



OEB Green Button - IWG

Independent (Industry-led) Working Group for the implementation of Green Button in Ontario

Co-Chairs: Eddie, Gary, Jeremy



IWG - Agenda for Today

- OEB Staff Greeting
- Co Chairs - Eddie, Gary, Jeremy
- Administrative (how is this going to work) – 5 minutes

- Update ITWG - Sub Working Group - Mondays - 10 min Present / 10 min Q&A
- Update IUXWG Sub - Working Group - Mondays - 10 min Present / 10 min Q&A
- Update IUWG Sub - Working Group - 10 min Present / 10 min Q&A

Administrative - General

- Meetings – meetings are weekly for one hour.
- Etiquette. Be respectful and Asking Questions state company & name
- Best Practices - (at end of slide deck) represents the recommendation that the IWG will be making to the OEB. Any iterum conversations with the OEB does not represent approval/rejection of the “best practice”
- Next Month : Sub Working Group updates and Other priority items.
- First Nations / Low income tags on bills @ OEB for advisement
- **Back of Bill Details** - Discussed with OEB - Requires Best Practice
- IWG document targeted to be delivered **to OEB by end of May** (to include FAQ's and Best Practices).

Best Practice (Sub Group ID)- No Consensus: - For Sub working Group Co- Chairs to use for IWG Non agreement Review / Discuss

Recommendation: 'XXXX

Why?

1. XXX
2. XXX
3. XXX

Reason for no Consensus:

Note: It is preferred that all Best Practices be discussed at this IWG first and the Sub Group Co-Chairs attempt to get unanimous agreement first. Before submitting a No Consensus Best Practice

List of Outstanding Best Practices for further review



- Do Utilities have to supply the real-time account balance?
 - This is not a requirement, it is sufficient to provide the information that was on the last published bill. A Best Practice needs to be provided.

Best Practices Recommendation #5 IUWG: For Review (IUXWG input)

Recommendation #5: Customer Notifications. ‘Informed consent’ is inherent to the authorization process and Utilities are not required to send periodic notices to customers to remind them about the third parties they have signed up with.

Why?

1. The authorization form should advise the customer that third parties will have access to their data until such time as the customer revokes the authorization and advise the customer that they can revoke the authorization at any time.
2. Customers should be able to see which third parties they have authorized via the existing online customer portal, with links to documentation on how to amend or rescind an authorization.
3. Notifications should align with utility current best practices to avoid customer confusion.



User Experience Sub-Working Group (IUXWG) (Mondays)

- Co-Chairs Michael / Karen
- Separate Agenda / Discussion from Co-Chairs
 - Discuss / Provide Best Practices recommendations, Q&A, Issues list

Best Practice recommendations from IUXWG

For Review

Recommendation #1: LDCs where practical should prevent inadvertent termination of data flows due to meter changeouts and "legitimate" account number changes (e.g. utility mergers or CIS upgrades).

Why?

- In the past, some commercial customers with many meters have experienced revocations of data-sharing without their knowledge
- Several LDCs are planning imminent upgrades / changes to their CIS or other systems , and customers want their data-sharing to be as seamless as possible.

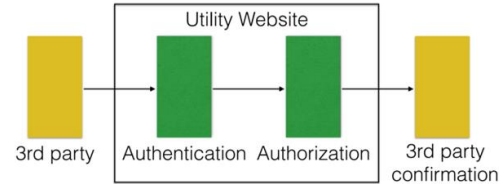
Best Practice recommendations from IUXWG

For Review

Recommendation #2: The customer experience begins at the third party's website: user is redirected to the utility to authenticate and authorize

- should be a streamlined process
 - one web page limited to authorization/authentication re: Green Button related only
 - clear, concise, consistent

user is redirected to the third party's website



Why?

- In other jurisdictions, utilities designed very different user journeys without standardization
- Failing to be specific at the outset about the customer “flow” can result in customer confusion and wasted effort
- The latest GBCMD standard requires that customers begin the journey on the third party site

Best Practice recommendations from IUXWG

For Review

Recommendation #3: LDCs should support “noedit” as a parameter in “AdditionalScope” in order to support the concept of “take it or leave it” scopes that are presented to the customer. (This would not apply to meter/service selection, which must be chosen by the customer.)

Why?

- If a third party requires, for example, 24 months of usage history to deliver their product, it doesn't make sense for the customer to unknowingly reduce the history to 12 months, rendering the product non-functional
- A frustrating user experience would result in a back-and-forth between LDC and third party if the authorized scope is not sufficient for particular product being offered
- Other jurisdictions (California, New York) have adopted “noedit” as a best practice for this reason

Best Practice recommendations from IUXWG

For Review

Recommendation #4: The presentation of data should be standardized across all utilities into the following three categories:

- “Electric/Gas Usage”
- “Utility Bill”
- “Account Information” (Includes personal/private information)

Additional explanation of a category should be available with “ ? ”

Why?

- Reflects identified best practices
 - Standardization across LDCs
 - Clear, concise, consistent verbiage



Independent Utility only (IUWG) Sub - Working Group

- Co-Chairs Steve / Carrie / Warwick
- Separate Agenda / Discussion from Chair
 - Discuss / Provide Best Practices recommendations, Q&A, Issues list

Best Practices Recommendation #6 IUWG: For Review

Recommendation #6: Maintenance windows. Utilities should make best efforts to notify external parties of regularly scheduled maintenance windows, that would impact the ability of apps to retrieve data. Unscheduled emergency maintenance is not included in the notification process.

Why?

1. Will allow third parties to schedule routine maintenance to coincide with Utility maintenance windows, minimizing impact to consumers.
2. Third party vendors can communicate with consumers if the schedule is known in advance
3. The priority during emergency outages or outages outside of the Utility's control is on returning systems to normal operations.

Technical Sub-Working Group (ITWG) — (Mondays)



- Co-Chairs Ryan / Don
- Separate Agenda / Discussion from Co-Chairs
 - Discuss / Provide Best Practices recommendations, Q&A, Issues list



Proposed Technical-Subgroup FAQs

Must utilities include the HST Registrant Number from the bill?

- No, the consensus is that HST number is not required, as this is static information available to all customers of the utility and does not provide any value to 3rd party consumers of GB data. [See recommendation #4 \(draft\)](#)

Best Practice Recommendation #3 (ITWG)

For Review

Recommendation: Electric consumption in IntervalBlocks should be reported as “non-loss-adjusted” or metered* values. This ensures consistency and auditability because metered values will reflect what is on the face of the meter

Why?

1. This will provide consistency for all users of the data and ensure they do not have to adjust different periods of time or between data sets
2. Loss adjustment may not be consistent amongst utilities, so standardizing on the lowest level of measurement removes all ambiguity

* Separate from the issue of loss adjusted vs. non-loss adjusted data, LDCs should accurately denote usage values as being measured on the primary side of the transformer or the secondary side by correctly using the “commodityType” enumeration.

ITWG-led FAQs (Technical)



- FAQs are provided to the Working Groups and Public for reference.
- FAQs are not an exhaustive list but are there to assist the industry.
- FAQs will be expanded on, added to, or changed from time to time as information evolves.
- FAQs are outputs from the IWG and should be considered as guidelines from the Industry.
- If a party sees that the FAQs are not correct or need revision, please contact the Co-Leads of the IWG.



Approved Technical-Subgroup FAQs

Should the UUID be something common for all utilities?

- UUID values should be unique (to maintain anonymity) and MUST comply with [RFC 4122] *version 3 or 5* formatting requirements . Each ESPI resource (UsagePoint, ReadingType, Customer, etc.) is assigned a UUID value, which must always remain the same so vendors can match datasets.

Will we get handholding to understand the ESPI standard?

- Yes. It is the intent of the Technical Working Group to assist in understanding the ESPI standard.

Files we received are .xsd files. How can they be opened?

- .XSD files can be viewed using a browser or open-source XML file viewing tool (Notepad++, Code Browser, Microsoft XML Notepad, XmlPad).

Is there a privacy concern regarding 3rd parties having access to whether a customer is on OESP as presented on the bill? Does it need explicit consent?

- This should be addressed by the utility's privacy policy and explained as part of the authorization process.



Technical-Subgroup FAQs

Do we need only the REQ.21 standard or the entire 3.3 version?

- *Version 3.3* refers to the latest available version of the NAESB REQ.21 ESPI (a.k.a. Green Button) standard.

What are we looking to solve in these meetings when we're mostly going to be engaging third parties to implement Green Button?

- As the utility, you should understand the technical elements of the standard such that if your implementation vendor has questions, you can help clarify the requirement.

How do we report loss adjusted data?

- The NAESB ESPI standard provides a means to report loss adjusted data. The Technical Subgroup will provide guidance.

Must utilities include deposit information on-hand on the bill?

- Not unless it is commonly provided to the customer on the bill or online portals. See ITWG recommendation #1.



Technical-Subgroup FAQs

For bundled charges on the bill, the regulation states that we may provide a breakout where possible. Do we have to provide this or just provide what is on the bill (summed up)?

- The breakout is not a requirement, unless the distributor provides this information today in the normal course of business. If you can supply it, the standard supports it. See Technical-Subgroup Recommendation #1.

How far back in time do we need to provide historical data?

- 24 months from the time of request, or as much account and usage history is available at time of request if less than 24 months

Overall Independent Industry-led FAQs



- FAQs are provided to the Working Groups and Public for reference.
- FAQs are not an exhaustive list but are there to assist the industry.
- FAQs will be expanded on, added to, or changed from time to time as information evolves.
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General FAQs

Do I need to Buy the Standard?

- If you are an Ontario Electric or Natural Gas Utility or a vendor using the standard. YES. Also see [NAESB Copyright](#)

Where Can I find the Ontario Regulation?

- [O. Reg. 633/21: ENERGY DATA](#)

Can we do Bulk Registration?

- For a single utility YES GB -related. Across utilities NO not part of the Standard or Regulation

Where can I find OEB staff guidance related to Green Button implementation in Ontario?

- [OEB Green Button Implementation](#)



FAQs

When Do the Utilities have to have their systems Operational and Certified by GBA?

- Regulation states November 1, 2023

Does the ESPI (GB) standard handle Line Losses?

- Yes, there are fields for Line Losses.

Who needs to get Certified by the Green Button Alliance?

- All Ontario Utilities within the Regulation. Completed by November 1, 2023

How many options are there for Reading Quality (for the metered intervals)?

- There are 14 options and more can be proposed, if needed. This FAQ has been corrected (April 28) from the 19 originally stated (incorrectly).



FAQs

Is historical data required for former customers of a Utility?

- Utilities are not required to pass data on to previous customers even if they move within the Utility.

How Many times do I as a Utility need to certify?

- If they are separate platforms or tested separately you will have to pay separately (same time and using the same engine).

What is the cost of GBA Certification?

- DMD Cert+Test is US\$3,000.
- CMD Cert+Test is US\$3,200.
- The cost of DMD+CMD Cert+Cert+Test is US\$3,700.

What consumption data will be made available by Utilities through GB: *e.g. unadjusted (metered) or adjusted (after application of Total Loss factor)?*

- The Standard does hold these data sets. Each Utility is required to determine what data is available .



FAQs

Is DMD different than existing Green Button download available to customers right now?

- Most legacy Ontario GB DMD was not certified by Green Button Alliance. Likely, it will not be complaint. Reminder: the Ontario Government requires version 3.3 of NAESB ESPI.

How much time do utilities have before sending responses to a third party for the request of data?

- The IWG is setting out Best Practices. These will be worked on through industry engagement and activities through Sub Working Groups.

What is involved in GBA certification testing?

- Look on the GBA website <https://www.greenbuttonalliance.org/testing> for more information. It is part of Ontario's regulation requirement.

Do I need the NAESB v3.3 ESPI Standard to take part in the IWG or sub working Groups?

- No but you may need to purchase the Standard as required by regulation, law and or copyright requirements. The IWG is not the NAESB. We need to conform to the same rules as others (as required by laws and or Regulations).



FAQs

Can Vendors be GBA Certified?

- The GBA certification process is for Utilities. A Vendor to a Utility can be GBA Certified but Utilities using their products must still get certified.

Where can I get Best Practices for Ontario Green Button implementation?

- The IWG is setting out Best Practices. These will be worked on through industry engagement and activities through Sub Working Groups.

When Can Utilities become GBA Certified?

- Utility implementations can enter the queue now; testing has begun and the first certifications should be complete this month (April 2022).



FAQs

How will market wide “Best Practices” be produced and managed?

- The IWG will provide best practices. The outcomes of these best practices will be a result of a joint effort between the IWG and the Sub-Groups.

How do we deal with Privacy and Cyber Security as a Vendor or third party?

- Your requirements are unchanged. Please refer to Government policies, regulations and guidelines.

How do we deal with Privacy and Cyber Security as a Utility?

- The Standard is capable of managing interaction between the Utility and the Green Button User. Utilities still take on responsibilities as normally required.

For bundled charges on the bill, do Utilities have to provide this or just provide what is on the bill (summed up)?


- Breakout is not a requirement, unless the Utility provides this information today in the normal course of business. Providing the breakout in an one-off discussion with a customer, is not considered normal course of business.



FAQs

Besides Utilities and Vendors to Utilities, what's NAESB's rule on when to obtain the standard?

- See the next Slide...



Besides Utilities and Vendors to Utilities, what's NAESB's rule on when to obtain the standard?

' The NAESB copyright most definitely extends to third parties/vendors that would need access to the standard to produce Green Button / ESPI streams or files.

We have segments in each of our quadrants for service companies and many member service companies that provide support [to] the utilities, transmission providers, pipelines, local distribution companies, etc.

At the very least, if a company/ individual is offering a "product/service" that conforms to the standard, then we expect the company/individual to have valid legal access to the standard. '

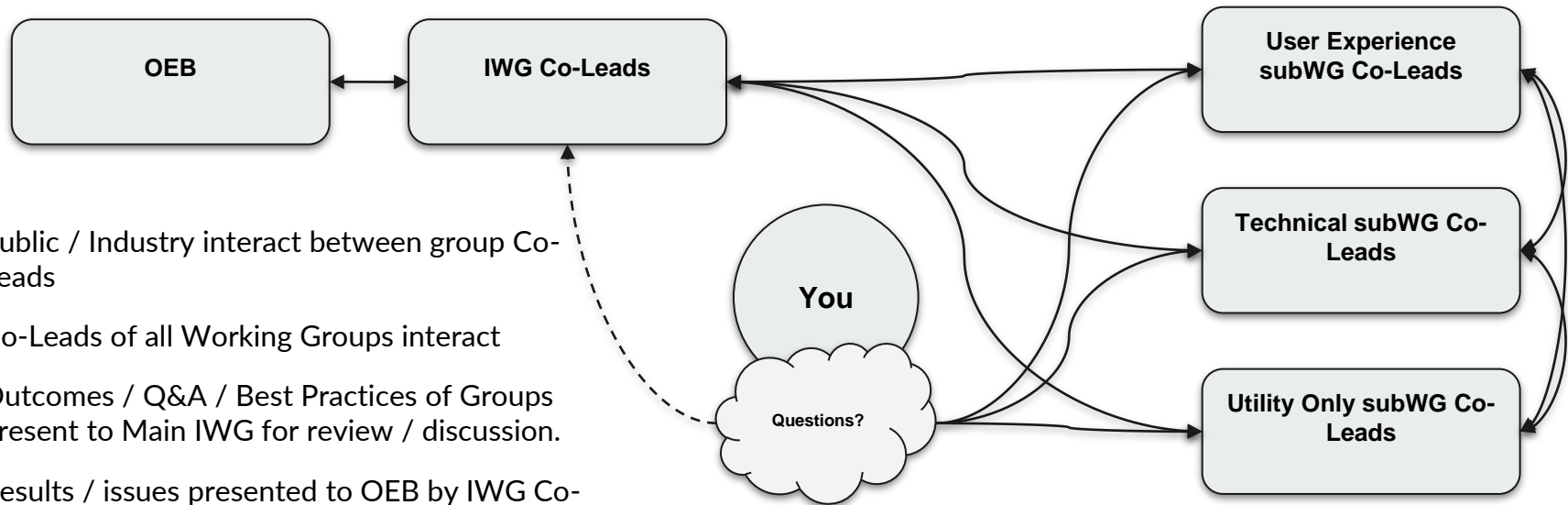
— Jonathan Booe, North American Energy Standards Board

IWG - Best Practices

- The Following
 - Are Best Practices that have been reviewed by the IWG
 - Will be recommended to the OEB as IWG Best Practices



Inter-Working group Communications



- Public / Industry interact between group Co-Leads
- Co-Leads of all Working Groups interact
- Outcomes / Q&A / Best Practices of Groups present to Main IWG for review / discussion.
- Results / issues presented to OEB by IWG Co-Leads

Best Practices Recommendation #1 IUWG

Consensus - IWG

Recommendation: Utility Grid work / Service Outage information Requirements is not within scope of the Ontario Green Button implementation.

Why?

1. Outage information varies from one utility to the next, and not all utilities have software systems dedicated to the automated management of outage notifications
2. Outage information is provided to customers via existing channels, for example My Account customer portals and through social media.
3. Outage information is not identified within the NAESB ESPI standard

Best Practices Recommendation #2 IUWG

Consensus - IWG

Recommendation: Providing Weather Data in Green Button format for Electric or Gas Utilities is not within scope of the Ontario Green Button implementation.

Why?

1. Weather data is provided on some customer portals, but the utility is not the source of this data, and it is not stored in the Utility systems. It is generally a real time API interface with Pelmorex (The Weather Network).
2. Providing weather data would add complexity and cost to the Green Button solution.

Best Practices Recommendation #3 IUWG

Not Required

Recommendation: Providing TOU to Tiered comparison in Green Button format is not within scope of the Ontario Green Button implementation.

Why?

1. Bill comparison between Tiered and TOU rates is a complex data analysis process. The algorithm calculates the cost differential based on a customer's historical usage at the current Tiered and TOU rates.
2. Green Button data being provided will allow a third party to develop the same features in their application if this is something that would add value to their product.
3. Consumers have existing tools to see a bill comparison, through the OEB rate comparison tool, or via existing Utility customer portals

Best Practices Recommendation #2 ITWG

Consensus - IWG

Recommendation: ‘With respect to data request performance, the consensus is that “Historical Requests” would be processed by utilities as soon as possible based on current processing load. This means that it is expected that requests would be fulfilled near real-time or within a few hours if the request came at a peak time (precluding outage windows).’

Why?

1. There is a mechanism to alert 3rd parties to new data being available from a utility; therefore, it is expected that large data requests are not needed on a regular basis
2. Most utility systems utilize a batch cycle process, which means that data does not change, or is not made available on a continuous basis and therefore, does not require real-time response
3. Data integration methods for some utilities may be predicated on other 3rd parties (e.g. IESO MDM/R)

Best Practices Recommendation #4 IUWG:

Consensus - IWG

Recommendation #4: Under the Green Button Regulation, distributors are required to make energy usage and account holder information available in Green Button format. As a general principle, the information to be made available is information identified in the NAESB ESPI standard, and where the utility is the authoritative source of the data that is collected and made available to its customers in the normal course of its operations

Why?

1. Data requirements that are outside of the scope of Green Button could necessitate a utility having to make changes to their operational practices, with limited or no cost recovery.
2. Data that is not identified in the NAESB ESPI standard, cannot be provided within the context of the NAESB standard XML schemas.
3. Aside from commodity costs that Distributors bill and collect from consumers on behalf of Electricity Retailers, providing any third-party charges that appear on the bill but do not originate from the utility should not be considered within scope of the Ontario Green Button implementation.

List of Questions for Future Discussion (Not part of existing roll out)

- Would it be helpful to have a centralized authorization/ authentication solution, where there is a single place for all utility customers / third parties in Ontario?
 - Not a requirement at this time





IWG

Thank you for your participation

To reach out to the Co-Chairs - Email us

