

Income Qualified EE Advisory Committee

2020 SAG Portfolio Planning Process Proposed Income Qualified Energy Efficiency Ideas Template

Due Date: By 5:00 pm (CST) on Monday, April 27, 2020

Purpose: The [SAG Portfolio Planning Process](#) is an opportunity for Illinois Energy Efficiency Stakeholder Advisory Group (SAG) and Income Qualified EE Advisory Committee participants to understand current energy efficiency (EE) portfolios and provide feedback to Illinois utilities (Ameren Illinois, ComEd, Nicor Gas, Peoples Gas & North Shore Gas) as they develop their 2022-2025 EE Plans. **This Income Qualified Energy Efficiency Ideas Template is intended for Community-Based Organizations (CBOs) and Community Action Agencies (CAAs) to submit ideas for consideration by utilities.** ***Please note:*** SAG participants submitting Energy Efficiency Ideas have been invited to complete a separate template, which is also due on April 27th.

CBO and CCA Income Qualified EE Advisory Committee participants are invited to submit:

1. Feedback on current portfolios, focused on suggested changes for the 2022-2025 EE Plans;
2. Stakeholder ideas/approaches for utility consideration, such as program approaches or new measures that have been successfully implemented in other jurisdictions; and
3. Innovative ideas that could be researched during the next EE Plan cycle by utilities, evaluators, SAG, or another advisory group (IL-TRM Technical Advisory Committee; Income Qualified EE Advisory Committee).

How to Submit an Energy Efficiency Idea:

- Income Qualified EE Advisory Committee participants are encouraged to make a good faith effort to fill out as much information as possible in this template by the due date. Templates submitted after the April 27th deadline may not be considered due to time constraints.
- If you need help filling out the Energy Efficiency Idea Template or researching required information, contact the Income Qualified Facilitator for assistance: SAG Facilitator Celia Johnson (Celia@CeliaJohnsonConsulting.com) and Income Qualified Committee Facilitator Theo Okiro (Theo.Okiro@futee.biz).
- Income Qualified EE Advisory Committee participants that submit an idea may be invited to present their idea at the Wednesday, May 13 Joint SAG-IQ North meeting. Utilities will respond to feedback and ideas during the Wednesday, June 17 Joint SAG-IQ North Meeting.
- Please email your completed template, with any supplemental materials, to the SAG Facilitator Celia Johnson (Celia@CeliaJohnsonConsulting.com).

Submitter Contact Information

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Energy Efficiency Idea Questions

Please check the boxes below to identify 1) the type of idea; 2) which Illinois utility or utilities will be impacted by the idea; and 3) which EE sector the idea impacts.

Check	Type of Energy Efficiency Idea
<input type="checkbox"/>	New Measure or New Program Idea
X	Proposed Program Approach
<input type="checkbox"/>	Innovative Idea

Check	Illinois Utility Impacted by Energy Efficiency Idea
<input type="checkbox"/>	Central and Southern Illinois Utility (Ameren Illinois)
X	Northern Illinois Utilities (ComEd, Nicor Gas, Peoples Gas & North Shore Gas)
<input type="checkbox"/>	All Illinois Utilities

Check	Energy Efficiency Sector Targeted by Energy Efficiency Idea
X	Residential Customers – Single Family Income Qualified/Income Eligible
X	Residential Customers – Multifamily Income Qualified/Income Eligible

Description of Idea: Community EV Charging Pilot in Bronzeville

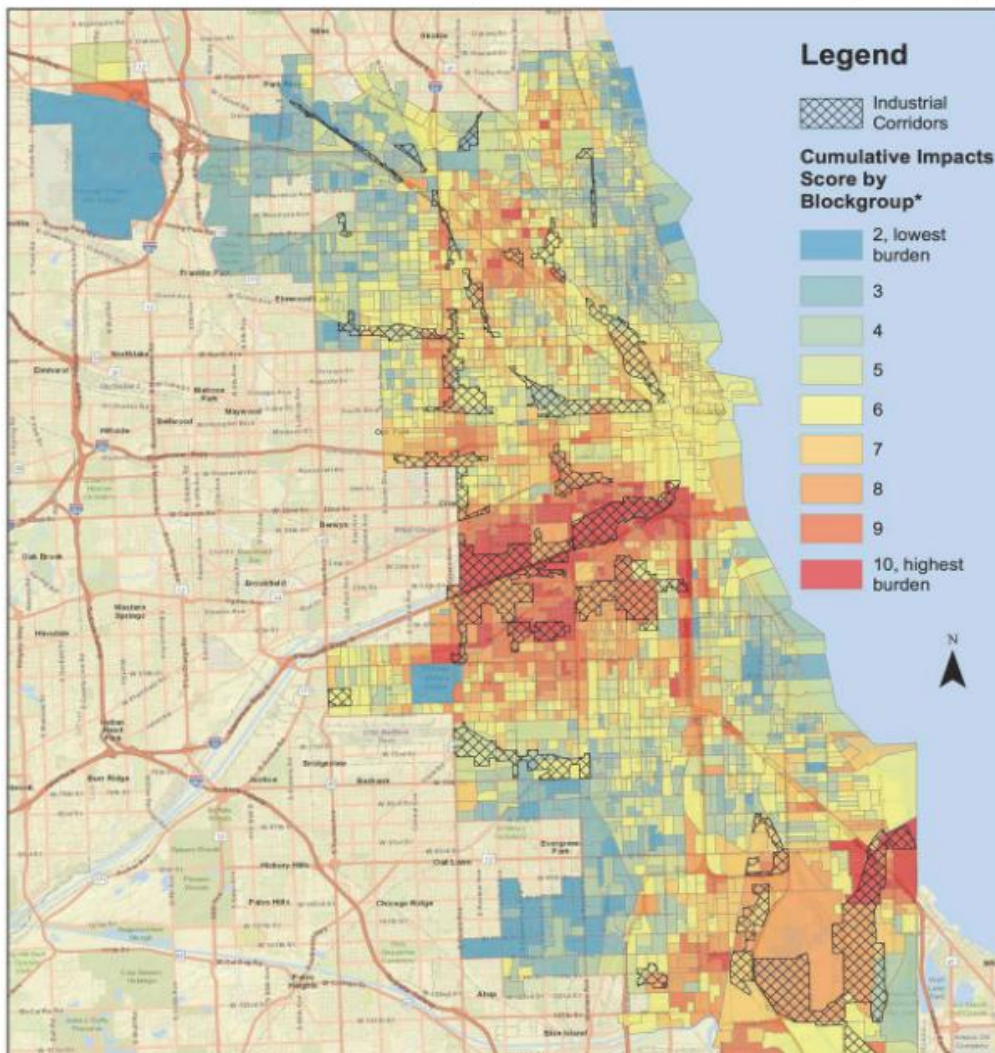
The erosion of our nation's social safety net has never been more evident than it is today, laid bare by the effects of the Covid-19 pandemic. New data dramatically illustrates the long-term effects that redlining and other forms of discrimination have had on minorities and residents of IQ communities. Historically, residents of these communities have less access to healthy food choices (food deserts), have longer commutes to work, use mass transit in greater numbers and live in closer proximity to landfills, toxic pollutants and industrial waste streams. These conditions result in higher numbers of underlying health conditions like, asthma, diabetes and hypertension. Going forward in a post-pandemic society requires a holistic approach to recovery and more equitable distribution of resources.

As Illinois moves toward a greener power grid, we must consider how to bring benefits of clean energy and clean air to areas with the worst pollution. Clean energy solutions must be prioritized for minority populations at risk, including access to EVs and electrified mass transit, rebates and incentives for energy efficiency adoption.

By targeting a particular program at those most likely to benefit from it, utilities can maximize cost-effectiveness. Smart charging technology already enables variable rate charging for EV users based on income qualification and numerous other user categories.

Poor air quality from toxic emissions, ground-level ozone, particle pollution, carbon dioxide, lead and other pollutants are highest on the west and south sides of the city. Yet, the majority of EVs are concentrated in the suburbs and more affluent neighborhoods.
(See NRDC 2018 map of Chicago pollution from cars, trucks and industry)

Cumulative Burden of Environmental Exposures & Population Vulnerability in Chicago



For Illinois to meet its clean energy goals (i.e. achieving 25% renewable energy by 2025), all communities must be incentivized to facilitate the transition to electric vehicles. Bringing affordable charging infrastructure in historically under-invested communities will limit the barriers of entry to IQ communities and hasten the transition to clean transportation. EVs are actually cheaper to maintain and fuel than cars with internal combustion engines. Used EVs paired with affordable and accessible charging drastically reduces barriers to entry in this segment. 1

The City of Chicago this week took an important step in the right direction by passing an ordinance to strengthen requirements for EV readiness at commercial and residential buildings going forward. But, that's for new construction. It's a much heavier lift to make EV charging infrastructure available to EV and PEV drivers who live in multi-unit dwellings in south and west side neighborhoods.

IQ communities still face higher barriers to EV adoption. The upfront cost of purchasing an EV and limited access to charging infrastructure compounded by limited awareness of rebates and incentive programs all tends to limit EV adoption in these communities.

We are proposing a pilot demonstration of how a robust Community Charging infrastructure, located in Bronzeville can accelerate EV adoption by making affordable charging options available to residential and business customers using a peer-to-peer network of EV charging stations.

There are many examples of how public or community charging can expand the universe of EV users by lowering barriers to EV and PEV ownership and spreading costs across the enterprise.

https://www.atlasevhub.com/data_story/california-could-make-up-90-percent-of-u-s-electric-utility-investment-with-a-transportation-equity-focus/

<https://www.nrdc.org/experts/miles-muller/california-approves-novel-low-income-ev-charger-program>

A community peer-to-peer network of privately-owned chargers could be leveraged to bridge the gap, and will yield benefits throughout the electrification ecosystem:

- Utilities derive benefits from smart grid management and expanded distribution of kWh sales, thereby offering potential savings through reduced rates for customers.
- Growth in EVSE manufacturer sales.
- EV automakers will see a boost and will benefit from expanded used EV sales.
- City of Chicago and State of Illinois will grow closer to achieving climate goals as transition to EVs accelerates.
- Rideshare operators will benefit from lower barriers to EV conversion, yielding higher earnings for drivers.
- Fleet operators find cost savings facilitate easier transition to EV.
- Environmental program goals are advanced.
- Residents and businesses in IQ communities learn how affordable and accessible EVs are and move more quickly to adoption.

How It Works:

Utilities cover upfront capital investment cost to upgrade electrical panels where necessary and cover cost of extending conduits to host chargers. Installation costs are the single biggest barrier to building out EV infrastructure. "The cost of a single port EVSE unit ranges from \$300-\$1,500 for Level 1, \$400-\$6,500 for Level 2, and \$10,000-\$40,000 for DC fast charging. Installation costs vary greatly from site to site with a ballpark cost range of \$0-\$3,000 for Level 1, \$600- \$12,700 for Level 2, and \$4,000-\$51,000 for DC fast charging."

("Costs Associated With Non-Residential Electric Vehicle Supply Equipment, Factors to consider in the implementation of electric vehicle charging stations" November 2015 Prepared by New West Technologies, LLC for the U.S. Department of Energy Vehicle Technologies Office)

Bronzeville Community EV Charge Network empowers community partners to host a smart charging station(s). Operators are positioned to derive income sufficient to cover hosting costs and earn a small profit.

Community hosts include private property owners as well as neighborhood anchors like small business cluster parking lots, churches, community centers, schools, and other local commercial entities who want to participate in the EV charging infrastructure, such as multi-unit buildings with available parking, Airbnb properties, etc.



(High potential charge station hosts – easy access parking at all hours, control panels near parking lot, wifi, signage, etc. makes for ideal peer-to-peer

Hosts are connected via a network application that enables users to find, cost compare, reserve and pay for charging times, a la EV Match (<https://www.evmatch.com/>) or any similar app using open source programming.

Community Charging Will Help Subsidize Cost of Chargers for Hosts

Variable rate charging will help optimize for load distribution during peak and off-peak usage. Surge pricing limits peak usage and pushes users to more affordable off-peak charging. Tiered pricing invites participation by multiple user categories, including high-end EV owners, Commercial Fleets and Liveries, PEV drivers, Income Qualified EV and PEV Drivers.

	Weekday	Weekend
Early morning		
Midday		
Afternoon/Evening		
Overnight		



Level 2 charging stations are ideal for community charging. Units connect to 240V outlets. Units can be portable or fixed. Equipment (costs less installation) should be under \$1000. Affordable for hosts with program subsidies and perfect for local driving patterns (1 hour = 30 miles of range)

Ideal locations for participating in the Bronzeville Community EV Charge Network will include:

- Available parking capacity to accommodate charging;
- Electrical panels in close proximity to available parking;
- Internet connectivity or Wifi'

Cost Proposal

\$4 million will cover the cost electric panel site upgrades, installation and purchase incentives and rebates for up to 2000 households in Bronzeville based on program estimates in other jurisdictions.

<https://www.nrdc.org/experts/miles-muller/california-approves-novel-low-income-ev-charger-program>

Sources:

International Transport Forum

<https://www.itf-oecd.org/sites/default/files/docs/income-inequality-social-inclusion-mobility.pdf>

Citizens Utility Board

<https://www.citizensutilityboard.org/electric-vehicle-incentives-2/>

<https://www.citizensutilityboard.org/illinois-net-metering/>

"Costs Associated With Non-Residential Electric Vehicle Supply Equipment, Factors to consider in the implementation of electric vehicle charging stations" November 2015 Prepared by New West Technologies, LLC for the U.S. Department of Energy Vehicle Technologies Office

https://afdc.energy.gov/files/u/publication/evse_cost_report_2015.pdf

Energy Sage

<https://www.energysage.com/electric-vehicles/charging-your-ev/install-a-home-charging-station/>

"Chicago apartment renters push for better access to electric vehicle charging"

<https://energynews.us/2019/10/21/midwest/chicago-apartment-renters-push-for-better-access-to-electric-vehicle-charging/>

"Chicago City Council Votes For Equitable Access To EVs"

<https://cleantechnica.com/2020/04/27/chicago-city-council-votes-for-equitable-access-to-evs/>

"Community Charging, A Peer-To-Peer Network of Electric Vehicle Chargers for Urban Residential Neighborhoods"

Vanessa Perkins, Community Charging E2 Fellow, 2018-19