels technology, under "Hydro," I'd like to see low-flow technologies. For example, in British Columbia, small streams are being utilized for hydro generation. We've already received documentation from the Ministry of Natural Resources whereby there are over 200 dams in Ontario that are not used for generation. However, the new, low-flow technology may be able to work very nicely to start generation at those facilities.

As well, under "Geothermal," one problem in one of the mines in Timmins is that the mine is so deep now that they're having problems, because the heat is so high, in keeping it cool enough for workers to work in there. Are there some jurisdictions that use deep mine heat for generation or for heating purposes, or what is taking place in other jurisdictions that could utilize that energy?

1040

Mr Gilchrist: In no particular order, except I guess the listing originally presented in your longer list: I'm a little concerned about the dropping of a fairly organized group of biomass items, particularly agricultural waste,

peat/energy crops and then, to a lesser extent, digester gas and landfill gases. I would have thought that was a relatively well known range of potential energy sources that it wouldn't take a lot of time to pull together the available information and apply it to an Ontario perspective. If you want to reduce the number of categories, that's fine. We heard in the first round, and I think it is widely recognized by all sides on the committee here, that Ontario has a number of waste products that we could be utilizing far better. Whether it is woodchips or sawgrass or any number of materials, that should be something we'd consider.

Similarly, the lake water cooling applications: I would think what Toronto has done in Lake Ontario has probably been very well documented, the rationale that went behind council ponying up the money for that very expensive project. I'm curious to know whether the same rationale would apply in Thunder Bay. Lake Superior is even deeper, presumably even colder, closer to shore than what they had to do here in Toronto. Recognizing that we've got a coal plant that currently supplies the needs for Thunder Bay, anything that is an option for that particular part of the province we should seriously consider. I would invite you to put that on your short list.

Similarly, when you get to solar, it may be splitting hairs, but passive solar heating is very closely related to solar water heating. That's passive. You've got a tank sitting on the roof of literally hundreds of thousands of homes in Europe and that's how they heat their water. It may not be a PV array, but it is just as appropriate to consider in the sense that here in Ontario obviously we have seasons where you don't want to have a tank of water sitting on your roof. Certain things will happen to it. Are there any merits in casting a slightly broader net when we talk about solar systems?

The one I'm most concerned about is your exclusion, under vehicle fuels, of methanol, natural gas and hydrogen. I'm less concerned about propane being excluded. But you can allay those concerns by telling me that under the category of fuel cells you will expressly be dealing with the potential to use methanol, natural gas and hydrogen in specific vehicle and stationary applications as part of your synopsis of technologies—exist right now, are applicable here. Was that your intention?

Mr Rothman: Sure. Should we just have a dialogue here? I'm happy with that.

The Chair: You've got a half-hour, so go ahead and respond.

Mr Rothman: We eliminated the digester gas and landfill gas on the grounds of incremental impact. With landfill gas, there are already regulations that new landfills have to have collection facilities for the gas and similarly with digester gas, which is from sewage treatment plants. Those are really already used. My understanding the last time I looked at this was that the sewage treatment process requires heat input and that the gases that come off are already burned and used in that heat input. There's been some talk of potential cogeneration, but my understanding was that almost all of the heat that

can be produced needs to be used in the process itself. We eliminated those on grounds of incremental impact.

Similarly, with lake water cooling, that's already happening in Toronto. If we think about other large cities that are on bodies of water—I suppose you could think of Windsor, but it is on a relatively smaller body. Thunder Bay we frankly hadn't thought about. I would think that the cooling load in Thunder Bay is a great deal lower than it is in Toronto. That kind of district cooling would be part of a district cooling system. The Toronto system is effective because it is part of an existing district heating system and they can extend that. They're not using the same pipes, they're having to put in some separate pipes, but they can extend that district heating idea to the district cooling. That's what you would probably need to do also for lake water cooling. You would need an existing district heating system. In effect, that's kind of included in the district energy idea. If you can do district heating and you can find a source for cooling, what you might wind up with is, if you have a heat source and you want to use it for cooling, something like adsorption chillers which can do cooling. Presumably, if you have lake water around and contribute to the cooling that way, that's where it would work. I think that's part of that whole package. Rather than look at it as a separate piece, it goes into the district cooling.

Solar hot water—I don't know. My memory is that that's one of those programs that has been tried in the past and didn't work very well in Ontario. One way to look at it would be to revisit it. You're right that there are certainly jurisdictions, places where almost every home has a hot water heater on the top. You go to the Caribbean, you go to Israel, you go to some places, as you say, in Europe and almost every house has panels on the top that are solar hot water. We can certainly relook at that, and if there's a consensus of the committee that it wants to put solar hot water back on that list, that's fine.

Methanol, natural gas and hydrogen, of course, are the fuels for fuel cells. Where do we have—

The Chair: While you're searching for that, your comment earlier about the response, of course, both to committee as well as to the delegation: comments should go through the Chair, just so we do keep a bit of control here. But I want to keep it informal so that we can get the information to you. If you're worried about taking notes, I just mentioned to the clerk about Hansard. By Friday there should be an Instant Hansard available. It won't be a perfect copy but it is something you could work with, if you want to go back and look at some of the questions or comments, that will be reasonably available for you.

Mr Rothman: Thank you.

The Chair: Other questions? Will I just keep coming around the room, then? You're still going?

Mr Gilchrist: We never got to my most important answer, the fuel cell. Do you intend to deal with the various reformation strategies, getting hydrogen from reformed natural gas, methanol or pure hydrogen, or do you intend to generalize and say, "Fuel cells generically offer the following opportunities. Here are the following

barriers to hydrogen"? My concern about a generic approach is that there is a very big difference in the infrastructure you would have to implement to move one step away from the current fossil fuel use. The decarbonization process that we've been undertaking for the last 200 years does move another significant step, if you took natural gas or methanol right now and used steam reforming to take the hydrogen out of there.

However, the ultimate step is to take off-peak nuclear power and crack Lake Ontario water, and you've got free hydrogen and pure hydrogen and the opportunities to put a spur for GO Transit slightly closer to Lake Ontario. That was studied in the late 1980s. We could have hydrogen-powered locomotives two years from now. The barriers to that infrastructure are very different and very technical. You have to anneal the steel in a pipeline very differently from a natural gas pipeline to keep the hydrogen from escaping through microscopic little cracks in the wells. But I don't want to stop you from looking at that.

I would want to challenge you, though, that it is a very different consideration both in the size and the complexity of the fuel cells that we are talking about in both stationary and vehicle applications, depending on which technology, or both, you want to put into the report. If you want to give it further thought, great, but I would encourage you to not exclude those three fuels, at least to the extent of considering their application in fuel cells.

The Chair: Could we have a response? Then we need to move on to the other caucuses.

1050

Mr Rothman: When we talked about fuel cells, we talked about fuel cells with on-board reforming, rather than cracking water or stripping hydrogen in a central location and providing a hydrogen delivery infrastructure of some kind. But I notice that fuel cells are not on our short list, and I'm trying to remember, John and Henry, is that inadvertence, or what were the reasons that we took them off?

Mr Dalton: I think the reason we took them off is incremental environmental impact. I'll let Mitch talk to that, but one thought and concern I have is that I think we as Navigant Consulting, based on the time that we have, don't want to be picking specific technologies. So when you start talking in terms of fuel cells and the various technical alternatives, our thought is that we want to be looking in terms of fuel cells as an opportunity, what appears to be the most viable technology for fuel cells—is it one that is likely to be adopted by the market?—and then what are those barriers, as opposed to going through the full range of alternative technologies and offering an opinion in terms of which one might have the greatest market take-up 10 years down the road.

Mr Gilchrist: Chair, I—

The Chair: Sorry. We're going to have to move on.

Mr Gilchrist: No, no, no. We can't take an entire category out without further response.

The Chair: Sorry, but I do have to move on.

Mr Gilchrist: Then I hope it's your intention to come around.

The Chair: You haven't left any time for the other two in your caucus. I've just been reminded we should keep within each caucus having a fair amount of time. So we're going to move on to the Liberals and the NDP, and if there's any time left we'll come back to your other two caucus mates.

Liberal caucus: any comments that you would like to make at this time?

Mrs Marie Bountrogianni (Hamilton Mountain): Thank you for that clarification.

First of all, welcome. My apologies for being late. I was at another meeting. I'd like to welcome my son, Alexander Tsanis, who is here with Take Our Kids to Work Day. He's back there sleeping. It is interesting at times, too, Alexander.

Interjection.

Mrs Bountrogianni: I know he is.

Thank you for this. I too am looking forward to your answer to Mr Gilchrist as to why that category was taken off, because that is something I was going to pursue in one of my visits overseas. But I look forward to your answer to that. This is excellent in that it provides for me an infrastructure for the questions I'm going to ask at the two conferences and at my meetings. So this provides me an excellent framework. But I am interested, when Mr Gilchrist's turn comes again, to find out why that category was completely taken out, because in my research in preparation for my trip, I didn't see it as being as big a concern as we might see it over here. So I'm looking forward to that discussion. That's my comment.

The Chair: Would you like to respond to Dr Bountrogianni?

Mr Rothman: I think we did look at fuel cells and we did take it out on the basis—really two bases. One is that most of the fuel cell technologies really are fuel switching. They reduce environmental impact, but you're still using fossil fuels until you get to the point that Mr Gilchrist talked about, which is pretty far down the road, of having a hydrogen technology where you could use something like cheap nuclear power or something to split hydrogen off and then have a hydrogen delivery system. That's quite a long-term initiative, a long-term problem. We really didn't feel that we had the resources at this point to look at that.

So the fuel cells, both stationary and mobile, we eliminated from our research on essentially two grounds. One is that they are fuel switching, that there isn't necessarily a large impact in terms of reducing the primary demand for fossil fuels. The other is that there is so much interest and so much commercial development of fuel cells already happening that we wondered whether there would be viable policies that Ontario could pursue that would make a significant difference in the pace of development of fuel cells.

Again, Mr Chair, we would await the committee's direction on that, if it had some further direction.

Mrs Bountrogianni: The conference I'm going to deals more with implementation and economics rather than the science in Europe and how successful or un-

successful they were. Perhaps I could be of some assistance when that final report of the proceedings is out.

The Chair: Absolutely.

Ms Churley: Thank you for the presentation. I wanted to come back to and have a discussion about the comments you made about the technical potential and the economic potential. You talked about those that can be realized at an equal cost or lower than existing cost, the time aspect to the economic potential and those kinds of things.

I just wanted to discuss the complexities of that, because when you're talking about—and I know you have a limited time frame and there's only so much you can do on the economics. But it's an important point because when we look at traditional energy that we use now—for instance, you just referred to possible cheap nuclear power down the road. Of course, there's never any such thing, because when you look at the externalities of all of the existing kinds of fossil fuels and nuclear that we use, ie, nuclear power and having to get rid of all of that radioactive waste and the billions involved in that, coal-fired, fossil-fuel-burning, the externalities, the health costs that we don't factor in, that's the historic climate in which we're operating as we try to bring on these new technologies. We talk about these costs that have been kept artificially low because those externalities aren't brought into the equation.

Having set the table with that comment, I wanted to ask you then to perhaps give us some examples, if there's a good technology, of how you would determine—because I don't agree that we're going to be able to bring certain good technologies within this existing climate at the same costs or lower than costs that already exist without looking at the kind of economic instruments and policies and sometimes having to accept for a short term anyway that to get those on stream for the sake of environmental protection, we may have to pay more.

I'll end my comment by saying that we've discussed—I don't know about this committee, but I believe in the early days that the world is turned upside down, that because of those externalities that we don't take into account, we're asking green power to come on stream and it costs them more, whereas the polluting power we already use actually costs us less than that. There's a real imbalance, and that's a major, huge policy issue—an economic issue I understand, but I think it's an important question when we look at trying to balance what you call the technical potential and the economic potential.

Mr Rothman: What you're saying in effect is that market cost or out-of-pocket cost of a given technology is not its full economic cost, that in addition to the out-of-pocket costs there are environmental damage costs.

Ms Churley: And health care costs.

1100

Mr Rothman: Environmental damage costs are part of the health care costs. The environmental damage costs are very real. They include health damage costs, they include damage to buildings, they include damage to crops. There are lots of environmental damage costs.

There's an extensive literature and an extensive body of research into quantifying and monetizing those environmental damage costs.

Some years ago—I think it was in 1998—I did a study when I was with another company for the federal government, essentially evaluating what the full environmental costs are of electricity in order for the government to have some idea of what premium it might want to pay to buy renewable resources for its own facilities. As you know, the federal government now has a program where it has become a customer for renewable energy at premium prices in a number of provinces. So we're certainly aware that when we say "economic potential," that can be defined in one of two ways: it can be defined as straight out-of-pocket market costs, or it can be defined as total social cost of both the fossil fuel and its alternatives.

Quantifying those is a difficult process. When we look at, for example, something like wind generation, most of the wind technologies now are more expensive on an incremental cost basis than most of the fossil fuel technologies. That's one of the uses where both thinking about total social cost of the alternatives and thinking about where costs are likely to go in the future can be very useful in saying, "Here is something that has economic potential now, perhaps, on a full cost basis, on a total social cost basis. It may have economic potential on a market basis in the future as the cost of wind generation decreases and the costs of conventional generation increase. So here's something where the barriers are simply getting the cost down, getting the technology implemented, and maybe we can find some policies for that."

So I agree with you: we need to be aware of those. I'm not going to promise that we will be able to make full environmental cost assessments for each of the technologies we're talking about.

Ms Churley: Actually, in this short time frame, I know that is a very complex area and don't expect that, but I just wanted to understand where you were coming from on it. That's very helpful. I'd like to see that study, actually. I would be very interested in the one you did for the federal government.

Mr Rothman: As I say, it was a while ago, but it was at one time on the EnerCan Web site. I will check to find its availability.

Ms Churley: If I could have one very quick follow-up, when you talk about evaluation using barriers analysis vis-à-vis this discussion, can you give—well, I guess the wind power one was a perfect example of that. In my view, from what I understand about that, it's not possible that you're going to come back to us and say that any of these alternative fuel sources can be brought on stream right now at cost or below the existing cost; you would have to come back with certain policy changes. Whether they be tax incentives, tax changes, I don't know, but as you know, a variety of other jurisdictions are doing these kinds of things. I would assume you would see some of these as barriers that we would

have to make policy changes around, which in most cases do cost money, one way or the other. Would you agree with that, that this doesn't come easy or for free?

Mr Rothman: In general that's true. I would suspect that there are some energy efficiency policies which would be cost-effective right now at current market costs for both the energy efficiency and the alternative fossil fuels. Barriers to that tend to be institutional barriers—sometimes regulatory barriers, but they tend to be institutional barriers. It's an incremental capital cost to put in something that's more energy efficient. The person who makes that incremental capital cost decision is not the same as the person who will be paying the operating costs, so to keep the capital costs down they put in a less efficient technology than perhaps the person who is going to pay the operating costs might want. There's a market imperfection there, where perhaps the capitalized cost of the asset doesn't properly take into account the capitalized lower cost of energy going forward. We would look for policies that might get around such barriers. There are several. One obvious set of policies that's in place already is the standard policy of energy efficiency standards that really eliminates that barrier.

The Chair: Just so the committee knows where it's at, I should have started out giving each of the parties equalized time in working around. We've 18 minutes from the PCs, four from the Liberals and nine for NDP. What I would like to do, with the committee's permission, is to see if Mr Parsons has anything, then go to the two Conservatives who haven't spoken and then, for the time remaining, come back to the Liberal and NDP for the time that hasn't been used.

Ms Churley: Can I ask a point of information? I'm sorry. It is for the benefit of the committee. In terms of timing, we also want to get to the finalizing of the report.

The Chair: I'm aiming for 11:30; I should have mentioned that. Then, I see we have here about four decision points that we should say yea or nay to.

Mr Ernie Parsons (Prince Edward-Hastings): I don't have a lot to say, but going back to a topic that was raised earlier on your objective statement, I thought the second one you suggested was a wonderful way of capturing what our object was, and I certainly support it. When we get to your short list, I'm intrigued by what's not there. I apologize for being out of the room for a few minutes.

Certainly some jump out at me. I was fascinated by the presentation on agricultural waste for production of heat in I think it is was the Windsor-Leamington area for the greenhouses, very intrigued by that. We have a small farm and I went back home and I've undertaken an experiment there, which has renewed or increased my interest in it. It isn't appropriate to say, "Would you add that to the list today?" But you obviously went through a very detailed analysis on each alternative fuel, and I suspect gave it points and graded it and decided what was viable and what wasn't. Is it possible for us to have access to the chain that you went through to decide whether to shortlist or not shortlist it?

Mr Rothman: Remember that we've had a week with this, and look at the length of the list of technologies. We didn't go through anything like as elaborate a process as you suggest. We did go through our checklist with each of these technologies. We could, I think, provide a list for each of the technologies that is on a long list and isn't on the short list. We could say on which of the criteria we eliminated them, which was a much less formal analysis. That's one of the reasons we are coming back here. If the committee wants us to do a formal analysis for additional technologies, we can do that.

Mr Parsons: I would. I have done a fair amount of reading and research in the last three to four weeks, and I am very interested in agricultural waste for biomass.

Mr John O'Toole (Durham): I'd just start with an observation on the committee's objectives. I want to commend you. I think the report really crystallizes a lot of the time we've wasted—not wasted—to get to this point. One would be the statement that says, "Ensure that use of alternative energy is cost effective"—you've defined that in material terms, economic terms and environmental terms—"and contributes to energy security and economic goals..." That is a pretty tight phrase that, I feel, is the bolts of it all.

I just want to go through the process schematic. I want to concentrate on the economic argument a little bit. You spoke with Ms Churley there, and you said that cost is really the market and the social implications. That's the cost: the social, health, environment and the rest of it, and the actual market distribution infrastructure and other things and market pickup for capitalizing it. We've had considerable discussion on what is the cost. Even here—even when the estimates process with the Ministry of Energy over the last couple of weeks—what it is costing.

1110

We've got a \$38-billion debt at Ontario Hydro. It has been subsidized. Nuclear isn't four cents a kilowatt; it's probably 10 when you look at how you deal with the waste 45 years from now. It's not even in there—it's zero. And it is billions. Look at what they've had to do to resolve Wesleyville. The Canadian government has been looking at that for years. They've spent millions just doing siting.

I want a cost in this model. What were those elements? We've argued that the full cost of power is what the consumer is ignorant of totally. It isn't four cents for nuclear. Then they can use that dismissively and say, "Wind is nine, so you can't afford it. There will be no investment. Blah, blah, blah." If you charged them what the real cost was, the social and market cost, you'd have a different argument here today, and your schematic would result in some different kinds of outcomes. I only make that point because cost is one of the most important policy questions we have. It's subsidized—\$38 billion of subsidy to Ontario Hydro over a period of years.

I really want you to feel that I'm very concerned about the fundamental of cost in your schematic. If it is considering traditional costs, direct and indirect, I'm not sure we are looking deep enough in the cost to just

continue doing what we are doing: the whole argument about stranded assets, protecting OPG, making sure we don't write off coal plants—huge issues—eight million in fossil generation. We're not going to write that off. But if the marketplace was allowed to play the real game of saying, "Consumer, clean power saves you money in health, in environment and quality of life. It's nine cents. Nuclear costs you 14 cents, because eventually you have to get rid of all the junk"—I've made my point there.

Two points on your short list: I agree totally with Mr Gilchrist in terms of the reforming process and the advances in technology in the future using—I forget what you call them, but they're actually little physical units. I've just received a report from General Motors. They've now made a product commitment within 10 years to bring fuel cell—they're going to be in trucks in two years. I think they call them onboard racks, which do the re-forming of gas. There's 80% efficiency in it. I don't believe—I don't know any of your knowledge or background—we're able to appreciate the absolutely immense changes in the technology in the short term. We are going to be looking at it through today's lens and dismiss some things that are going to catastrophically change the nature of the gasoline-powered vehicle.

I worked there for 30 years. General Motors has just bought 24% of Hydrogenics, I think. They're committed to having market products. This gets away with the infrastructure question of having to have a distribution system for whatever new power or how you charge up the cars or whatever. It's just reforming gas for hydrogen. I really feel we need to have on vehicle fuels what Steve was saying earlier. I don't think we can avoid it.

The last point, Mr Chair, with your patience and kind indulgence—

The Chair: It's running out.

Mr O'Toole: —is the ITER project. It may sound far-fetched, but the international thermonuclear experimental reactor—that's going to be Canada's bid. The Ontario government is investing \$300 million in that project as we speak. It's more building scientific infrastructure than creating energy. But I'd like some time in the report on ITER, even if it's one paragraph. We've made a considerable commitment. It's a \$12-billion project. The opening meeting is tomorrow night in Toronto, where the Canadian delegation is negotiating with France and Japan. It is my understanding that the United States is back in the equation.

The Chair: Response? Who would like to start?

Mr Rothman: To take the first point, it is a question of how we define cost. We are not going to be able to assess the full social cost of existing uses that's within the scope of the work we have here. But when we talk about assessing economic potential, one of the things we certainly are aware of is that there is a potential under-accounting for social costs in existing fossil fuels. This is not to say there are no social costs for alternative fuels, because there certainly are. We will look at those and essentially have to make some qualitative decisions about

where those trade off at the time we start to look at economic potential.

On fuel cells, if it is the committee's wish, we can put mobile fuel cells back on this list. It remains, for me, in thinking forward about what kinds of effective policies Ontario can adopt that will significantly affect the speed of adoption of fuel cells either in Ontario or in the broader context—that's problematic given the speed, as you both just said, of adoption of fuel cells without any policy impetus from Ontario. We are at the committee's disposal on that, Mr Chair. Should the committee want us to look at that, of course we could think of policies that might have an incremental impact on the adoption of fuel cell technologies in Ontario. We could certainly look at that question.

Finally, I have to admit that I'm not familiar with the third program Mr O'Toole was talking about.

Mr O'Toole: The international thermonuclear experimental reactor, an international consortium with fusion energy. It is more of a scientific—there's one in England today. Oxford, England, has one, and Cambridge. I think there's one in Massachusetts. But it is experimental. It will not produce any grid power of any sort, but it is seen to be the sustainable friendly energy of the future. At least that's what they say in the marketing. There's plenty of stuff that I've submitted to the committee on it. There's a Web site.

The Chair: It's really a research project.

Mr O'Toole: Yes, but it has a real future. I'd just like it acknowledged in the report, and the reason is, we're investing tons of money and we ain't finished yet.

Mr Hastings: A couple of points, gentlemen. I can see, for now, setting aside solar water heating, because you're starting to add when you bring in the potential of fuel cells. But upon my return from afar, I hope to have some good information to give you that could be helpful on how solar water heating could be a fundamental choice for homeowners, if we can get the mortgage crowd to look at it, more as a marketing potential for the banks and the lenders.

The only other point I would like to raise is, in your screening, would it be possible that you indicate for the long-term report—is there some way we could ascribe a rough percentage of what the barriers are to getting some of these alternative fuel sources into operation? For example, would market barriers be 35%? It's probably creating an arbitrary percentage. If you could just explain in a brief paragraph how you arrive at a percentage for the readers next May versus, say, the institutional barriers, which might be more like 40% or 80% in some instances, based on your experience and what you see in other jurisdictions, especially Europe and the US. In Denmark, for example—the wind thing—was there huge market resistance or more institutional resistance to the implementation of wind energy, which I think is now about 12% to 15% over there, that sort of construct, possibly?

1120

The Chair: Do you have a response?

Mr Rothman: We can look at that. I make no promises.

Mr Dalton: The thought is that for the barriers analysis it's going to be done on a technology-specific basis. It's probably going to be a qualitative assessment, but we will say for each of the technologies that the primary barriers to the widespread adoption of this technology are market-related issues or institutional issues and outline what they are. That really provides the foundation and the framework for the subsequent evaluation of policies. There's not a generic number that we would have in the report saying that market barriers or institutional barriers contribute this amount, but I think what we are going to provide is the information you need and that we need to come up with policies that at the end of the day are going to be effective in terms of promoting the development and adoption of these technologies and fuels.

The Chair: We have a couple of minutes left. In view of how much time I've given to one party and not to others—

Mr O'Toole: There are four of us.

The Chair: I see Ms Churley nodding her head. Mr Bradley, do you have any—

Mr James J. Bradley (St Catharines): I'll let Ms Churley begin.

Ms Churley: I don't have any more questions. I'm satisfied.

Mr Bradley: I have made the transition from the government agencies committee—

The Chair: Yes, I can see that.

Mr Bradley: —to this committee at this moment. From the preliminaries I've got, we have some very good people working with us. I've been told that. I know our members have been able to direct questions and make comments, so I'm pleased with that, unless Ms Bontroggianni wishes to ask any more questions. She looks like she's fine.

Ms Churley: Actually, just a more technical question in terms of the process from here on in: after we adopt this today, are you going to consult with us again halfway through or are you just going to be in touch with the Chair, the subcommittee, should you run into any problems? I think you've got a lot on your plate in such a short term and it sounds as though people are adding things back to it today.

I presume, Mr Chair, that it might be useful for us if you want to tell us how you think you're going to fare if we put some of these things back on in terms of the very tight time frame you have. We've got to be realistic here. The last thing we all want is for you to have more than what you originally thought and not be able to complete it all. Do you have any comments on that?

The Chair: In view of your comment, certainly, and I was going to make reference to it, we can pull the subcommittee together quite quickly, and the subcommittee is a representative from each of the parties plus the Chair. Probably 48 hours, not considering weekends, would get a turnaround answer, guidance, direction for you, if that's helpful.

In view of the discussion, I think we should give a nod to some of the points. One would be on page 2, slide 4, the proposed objectives. When I say, “In view of the discussion,” are people basically now comfortable with that? Are there any objections to that one at this point other than—

Mr O’Toole: I don’t see in here—

The Chair: We don’t need to repeat what we’ve been through, but if there’s anything you—

Mr O’Toole: Yes. It’s the same. I think number 2 agreed, but the idea of choice, like putting the demand side back at the customer level as opposed to purely the aggregate market, because really it’s about customers making choices about, “I prefer the environment” versus—you know.

The Chair: Then moving on to page 5, the screening process and evaluation using barriers: I personally really like that.

Mr O’Toole: Yes. It’s very good.

The Chair: I had all this in my mind but you’ve streamlined in graphic form and I find that very helpful. Does anybody have any problems with that particular page? I think if we can just as a committee say yea to these, then it’s helpful for you people.

The short list: I hear you loud and clear that maybe we’d better get fuel cells added to that. That’s the general message I’m hearing. Are people comfortable, otherwise, with the short list?

Mr Parsons: I’m not.

Mr Ouellette: Neither am I.

The Chair: You were looking for more agricultural involvement there.

Mr Ouellette: Yes.

The Chair: Take that under advisement.

Mr O’Toole: If I could add one statement to that: in five years, everything including farm waste and septic systems is going to have to go through a system. Now they’re not burning it, by the way; they’re making it into pellets and land-applying it. That’s not going to be permissible, so you’d better look into how we’re going to burn it and recycle all the whatever.

The Chair: Or digest it, compost it.

Mr O’Toole: Yes, all of it. Septic tanks and everything are going to have to be pumped out and put through sewage treatment.

The Chair: The other one would be the very last slide, number 14 on page 7; I know some of that is going to vary, but the generalities to start with. OK.

The other comment I was going to make on your aim for December 7: there’s a wee bit of leeway in that we’ll be meeting on December 12 for you to come back to it. On the other hand, it would be nice if we had some paper in our hands prior to that to review a bit.

The other thing: we’re just about to table our first interim report from what we heard on our first consultations. The package you come back with, some of the thinking—and it’s not a vote of the committee at this point, but I think there’s a general consensus that we would use your package as a second interim report prior

to developing a final report for May—that’s the direction we currently have—that we would like to take that package, massage it as the committee sees fit and use it as the basis for a second interim report. We’re probably looking at February to table that interim report but there’s no firm deadline on it.

Any other last comments before we excuse the delegation?

Mr Gilchrist: A minor point. In assessing the various criteria, might we prevail upon you to give some thought to the geographical implications of energy production and use in this province? There very well may be applications in remote parts of northern Ontario that right now are using diesel generators. You can’t compare the status quo cost of electricity in southern Ontario to what it’s costing us today. So the whole economic equation changes, the environmental equation changes because we have to truck the diesel in once a year, in winter when the rivers and lakes freeze. Maybe there are places where wind or solar already today make sense economically—whether or not as a matter of policy the government should be making different decisions based on northern and remote parts of the province and those more populous areas in the south. I just ask you to give some thought to that when you’re developing your recommendations and doing your economic model.

Mr Dalton: We were sensitive to that. I think that’s what caused some of the alternatives that made the short list, just because we recognized that there are specific situations associated with northern communities that might lend to certain technologies to be cost-effective there which wouldn’t be viewed as cost-effective if they were part of the greater Ontario grade.

Mr Gilchrist: Thank you.

Mr Ouellette: I just want to make sure that my comments regarding the low-flow hydro were included, because that wasn’t brought up at the end, and the deep mine issue as well under geothermal.

Mr Dalton: With respect to low-flow hydro, we do have small-scale hydro which I think would be subsumed within that.

Mr Ouellette: I hope it’s included in that, although the indications do not specifically say that. It’s technology that’s currently being utilized, I know, in British Columbia and it just needs to be brought out here from other jurisdictions.

Mr Dalton: Right. I think our approach would be to identify it as a potential technology with the focus being in terms of the barriers for market adoption. I think that really does not need to be technology-specific. By looking at a broader subset, small-scale hydro I think will cover that.

The Chair: Thank you very much. Please, any contact is through the clerk and she can quickly get hold of the rest of us. That doesn’t preclude your phoning other people if you so desire, but to trigger the subcommittee etc, a phone call to her will make that happen quite quickly. We look forward, with great confidence in your ability, to your report in five weeks’ time. With nothing further, thank you very much for being here.

Mr Bradley, I commented earlier in the subcommittee's report about the next four dates, particularly the next three, namely, November 21, hopefully November 28 and December 5, and the possibility of using room 151. The committee that you chair normally is there. Did you get a chance to review that with your subcommittee?
1130

Mr Bradley: I did discuss it with the subcommittee and they certainly, to a person, like to see the government agencies committee in that room, for a variety of reasons. Nevertheless, they did say that on special occasions there could be arrangements made to trade rooms. The government agencies committee does not necessarily meet every week; it meets as is necessary. It will be meeting two weeks from today; it's scheduled, in other words, to meet two weeks from today, because they do have appointments scheduled. Nevertheless, as I say, it does not necessarily sit every week unless there is a necessity for it. So between the committee Chairs and the clerks we can make an arrangement to share the room. There was not an adamant no to it, let's put it that way, and they felt there should be flexibility. Particularly, as I mentioned to them, when there were presentations being made to our committee it would be advantageous to—

The Chair: Basically, we're asking for those three days and I don't see any other—into the spring I see it quite differently. If they are willing for those three days, I think that's—

Mr Bradley: I'll address those three days specifically and try to get their permission. There was not opposition in principle; I want to tell you that. They were flexible that way.

The Chair: Any other comments? I wanted to check with you, and it's good for the committee dates. Between you and me and the two clerks, we'll try and have this worked out so delegations coming before us will know well in advance. As a committee, we'll know which day we're going to sit.

Mr Bradley: Yes, you will know.

The Chair: We'll try and wrestle that out this week.

Mr Bradley: Very good.

The Chair: Thank you.

Moving on to the report, a single sheet has been circulated. I had asked for the changes that we had discussed at the last meeting. Maybe we'll go through that sheet. Committee's comments on that sheet?

Dr Bob Gardner: This is a memo from me dated November 5, and what we just tried to do, under Dr Galt's direction, was to highlight the main changes that you asked for so that they're on that double-sided sheet of paper. I think Dr Galt's hope was that you would look at them, approve, revise, adapt and then leave us. We will certainly do some final copyediting and some cleanup but essentially that would be the end of the interim report.

The Chair: Having read it, I was comfortable with it.

Mr Gilchrist: I guess the only question I would have is about the deletion on page 5 of one of the recommendations relating to the general policy framework. If you were uncomfortable with the current wording, might

I suggest that rather delete the last sentence altogether, something be substituted in that says, "What possible mechanisms could the government use to play a role," or "What possible government agencies could play a role in joint financing of alternative fuel/energy capital projects?" If you don't like the direct reference to SuperBuild—and quite frankly I do see referring to just one agency is limiting, but are we eliminating other considerations and the ability to implement the things we're ultimately going to recommend by not having as part of our consideration what mechanisms the government has to play a role to influence the evolution of alternative fuels in the marketplace?

The Chair: Comments from the committee? Anybody disagree with Mr Gilchrist's suggestion? In other words, leave it, but don't make specific reference to SuperBuild, just capital in general.

Ms Churley: I got distracted here for a second. I apologize.

The Chair: The single sheet that—

Ms Churley: Yes, I have that, but where is the SuperBuild—

The Chair: Go to the back. "The following was eliminated from the policy questions on page 5: Can SuperBuild..." Mr Gilchrist, as I understand it, is suggesting we remove "SuperBuild": "Can the government play a role in joint financing of alternative fuel/energy capital projects?"

Ms Churley: We took it out because I thought most people agreed—you weren't able to be at that meeting. I made the point that there are a lot of demands on the SuperBuild fund, more demands already than can possibly be met, water and sewer treatment plants and all of the other infrastructure demands that both SuperBuild and OSTAR cannot even keep up with. I'm really concerned that we throw this in there and say, "Here's another place where we can try to draw on SuperBuild funds." I understand why it was in there: we're trying to find a funding source. I just don't think SuperBuild can take any more demands on it.

Mr Gilchrist: That's what we're saying, to take the word "SuperBuild" out.

Ms Churley: Oh, I thought it was out.

Mr Gilchrist: No, you've taken the whole sentence out. In other words, there would be nothing in our consideration about possible other ways that—

Ms Churley: Oh, I see. I'm sorry. I thought you were suggesting—OK.

Mr Gilchrist: I'm saying leave a sentence in there that doesn't restrict—

Ms Churley: I should have been listening.

Mr Gilchrist: —our consideration to SuperBuild, but just generically says, "Can the government"—or maybe, to make it consistent with the other questions, "Should the government"—"utilize one of its agencies or ministries to play a role in joint financing," etc.

Mrs Bountrogianni: We would hope so.

Mr Gilchrist: OK, but again, if the question isn't posed, I think we might have difficulty later on in crafting the report.

The Chair: Rather than taking it out, just reword it without "SuperBuild" in it.

Ms Churley: Without identifying it as SuperBuild. Sure.

The Chair: Everybody comfortable with that?

Ms Churley: I do apologize for not listening and us having to go through all of this again, but I agree.

The Chair: That's OK. Thank you. Other than Mr Gilchrist's suggestion, any opposition to what's been circulated on this page?

Ms Churley: One comment around the efficiency and conservation, the way it's worded. Steve, again this is something that I and the committee agreed should be put back in as a focus, because it was missing from the first edition of this.

It was interesting in the energy estimates yesterday. I was asking Minister Wilson about energy efficiency and conservation, and he blew his top a little bit, didn't he?

Mr Bradley: I'm surprised to hear that.

Ms Churley: In a positive way in this case. He had said he had made it very clear as the energy minister that he wanted to see energy efficiency and conservation as part of the mandate of this committee, and I was pleased to hear that. That had not been communicated to us.

Having said that, I'm just wondering if that paragraph can be strengthened even more. I suppose it's OK. In my view, I've always wanted energy efficiency and conservation to carry as much weight as everything else in our mandate. It's a minor point, I know, but there's a little bit of a sense of—I suppose it's technical in that it wasn't clarified within all of the explanations of what alternative fuel is, but we've always said from the beginning that we see that as part of our mandate, and I'd just like to see it given as much weight as everything else.

The Chair: Your point's well taken and has been in the past. I reflect back on my comments made earlier, and I was purely looking at the mandate as we developed the objectives and what the mandate said or didn't say rather than—but your point of its importance is extremely well taken, and I think the wording clarifies it here.

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Ms Churley: We could change it to say, "The committee feels that energy efficiency and conservation should carry equal weight as alternative fuels." That way it strengthens—it is a minor point, I know, but I like to see—

The Chair: That may be pushing our mandate—

Ms Churley: Well, we do think that it should carry as much weight, that it shouldn't just be an add-on, don't we?

Mr Gilchrist: The moment you use the word "equal," we are starting to make judgments again about what the end game would be. Should it be a consideration? Nobody disagrees. I think the wording here captures the spirit of that. We've certainly all put it on the record, and

the minister put on the record yesterday what he thought our committee should be doing too.

Ms Churley: All right. It is a minor point.

Mr Gilchrist: You can keep pulling out Hansard to remind folks of that.

The Chair: OK. We've got agreement on that. Anything else?

Mrs Bountrogianni: Are we going to talk about the editorial changes? Would you like me to make that motion, or do we need a motion for that?

Interjection.

Mrs Bountrogianni: Just agreement? This following thing too? OK.

Mr Peter Hargreave, one of the interns, made some excellent editorial changes to the interim report. You must have a copy in front of you.

The Chair: Has that been circulated?

Mrs Bountrogianni: I circulated it earlier. Are they stockpiled somewhere?

It makes the flow of the report much improved. I thank Mr Hargreave; I think it is excellent. We don't need a motion, but if there is agreement—

Mr Gilchrist: I've had a chance to go through it. Are you inviting comments, Chair?

The Chair: Do you have any comments at this time?

Mr Gilchrist: Or would you rather we follow through the report page by page?

The Chair: No. This is just the tidying-up stage. We really did that at the last meeting.

Mr Gilchrist: Starting with page 2, second full paragraph, the word "why" should come out of there as well, if you're inserting the rest of that sentence as a new clause in the next sentence.

Then when you get down to the paragraph below that, I think it makes it a little clearer—it is about the seventh line, "If higher,..." You've deleted a word. I would have added "than traditional electricity sources." You don't say higher than what.

The very last paragraph: I don't like starting sentences with a "But." I would have made those two sentences one.

On the next page, under "Next Steps," I would have added specifically "Internet access" as one of the mechanisms the committee will use to hear from Ontarians. After "public forums," I would add "Internet access."

Dr Gardner: If I may, Mr Gilchrist, there is a little difficulty in that these excellent editorial comments are on the report before the current one, and we do have the Internet Web site and some "Next Steps" filled out at the end of your current, November 5 report. We have that covered. Thank you.

Mr Gilchrist: Fair enough.

The Chair: One of the difficulties is that this was done prior to yesterday, when the changes came through.

Mr Gilchrist: If any of the changes I'm suggesting are now moot, then simply ignore them.

Minor grammatical changes:

Under "Next Steps," third paragraph, I think it reads better to say, "What will the implications be," than,

“What will be the implications,” and the same change for the first paragraph on the next page.

On page 5, under ““Green Power’ Initiatives of Ontario Power Generation,” I’m going to suggest there might be merit in adding expressly the question, “Is it appropriate to require OPG to generate a certain percentage of its electricity from alternative fuel sources?”

Then leaping forward to page 8.

Dr Gardner: Excuse me, Mr Gilchrist, I don’t have a page 5 in my package. Which one are we on?

Mr Gilchrist: The same one that Marie has handed out here. There’s a 5 at the top. The categories are “Emission Trading and Credits Policy” then ““Green Power’ Initiatives of Ontario Power Generation.”

The Chair: I think what you’re doing, Mr Gilchrist, is just a few words here and there. Why don’t you just write them down and give them to the researchers.

Mr Gilchrist: Excellent. OK. Let me deal with the more substantive things very quickly. There are some questions that might have been addressed before and have been rejected. If they have, then just tell me that; if they haven’t, make your thoughtful response.

Under ““Green Power’ Initiatives of Ontario Power Generation”:

“Is it appropriate to require OPG to generate a certain percentage of its electricity from alternative fuel sources?”

Under the category of “Natural Gas for Electrical Generation”:

“Is it feasible to consider a complete ban on coal use in the medium-to-long term?”

Under “Alternative Transportation Fuels” in the second paragraph:

“Should the use of ethanol in all gasolines sold in Ontario be mandated?”

Under “Fuel Cells and Hydrogen”:

“Should the government assist in the creation and operation of a significant hydrogen fuel cell stationary demonstration project?”

The last comment I would make, under your “Miscellaneous Fuel/Energy Sources,” is to address the point raised by Mr O’Toole earlier that some reference be made to the ITER project.

The Chair: Basically, these are just streamlining the comments, from what I hear.

Mr Gilchrist: I would say it is probing to ask certain other—

The Chair: I did not have it in front of me as you were going. But that’s OK.

Mr Gilchrist: If any of those questions are ones that you wouldn’t like asked, then I’m game for a debate. Otherwise, I’ll turn the whole thing over to the re-

searcher. If we are of one mind that those are worthy additions to the questions, might I prevail upon—

The Chair: Are people comfortable? Anything else on what you were proposing for Mr Hargreave?

Mrs Bountrogianni: No. I thank him and Mr Gilchrist for their editorial skills.

Mr Ouellette: I have just one point regarding Mr Gilchrist’s comments in regard to ethanol. I don’t think we should limit it to ethanol, because methanol might be an alternative as well. We discussed that in the past, listing them as environmentally friendly oxidizing agents.

The Chair: Is that a specific spot in the report?

Mr Ouellette: He mentioned it; I didn’t have the page he was referring to.

The Chair: You’re suggesting that it should be ethanol/methanol.

Mr Ouellette: No. It should not be specific to an oxidizing agent, because there may be other alternatives that are friendly as well.

Mr Gilchrist: I would be happy to replace the word “ethanol” with a general reference to oxidizing agents.

The Chair: Alcohol or whatever. OK. Other comments?

The question that I as the Chair should put at this point is: are there any dissenting opinions? We are agreeing. OK, so I can skip that.

Shall the draft report, as amended, be adopted? Agreed. Of course, that will be with obtaining direction on checking final changes through the Chair and/or sub-committee.

Shall the report be translated and printed? Agreed.

Upon receipt of the French translation, shall I present the report to the House and move its adoption? Agreed.

Mr O’Toole: It isn’t essential that the report be presented after the translation. It could be presented before. Personally, I know the reports that I have submitted in the House have been done before. The nuclear committee was one.

The Chair: In this case, with constituency week coming up—

Mr O’Toole: There’s lots of time to do it?

The Chair: —we have enough time. We will get it presented during the week after constituency week.

Anything else to come before the committee at this time? Thank you very much for your understanding today, particularly as I got messed up in circulating among the caucuses—my apologies for that. It’s just because so much has been informal with this committee and it has been in such a non-partisan sort of way that we are all working to the same end.

Ms Churley: Apology accepted.

The Chair: Committee adjourned.

The committee adjourned at 1150.

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