

WHAT'S

the Deal with

BE?

The grid is on course to carbon neutrality. And while we can argue about how we get there and on what timescale—from a carbon perspective—it is imperative we electrify our cars and buildings.

Beneficial Electrification (BE) is having a moment and the industry is buzzing with questions. While we're still working toward a common definition for BE, it's critical to start asking: Are BE efforts being designed to serve everyone equally?

Defining Beneficial Electrification

Electrification refers to converting end uses historically powered by gas, coal, and oil to electricity. BE takes that definition further, adding an element of **do no harm** (so that electrification meets one of the following conditions, without negatively affecting the other two).

- Saves consumers money in the long run**
- Enables better grid management**
- Reduces negative environmental impacts**

BE Bright Spots

Although the West Coast usually gets all the BE attention, we've been keeping a close eye on the Southeast, Midwest and rural co-ops. So as groups like the Beneficial Electrification League (National Resources Defense Council and the National Rural Electric Cooperative Association) promote BE across the industry, let's ensure vulnerable communities are not left stranded, paying higher costs for fossil-based energy sources while their more affluent neighbors enjoy clean, carbon-free electricity. Here are a few bright spots as we read the tea leaves on beneficial electrification.

The South Atlantic Plugs In

A hub of research universities and a destination for business and financial services, North Carolina, home of Duke Energy, is proposing a comprehensive electric vehicle (EV) pilot to assess different charging load profiles from residential EV, fleet EV, school bus EV, transit bus EV, and DC Fast Charging (DCFC).

Why it caught our eye? E-qui-ty. The Southern Environmental Law Center wrote a letter to the North Carolina Utilities Commission in support of this pilot to reduce barriers to EV adoption for low and moderate income communities since deferred fuel costs and repair costs benefit these communities.¹ A portion of the pilot will support public transit electrification and associated cost savings for public agencies in North Carolina and ensure electrification projects benefit all customers (including non-EV owners and low/moderate income customers).

The West Coast Makes EV Rebates Effortless

Southern California Edison's (SCE) EV rebate program is literally designed for customers to breeze through the application process on their way to a \$1,000 rebate for vehicles purchased after January 1, 2019.

Why it caught our eye? Used. Vehicle. Incentives. While you can't drive off in a new Tesla on less than \$40,000, customers can opt for a used Nissan Leaf from anywhere between \$13,000-23,000. Did we mention the SCE website's ease of use? All you need is your SCE Service Account Number, Vehicle Purchase or Lease Agreement, and Current Vehicle Registration Card.²

The Electrified Midwest Looks out for Rural, Vulnerable Communities

ComEd's project in Bronzeville is designed to deliver resilient microgrids, shared electric mobility services, energy storage, and other new technologies.³

Why it caught our eye? This large-scale, modern project builds grid resiliency and reduces the energy burden of vulnerable communities. Also, Bronzeville is a historically underserved community in Chicago that now can offer EVs for residents in senior living communities.

Speaking of the Midwest, we're keeping close tabs on BE research coming out of the Environmental and Energy Study Institute (EESI), who partnered with several organizations conducting research on rural co-ops to produce the 2019 report, *Equitable Beneficial Electrification for Rural Electric Cooperatives: Electrifying Residential Space and Water Heating*.⁴

Why it caught our eye? Vision meets equity. The report sees BE as a means for rural electric cooperatives to decarbonize their power grid. Plus, this research (with question items on how co-ops interact with low-income customers and communities of color) was disseminated across 300 co-ops that ultimately serve 3.7 million members in the Midwest.

HERE'S THE DEAL...

BE is enabling utilities to navigate a path towards a clean energy future via the electrification of buildings and vehicles. However, we must keep a close eye on future BE rate cases and legislation to ensure vulnerable communities are not stuck with the bill as affluent customers exit the grid in the name of resiliency and climate change mitigation.

1. Southern Environmental Law Center. Letter. n.d. <https://starw1.ncuc.net/NCUC/ViewFile.aspx?Id=85a22a8f-4fce-47a0-a970-e688c0b21d51>.

2. Southern California Edison. "Clean Fuel Reward Program." Accessed November 14, 2019. <https://www.sce.com/residential/electric-vehicles/ev-rebates-incentives/cfrp>.

3. Commonwealth Edison. "ComEd Bronzeville Community Microgrid Demonstrates Ability to Keep Power Flowing in Event of an Emergency." ComEd online. Accessed November 14, 2019. https://www.comed.com/News/Pages/NewsReleases/2019_04_17.aspx.

4. Environmental and Energy Study Institute. "Equitable Beneficial Electrification for Rural Electric Cooperatives: A Report on Electrifying Residential Space and Water Heating." Environmental and Energy Study Institute online. <https://www.eesi.org/files/REPORT-Equitable-Beneficial-Electrification-for-Rural-Electric-Cooperatives.pdf>.