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Third Party Access to Data – 2021 OEB Application

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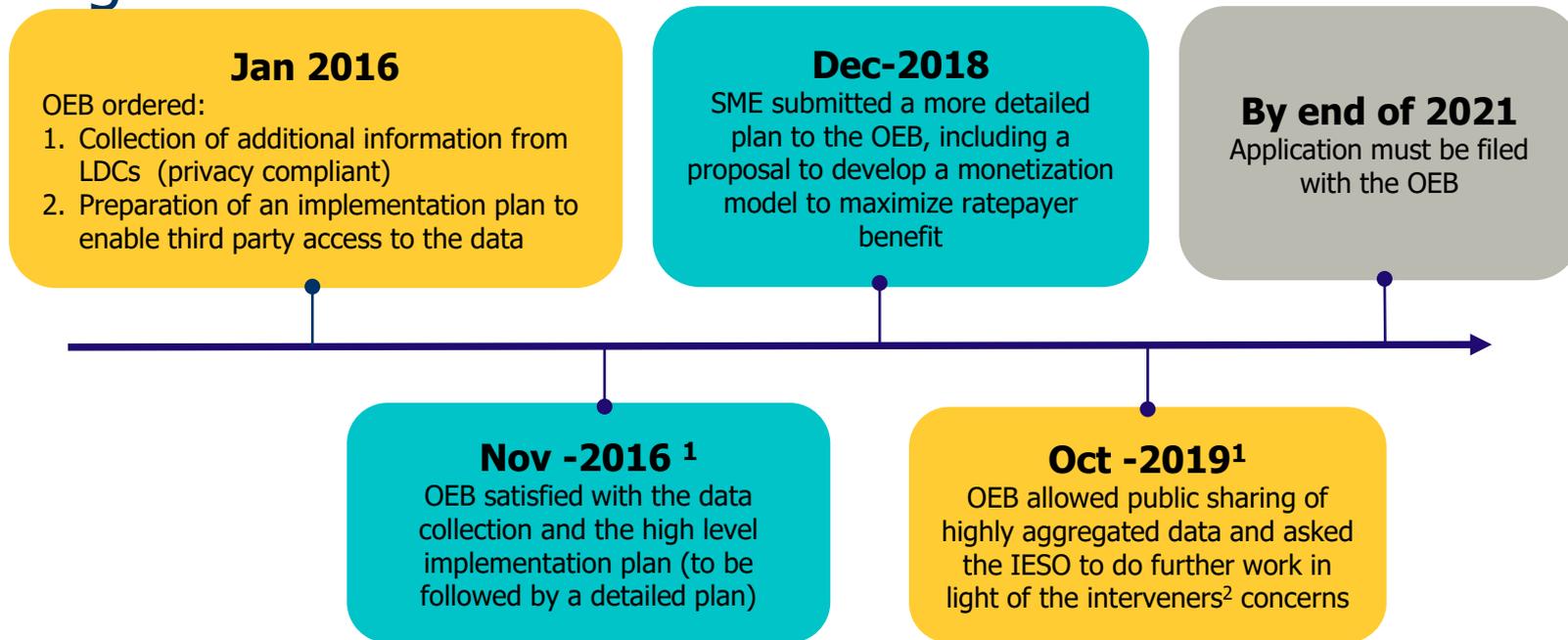
Purpose

- Present background, status and actions taken to date to fulfill the requirements set by OEB's Order and Decision [EB-2018-0316](#), which asked the IESO to develop a revised proposal for third party access to the smart meter data
- Share the results of the IPSOS Consumer Research on Residential and Small Business Consumers for Third Party Access
- Discuss the proposed approach for the 2021 Third Party Access application, anticipated to be filed in October-2021
- Review the timeline of key tasks & next steps
- Questions & discussions

Context

- The IESO in its role as the Smart Metering Entity (“SME”) has a core mandate of supporting Local Distribution Companies with billing information, in 2016 the SME was also required by the OEB to collect certain additional data associated to the smart meters, and to prepare a plan to provide third parties access to de-identified smart meter data, all in a privacy compliant manner. Third Party Access is expected to support the design of provincial or regional level programs such as: conservation and demand management programs, assessment of the effectiveness of pricing plans, community energy plans, and to create new value through innovation to benefit consumers.
- Following extensive work with the LDCs and under the Information and Privacy Commissioner's guidance, the SME began collecting this additional data by January 1, 2017 as required and has been working with stakeholders on developing a process to provide third-parties with access to the data.
- Following a 2018 application and in light of intervenors’ concerns, the OEB directed the SME to develop a revised plan to provide third parties access to the data in a new application that is due to the OEB by end of 2021.

Background



1 - More details on the 2016 & 2019 OEB Decisions in the Appendix, slides 14-15 and in [Order & Decision EB-2018-0316](#)

2 - A list of interveners to the SME's 2018 Application is in the Appendix, slide 16

Summary of the 2019 OEB Decision

The 2019 OEB decision enabled:

- 1) making highly aggregated data publicly available³;
- 2) providing de-identified data to the OEB and IESO to assist them in fulfilling their mandates;
- 3) recover costs for these through the Smart Metering Charge.

The Smart Metering Entity was also directed to develop a **revised proposal** for third party access to the data and file a new application by the end of 2021, which includes:

3 - Sample Public Data Sets in Appendix slide 17,18

Summary of the 2019 OEB Decision (cont'd)

1. A summary of consultations with consumers, including feedback on the notion of selling the data
2. A marketing plan including forecast demand, its potential use and what commercial and non-commercial parties are prepared to pay for the data
3. A protocol for addressing consumer complaints regarding the release of the data
4. Considerations regarding how consumers will be informed that the data is being disclosed to other parties
5. The basic terms of a data use agreement for approval by the OEB

Proposed Fulfillment Mechanisms

OEB Requirements

Proposed Fulfillment Mechanism

1. A summary of consultations with consumers, including feedback on the notion of selling the data

- Consumer research findings (both qualitative and quantitative)
- Consumer engagement was initially considered, but determined not to be needed in light of the consumer research findings

2. A marketing plan including forecast demand, its potential use and what commercial and non-commercial parties are prepared to pay for the data

- Summary of pilots to date
- Previous consultant reports and summary of findings
- Summary of third party interest expressed over the past year
- In light of IESO's proposal not to charge a separate fee for access to the data, additional market research to ascertain what parties are prepared to pay is not needed

3. A protocol for addressing consumer complaints regarding the release of the data

- Develop a communications plan, including the role LDCs can play in responding to customer requests and consumer complaints

4. Considerations regarding how consumers will be informed that the data is being disclosed to other parties

- Will seek comments on draft data use agreement from interested parties

5. The basic terms of a data use agreement for approval by the OEB

Summary of Key Engagements to Date

- In 2020, the IESO commissioned IPSOS⁴ to conduct a province-wide research to assess consumers' views on smart meter data use.
- The IESO has met with each of the intervenors, they were favorable to the mechanisms presented and receptive of the proposed approach to the application. More meetings are planned prior to filing.
- The IESO's Board of Directors approved the direction of the application.
- The IESO has kept the LDCs engaged through the Smart Metering Steering Committee (SSC), open LDC Calls and the EDA's channels.

4 – A description of the IPSOS Research Methodology is in Appendix, slide 19

Consumer Views on Smart Meter Data Sharing & Use⁵

Users & Uses of Smart Meter Data:

- Consumers are comfortable with data being shared with organizations in the business of the “public-good” (government, academia, municipalities)
- There is far less comfort in data sharing & use by for-profit organizations due to concerns with adequate privacy & security protections or “nefarious” uses of data.

Pricing Model:

- Consumers feel comfortable with a limited price option for “public-good” organizations (no-fee or cost recovery) as they clearly see the potential value
- At the same time, they would like to see ratepayers benefit from “for-profit” organizations, as long as that profit doesn’t translate into increased costs of services

5 - More details in Appendix slides 20-22

The IESO's Approach for the 2021 OEB Application

- Expand the sharing of non-identifiable smart meter data to other levels of government + the MUSH sector (municipalities, universities, schools and hospitals)
 - Data beyond what is already public would not be made available to organizations outside the categories above
- Pricing for organizations granted access to the data would be a No Fee costing model (costs will be absorbed in the Smart Metering Charge)
 - More complex analytics beyond standardized⁶ products subject to Cost Recovery
- The IESO may at some point in the future revisit this model to assess the value of expanding access to all other organization types.

6 - More details in Appendix, slides 23-24

Consumer Information

The IESO will provide information regarding the Third Party Access program on its website. The content would be made available to LDCs, if interested.

- In plain, consumer-friendly language, the web content will explain why the program exists and concepts such as non-identifiable data, privacy & ethics, data uses, value proposition showcased through use-cases, etc
- The IESO will have a direct-to-customer process through the IESO's Customer Relations team
- Email/call center scripts on customer questions or complaints will be made available to the LDCs, and a process to escalate such complaints to the IESO
- An opt-out process is being costed out with LDCs in the MDM/R Steering Committee; IESO's recommendation will be included in the application

Next Steps

- Continue discussions with interveners and other key audiences (Information and Privacy Commissioner of Ontario, OEB, Ministry, select associations and public webinar) to share direction and collect additional feedback
- Finalize⁷ other elements of the application as per OEB's direction
- File TPA Application after the Smart Metering Entity's License Renewal decision is issued – likely mid Oct 2021.

7 - More details in Appendix, slide 25

Questions for SAC Members

1. Are there any other parties that should be engaged by the IESO in discussions on this application to provide third party access to data to other levels of government + the MUSH sector?
2. Are there any other considerations that the IESO should keep in mind in developing this application?

Thank You

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Appendix

Excerpts from the **2016** OEB Decision

Creating new system benefits from a central data repository: “The value of a province-wide database of customer consumption data would support many activities at the provincial or regional level including, among others: the design of conservation and demand management programs, the assessment of the effectiveness of time of use pricing, the design of distribution rates and time of use prices, and the regional planning of transmission and distribution systems.”

Benefiting consumers: “As well, the OEB has long recognized that there are potentially much greater benefits to consumers from this consumption data, in particular by making non-personal information available to third parties to assist them in developing new innovative products and services that will enhance customer choice and control” (see Report of the Board, Supplemental Report on Smart Grid, EB-2011-0004, February 11, 2013)

Moving quickly to create new value: “Innovation is about creating new value. The SME, through its provision of reliable provincial energy consumption data from over 4 million meters, was in part established to provide an opportunity for provincial electricity agencies, individual local distribution companies, and third parties seeking to create new value to benefit consumers. Ontario’s head start on smart meters is an opportunity that could be leveraged to enhance innovation”

Excerpts from the **2019** OEB Decision

“... the OEB has decided not to approve the application as filed. The OEB is not persuaded that there is sufficient evidence to conclude that making the data available using the SME’s proposed approach is in the public interest. Although, as the OEB has noted in previous decisions, there are benefits to making the data available to third parties, there are also risks. ...the OEB is of the view that more work needs to be done on developing a framework for providing third party access.

“.....While the OEB acknowledges the efforts of the SME to address these privacy concerns and to consult with stakeholders, it is of the view that a more comprehensive consumer engagement process should take place. As the intervenors have pointed out, it is not clear from the evidence that consumers support the notion that consumption data (even if de-identified) should be offered for sale to third parties. For these reasons, the OEB will not approve the SME’s application as filed (although, as noted, the SME may proceed with making the Public Offerings available). The SME is directed to develop a revised proposal for third party access after further consultation with consumers, and to submit a new application to the OEB by the end of 2021.”

“In summary, the OEB would like the SME to proceed cautiously given the concerns expressed. ”

Intervenors to the 2018 Third Party Access Application

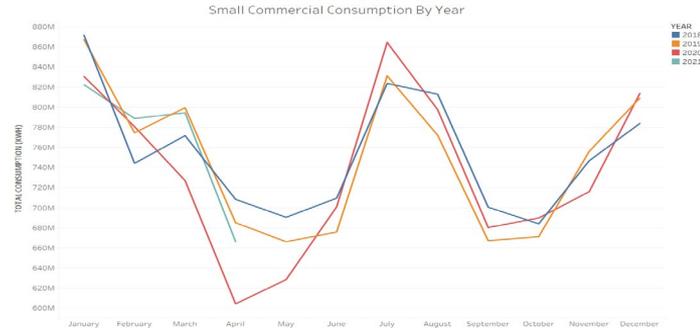
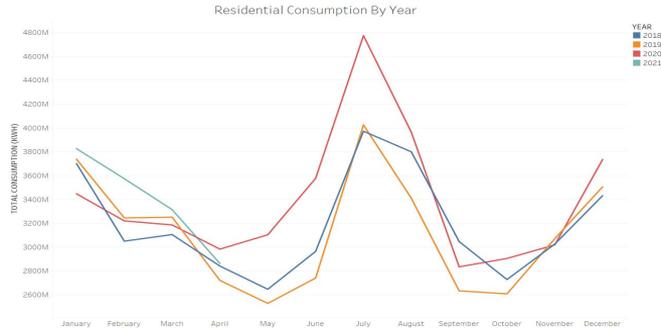
- Consumers Council of Canada (“CCC”)
- Vulnerable Energy Consumers Coalition (“VECC”)
- Electricity Distributors Association (“EDA”)
- Building Owners and Managers Association Toronto (“BOMA”)

Additionally, a letter was filed by Hydro One.

Examples of Public-Level Data Releases

<https://www.ieso.ca/en/Sector-Participants/Smart-Metering-Entity/Consumption-Data>

- Ministry of Energy, Northern Development and Mines (MENDM) - aggregated statistics on electricity consumption by consumer classes (residential and small general service <50Kw) and time of use buckets (on peak, mid peak and off peak) - to inform pricing changes under the COVID Emergency Orders and future pricing policy direction



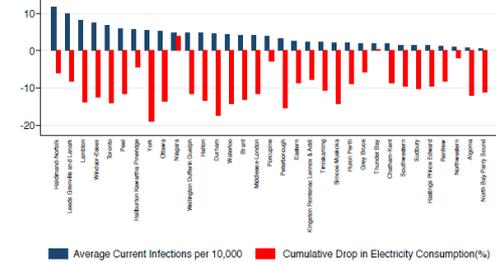
Examples of Public-Level Data Releases (cont'd)

- University of Toronto, Western's Ivey Business School and Carleton University - public level data aggregations to support research on the impact of COVID on socioeconomic activities by using electricity consumption as a proxy for economic drivers

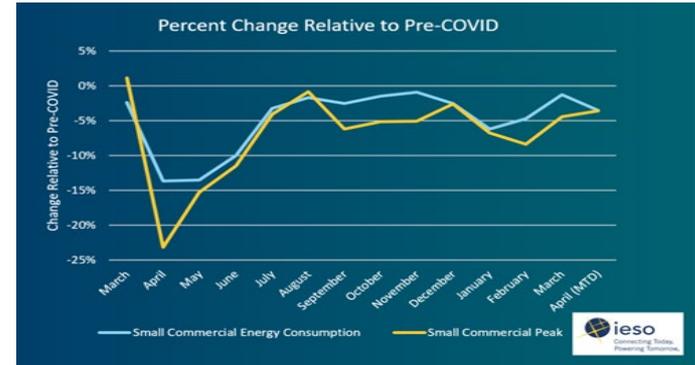
<https://covid.economics.utoronto.ca/>

- IESO's Demand Forecasting team is an active user of the smart metering data to support analysis and projections, for internal use or to inform the public on the most recent trends

Figure 2: Average of Currently Infected Per 10,000 Population, April 07-15. Average % Change in Daily Electricity Consumption, Mar 15 - April 15



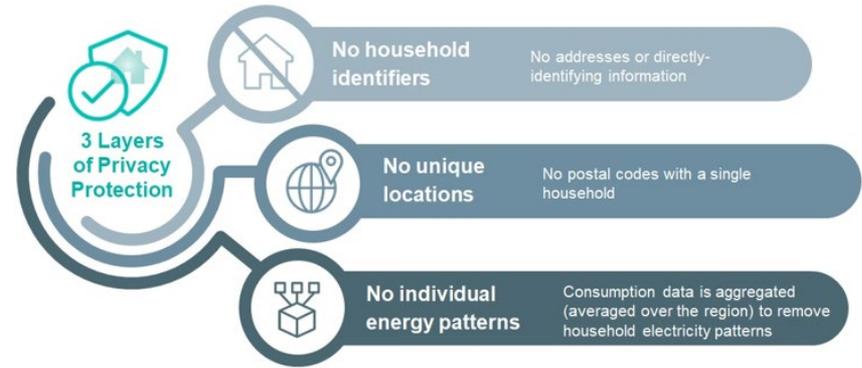
- Extract from May 13 paper, by Abdelrahman Amer, Angelo Melino and Aloysius Siow, Department of Economics, University of Toronto.



Summary of the IPSOS Research - Methodology

In 2020 IPSOS conducted province-wide research, engaging over 1,700 consumers on **privacy protection, data uses and pricing models**, in two phases:

1. Qualitative: Four focus groups with Residential and Small Business electricity customers in Ontario.
2. Quantitative: Online interviews on a province-wide representative sample of 1,500 Residential and 200 Small Business customers.



Sample of a visual prepared by Privacy Analytics Inc. that was presented and tested in Research

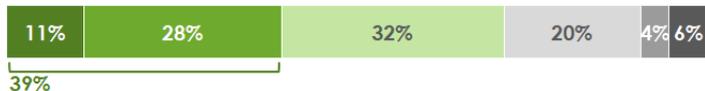
IPSOS Research - Key Findings

Consumers are supportive of the sharing and use of smart meter data and they see value in how the data could be used to improve decision-making in the electricity sector.

- More than seven in ten Residential (71%) and Small Business (79%) consumers feel it is important or at least somewhat important for data produced by smart meters to be shared, with only few feeling that this is not important (10%, 8%). Sharing smart meter data with the public-sector is most strongly supported due to the potential for 'greater good'.

RESIDENTIAL (n=1501)

■ (10) VERY IMPORTANT ■ (9, 8) ■ (7, 6) ■ (5, 4) ■ (3, 2) ■ (1) NOT AT ALL IMPORTANT



Very important (8-10) higher among:

- Consumers aware of how smart meters work
- Higher income households, University educated, Men

Somewhat important (6-7) higher among:

- Women, Under 55 years old

Low importance (1-3) higher among:

- Over 55 years old, Less formal education, Lower income households

SMALL BUSINESS (n=200)

■ (10) VERY IMPORTANT ■ (9, 8) ■ (7, 6) ■ (5, 4) ■ (3, 2) ■ (1) NOT AT ALL IMPORTANT



Very important (8-10) higher among:

- University educated or higher, Organizations with 5-9 employees

Somewhat important (6-7) higher among:

- Organizations with 10-19 employees

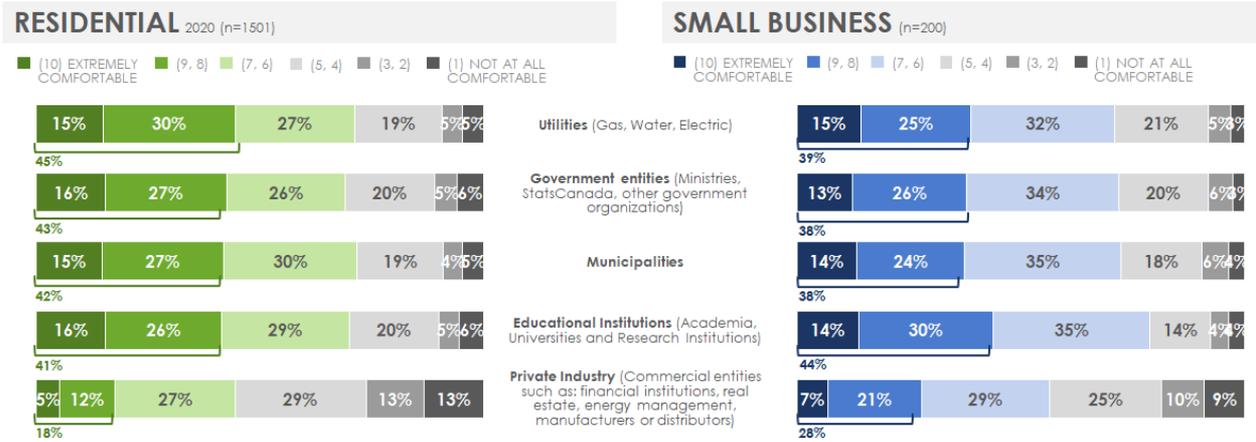
Low importance (1-3) higher among:

- Over 55 years old, Organizations with 2-4 employees

IPSOS Research - Key Findings (cont'd)

Support is weaker for sharing smart meter data with for-profit companies as consumers feel there is greater potential for misuse by these organizations.

- Comfort is considerably lower for sharing data with private industry and the benefits of doing so not clearly understood. Consumers express broader concerns about the motives of these organizations and the potential for the data to be misused.

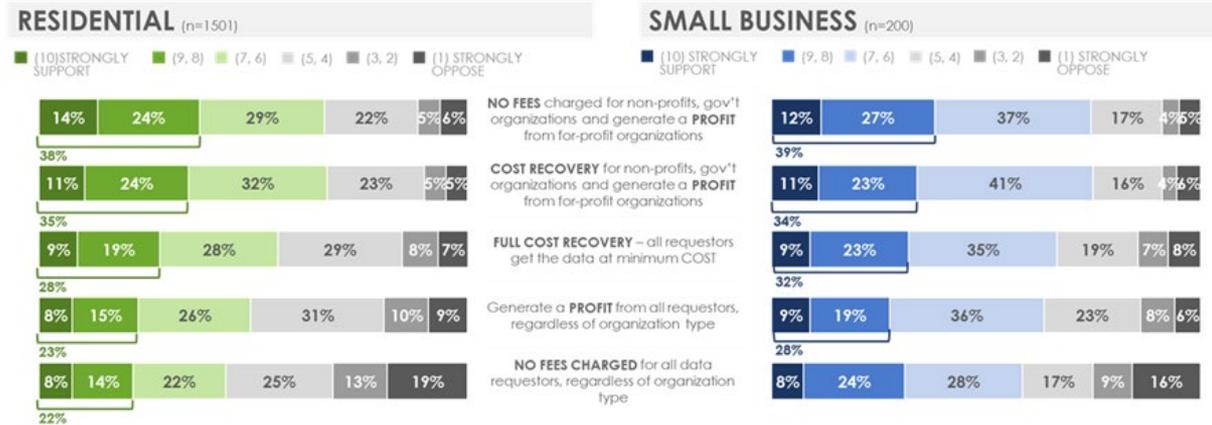


Q7./Q9. To what degree would you be comfortable with aggregated electricity usage data being used by each of the following? Use a scale from 1 to 10, where 1 is not at all comfortable and 10 is extremely comfortable. Base: All respondents

IPSOS Research - Key Findings (cont'd)

Consumers want smart meter data shared with non-profits at limited price to ensure the anticipated benefits are realized, and want a profit for ratepayers from for-profit organizations.

- Support is strongest for pricing models that would charge no fees or only recover costs from non-profits, to ensure their activities could contribute to the greater good, and that a profit should be generated from for-profit organizations.



Q11./Q13. Based on the descriptions provided, how much do you support or oppose having the IESO use each of the following models to price smart meter data for organizations requesting the data? Using a scale from 1 to 10, where 1 is strongly oppose and 10 is strongly support.
Base: All respondents

Data Product Strategy

Standard Products (No-Fee – absorbed in the Smart Metering Charge):

- Hourly, daily, weekly, monthly or other time-based aggregation level - requestors must provide the list of postal codes
 - The SME will provide the data in a format that complies with the Information and Privacy Commissioner of Ontario (IPC)'s de-identification guidance – postal codes suppression or higher level aggregations may be required
 - A Data Use Agreement will be required to be signed by all such requestors and data access will be enabled through a [secured FTP site](#)
 - SME's maximum estimated costs to deliver this offering is ~1% of the total SME budget

Data Product Strategy

Non-Standard Products (under a Cost-Recovery Model)

- Data extracts beyond the standard formats, that may require additional privacy & ethics analysis and/or custom analytics will be subject to a cost recovery model for internal and/or external costs
 - Internal costs may include the additional analysts time to perform custom analytics, visualizations or other tasks outside a typical standard request (billing will be at the current IESO's blended rate, plus reasonable contingency)
 - External costs may involve additional analysis on the data requestor privacy posture, ethical analysis, legal services, etc.

Status of OEB Requirements for Application

OEB Requirements	Fulfillment Mechanism	Current Status
1. A summary of consultations with consumers, including feedback on the notion of selling the data	<ul style="list-style-type: none"> • Consumer research findings (both qualitative and quantitative) • Consumer engagement was initially considered, but determined not to be needed in light of the consumer research findings 	<ul style="list-style-type: none"> • Completed
2. A marketing plan including forecast demand, its potential use and what commercial and non-commercial parties are prepared to pay for the data	<ul style="list-style-type: none"> • Summary of pilots to date • Previous consultant reports and summary of findings • Summary of third party interest expressed over the past year • In light of IESO's proposal not to charge a separate fee for access to the data, additional market research to ascertain what parties are prepared to pay is not needed 	<ul style="list-style-type: none"> • As included in previous application • Include third party requests from past year
3. A protocol for addressing consumer complaints regarding the release of the data	<ul style="list-style-type: none"> • Develop a revised communications plan, including the role LDCs can play in responding to customer requests and consumer complaints 	<ul style="list-style-type: none"> • The IESO continues to work with intervenors to understand and address any concerns with this proposal. • Protocol to be further developed and feedback to be sought from intervenors
4. Considerations regarding how consumers will be informed that the data is being disclosed to other parties		
5. The basic terms of a data use agreement (DUA) for approval by the OEB	<ul style="list-style-type: none"> • Will seek comments on draft data use agreement from interested parties 	<ul style="list-style-type: none"> • A draft DUA has been prepared leveraging experience with the pilots and provision of public-level data; will be shared with intervenors for feedback