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From:	Go-Aco. Ron Allan
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Mr. Heriberto Rosales Project Manager Existing Buildings Office

Sir,

The above subject brings hope to us here in Sacramento County as far as implementing existing building electrification in our operations not only to contribute in the ongoing California-wide decarbonization efforts in the built environment but also to lead by example as a local government. Thank you for your initiatives.

Electrifying buildings is a serious challenge in many communities due to the consequential operational cost increases (up to three to four times more) on energy expenditures when converting natural gas boilers & heaters with electrical types of equipment. Natural gas rates remain cheaper compared to electricity but natural gas has embedded carbon that exacerbates the impacts of the climate change phenomenon. This is one of the main reasons why many building owners are not easily convinced to embark on building electrification unless mandated by law. In addition, electrical grids could be overwhelmed with increased electricity demand arising from new electric boilers & heaters. This could lead to power outages, posing potential threats to energy resilience. Some professionals in the energy industry I met say law makers develop mandates like building electrification with lack of thoughtfulness on the unintended consequences of the laws they create. I tend to disagree, more especially now that I'm seeing more of your initiatives that support the State's goal of de-carbonization by 2045.

The County of Sacramento's Rio Cosumnes Correctional Center (RCCC) is composed of at least fortyfour (44) physical buildings with a combined gross floor area of about 352,330 sq. ft. housing a total of 1,334 male and female inmates (up to 2,650 before COVID). The facilities' space and domestic water are heated using natural gas. The physical footprints of the existing and proposed heating equipment are significantly different, making the boiler and heater conversions even more problematic. Constructing a new centralized heating (and cooling) plant to serve the space and domestic hot water needs for multiple buildings will address the equipment sizing barriers. Moreover, the proposed larger sized heating equipment at the central plant will be more efficient than the smaller sized existing heating equipment found on different buildings. Our general funds (I suppose common for all local governments) would not suffice to cover all our existing buildings with this approach. **We hope that your initiative will pave way to merit the development of a grant program exclusive for existing building electrification purpose**. Installing solar PVs on building rooftops and nearby open spaces, subject to any additional grant funding from the CEC though your office, to serve the proposed electric heating equipment at the central plant will further mitigate the economic impacts of increased electricity usage. The expected useful life of the solar PVs at about 25 years is ample to transition our facility towards carbon neutrality as the State finds ways to fully de-carbonize by 2045. We also hope that another wave of new grant funding program will be developed specifically for renewables that support the building electrification initiatives.

Overall, this approach can make building electrification economically viable, socially responsible, and environmentally sound. This strategy can be replicated to pockets of multi-family communities and commercial building districts. With assistance from the CEC grant funding, the County of Sacramento, along with other local governments, can have the opportunity to showcase turn-key (design, construction, and funding) central heating plant projects as described herein, for other communities to emulate.

I trust and hope to see your action plans addressing the critical barriers described above. I wish you all the best and please let me know if there's anything I could be of help in the process.

Kind regards,

Ron Allan Go-Aco, LEED AP, SFP, CEM, CMVP, CRE

Energy Program Manager



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