



Community characteristics & orientation

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Community & UN SDG(s): **Individual participation/Serving a context community:** Members of residences in Canada who wish to track and manage their household energy consumption to adopt sustainable practices.
Goal(s) 7 and 11

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Instructions

Research the community you are most interested in exploring using links from the UN Sustainable Goals website (<https://www.un.org/sustainabledevelopment/>) and others. In your exhaustive research, answer the following.

Community characteristics		
Community life-cycle (current state)		
Where is your community in its life-cycle?	What you need to focus on:	Special needs
<input type="checkbox"/> Just forming Need basic tools to connect, but not sure from there	Research and/or discuss the potential of some basic tools with members, explore what ideas it might give them, and see what they might bring in with them.	
<input checked="" type="checkbox"/> Self-designing Information stage, but with a strong sense of what it wants to accomplish	Contribute ideas to the design. Analyze systematically the implications of their community design for technology, infrastructure, and technology skills.	<input type="checkbox"/> Members may already be tracking their energy consumption through utility bills, one energy consumption calculators or their smart home application. <input type="checkbox"/> Members may need a breakdown of their energy consumption for specific devices in specific rooms for example their kitchen. <input type="checkbox"/> Members may need suggestions on sustainable practices they can adopt in their household such as which devices can be replaced with a more sustainable alternative
<input type="checkbox"/> Growing & restless Ready to add new functionality to its tool configuration	Try to make this a community reflection and self-design event. Does their restlessness suggest a major change, such as a transition to a new platform?	
<input type="checkbox"/> Stable and adapting Just needing some new tools	How much disruption will the community tolerate? How will the new tools be integrated into or affect existing practices?	

Constitution

Diversity: How diverse is the community?

Topic	Your notes
What are the different types of members and what are their levels of participation?	<p>Members of my target community include a diverse community interested in optimizing their household energy consumption. The primary target group includes residential household members aged 16 years and above from across Canada.</p> <p>I think the types of members and their level participation includes the following:</p> <ol style="list-style-type: none"> Casual Users: These members are primarily expected to be interested in the basic functionalities of the app to calculate and reduce their energy consumption and may occasionally engage with other members to clarify and doubts or questions. Their expected level of participation is moderate. They will primarily utilize the app's core features but may occasionally engage with community content and discussions. Active Contributors: These members expected to be not only keen on reducing their energy consumption but are also eager to share their experiences, insights, and tips with the community. Their expected level of participation is high. Active contributors frequently use the app and are engaged in creating content, starting discussions, and responding to others. They may also provide feedback for app improvements or share success stories about their energy-saving achievements. Lurkers: This group comprises individuals who are expected to use the app's features regularly but do not actively engage in the community aspects, such as discussions, polls, or shared stories. Their expected level of participation is low. Their primary interaction is with the app's functionalities, with little to no community engagement.
How spread apart is it in terms of location and time zones?	<p>For this project, my primary focus is on members residing within Canada, encompassing six distinct time zones. Given this geographical expanse, it is important to note that the application is designed for asynchronous use, meaning users can engage with its features at their convenience, regardless of their specific location or time zone. As the application doesn't necessitate direct communication between members, location and time differences shouldn't impede the user experience or functionality.</p>
What language(s) do members speak?	<p>While the primary language of our application is English, it's important to recognize that Canada is a bilingual nation with both English and French as official languages. As such, there may be potential users who are more comfortable with French. However, for the current scope of this project, the application is designed and optimized for English-speaking members. Future iterations might consider incorporating additional language support to cater to a broader segment of the Canadian population.</p>



What other cultural or other diversity aspects may affect your technology choices?

Understanding the diverse cultural and socioeconomic landscape of our community is crucial in tailoring our technology choices:

1. **Socioeconomic Diversity:** Given the varying financial backgrounds of our members, the application should prioritize offering energy-saving tips that cater to all budgets, ensuring that every user can benefit irrespective of their economic status.
2. **Geographic Variation:** Canada's vast geography brings differences in climate, energy sources, consumption patterns, and pricing across regions. Recognizing these distinctions, the application should be adaptable to provide region-specific insights and recommendations.
3. **Demographic Considerations:** Given the potential age range and varying technological proficiencies of our users, it's paramount to ensure the application is intuitive and user-friendly. From the tech-savvy youth to seniors less familiar with web applications, the user experience should be seamless for all.
4. **Indigenous Communities:** It's essential to acknowledge and incorporate the unique energy contexts of Indigenous communities. The application should not only provide relevant energy-saving tips for these communities but also ensure that their traditions and perspectives are respected and integrated.

By addressing these diverse aspects, my aim to create an application that is inclusive, adaptable, and relevant to all members of the community.

Openness: How connected to the outside world is your community?

Topic		Your notes
How much do you want to control the boundaries of your community? Does your community need	<input type="checkbox"/> To be private/secure <input type="checkbox"/> Open boundaries <input checked="" type="checkbox"/> Both private & public spaces	<p>Firstly, user privacy is crucial. Specific details related to an individual user, including the appliances they log, should remain private by default. Only with explicit consent from the user should such information be made visible to others.</p> <p>Secondly, to foster community interaction and knowledge exchange, we envision incorporating a community forum. This platform would allow users to voluntarily share tips, recommendations, and personal experiences regarding energy conservation. While promoting open communication, guidelines to ensure respectful and relevant discussions should be enforced, further establishing the community's boundaries.</p>
How does your community need to interact with other communities? Do you need common tools for sharing and learning with them?		<p>Our community, while primarily centered on household energy consumption, inherently intersects with broader spheres of interest and expertise. Engaging with external communities, such as those focusing on Environmental and Sustainability, Technology and Innovation, and even Government Regulatory Bodies, is essential. Such collaborations ensure our community stays informed about the</p>



latest sustainable technologies suitable for households and remains compliant with relevant policies and standards. Implementing a community forum would serve as an effective platform for disseminating these updates and fostering a dialogue between our members and these external communities, facilitating mutual learning and sharing.

Technology aspirations

Technology savvy, tolerance, & constraints: What are your community's technology interests and skills and patience thereof? What are the constraints imposed by technology factors?

Topic	Your notes
How interested is your community in technology?	Based on the primary focus of our community, we assume that their intrinsic interest in technology may not be profound. Instead, their main concern lies in adopting sustainable energy practices. Therefore, we presume they would favor technology that is straightforward and user-friendly, allowing them to achieve their sustainability goals without the intricacies of complex tech interfaces.
What is their capacity for learning new tools?	We will operate under the assumption that the community's capacity for learning new tools aligns with the average user experience. Given that our members represent typical Canadian households with access to electricity and modern devices like computers or mobile phones, it's reasonable to presume they possess a foundational familiarity with basic application usage. Thus, while they may not be tech savvy, they are certainly equipped to navigate straightforward digital platforms.
What is the range of skills? If their interests and/or skills are diverse, could it cause conflict or distraction?	The range of skills within our community is anticipated to be diverse, influenced by factors such as demographics, geographic location, and access to resources. For instance, younger members might demonstrate a more intuitive grasp on the tool, owing to their familiarity with digital platforms, whereas older members might require a gentler learning curve. Furthermore, members situated in urban settings, often with better access to technology, might have an edge in using the tool compared to those in remote areas. This diversity in skills could potentially lead to varying user experiences. While it might not necessarily result in conflict, it emphasizes the importance of ensuring the tool's versatility and user-friendliness to cater to all skill levels.
How tolerant are members of the adoption of a wide variety of tools?	Members' tolerance for adopting a wide variety of tools could be limited. Given the diverse backgrounds and skill levels within the community, many might find it challenging to continuously adapt to new tools, especially if they don't have the time or inclination to integrate them into their routines. A steady and simplified user experience is likely preferred over frequent changes or introductions of complex tools.
How many technological boundaries are they willing to cross, e.g. sign in to more than one web-based tool, learn to use new tools, or give up old favorites? This helps you understand what level of integration you need.	Based on our understanding of the community, members likely prefer a streamlined and uncomplicated technological experience. Given the varying levels of tech-savviness and potential constraints like time and willingness to learn, there may be a limited appetite for crossing multiple technological boundaries. For example, having to sign into numerous web-based tools or learning to navigate multiple new platforms might deter user engagement. It's also plausible that some members, especially those accustomed to particular tools or platforms, might be hesitant to abandon old favorites for new introductions. Therefore, it's crucial that our



	application prioritizes integration, consolidating essential features into a single, intuitive platform to minimize technological friction for our members.
What are your members' technology constraints (e.g., bandwidth, operating systems, etc.)?	Members' technological constraints primarily revolve around their need for consistent internet access and a compatible device to effectively use the application. Additionally, their location plays a role; they should reside within service regions of pertinent e-commerce companies to leverage certain app features. Also, to fully benefit from the application's recommendations, members should ideally be in areas where sustainable energy sources are available and accessible.
How much time are members able to be online and from where (office, home, field)? Some people have limited online time, or are able to be online only in specific locations. Others are always on. Very diverse situations can affect participation	Given the diversity within our community, members' online accessibility varies significantly. While some might have the luxury of continuous connectivity, benefiting from urban settings and stable internet infrastructure, others might face restrictions. These constraints can be due to factors like residing in remote locations, limited data plans, or balancing busy lifestyles. For instance, younger members, often more tech-savvy, might frequently access the application from various locations—be it home, school, or on-the-go. Conversely, older members might predominantly use it from the comfort of their homes. Some might have dedicated online sessions during work breaks or evenings, while others sporadically check in throughout the day. This diversity in online habits underscores the importance of designing an application that's flexible and accommodating of varying access patterns.

Community orientation

Relevance to community: Use the range from 0 (no relevance) to 5 (high relevance) to determine what matters most to the community. Look at these from the perspectives of the different types of members (under “constitution”). Also discuss the “value-added” to each member group

0	1	2	3	4	5	Orientations	Variants	Key activities/your notes
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Meetings Many communities place a great emphasis on regular meetings where members engage in shared activities for a specific time. Meetings, and the visible participation of members, assert the community's existence	<input type="checkbox"/> Face-to-face/blended <input type="checkbox"/> Online synchronous <input type="checkbox"/> Online asynchronous	The very nature of our application emphasizes individual use and personalized insights rather than collective meetings. While some online communities may prioritize regular gatherings, our platform's primary objective is to provide household energy insights, which doesn't necessitate communal engagement. Users can seamlessly and independently navigate the application without the need for group interactions or scheduled meetings.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Open-ended conversation Some communities maintain ongoing conversations as their primary vehicles for learning. Open-ended conversations are	<input type="checkbox"/> Single-stream discussions <input checked="" type="checkbox"/> Multi-topic conversations	While our application's primary focus is on individual household energy insights, the inclusion of community forums can foster an environment of open-ended



						common when a community is co-located and people keep the conversation going as they “bump” into each other.	<input type="checkbox"/> Distributed conversations	conversations. These forums can serve as platforms for users to share experiences, discuss challenges, or simply converse about sustainable living.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Projects In some communities’ members want to focus on particular topics, go deep, and collaborate on projects to solve problems or produce useful artifacts. Learning is not just a matter of sharing knowledge or discussing issues. Members need to do things together in order to develop their practice. Projects usually involve a subgroup within the community	<input type="checkbox"/> Practice groups <input type="checkbox"/> Project teams <input type="checkbox"/> Instruction	Our application's core functionality centers around providing individualized household energy insights, which operates on a consistent theme rather than diverse project-based engagements. While collaborative projects can be valuable in certain community contexts, the nature of our platform doesn't warrant the inclusion of such activities, especially in its initial stages. Users are primarily seeking straightforward advice and insights on energy consumption without the complexity of project-based collaborations.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Content Some communities are primarily interested in creating, sharing, and providing access to documents, tools, and other content. Valuable and well-organized content is a useful resource for members	<input type="checkbox"/> Library <input type="checkbox"/> Structured self-publish <input checked="" type="checkbox"/> Open self-publish <input type="checkbox"/> Content integration	While the application's primary goal revolves around individualized household energy insights, there exists a potential avenue for content sharing and consumption. By facilitating a space where users can share their knowledge, experiences, or even success stories in the form of posts, the community can benefit from diverse perspectives and real-world experiences. This user-generated content can serve as a valuable resource, enhancing the overall user experience and fostering a sense of community collaboration.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Access to expertise Some communities create value by providing focused and timely access to expertise in the community’s domain, whether internally or externally. Communities with this orientation	<input checked="" type="checkbox"/> Questions & requests <input checked="" type="checkbox"/> Access to experts <input checked="" type="checkbox"/> Shared problem solving	While our application predominantly focuses on individualized household energy insights, the inclusion of a community forum offers a space for users to seek answers to specific queries. While we



						focus on answering questions, fulfilling requests for advice, or engaging in collaborative, just-in-time problem solving	<input checked="" type="checkbox"/> Knowledge validation <input type="checkbox"/> Apprenticeship & mentoring	acknowledge that we may not have dedicated experts on board during the initial phases, the collective wisdom of the community can serve as a valuable resource. As the community grows and evolves, there could be potential for more structured expert involvement, enhancing the depth and breadth of expertise accessible to users.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Relationships Some communities focus on relationship building among members as the basis for both ongoing learning and being available to each other. This orientation emphasizes the interpersonal aspect of learning together. Communities with this orientation place a high value on knowing each other personally, emphasizing networking, trust building, and mutual discovery	<input type="checkbox"/> Connecting <input type="checkbox"/> Knowing about people <input checked="" type="checkbox"/> Interacting informally	While our application's primary goal is to offer individualized household energy insights, the community aspect introduced via the forum can facilitate interpersonal connections. Through shared discussions, experiences, and knowledge, users can potentially build relationships. While this interpersonal aspect isn't a core requirement for the application's primary function, it could enhance user engagement, trust, and the overall sense of belonging within the community.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Individual participation Learning together happens in the context of a group, but it is realized in the experience of individuals. People bring different backgrounds, communication styles, and aspirations to their participation in a community. People have different levels of commitment, they take on different roles, and they use tools differently	<input checked="" type="checkbox"/> Levels of participation <input checked="" type="checkbox"/> Personalization <input type="checkbox"/> Individual development <input type="checkbox"/> Multi-membership	Each user's engagement is unique, stemming from their household setup, energy consumption habits, and personal sustainability goals. By inputting an inventory of their appliances and energy use, they receive personalized insights and recommendations. Furthermore, while the community forum serves as a collective platform, individual contributions therein enrich the knowledge base, with users choosing to share experiences, ask questions, or offer advice.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Community cultivation Some communities are happy with loose self-organization and	<input type="checkbox"/> Democratic governance	Same as "Relationships"



						unplanned evolution, while others thrive on attention to community cultivation. They have a need to reflect on the effectiveness and health of the community to make things better, joined with a willingness to work on it	<input type="checkbox"/> Strong core group <input type="checkbox"/> Internal coordination <input type="checkbox"/> External facilitation	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Service context In some cases, serving a specific context becomes central to the community's identity and the ways it operates. They may live inside an organization, whose charter their practice needs to serve. They may have a mission to provide learning resources to the world or to recruit members widely. Or they may seek interactions with other communities whose domain complements their own	<input checked="" type="checkbox"/> Organization as context <input type="checkbox"/> Cross-organizational <input type="checkbox"/> Other related communities <input type="checkbox"/> Public mission	The primary service context includes facilitating individual users in optimizing their energy consumption patterns and, on a broader scale, contributing to national and global sustainability goals. By empowering users with data and actionable insights, the platform champions an eco-friendly ethos, aligning with wider environmental initiatives and potentially collaborating with external bodies that share a common vision.

Scratchpad (other interesting insights, questions/answers, etc.)

Implementation of community forum can be beneficial:

- ☐ Implementation of a Q&A section within the community forum for users to post questions or seek advice.
- ☐ Facilitation of community forums where users can initiate topics, share insights, and seek advice.
- ☐ Creation of guidelines to promote respectful and constructive dialogue within the community.
- ☐ Periodic highlights or summaries of popular or useful threads to draw more members into the conversation.