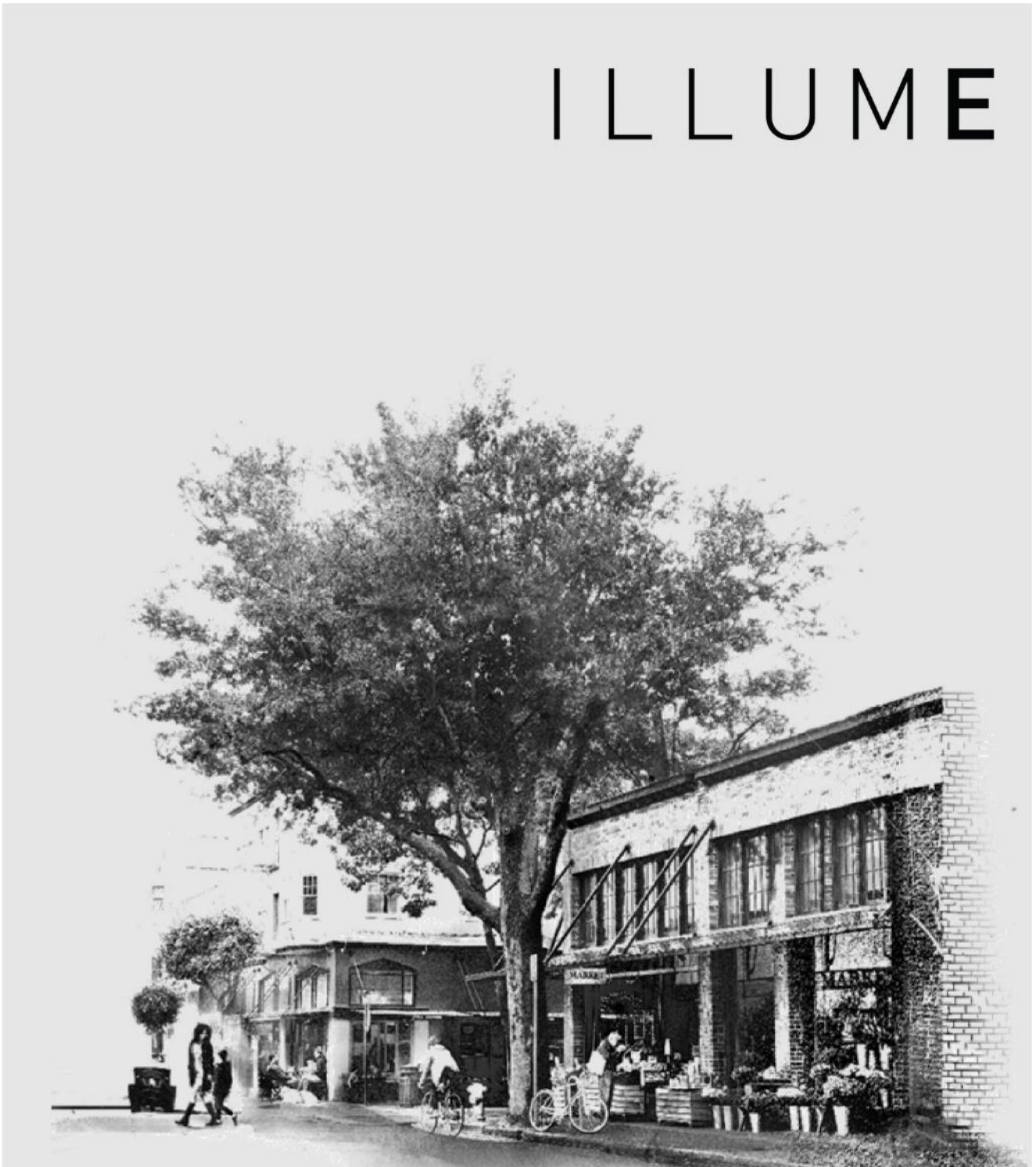


# ILLUME



## **PROJECT:**

Non-English Speaker  
Benchmarking & Customer  
Journey – Findings Report

## **PROJECT SPONSOR:**

Electric and Gas Program  
Administrators of  
Massachusetts

# ACKNOWLEDGMENTS

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# TACTICAL SUMMARY

## ABOUT THIS RESEARCH

The purpose of this research is to support the Massachusetts Program Administrators (MA PAs) as they work to provide equitable access to customers, especially non-English speaking customers, as part of the 2019 – 2021 energy efficiency plan. To explore the current state and best practices of in-language outreach, we conducted a literature review and benchmarking study, and interviewed program administrators in Massachusetts and other states. The following two goals guided our research:

*Goal 1:* Understand best practices for non-English outreach both within the energy efficiency sphere and outside of it, such as health and government outreach




*Goal 2:* Understand non-English speakers’ journey in learning about Mass Saves offerings

- How can the journey be adapted to support non-English speakers?
- How can PAs target marketing to maximize participation by non-English speakers?

To address these goals, we conducted a document review and a series of MA PA and non-MA PA interviews. In our document review, we reviewed non-English related research both within energy efficiency and outside of the industry. We also reviewed and benchmarked PA websites and conducted eight interviews.

Given that we did not conduct primary customer research, we cannot fully address Goal 2 since we did not speak to non-English speakers about their journey. That said, we can provide insight into the experiences of non-English speakers in other industries and service territories and how those experiences may translate to non-English speakers’ potential journey through energy efficiency programs in Massachusetts. However, additional research should be conducted to understand the experiences for customers whose primary language is not English.

In this report, we focus on the following languages prevalent in MA: Spanish, Portuguese, Mandarin, Cantonese, Haitian, French-Creole, and Vietnamese.

RESEARCH ACTIVITIES	
Reviewed	 14 EE research papers 12 non-EE research papers
	 Mass Save Website PA Websites 10 Non-MA PA Websites
Interviewed	 6 PA staff 2 Non-PA staff

## TACTICAL STEPS TO CONSIDER

Outreach to Low-English Proficiency (LEP)<sup>1</sup> customers on a large-scale is a relatively new frontier for utilities. Many utilities are still figuring out how to effectively provide in-language offerings and services. Except for California, which has the most publicly available research on non-English and people of color (POC) outreach, many of these efforts are happening behind the scenes, which presents a challenge for collaboration and benchmarking.

In conducting this benchmarking study and literature review, the ILLUME team has looked outside the energy efficiency industry, including to adjacent industries such as public health, which has a more robust history of exploring LEP community engagement. Research in public health points to some best-practices for outreach to diverse communities. Even in that industry, there is not a clear formula for connecting to LEP communities—it requires changes to both outreach infrastructure (e.g., messaging, message channels, program design) and the internal culture of an organization (OPRE 2014). Implementing these general guidelines will likely require additional research in MA to identify the specific details and needs of MA LEP customers since there are many cultural and linguistic variations between communities.

Recognizing that the best practices from inside and outside the energy efficiency industry call for a complex and nuanced approach more than a straightforward, stepwise pathway, we have nonetheless identified a framework for the MA PAs to consider based on the publicly available research from other industries and utilities, internal utility research, and lessons learned from the non-MA utility interviews. Rather than focusing on how many languages and which to translate outreach materials into—common questions we heard during the MA PA interviews—these steps focus first on identifying the language needs and developing the infrastructure to meet those needs in a cost-effective and equitable way.

Step 1 focuses on identifying language needs within the PA service territory and putting internal infrastructure in place to meet those need and refine the probable LEP customer journey. Step 2 focuses on the content and delivery of communications. Since cultural outreach can initially feel overwhelming and nebulous, we have simplified it by disaggregating it into components of “the message” and “the marketing channel.” Step 3 focuses on program design and explores culturally-specific value propositions and the holistic journey that the customer takes. In each section, we highlight best practices for each component

### STEP 1 – IDENTIFY YOUR NEEDS AND DEVELOP INTERNAL INFRASTRUCTURE

**Conduct a language needs assessment.** A language needs assessment can help the MA PAs prioritize which LEP customers and languages they should prioritize, what outreach and program materials should be translated, and the internal infrastructure needed to support these efforts.

**Gather and track customer language preferences.** Without this information, it has been difficult for the MA PAs to quickly and accurately provide in-language outreach materials to customers.

**Identify within-organization opportunities.** Based on the language needs assessment, the MA PAs will need to identify the internal organizational changes necessary to support outreach to customers with LEP. This could include

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<sup>1</sup> Customers who, while they may speak some English, are not fully fluent and may need non-English language support to understand written or verbal content

developing a toolkit and brand guide for translating materials and building a new website that mirrors the English website in other languages.

**Review probable LEP customer journey.** Based on the language needs assessment, refine the suggested customer journey provided in this report.

## STEP 2 – REFINE OUTREACH APPROACH

### MESSAGING

**Use a human translator as much as possible.** Humans are still more accurate than computers when it comes to language because they can better account for cultural and community-specific references in their translation. Human translations can capture your brand tone. If you must use Google Translate, use simple, plain language—Google Translate is better than nothing but is not a permanent solution, especially since it does not translate all the elements of your webpage like images or buttons.

**Develop messages that are culturally competent.** The difference between an effective and an ineffective message may lie not in the literal translation but in the cultural competency of the message, materials, and images that accompany a piece of collateral. The best practice is to have a long-term goal of targeted, in-language messaging.

### MARKETING CHANNEL

**Understand who the decision-maker is in the household** and use channels that will reach them. This should involve working with community organizations to help identify the appropriate channels and, in some cases, they might be the best channels.

**Create partnerships with community-based organizations (CBOs) to leverage their networks.** CBOs are optimal partners for PA program outreach given their connections to the community and understanding of its preferences and needs. At the same time, such partnerships need to provide value to the CBO to be viable.

## STEP 3 – DESIGN INTERSECTIONAL PROGRAMS

### THE VALUE PROPOSITION

**Ensure messaging and outreach aligns with values specific to the LEP community being addressed.** Although we did not conduct any primary research in MA, we did review studies that identified specific values among POC and LEP communities, which should be used to develop more targeted messaging that will resonate and is relevant.

### LEARNING FROM OTHER UTILITIES

The steps above are informed by conversations with utilities outside of MA who highlighted that it is important for utilities to have the necessary systems in place to support a more continuous in-language experience for customers. A Midwest utility explained that they are approaching their LEP customer outreach carefully to ensure that LEP customers have in-language support throughout their journey—both for logistical reasons (a positive, continuous experience) and to establish and maintain LEP customer trust. Accordingly, the utility has focused on developing internal processes and infrastructure so that they can more fully support LEP customers.

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*“We know that having a mainly English site is **not a premier customer experience** for our customers who aren't native English speakers. However, we also feel that if we produce pieces in a variety of languages, but there's not a customer service representative if they call into comment then becomes like **we're talking to you but then we're backing away from it**...we don't [want to] disappoint with how much we're able to do in terms of languages and things like that. So, **it's a very slow measured process that we're doing this and sort of expanding this, but we have to be able to support it internally.**” – Midwest Utility*

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Based on interviews and website benchmarking, most utilities we reviewed are operating between Steps 1 and 2. For instance, most of the messaging we reviewed was directly translated from English materials. Since there are not agreed-upon best practices, utilities are experimenting and discovering what works to serve their customers. Accordingly, our recommendation is that proceeding carefully, thoughtfully, and staying informed will be the most effective way forward for the MA PAs.

This approach may be slower and more cautious than simply translating all outreach materials and focuses on communities with the greatest need, but it will enable the MA PAs to develop a strong foundation of understanding their communities and needs, from which they can more effectively expand to other languages.

In the following section, we offer an overall perspective on language, translation, and the value that in-language access to services provides.

## WHY OFFERING LEP SERVICES PROVIDES ACCESS AND BUILDS TRUST

As the United States continues to diversify, new languages and cultures will become part of American life. Engaging with communities that speak languages beyond English is a strategy to continue to meet savings goals and provide a quality experience for all customers.

ENGAGING LEP  
CUSTOMERS WILL  
BECOME  
ESSENTIAL

### NON-ENGLISH WILL BECOME THE NORM

The United States is one of the most linguistically diverse countries in the world and is becoming more diverse. Eighty percent of foreign-born Americans speak a language other than English. And the 2011 Census shows that 21% of the U.S. population 5 and over speaks a language other than English. Most importantly, nine percent of the US population aged five and over are unable to speak English well enough to transact business over the phone.

The top three languages spoken in MA are Spanish, Portuguese, and Chinese (includes Mandarin and Chinese). Middlesex, Suffolk, and Norfolk counties (all around Boston) have the highest proportions of populations that speak a language other than English. Bristol county is unique in its high proportion of Portuguese speakers. We have included additional details of language use in the appendix.

### UNTAPPED MARKETS WILL BE ESSENTIAL FOR HITTING FUTURE SAVINGS AND SATISFACTION GOALS

PAs across the nation have struggled to maintain savings goals as LED lighting markets become saturated and obsolete. PAs are increasingly trying to understand how to tap into undersaturated markets to continue hitting aggressive savings goals.

Hard-to-reach communities present an opportunity for PAs to continue to meet their savings goals, but engaging these customers means more customer-centric outreach and program design to reach these populations. Business as usual will not cut it anymore. Although innovation needs to occur, the culture and values of hard-to-reach customers may align well with utility goals. Communities of color tend to have more environmental and community values than their white counterparts. This makes them more responsive to conservation and efficiency efforts—especially, when the message is framed around bettering the community (Inova Energy Group 2017; ICMI 2014).

In research on Hispanic needs for customer support, researchers found that 71.5% of participants said support in a customer's native language increased their satisfaction with customer support, and 58.4% said it increased their loyalty to the brand (ICMI 2014).

## OUTREACH IN ANOTHER LANGUAGE CAN OFFER INCREASED ACCESS AND ESTABLISH TRUST

LANGUAGE IS A  
CULTURAL  
SIGNIFIER,  
IDENTIFYING WHO  
YOU ARE TO OTHERS

We understand that the MA PAs want to know whether language is primarily a logistical barrier for LEP customers or if it is a matter of establishing trust and cultural legitimacy. The short answer is it is both. Providing in-language materials can help overcome logistical barriers for LEP customers and it is key to establishing trust and cultural legitimacy.

For instance, in a survey of Portuguese speakers in MA, lack of in-language materials (38%) and Portuguese speaking staff or interpreters (42%) were among the top three barriers respondents cited for accessing services. The top barrier was ability to afford service fees (43%) (Freiwirth 2016).

Translation can also increase access for communities because they prefer in-language materials on mediums they frequently use, like commercials on Spanish-language TV that resonate with them ethnically, socioeconomically, and through personal experiences (Center for Sustainable Energy 2018).

### LANGUAGE ESTABLISHES THE SPEAKER AS "ONE OF THE GROUP"

Language is more than a transactional tool to exchange information; language is also a marker of culture. Speaking someone's language is a way of showing someone that you belong to their community, or, at the very least, that you respect their culture enough to try to reach them in their own language. In-language utility communications can demonstrate to non-English speaking customers cultural understanding, care/respect, and can improve customer trust and comfort (California Energy Commission, 2018).

In California, in-language resources were important for "establishing trust and comfort" with contractors, as well as ensuring customers could move through the program (i.e., usability) (California Energy Commission, 2018). In a separate California study, one-third of Latino respondents considered the ability to conduct business in their preferred language to be "extremely important when selecting a contractor" (Center for Sustainable Energy 2018).

In MA, the MAPS survey (n=173) targeted Portuguese- and Cape Verdean Creole-speaking senior populations in Cambridge, Dorchester, and Lowell. Two of the primary motives to move into a senior housing facility for the respondents who took the survey in Portuguese were to have staff who spoke their language and "culturally appropriate" meals and activities.

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*"There was often the implication that speaking Spanish was not just about literal communication but about signaling cultural understanding, caring about Latinos, and making customers comfortable."*

– California Energy Commission, 2018

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Establishing trust and in-group affiliation is particularly important for communities who may have fears of engaging with the utility. "Trust is an important prerequisite before households from some Spanish-speaking countries in the Americas will engage with an organization. This tendency may be amplified for undocumented immigrants. Building relationships forms the trust but takes time and repeated contact. A visible presence in the community can be a useful way to develop those relationships through repeated contacts with individual households" (Evergreen Economics 2015).

## CULTURAL COMPETENCY REQUIRES UNDERSTANDING AND ADJUSTING OUTREACH TO MEET CUSTOMER NEEDS

Successful engagement of diverse populations goes beyond simply translating materials directly. It requires understanding and adjusting outreach to meet the specific needs of those populations—which is why culturally competent outreach is a key best practice for engaging LEP customers. It is a fluid process that requires continuous engagement and learning.

Cultural competence is more than having knowledge, being aware of, and respecting other cultures; it is also the “ability to understand, communicate with, and effectively interact with people across cultures” at all levels of an organization (Livingstone 2014; Betancourt et al 2003). A key part of cultural competency is understanding the social context of customers, which informs their beliefs, values, and behaviors, and is essential for developing programs and services that meet their “culturally unique needs” (Betancourt et al 2003). Practicing cultural competency can produce “positive and effective interactions with diverse cultures” because it demonstrates respect by (1) understanding the community’s needs, and (2) developing messages and programs that address those needs (Office of Adolescent Health 2018).

Cultural competency requires action at all levels of an organization, including the utility’s organizational culture, structural culture, and staff interactions with customers (Betancourt et al 2003). Examples of cultural competency at the organizational level include, having a diverse leadership team and workforce, and creating systems of accountability that involve a feedback loop from customers. Structural components include in-language materials that are culturally relevant and delivered through customers’ communication preferences. Finally, ongoing training and educating staff to effectively understand and interact with a diverse set of customers is another piece for practicing cultural competency (Betancourt et al 2003).

## CULTURAL COMPETENCY DONE RIGHT ALLEVIATES THE RISKS OF RELYING ON CATEGORICAL THINKING

Our minds are extremely good at categorizing information and organizing it so we can quickly process and make sense of our surroundings. This has been a handy survival skill that has allowed us to quickly identify things, like whether it is a good berry or a bad berry, or a snake or a stick; however, overreliance on the categories we develop can lead to oversimplifications and stereotypes (de Langhe and Fernbach 2019).

Cultural competency is about understanding an audience intimately and seeing them as more than the broad convenient categories we may be tempted to put them in (e.g., Hispanic/Latinx, Asian-American). Cultural competency takes effort, but it can positively impact customer trust, comfort, and level of engagement (California Energy Commission, 2018).

During our benchmarking review of websites, we observed examples where cultural competency can turn into harmful default thinking that involves race, income, and language. Due to historical and structural histories of racism and discrimination, there is a disparity in wealth between communities of color and white communities, which may lead to a categorical links from “white” to “wealthy” and “brown” or “black” to “low-income.”

AVOID THE THREAT OF  
DEFAULT THINKING BY  
USING HEURISTICS.

(But make sure that they are not  
too broad to be reductive and not  
too specific to be impossible.)

On utility websites, however well-intentioned, it was common to see links to the income-qualified or bill assistance programs more prominently placed on Spanish or Chinese versions of websites than the English website. This may perpetuate stereotypes around race and class. For example, one utility website promoted a link to an electric vehicle program on the English page, but this was replaced by a link to bill assistance on the Chinese version even though one study found that Asian-Americans are twice as likely to own an electric or hybrid vehicle than the general population (Wemple, Cooper, Hutson 2016). While there are intersections between LEP, renters, and income-eligible customers, by foregrounding the information and links to bill assistance programs, utilities may inadvertently be perpetuating stereotypes. This prioritization limits these customers' exposure to the other services their utility offers, such as energy efficiency programs, potentially perpetuating the classification of "hard-to-reach populations" for customers who are LEP.

## THE PATHWAY

In the following sections, we provide additional detail around the best practices at each step in the pathway. Step 1 focuses on identifying language needs within the PA service territory and putting internal infrastructure in place to meet those need. Step 2 focuses on the content and delivery of communications. Since cultural outreach can initially feel overwhelming and nebulous, we have simplified it by disaggregating it into components of “the message” and “the marketing channel.” Step 3 focuses on program design and explores culturally-specific value propositions and the holistic journey that the customer takes. In each section, we highlight best practices for each component.

### STEP 1 – IDENTIFY YOUR NEEDS AND DEVELOP INTERNAL INFRASTRUCTURE

The recommendations in this step focus on identifying gaps in service and language needs of the communities the MA PAs serve. Once those have been identified, the MA PAs can implement strategies to address them, for instance, assessing the internal organizational changes necessary to support outreach to customers with LEP. This could include developing a toolkit and brand guide for translating materials and building a new website that mirrors the English website in other languages.

#### CONDUCT A LANGUAGE NEEDS ASSESSMENT

A language needs assessment can help the MA PAs prioritize which LEP customers and languages they should prioritize, what outreach and program materials should be translated, and the internal infrastructure needed to support these efforts. Language needs assessments often include a review of publicly available data, such as census data and GIS analysis, along with targeted surveys or interviews with LEP customers. We recommend reviewing census data at the census tract level to identify pockets of potential LEP customers and then prioritizing who to target for the primary research based on MA PA priorities.

#### GATHER AND TRACK CUSTOMER LANGUAGE PREFERENCES

Language preferences should be identified as early as possible to provide effective program engagement (Center for Sustainable Energy 2018). Without language preference information, it has been difficult for the MA PAs to quickly and accurately provide in-language outreach materials to customers.

#### IDENTIFY WITHIN-ORGANIZATION OPORTUNITIES

##### IDENTIFY/DESIGNATE BILINGUAL INTERNAL CONTENT REVIEWERS

Based on PA interviews with utilities inside and outside MA, common practice is to have an internal staff member who is bilingual review the translated materials to verify that the tone and intended message accurately reflect the original English message. In the case of the Midwest utility, the utility has received the translated version of their English materials from a third-party translation agency, and the internal staff person reviews.

Our recommendation is to formalize this role so that assumptions are not inappropriately made about language capabilities of staff.

Both utilities interviewed mentioned having a multilingual outreach team that can go into communities and discuss program offerings. This seems to be a successful channel for reaching LEP customers and can also provide the

marketing department feedback on messages and materials. We discuss this kind of in-person outreach in greater depth in Step 2.

### DEVELOP A BRAND GUIDE FOR TRANSLATING MATERIALS

A Midwest utility recently developed a brand guide for translated materials to ensure that their tone and message are appropriate for reaching the LEP customers in their territory. The Midwest utility’s translation brand guide was developed based on research they did to ensure the tone and phrasing they used would resonate with the dominant Spanish-speaking communities in their territory, which include Mexicans and Puerto Ricans. From this study, they found that their original translations were a bit too formal and now they are a “little bit more casual and human.” This guide/manual is something that they can share with their vendors, especially those involved in translation.

Although the Midwest utility is still using a single, general message to communicate with all of its customers, they have taken a step towards more culturally competent outreach materials by using a tone that will resonate more with the specific Spanish-speaking communities in their territory. Tools like these can be helpful to guide outreach efforts but should also be reviewed and updated frequently to ensure that the content stays relevant as community preferences and needs evolve.

### STATUS OF MA PAs: AGGREGATE CENSUS DATA IS NOT ADEQUATE FOR TARGETED MESSAGING

The MA PAs reported that currently they do not know the language needs or preferences of the LEP customers they serve. In the past, MA PAs have relied on Census data to attempt to target LEP customers with in-language materials. However, Census data is not granular enough to truly inform targeted customer outreach, which has limited MA PAs to sending mailers to ZIP codes with high concentrations of LEP customers. Furthermore, without language tracking information, MA PAs are unable to measure the impact of their marketing efforts to inform future improvements.

The utilities outside of MA expressed that this is a step that they are still working on and that it is important for having more seamless interactions across various touchpoints with LEP customers. Non-MA utilities noted that gathering this information has been tough because customers need to learn about the offering, ideally through in-language outreach. Once the language preferences have been gathered, tracking those preferences and ensuring they carry through customer touchpoints is another hurdle, especially for the IT department.

### OUTSIDE MA: GATHERING AND TRACKING LANGUAGE PREFERENCES IS A DEVELOPING PROCESS

In interviews with utilities outside of MA, both mentioned gathering and tracking customer language preferences as part of their process for improving LEP customer outreach. Although this step seems basic, getting the proper internal infrastructure in place could be a challenge for the MA PAs. The Midwest utility noted that they have hit some snags trying to get a language preference flag working in a data tracking system so that it carries throughout their system and customer access points to support a continuous customer experience. This experience also spurred them to begin building a Spanish website that mirrors their English website; however, the person we interviewed had limited details on the intricacies of this undertaking.

Gathering language preferences can also be a hurdle for utilities. One utility in the West emphasized that any efforts to ask customers their language preferences need to be done in-language. The utility in the Midwest leveraged community events to gather customer language preferences because they recognized that, without some sort of direct outreach, the only way customers would learn about

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*“[The email] gives them a link to steps. So, we have an instruction page and then they can literally go into our system and change their language preference so that whatever pieces, emails, anything that’s developed in Spanish [they receive].”*

*– Midwest Utility*

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the option is by stumbling upon it on their website. This could be difficult since their website is not yet fully translated. This utility has a bilingual (English-Spanish) outreach team that goes to several community events with high numbers of Spanish-speakers who regularly attend and discusses the utility’s program offerings. At the end of the event, they ask the attendees to write their name and email on a list; this list is then used to email the attendees instructions on how to change their language preferences. The email is in both Spanish and English (two separate sections for each).

When reviewing other utility websites, we observed two instances where utilities had an option in their “My Account” sections for customer to indicate their language preference. One utility offered a Spanish option, the other offered Spanish, Mandarin, and Cantonese options. Utilities could also consider collecting race, ethnicity, and language data with voluntary fields on program forms and applications (Center for Sustainable Energy 2018).

## CASE STUDY – CLEO PROGRAM

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The Community Language Education and Outreach (CLEO) program is an example of a successful in-language outreach program. However, the CLEO program’s 2013 process evaluation found some gaps in LEP customer support between the program and Southern California Edison’s (SCE) main website that are still common to observe in 2019 with utility in-language outreach. As part of Step 1, the MA PAs should identify these gaps and what they will need to do to resolve them.

CLEO was an effort by SCE and SoCal Gas to increase energy efficiency awareness and knowledge among customers whose primary language was not English or customers who are part of a “hard-to-reach ethnic population” (Cadmus 2013). SCE used an implementer, Global Energy Services, who had to hire 10 new staff with expertise in specific languages to support the program’s growth between 2004 and 2012. Outreach efforts were translated into four languages and included community outreach at schools and events, educational seminars promoted in newspapers and on the radio, phone consultations through a hotline, and the utilities’ websites (Cadmus 2013).

The program was successful in reaching their target audiences and getting them to install more energy efficient equipment, especially among customers who attended their in-language seminars (Cadmus 2013). However, 20% of the CLEO budget was cut for the 2010 – 2012 year. This impacted the number of events and seminars they hosted—most customers suggested they offer more meetings—and limited their ability to improve the program through metrics tracking (Cadmus 2013).

The 2013 process evaluation found that, while SCE offered in-language support through their website and call center in addition to the CLEO program, there were sometimes gaps in that support. In particular, application forms for programs were not translated; meaning customers could learn about the program in their preferred language but could not complete their program journey in that language (Cadmus 2013). Other in-language gaps on SCE’s website were similar to the gaps we commonly identified during our benchmarking of utility websites, specifically that certain links, images, and buttons on webpages were not translated. Call center support was also primarily in English. If a customer preferred another language, the call center staff would connect to a third-party translation hotline to communicate with the customer, which is the current practice by most MA PAs but has been reported as clunky and can lead to customer frustration.

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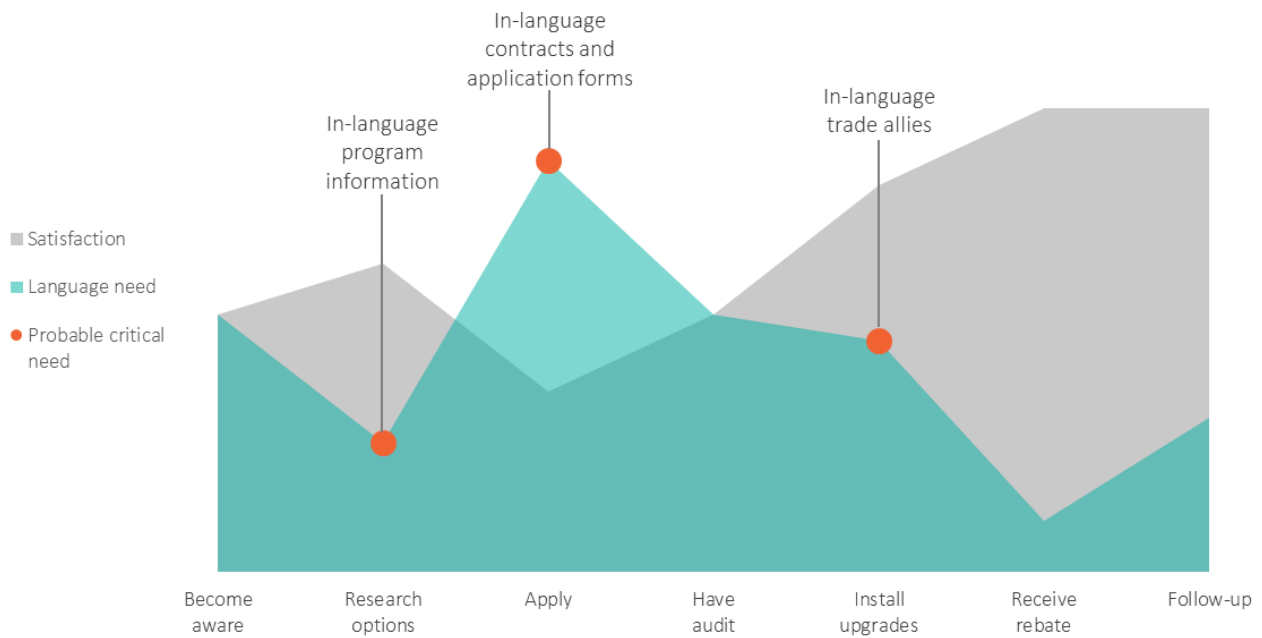
## REVIEW PROBABLE LEP CUSTOMER JOURNEY

To create a detailed customer journey map, researchers need to conduct primary research with target customers, such as Spanish-predominant speakers renting a home, for a specific program or process. However, one can create

a probable customer journey based on prior experience, research, and indirect interviews. Based on our interviews with PAs and reviews of documents, we have created a generalized LEP customer journey map for MA PAs to build upon and verify during the language needs assessment (See Figure 1 below).

This example journey map can serve as a starting point to assess critical LEP program engagement and serve as a basic outline for detailed journey maps. We include critical components we have identified in our current research in this journey map. As part of Step 1, we recommend updating and reviewing this probable journey map based on findings from the language needs assessment. We provide more detail on the critical elements we have identified in Figure 1 throughout this report.

FIGURE 1. PROBABLE JOURNEY MAP



## STEP 2 – REFINE OUTREACH APPROACH

### THE MESSAGE



**Definition:** We define the message as the words being read, spoken, or heard. The message also contains the value proposition, but for this section, we focus on how the message is communicated, with specific attention to translation and cultural competency.

Below, we summarize key best practices for broad translation (aimed to be translated across many languages) and targeted translation (where resources can be given to specific, culturally appropriate translations).

### USE A HUMAN TRANSLATOR & OFFER IN-LANGUAGE MATERIALS

While services like Google Translate are convenient, less resource intensive, and a nice gesture to customers, *“translations are only useful [to customers] when they are accurate, grammatically correct, and employ familiar terms”*; investing in human translations is worthwhile to ensure your message is effective and accurate (Torres, Guerra, Caal, Li 2016). Humans are still more accurate than computers when it comes to language because they

can better account for cultural and community-specific references in their translation. Human translations can also help capture your brand tone in translated materials.

## HUMAN TRANSLATORS KNOW THE REAL WORDS USED BY COMMUNITIES

Those of us in the energy efficiency industry have a tendency to use jargon or use specific definitions of words that do not always share the same meaning for either English-speaking customers or LEP customers. Accordingly, the meaning of program materials should be translated rather than a direct word-for-word translation (Torres, Guerra, Caal, Li 2016). Use of graphic-heavy materials help customers with limited literacy and should also be used to explain and describe energy information (Inova Energy Group 2017; Evergreen Economics 2015).

For example, one California study found that Spanish speakers often refer to their electric bill as their “light bill” or “cuenta de luz”, highlighting that it is important for translators and content reviewers to understand and be aware of these variations and ensure proper translation (Inova Energy Group 2017). Another example is when words and concepts do not directly translate into other languages, like weatherization, which Google translates into the Spanish word for air conditioning, “climatización.”

## DO NOT ASSUME THAT CUSTOMERS HAVE ACCESS TO TRANSLATION SUPPORT

While it can be tempting to rely on or assume that customers with LEP will turn to their family or community to translate information, it is not equitable or respectful to shift the burden of translation to these customers. When customers have to seek out translation support themselves it creates an additional step/barrier in their participation journey and can impact their ability to access MA PAs’ services.

Reliance on customer-supplied translation support could also mean that the message does not reach the household decision-maker since it is not created for or delivered directly to them. A utility in the West also cautioned that, if you rely on a child to translate program materials, you need to ensure that the reading level is appropriate for a child.

## USE PLAIN, SIMPLE LANGUAGE FOR MACHINE TRANSLATION

If you must use Google Translate, use simple, plain language. Google Translate is better than nothing but is not a permanent solution, especially since it does not translate all the elements of webpages, like images, videos, or buttons. The accuracy of Google Translate diminishes as the reading level of the content increases (Chen et al, 2016; Khoong et al, 2019). Two separate, recent studies found that Google Translate does a reasonable job at translating “simple sentences” that are “below a-fifth grade level” (Chen et al, 2016; Khoong et al, 2019). Since Google Translate needs simple, low reading level to translate effectively, it is likely not an appropriate tool for translating program details, requirements, and complex concepts (Khoong et al, 2019).

Simplistic language also helps for members of the community that may have lower literacy levels. Even for native English speakers, the “average reading level in the United States...is eighth grade” (Torres, Guerra, Caal, Li 2016).

The accuracy of Google Translate has been improving and may seem like a good option to translate materials into languages that are less commonly spoken in your territory. However, two studies found that the accuracy of Google Translate may vary by language. Translations from English to Spanish were more accurate than translations from English to Chinese (Chen et al, 2016; Khoong et al, 2019). Therefore, solely relying on Google Translate for these languages may not be effective for engaging these communities.

## TEST CULTURALLY SPECIFIC MESSAGES TO ENSURE THEY ARE APPROPRIATE

Developing culturally competent messages and programs is generally considered a best practice when engaging a diverse set of cultures. Culturally competent messages, when done correctly, can resonate more with specific communities than a general blanket message, which can improve engagement.

A California study found that Latinx customers were more responsive to program materials that used images of people who appeared to be Latinx in front of modest homes compared to program materials that used images of white people in front of large, expensive-looking houses (California Energy Commission 2018). However, there is a balance between using imagery that displays cultural competency and imagery that feels tokenizing or cheapening.

## CULTURALLY-SPECIFIC LANGUAGE DOES NOT TRANSLATE WELL

When reviewing marketing materials from Mass Save, we identified some examples where culturally-specific references may not resonate with some customers with LEP. The following marketing samples for Spanish-speakers references “casual Fridays”, “waking up late on Sunday”, and “leaving early on Friday.” All of these messages assume someone works a standard 9am to 5pm, Monday through Friday office job. However, some PAs noted in our interviews that a large portion of their customers who speak Spanish work in manual labor and service jobs, which often do not have the same work culture or schedule as a typical office job. Accordingly, these messages may not resonate with the intended audience.



## CASE STUDY – TARGETED MESSAGING FOR ALL

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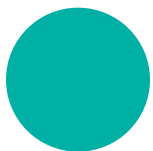
One study we reviewed stated that the “one-size-fits-all” approach that utilities have historically relied on to engage customers will not work in the future as utilities need to connect with more diverse populations (Wemple, Cooper, Hutson 2016). This paper highlighted several case studies of engagement strategies as alternatives to the “one-size-fits-all” approach. One highlights a “total-market strategy” approach; meaning they “look at its entire residential customer base as an integrated market and designs campaigns to meet the needs of all” (Wemple, Cooper, Hutson 2016).

Rather than translating one message into multiple languages, the utility tests the message across various segments and communities see if the message resonates with each group. If they find the message does not resonate with certain groups, they work with “minority agencies to develop creative concepts that will resonate” (Wemple, Cooper, Hutson 2016).

For example, the utility wanted to create an ad campaign about safety near power lines, especially when working with tools. Their original messaging used caution tape wrapped around various tools; however, the message testing found that this did not resonate with POC customers—some associated the caution tape with police tape and others did not see the relevance to power lines. The utility then went back to the drawing board and revised the ad to depict a stick figure climbing a ladder with tools and clipping trees near a powerline, which they found was understood by most customers (Wemple, Cooper, Hutson 2016).

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## THE MARKETING CHANNEL



**Definition:** Marketing channel is the mode of reaching an audience with a message, these include traditional approaches like radio, print, email, web, and television, as well as more nuanced approaches like community advocates, physical locations, contractors, and other intermediaries to the community of interest.

In this section, we will focus on traditional versus non-traditional marketing channels, and best practices for both.

## BE MINDFUL OF WHO THE DECISION-MAKER IS AND IF THE MARKETING CHANNEL REACHES THEM

It is important to understand who the decision-maker is within a household to ensure the message is relevant to them and that you are dispersing that message through a channel that will reach them. For example, one study that looked at energy efficiency decision-making and socio-cultural characteristics, with a specific focus on Blacks, Hispanics, and Asian-Americans, found that women are highly involved in decision-making at home (Center for Sustainable Energy 2016). Accordingly, when developing outreach for these communities, you should first understand the channels that are most effective to reach the women in these communities.

Preference for cash transactions and distrust in banks came up several times among studies that focused on Hispanic/Latinx communities. This may have implications for how program costs are messaged or financed (Center for Sustainable Energy 2018). We also heard from one PA that many of their Portuguese-speaking customers come into their physical customer service centers to pay their bills in cash, so the PA has multiple Portuguese speakers working at the front desks to support these customers.

## WORK WITH CBOS TO GET THE RIGHT CHANNEL

Engaging CBOs and grassroots efforts is a best practice for reaching customers with LEP. CBOs can aid in crafting a culturally competent message that will resonate with customers, and they can also provide insight into the best way to reach customers. In some cases, the CBO staff might be the best channel. However, implementation of these types of programs in the energy efficiency industry has had mixed results.

Three key aspects of a successful CBO approach are for the partnering organization to have (1) goals/objectives that align with the programs, (2) connections with the target group, and (3) the appropriate training and resources to promote the program (Moran, Dunn, Kan 2014).

That said, there are already successful examples of a CBO partnership to reach customers with LEP in MA that could be used as a model for future efforts. These involved PA staff working closely with local governments and CBOs to develop a specific message and brand to reach the local community of LEP customers.

### CASE STUDY – WORKING WITH THE CITY ENGAGED COMMUNITY ORGANIZATION

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One lead vendor partnered with the City and a local Cambodian organization to support outreach for the LEP customers. The lead vendor thought that the City partnership was key to establishing relationships with the CBOs because the program benefits supported the City’s sustainability goals. The lead vendor collaborated with the City and CBO to develop a brand and ad campaign.

The outreach emphasized the “no cost” and “no obligation” aspects of the program. And they were particularly successful with the lighting program because people saw the immediate benefit of participating. Initially, there were concerns about how receptive people would be towards the weatherization program since the value proposition may not be as obvious to customers. However, through the collaborative partnership, they developed a creative incentive structure to promote participation – the organization would help fund a community garden if certain participation goals were met.

Customers were more receptive to this messaging and incentive structure because their participation in the program would result in a community benefit: the community garden.

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## CBO PARTNERSHIPS ARE MOST SUCCESSFUL AS PART OF A BROADER OUTREACH PROGRAM

The literature also overwhelmingly cites that partnerships with CBOs as essential to successful outreach to customers with LEP. This channel approach can also allow for customers to receive utility outreach through face-to-face communication from someone they trust and can identify with rather than written communications from a quasi-governmental entity (Inova Energy Group, 2017). CBOs also allow customers to self-select the program(s) to participate in based on their needs, rather than deciding for the customer which program is most appropriate for them (Speers, Powelka, Wilson 2017).

## CONSIDER WORKFORCE DEVELOPMENT FOR HIRING CONTRACTORS IN SPECIFIC CULTURAL ENCLAVES

One PA and a lead vendor both mentioned that there is an opportunity for more attention to workforce development that focused on closing service gaps, both geographically and linguistically. One specific area for opportunity cited by the lead vendor is developing a multilingual workforce of energy specialists who can have

meaningful conversations about “health and safety issues in the home.” They did note that there are a lot of bilingual (English-Spanish) weatherization crews.

This idea is consistent with findings from the literature review. One survey found that more than a third of Hispanic/Latinx respondents felt that it was “extremely important” to be able to conduct business with their contractor in their preferred language (Center for Sustainable Energy 2018). This finding is supported by interviews with trade allies in California, who found that having bilingual staff was helpful in establishing trust with Spanish-speaking households, “even when the customer has a reasonable knowledge of English” (Center for Sustainable Energy 2018).

## ADDRESS GAPS IN RECRUITMENT

Another study found that, although qualified Hispanic/Latinx contractors exist, they often are not recruited into utility trade ally programs because of “insufficient and ineffective outreach” (Inova Energy Group 2017). Utilities could improve outreach to minority contractors by translating trade ally outreach materials and providing in-language trade ally trainings (Inova Energy Group 2017). In-language trainings and materials are particularly important because, if the intent is for these contractors to engage customers with LEP, then they need to be taught how to have those conversations with customers and convey technical information comprehensibly in a language other than English.

## USE TRUSTED, COMMUNITY-SPECIFIC MEDIA CHANNELS

Although, face-to-face interactions are ideal, it is also considered best practice to place in-language ads on media channels that LEP customers regularly engage with and trust, which can include in-language radio outlets, TV networks, and newspapers (Torres, Guerra, Caal, Li 2016; Inova Energy Group 2017). Some MA PAs reported successful in-language outreach through these types of non-English media outlets, specifically the radio and Telemundo.

However, additional research should be conducted to understand the specific media preferences for each customer language group because these may vary by culture. One study found that the Chinese-American customers surveyed expected to find energy efficiency information in newspapers, radio, and TV; whereas Black customers looked for energy efficiency information on the TV, mail, and internet (Center for Sustainable Energy 2016).

## CASE STUDY – UTILITY PARTNERSHIP WITH COMMUNITY MEMBERS

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A Canadian utility used a third-party vendor to recruit individuals from local non-English communities. The vendor trained these individuals as energy mentors who could go out into their community and share information about the utility’s programs and services (Wemple, Cooper, Hutson 2016). Energy mentors or “energy champions” are considered key components of CBO and local government focused programs, but they must be able to explain any program complexities so that customer interest turns can turn into customer participation (Bean and McRae 2016).

The three main elements of their outreach were to “encourage energy savings, reduce utility bills, and improve safety in the home” (Wemple, Cooper, Hutson 2016). The program was specifically targeted for the rapidly increasing East and Southeast Asian immigrants and had program materials translated into nine different languages, including Punjabi, Gujarati, Cantonese, Mandarin, Taiwanese, Hindi, Urdu, Kannada, and Marathi.

The program was generally considered a success and ran without any paid media. This success was largely credited to the trust between the energy mentors and the customers since they all lived together in the same community. Their familiarity makes people feel comfortable enough to open their doors and invite the mentors into their homes and their lives” (Wemple, Cooper, Hutson 2016). The program also heavily relied on “earned media and word-of-mouth”; 85% of participants reported learning about the program this way (Wemple, Cooper, Hutson 2016). The energy mentors also spread the message by attending cultural festivals, events, and ethnic radio stations with call-in lines (Wemple, Cooper, Hutson 2016).

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## THE VALUE PROPOSITION



**Definition:** The value proposition is essentially the sales pitch to the customer. Why should they engage in your program? Customer empathy is essential for an effective pitch, and cultural nuance may play an important role in understanding which values may resonate most with audiences. The right value proposition is motivating enough to spur the user to complete the first action on their user journey (e.g., call, or go online to find out more).

Although we did not conduct any primary research in MA, we did review studies that identified specific values among POC and LEP communities. Understanding the values and beliefs of POC and LEP communities is important for developing targeted messaging that is relevant and resonates with customers.

## STEP 3 – DESIGN INTERSECTIONAL PROGRAMS

This step of the process is focused on designing a program experience that meets LEP customer needs, addresses their values and concerns, and provides a seamless experience. In this section, we highlight considerations, but note that most utilities, both within and outside MA, have not optimized their programs at this phase. As a result, there are fewer best practices or clear recommendations to draw on.

### FAMILY AND COMMUNITY ARE KEY MOTIVATORS FOR HISPANIC/LATINX, BLACK, AND ASIAN CUSTOMERS

Messages that elevate the social value of energy efficiency actions can help motivate POC and LEP customers by making the perceived benefit of that energy action more valuable than altruistic non-energy actions (Dougherty, Mitchell-Jackson, Wellner 2010). Accordingly, studies have found that Hispanic/Latinx, Black, and Asian customers respond well to messaging frames that connect to family and community (Center for Sustainable Energy 2016;

Inova Energy Group, 2017). Collectivism is an important part of the culture of these communities, messages that highlight the benefits to their family or community and emphasize interdependence and membership within a group can resonate well with these customers (Center for Sustainable Energy 2016; Inova Energy Group, 2017).

## CARE FOR FAMILY AND COMMUNITY INFLUENCE CONCERNS RELATED TO THE ENVIRONMENT

Especially among Hispanic/Latinx households, caring for the environment is part of caring for their family and community. One study in California found that messages about household comfort and helping the environment like “preserving the environment for their children or saving energy being good for their home and the planet” resonated more with Hispanic/Latinx customers than white customers who tended to focus on lowering bills and saving money (Center for Sustainable Energy 2018). Hispanic/Latinx households also largely accept human-caused climate change and are willing to change their behaviors to reduce their carbon emissions, which could be another messaging approach to engage Hispanic/Latinx customers (Inova Energy Group, 2017).

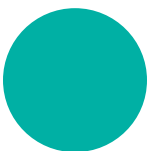
## HISPANIC/LATINX HOUSEHOLDS ALREADY AVOID WASTING ENERGY

Hispanic/Latinx households already have behaviors that help them “avoid wasting energy” but may not be as aware of “technical energy efficiency, [like] energy efficient equipment or home envelope improvements” (Inova Energy Group 2017). One study found that some Hispanic/Latinx households do not view “discomfort or high energy bills as ‘fixable problems’, but rather as conditions to be endured,” which may serve as a barrier for these customers to look for services and programs that address these problems, such as energy audits and weatherization (Center for Sustainable Energy 2018).

However, there is an opportunity to build upon Hispanic/Latinx households’ preferences and inclination to avoid waste through their actions by understanding their energy-use habits and how those fit within “the internal logic of [their] household routines” (Inova Energy Group 2017). Understanding those habits, how they developed, and why they do them is important for designing culturally competent programs and messaging. For example, one study suggested that HVAC-specific programs might be less suitable for Hispanic/Latinx households because they tend to prefer natural indoor environments and use passive cooling systems when possible (Inova Energy Group 2017; California Energy Commission 2018). Similarly, Hispanic/Latinx households often do a lot of work themselves, so aligning program designs to facilitate do-it-yourself (DIY) projects could be one way to engage these customers (Center for Sustainable Energy 2018).

## THE USER JOURNEY

**Definition:** The user journey is the experience a customer has and actions they take to complete a project within an energy efficiency program. The first action is spurred by the message, delivered to them through the marketing channel, and from that first action, they follow a series of steps to complete the project. The current state can be a fragmented journey that requires customers to navigate multiple touchpoints across the PA (for instance, navigating between Mass Saves and the PA websites, and between energy efficiency, PA income eligible a local Community Action Program lines). Each step in this process is a point where potential participants may drop off. Streamlining these connections can thus reduce churn.



## IN-LANGUAGE OUTREACH GAPS RISK CUSTOMERS NOT STARTING OR COMPLETING THEIR JOURNEY

Overall, PAs were concerned about a continuity of service for non-English customers. If a customer starts their program journey with translated materials, how is their program experience impacted if there are gaps in the materials and services with in-language options?

This is a concern that should be considered as the MA PAs develop their in-language materials and infrastructure. A survey (n=71) with Korean and Vietnamese residents in the Atlanta metro area found that 66% of respondents expected in-language service if they saw an in-language ad (ILLUME 2017). Of those respondents, 60% indicated that they are more likely to reach out for help if they know they could speak to someone in their preferred language (ILLUME 2017). Another study found that, if a customer cannot schedule program appointments and in-home visits in their preferred language, then they may not follow-up with the program, even if they received in-language outreach material (Evergreen Economics 2015).

## TRANSLATE PROGRAM FORMS AND CONTRACTUAL DOCUMENTS

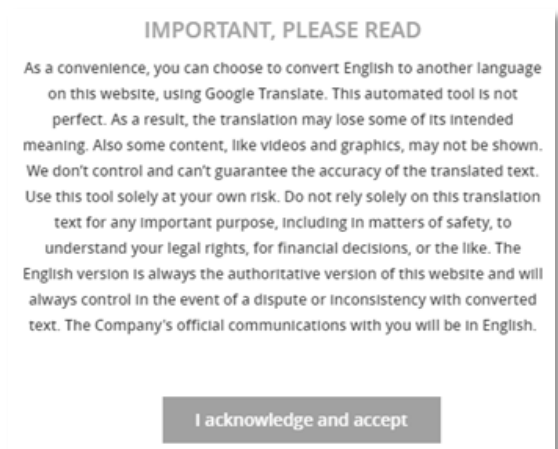
During our interviews with MA PAs, we heard that program materials with a lot of “legalese” can be a barrier for customers with LEP to participate in programs like HEA because they do not feel comfortable making decisions based on documents that are difficult to understand. We also heard that, since there are few multilingual energy specialists in the field, customers with LEP may not have the same conversation about health and safety in their homes as part of the HEA process.

Customers, like undocumented immigrants, may also fall off their journey because of concerns about providing personal information on program documentation (Evergreen Economics 2015). In California, they have tried to address this barrier by simplifying the information they collect from customers (IEPEC 2019).

## DISCLAIMERS RISK UNDERMINING THE INTENDED PURPOSE OF TRANSLATION

While it makes sense to inform customers that your translation services may not be accurate, especially when relying upon Google Translate or other automated translations, disclaimers like the one to the right could be a barrier for users who are uncomfortable with legalese or interacting with institutions they perceive as quasi-governmental. This disclaimer is also in English and someone who is selecting another language option may not fully understand the disclaimer.

Furthermore, statements like “as a convenience, you can choose to convert English to another language...the English version is always the authoritative version of the website” are not culturally competent and come off as patronizing.



## CONSIDER “CONNECTORS” AS A WAY TO SIMPLIFY THE USER JOURNEY

While providing a smooth, continuous journey through the PAs’ technological infrastructure, (e.g., website, call center, and program and outreach materials) is important, there might be opportunities to explore different approaches that rely on “connectors” in the community. Connectors may include physical locations, organizations, or individuals in the community. In addition to leveraging connectors such as CBOs, the literature review also found

that repeated outreach from multiple touchpoints is important for getting customers with LEP to participate (Center for Sustainable Energy 2018).

The MA PA structure is already centered around collaboration between the PAs and community organizations, which is one of the best practices repeatedly identified in the literature to both craft the message and distribute it appropriately. In terms of LEP customer outreach, MA PAs should consider identifying new partnerships with community organizations that are more specific to LEP communities, such as the Massachusetts Alliance of Portuguese Speakers (MAPS) and the Cambodian Mutual Assistance Association (CMAA). Both of these organizations also advertise translation services, which could be helpful for the PAs when developing in-language materials.

## TEST WEBSITE USABILITY FROM THE PERSPECTIVE OF THE LEP CUSTOMER

Of the 10 non-MA utility websites reviewed, 7 had translation options—three of which had separate websites that were translated into other languages. These human-translated websites have the advantage of being more culturally competent and allow utilities to customize imagery, link users to programs/services that may be of interest or importance and provide more accurate translations. However, most of the sites reviewed had broken links, glitches, and not all the page layers were translated so customers would encounter an English-only page within a few clicks. It is also important to make sure that your website is mobile-friendly because many Hispanic/Latinx customers are largely smartphone dependent and primarily access the internet through their smartphones (Torres, Guerra, Caal, Li 2016).

## CUSTOMERS MAY BE UNAWARE OF TRANSLATION SERVICES

In our interviews with PAs, many brought up that they offer translation services per the customer’s request and that they have a translation hotline for callers. However, PAs were not sure how customers learned about these offerings. PAs should consider making these services more transparent to customers by advertising it in-language on their websites and through other outreach materials. Outside Massachusetts, Georgia Power was one of the only websites that noticeably provided customers with information to receive additional in-language content. We cannot speak to its effectiveness, but it is an approach to consider.

## TRANSLATION SERVICES OVER THE PHONE MAY BE FRUSTRATING

Overall, PAs noted that the phone translation service is difficult and “clunky” to use, which can intensify the interaction with a customer. Two PAs think there is value in having staff who can speak other languages and interact directly with non-English customers because it can simplify and improve the clarity of the interaction, especially around topics like “weatherization” that do not neatly translate to other languages.

## MAKE THE JOURNEY BETWEEN MASS SAVE AND THE PAS SEAMLESS

Most of the MA PA websites do not offer a translation option. The two PAs that do have translation options provide languages that are not available on the Mass Save website. Mass Save offers Spanish, Portuguese, English options; National Grid offers over 60 languages; Columbia Gas offers French, Spanish, Portuguese, and English. These inconsistencies may disrupt the customer journey if they need to navigate between the Mass Save website and their PA’s website.

## PERFORMANCE METRICS & TRACKING

Currently, it is not common to track and evaluate performance metrics for hard-to-reach communities and it is not common for program evaluations to include in-language research instruments or activities, often due to limited funding (Frank and Nowak 2016). For instance, a review of evaluation reports found that “69% of studies collected at least *one* piece of demographic data but only 17% used demographic data in the analysis of program performance, 17% used demographic data to make program design recommendations, and only 2% used comparisons of program demographics to the Census demographics to make recommendations.

- 25% of studies collected information about income and education
- 6% of studies collected information about primary language spoken
- 16% of studies collected information about race/ethnicity” (Frank and Nowak 2016)

A meta-analysis of evaluation reports highlighted that “some studies noted they collected data from only, or primarily, English speakers. In one study, for example, the authors noted they performed 6% of participant surveys in Spanish and none in Asian languages, despite the fact that Spanish and Asian language speakers made up 36% and 28% of participants, respectively. The same authors, in their evaluation of an in-language outreach program that provided all of its services to non-English speakers, noted that all participant surveys were conducted in English due to “evaluation budget constraints” (Evergreen 2012a). Ensuring that adequate metrics are built into evaluation plans for programs as they conduct outreach with LEP communities will enable the PAs to continue to improve their service offerings and meet the needs of all customers, including those with LEP.

## REFERENCES

- Betancourt, Joseph, Anthony Green, Emilio Carrillo, and Owusu Ananeh-Firempong. 2003. "Defining Cultural Competence: A Practical Framework for Addressing Racial/Ethnic Disparities in Health and Health Care." *Public Health Reports* 118 4 293-302.
- Boston Redevelopment Authority. 2016. *Portuguese Speakers*. Boston: BRA Research Division.
- Cadmus. 2013. PY2010-2012 Community Language Education and Outreach Process Evaluation Report. Southern California Edison.
- California Energy Commission. 2016. Low-Income Barriers Study, Part A: Overcoming Barriers to Energy Efficiency and Renewables for Low-Income Customers and Small Business Contracting Opportunities in Disadvantaged Communities. Draft Staff Report, California Energy Commission.
- Calzada, Esther, and Yolanda Suarez-Balcazar. 2014. Enhancing Cultural Competence in Social Service Agencies: A Promising Approach to Serving Diverse Children and Families. OPRE.
- Center for Sustainable Energy. 2018. California Latino Households and Energy Efficiency Upgrades: Research Finding and Program Recommendations. California Energy Commission.
- Center for Sustainable Energy. 2016. Focus Group Findings: Exploring Home Improvement Projects and Energy Efficiency among Latinos and Non-Latinos in Fresno and San Diego. California Energy Commission.
- Center for Sustainable Energy. 2016. Literature Review: Housing, Energy Use, Decision-Making and Messaging among Key Ethnic Groups in California. California Energy Commission.
- Center for Sustainable Energy. 2018. Recommendations for Energy Efficiency Programs to Better Serve Latino Households. California Energy Commission.
- Chen, Xuewei, Sandra Acosta, and Adam Barry. 2016. "Evaluating the Accuracy of Google Translate for Diabetes Education Material." *JMIR Diabetes*.
- Davidson, Brad. 2001. "Questions in Cross-Linguistic Medical Encounters: The Role of the Hospital Interpreter." *JSTOR* 170-178.
- Evergreen Economics. 2016. Needs Assessment for the Energy Savings Assistance and the California Alternate Rates for Energy Programs. CALMAC.
- Frank, Marti, and Seth Nowak. 2016. Who's Participating and Who's Not? The Unintended Consequences of Untargeted Programs. ACEEE.
- Freiwirth, Judy. 2016. *Community Needs Assessment for Portuguese Speakers in Metrowest*. Massachusetts Alliance of Portuguese Speakers.
- ICMI. 2014. The Growing Need for Multilanguage Customer Support: Research Report & Best Practices Guide. Voiance.
- ILLUME Advising. 2017. "Georgia Power Language Needs Assessment."

Inova Energy Group. 2017. Capturing Cultural Diversity in California Residential Energy Use and Conservation: An Energy Ethnography of Hispanic Household. California Energy Commission.

Khoong, Elaine et al. 2019. "Assessing the Use of Google Translate for Spanish and Chinese Translations of Emergency Department Discharge Instructions." *JAMA (JAMA)* 580-582.

LDS Consulting. 2015. Senior Housing Needs Report on Portuguese- or Cabo Verdean Creole-speaking Senior Citizens and Family Members. Newton: LDS Consulting.

Livingstone, Rhonda. 2014. *What does it mean to be culturally competent?* July 10. [https://wehearyou.acecqa.gov.au/2014/07/10/what-does-it-mean-to-be-culturally-competent/#\\_ftnref3](https://wehearyou.acecqa.gov.au/2014/07/10/what-does-it-mean-to-be-culturally-competent/#_ftnref3).

Morris-McLaughlin, Nicole. 2018. "Full Transcript: Southcoast Energy Challenge Testimony - Massachusetts Energy Efficiency Advisory Council." *Marion Institute* . March 7. <https://www.marioninstitute.org/full-transcript-southcoast-energy-challenge-testimony-massachusetts-energy-efficiency-advisory-council/>.

Office of Adolescent Health. 2018. *Cultural Competence*. August 28. <https://www.hhs.gov/ash/oah/resources-and-training/tpp-and-paf-resources/cultural-competence/index.html>.

OPHSC. 2010. *Translation Toolkit*. Office of Public Health Strategy & Communications.

Speers, Ann, Aimee Powelka, and Jayden Wilson. 2017. A National Review of Community Based Energy Efficiency Program Designs: Finding Transferable Insights from 25 Unique Programs. ACEEE.

Torres, Alicia, Luz Guerra, Selma Caal, and Weilin Li. 2016. Reaching and Engaging with Hispanic Communities: A Research-Informed Communication Guide for Nonprofits, Policymakers, and Funders. Crimsonbridge Foundation.

Wemple, Melanie, Rachel Cooper, and Sarah Hutson. 2016. Finding Efficiency Opportunities in Surprising Markets: Data, Targeting, and Messaging . ACEEE.

## APPENDIX A: WEBSITE BENCHMARKING

Our team reviewed 10 PA websites around the United States to compare the in-language offerings. We also reviewed the websites for each Mass Save utility and found that only National Grid and Columbia Gas had translation options, both used Google Translate. The following table is an overview of the findings from this exercise.

NAME	STATE	TRANSLATION		OTHER NOTES
		APPROACH	LANGUAGES	
Mass Save	Massachusetts	Google Translate	Portuguese, Spanish, English	Some page elements do not translate. Most linked PDFs and videos are only available in English; the low-income page offers translated PDFs in 10 languages.
Pacific Gas & Electric	California	Human Translated	Spanish, Traditional Chinese Characters, English	Most program pages are fully translated with in-language videos detailing the program, these include transcripts and closed captions in-language. They use different imagery, drop-down options, and highlights different programs/services depending on selected language. Some links and pages do not work in other languages.
Georgia Power	Georgia	Human Translated	Spanish, Vietnamese, Korean, English	Translated pages only include information about billing and account management. Information about energy efficiency programs are only available in English. Included information about the translation services they offered on the homepage.
Florida Power & Light	Florida	Google Translate	Spanish, English	Language options are offered at the bottom of the homepage; this could impact usability. Some page elements do not translate.
Con Edison	New York	Google Translate	10 options	Some program pages are not available in languages other than English. Some links do not work in other languages.
Southern California Edison	California	Unclear	Spanish, Traditional Chinese Characters, Vietnamese, Korean, English	On the English page, there is a link to EV rebates; on the Spanish page, the link is changed to rebates for evaporative coolers, but the link does not work. Pages with detailed information for rebates and programs are only available in English.
APS	Arizona	Human Translated	Spanish, English	Spanish page focuses on information related to billing, like bill assistance. A smart thermostat rebate page is only available in English.

NAME	STATE	TRANSLATION		OTHER NOTES
		APPROACH	LANGUAGES	
New Hampshire Saves	New Hampshire	No translation option	English	
Efficiency Vermont	Vermont	No translation option	English	
Otter Tail Power Company	Minnesota	No translation option	English	
PEPCO	Maryland	No translation option	English	
National Grid	Massachusetts	Google Translate	Over 60 options	Language options are offered at the bottom of the homepage; this could impact usability. Some page elements do not translate.
Columbia Gas	Massachusetts	Google Translate	French, Spanish, Portuguese, English	Displays a disclaimer in English for using the Google Translate feature. Some page elements do not translate.
Berkshire Gas	Massachusetts	No translation option	English	
Blackstone Gas	Massachusetts	No translation option	English	
Cape Light Compact	Massachusetts	No translation option	English	
Eversource	Massachusetts	No translation option	English	
Until	Massachusetts	No translation option	English	
Liberty Utilities	Massachusetts	No translation option	English	