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BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Investigate and Design Clean Energy Financing Options for Electricity and Natural Gas Customers.	Rulemaking 20-08-022 (Filed August 27, 2020)

OPENING COMMENTS OF VEIC TO COMMISSION ORDER INSTITUTING RULEMAKING REGARDING CLEAN ENERGY FINANCING

October 5, 2020

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OPENING COMMENTS OF VEIC

Pursuant to Rule 6.2 of the California Public Utility Commission's ("Commission" or "CPUC") Rules of Practice and Procedure, VEIC respectfully submits these comments on the Order Instituting Rulemaking to Investigate and Design Clean Energy Financing Options for Electricity and Natural Gas Customers ("Order" or "OIR") filed August 27 and issued September 4, 2020.

VEIC supports the Commission's intention to examine options that encourage larger-scale and deeper clean-energy investments at customer sites, along with options that combine and leverage ratepayer funds with private financing to support these more comprehensive investments. VEIC has no objections to the preliminary scoping memo regarding the category and need for hearing. We offer the following comments on proceeding scope, issues to be considered, and schedule.

General Considerations

The Commission's focus on clean energy financing is both timely and critical. Mounting evidence indicates that humans have a shrinking window of opportunity to slow climate change before doing irreversible damage to planetary ecosystems, world economies, and communities.

California has established the ambitious climate protection goal of achieving full carbon neutrality by 2045. The State proposes pursuit of the goal in a way that supports the health and economic resiliency of urban and rural communities, particularly low-income and disadvantaged communities. Publicly supported finance mechanisms must play a central role in California's equitable emissions reduction strategy. If we are to reach the State's policy objectives, a

building decarbonization strategy must enable the participation of California's low- and moderate-income (LMI) and renter households, which together represent more than 40 percent of the state's population.

California must identify the means for overcoming the upfront cost and split-incentive barriers, to put decarbonization investments within reach of all Californians, regardless of income, credit history, liquidity, or home ownership status. As signatories to the Equitable Building Electrification framework noted, environmental and social justice (ESJ) communities "…are likely to be left using gas if market forces are the primary driver of electrification."[1] The Building Decarbonization Coalition further noted in its paper, *Towards an Accessible Financing Solution:*

> A grant-only approach to LMI building decarbonization investments would require a cumulative 25-year public and ratepayer capital commitment on the order of $72–$150 billion. This level of spending on building decarbonization would dwarf any public expenditure the state of California has made for energy efficiency or renewable energy programs. One can thus infer that exclusive reliance on grant-only programs leaves ESJ communities at risk of getting left behind.[2]

In this context, VEIC strongly supports the Commission's intention to examine options for combining several sources of funding by commingling and leveraging ratepayer funds with private capital to finance these more comprehensive investments. Finance mechanisms need not and should not replace or diminish existing grant programs or free direct-installation programs for low-income residents. Combining grants with accessible financing mechanisms can expand overall access and participation. This approach will accelerate adoption of more comprehensive investments in building energy upgrades, and thus expand the effects of public funding with financed investment.

Recommendations for Financing Proceeding Scope

The following is a summary of VEIC's key recommendations for the financing proceeding. We then offer additional information supporting each recommendation.

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[1] Miller, Carmelita, Stephanie Chen, Lisa Hu, and Isaac Sevier. *Equitable Building Electrification: A Framework for Powering Resilient Communities*. Greenlining Institute and Energy Efficiency for All, 2019. http://greenlining.org/wp-content/uploads/2019/10/Greenlining_EquitableElectrification_Report_2019_WEB.pdf..

[2] Mast, Bruce, Holmes Hummel, and Jeanne Clinton. *Towards an Accessible Financing Solution: A Policy Roadmap with Program Implementation Considerations for Tariffed On-Bill Programs in California*, June 2020. https://tinyurl.com/BDC-AccessibleFinancing

1. The Commission should prioritize expanding capital deployment for clean energy investments in customer segments—particularly the LMI residential segment and small- to medium-sized businesses (SMBs)—that are historically underserved by private capital markets. This approach prioritizes public resources to achieve the greatest added impact over and above private investments.
2. The Commission should confirm that tariffed on-bill (TOB) investments, behind the customer meter, are within scope for this proceeding, even though TOB involves utility, rather than customer, investment. TOB is an important strategy for expanding capital access to the more than 40 percent of California households that are either low- and moderate-income or renters. The OIR language relating to utility-owned microgrid investments introduces some ambiguity about the status of TOB.
3. The Commission should prioritize financing mechanisms that are broadly available and easy for customers to access. High-impact scalable programs with broad market applicability are needed to achieve our climate goals.
4. The Commission should consider policy reforms that standardize, streamline, and update regulatory requirements to enable project co-funding from both public and private sources. The Commission's goal of enabling funding from multiple sources will be facilitated by lowering regulatory barriers.
5. The Commission should enable a two-pronged approach for the residential sector: debt-based financing and tariffed on-bill investment. This approach maximizes scaling opportunities by recognizing the diverse needs of different customer segments.
6. The Commission should provide threshold policy guidance that enables utilities to begin planning to offer TOB mechanisms.
7. The Commission should set in motion a due diligence process to inform TOB program design that addresses economics and cost allocations, financial and legal risks, and roles and responsibilities for program offerings.
8. The Commission should seek due diligence input from diverse stakeholders, including representatives of ESJ communities, to inform financing solutions.

1. The Commission should expand capital deployment for clean energy investments in customer segments that are historically underserved by private capital markets.

In its opening statement, the Commission expresses its intention

> to examine options to assist electricity and natural gas customers with investments in residential and commercial buildings and at industrial and agricultural sites designed to decrease energy use, reduce greenhouse gas (GHG) emissions and / or produce clean energy to support customers' on-site needs. (OIR, August 27, 2020, page 1.)

Although all sectors will need to participate in reducing emissions if California is to reach its climate goals, currently not all sectors have equitable access to financing.

LMI customers and SMBs face particular challenges in accessing capital for clean energy investments. For example, many residential sector studies have documented the challenges facing low- and moderate-income households and renters, because of low credit scores, low levels of home equity, cash flow constraints, or landlord / tenant split incentives.[3] Split incentives also pose barriers to SMBs that lease their facilities. Multifamily affordable housing providers encounter unique challenges when they add debt to already complex capital stacks.[4] For-profit property owners are discouraged from making investments to achieve operating savings by prevailing ratio utility billing practices. Addressing barriers to capital deployment will expand the addressable market for solution providers, creating jobs faster and in more places that need investment the most.

Given the diversity of the customer population and the multitude of capital-related market barriers, the Commission would do well to prioritize certain customer segments for consideration. Highest priority should be given to customer segments that face structural barriers to market participation, with lower priority given to segments with ready access to capital. In keeping with the Commission's emphasis on diversity, equity, and inclusion, the Commission should make it a high priority to design solutions accessible to residential customers who are in the LMI bracket, renters, and / or are living in disadvantaged, underserved, or vulnerable communities.

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[3] See for example the following studies: (1) Evergreen Economics. *Needs Assessment for the Energy Savings Assistance and the California Alternate Rates for Energy Programs,* Vol. 1 of 2. Southern California Edison Co., CALMAC ID: SCE0396.01, 2016. www.calmac.org; and (2) Scavo, Jordan, Suzanne Korosec, Esteban Guerrero, Bill Pennington, and Pamela Doughman. *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*. California Energy Commission, Pub. no. CEC-300-2016-009-CMF, 2016. https://efiling.energy.ca.gov/getdocument.aspx?tn=214830.

[4] Elkind, Ethan N., and Ted Lamm. *Low-Income, High Efficiency: Policies to Expand Low-Income Multi-Family Energy Savings Retrofits*. University of California, Center for Law, Energy & Environment, 2019. https://www.law.berkeley.edu/research/clee/research/climate/energy-efficiency/limf-energy-savings-retrofits/.

2. The Commission should confirm that TOB investments behind the customer meter are within scope for this proceeding, even though TOB involves utility, rather than customer, investment.

As the Building Decarbonization Coalition (BDC) has clearly articulated in the *Accessible Financing* report, LMI households and renters are underserved by debt-based loan products. The report offers a policy roadmap for deploying TOB investments to address the serious barriers facing these customer segments. VEIC supports the inclusion of TOB investment in the Scope document for this proceeding, and appreciates that it is among the options described in the *Definitions* section of the Order for the Clean Energy Finance Rulemaking.

VEIC also notes that a determination is needed regarding the status of TOB within the proceeding's scope. Although TOB is noted as being within scope (OIR, page 32), the more general authorizing language is that "...the scope of this proceeding will be any mechanism that provides a financing option to a *customer* [emphasis added] investing in energy equipment behind the meter." (OIR, page 31.) TOB is not a customer investment, but rather a utility investment at a specific site, with site-specific cost recovery. The investment and cost recovery mechanism are tied to the location, not to the utility account holder.

TOB thus shares some critical attributes of utility-owned microgrids, which the OIR explicitly excludes from the proceeding scope, on the grounds that

> ...[f]inancial and operational aspects of utility-owned assets are subject to specific rules and oversight consistent with the utilities' status as regulated entities. Furthermore, the barriers to financing utility-owned assets are usually different from those facing individual customers. (OIR, page 28.)

Given that TOB is also a utility investment mechanism, the same rationale would also appear to exclude it from the proceeding scope. VEIC thus requests that the Commission distinguish between TOB and utility-owned microgrids in a way that leaves TOB within scope.[5]

[5] We note that the OIR offers Tariffed-Based Recovery (TBR) as a synonym for TOB. Although the term *tariffed on-bil*l" is in widespread use by the American Council for an Energy-Efficient Economy (ACEEE), Southeast Energy Efficiency Alliance, the National Association of Regulatory Utility Commissioners (NARUC), and many state regulators, to our knowledge the term *TBR* was coined in the California Transportation Electrification Framework and has never been applied in this way outside a CPUC proceeding. In the interest of clarity of nomenclature that is consistent industry-wide, we recommend the Commission use the term *tariffed on-bill*.

3. The Commission should prioritize financing mechanisms that are broadly available and easy for customers to access.

California's aggressive climate action goals will not be served by boutique financing programs that serve a narrow niche of customers and projects. The Commission should encourage pathways to accelerate broad-scale investments, commensurate with the high degree of action required, in a wide range of behind-the-meter technologies, such as energy efficiency, demand flexibility, renewable energy, and building and transportation electrification. Attributes of such financing solutions include:

- Broad eligibility, in terms of customers, technologies, and project scopes
- Speed and simplicity of customer and contractor participation process
- Compelling customer value propositions
- Alignment with market mechanisms for delivering customer services

These themes are reflected in the 2019 impact evaluation of the Residential Energy Efficiency Loan (REEL) program completed by Opinion Dynamics Corporation.[6] For example:

- "...REEL needs to expand the eligible measures list and reduce barriers to make inroads….Allowing REEL to become a more comprehensive solution may increase participation." (page 8)
- "Investing in IT infrastructure may improve the contractor and customer experience and reduce administrative costs associated with verifying customer eligibility." (page 8)
- "Interviewees mentioned that expansion to renewables would position REEL as a "one-stop shop" to fill the market gap left by the decline of PACE in California, thus increasing its attractiveness. Interviewees also suggested that REEL consider including beneficial electrification and electric vehicle (EV) charging to align with state goals." (page 58)
- "Examination of programs in other jurisdictions that operate simple LLRs [loan loss reserves] (tracking only the aggregate loan amount per lender) indeed showed much lower LLR management costs." (page 73)

[6] Opinion Dynamics, Dunsky Energy Consulting, and Ridge & Associates. *Residential Energy Efficiency Loan Assistance Pilot: Final Impact Evaluation Report.* 2019. https://pda.energydataweb.com/api/view/2329/CPUC%20Group%20B%20FIN20%20REEL%20Evaluation%20Final%20Report%20FINAL%202020-01-13.pdf

Rather than selecting technology winners and losers, to design inclusive financing solutions, it is sufficient to specify financial performance criteria. VEIC recommends that the Commission develop criteria such as:

- Public investment per ton of avoided GHGs less than a threshold price per ton
- Program administrator benefit-to-cost factor greater than 1.0
- Ratio of private to public investment greater than a minimum threshold
- No new investment in fossil-fueled equipment

Any combination of technologies that can be taken to market and financed under terms that meet or exceed these metrics should be acceptable.

4. The Commission should consider policy reforms that standardize, streamline, and update regulatory requirements to enable project co-funding from both public and private sources.

The Commission is wise to emphasize:

- Minimizing artificial regulatory barriers related to funding source that discourage customer investments (OIR, page 30); and
- Leveraging private capital to maximize investments. (OIR, page 33.)

The BDC *Accessible Financing* report discusses the need to combine several value streams to mobilize productive investment and the potential to integrate public funding and financing. The paper also advocates facilitating combined public funding sources, particularly for low-income programs, with the following recommendations:

1. Explore opportunities to **standardize and streamline requirements** across programs and technology investments. Alternatively, for programs with incompatible or inconsistent delivery channels, designate a single program as the lead service provider of choice and authorize or require related programs to co-fund benefit delivery through the designated program.[7]
2. Work toward **structural alignment** across program administrators and investment silos. The CPUC has moved in this direction, for example, through its call for more integrated

[7] The San Joaquin Valley Proceeding (CPUC proceeding R.15-03-010) offers instructive examples for aligning multiple program funding sources to support an integrated program outcome.

energy efficiency and demand response services, and its specific request that the next low-income multifamily program for the 2021-2026 cycle coordinate with low-income solar and demand response programs. Regulators could also channel program investments through a unified Decarbonization Investment Mechanism(s) (DIM) that could support broad decarbonization improvements to California housing.

3. **Emphasize performance** as a way of simplifying program quality assurance and quality control procedures that traditionally micromanage installation processes only. New advanced measurement and verification methods that use smart meter data are bringing this objective within reach.[8]
4. Continue parallel **market transformation investments** that commercialize new technologies, build supply chain capacity, raise consumer awareness, and accelerate the decline in technology cost curves. Market transformation program costs should be allocated to all ratepayers, not just tariffed on-bill or decarbonization program participants.[9]

VEIC also suggests the Commission consider solutions that minimize customer transaction costs, including hassle and search costs, and financial soft costs. At a minimum, the Commission should avoid adopting regulatory requirements that impose additional transaction cost burdens on participants. VEIC further suggests that the Commission think critically about how existing regulatory requirements either facilitate or hinder private capital deployment. For example, the Total Resource Cost (TRC) cost effectiveness test, by including customer costs and benefits asymmetrically, effectively penalizes efficiency program administrators for seeking and using private capital. The role of the TRC in limiting both public and private investments should be critically examined.

5. The Commission should enable a two-pronged approach for the residential sector: debt-based financing and tariffed on-bill investment.

Although VEIC considers it particularly important for this proceeding to address the potential for TOB investments to accelerate residential-sector decarbonization investments, we note that

[8] See for example the open-source CalTRACK methods, which have been embedded in multiple Pay-for-Performance programs. https://www.caltrack.org/.

[9] The important role for market transformation strategies is evidenced by the recent CPUC BUILD and TECH decision in the Decarbonization proceeding R.19-01-011. The Commission speaks to the need for parallel efforts to provide financing, coordinate across programs (e.g. efficiency, demand response, electrification, solar, self-generation, and wildfire rebuilding), and address the lack of current markets to monetize full grid and climate values. CPUC Decision D.20-03-027, adopted March 26, 2020.

different customer segments have different needs. VEIC sees value in offering the market at least two solutions:

1. **Debt-based financing** (for example, REEL) that is not constrained by energy cost savings. This mechanism is best suited for customers with good credit scores who wish to finance investments for non-energy benefits that do not show up at the meter (for example, health and comfort). For customers with demonstrable capacity to repay debts, there is no reason to constrain borrowing to an energy-savings based limit.
2. **TOB investments**, with customer protections that include positive energy cost savings. This mechanism is more restrictive in the types of projects it can serve, unless combined funding options are available, but it applies to many types of customers, particularly those underserved by traditional sources of capital and credit.

6. The Commission should provide threshold policy guidance that enables utilities to begin planning to offer TOB mechanisms.

The Commission should, at its earliest opportunity, issue an early ruling or decision that articulates the intent to adopt TOB as a matter of policy, sets in motion the necessary planning process, and defines parameters for the due diligence required for certain program design elements--notably, consumer protections and capital sources. Consistent with *Accessible Financing* recommendations, the ruling or decision should address the following:

1. Authorize utilities to deploy capital and recover costs for building decarbonization upgrades via TOB structures that enable participation regardless of income, credit score, or renter status.
2. Authorize utilities to make these behind-the-meter investments on terms that assure a path to ownership for customers, while also assuring full cost recovery, subject to consumer protection provisions.
3. Direct that TOB payments be treated as a regular element of utility tariffs and bill payment, subject to customary procedures and notices in the event of payment arrears, as is already the case for on-bill financing.
4. Establish minimum thresholds for consumer protections.
5. Establish guidelines for source capital, considering implications for utility balance sheets and access to broader capital markets.

7. The Commission should set in motion a due diligence process to inform TOB program design that addresses economics and cost allocations, financial and legal risks, and roles and responsibilities for program offerings.

Although the BDC's *Accessible Financing* offers guidance on important implementation issues for TOB programs, the roadmap is primarily a policy paper. Several issues require further investigation prior to full-scale program implementation, particularly risk management issues for utilities, capital providers, and consumers.

Economics and Cost Allocations

1. An **economic potential study** would encompass the full span of potential decarbonization investments on the customer side of the meter; quantify expected societal benefits from promising decarbonization packages; and incorporate current assumptions about future rate increases, transitioning to time-of-use (TOU) rates, net energy metering (NEM), and California Alternate Rates for Energy (CARE) discounts into customer economic analysis.
2. There is a need for an **analysis of financial implications** of assigning indirect costs (for example, the cost of capital, program administration, measurement and verification (M&V), and loss reserves) to participating customers, instead of to ratepayers
3. It will be important to **investigate information system requirements** and associated capital investments to support customer billing under different risk-reward allocation scenarios
4. A **comprehensive assessment of market potential** is needed for decarbonization packages that (1) offer attractive customer economic benefits; incorporate analysis of customer-specific advanced metering infrastructure (AMI) data to inform customer segmentation, and estimate potential investment contributions from customer energy cost savings; and (2) estimate supporting incentive and customer co-pay requirements, including landlord co-pays for rental housing retrofits.

Financial and Legal Risks

5. It will be important to perform **risk assessments** that contain perspectives of current and successor customers, ratepayers, investor-owned utilities and other prospective

program sponsors, energy services companies and other private-sector service providers, and capital providers.

6. There is a need to identify **consumer protection mechanisms** that balance costs, risks, and rewards; and which authorize mechanisms to mitigate the potential for above-normal costs to ratepayers from unpaid bills (loss reserve funds).
7. **Investigating options for source capital**, supported by strong assurances of repayment, is an important step for securing stable and adequate financing.
8. It will also be important to **evaluate potential jurisdictional issues** that might arise around liability and property law, and to determine appropriate legal frameworks for ownership of investment assets

Roles and Responsibilities for Program Offerings

9. Articulating **possible roles for publicly owned utilities (POUs) and community choice aggregation** will reduce market confusion.
10. It will be critical to **establish ground rules for program sponsors** to obtain access to customer-specific gas and electricity consumption, including whole-building consumption data for multifamily facilities.
11. Authorization is needed for **third parties to take on responsibility for customer utility bill payments** as a potential consumer risk mitigation strategy.

8. The Commission should seek due diligence input from diverse stakeholders, including representatives of ESJ communities, to inform financing solutions.

Greenlining Institute and Energy Efficiency for All, in their *Equitable Building Electrification* paper, offer five steps for engaging ESJ communities in planning future clean-energy investments.[10] VEIC encourages the Commission to pursue an outreach strategy modeled on these recommendations, incorporating lessons learned from the San Joaquin Valley proceeding.

Successful due diligence will also require research and analysis of technical and economic issues, as described in *Accessible Financing* and summarized above. The Commission could

[10] Miller, Chen, et al., *Equitable Building Electrification.*

effectively assemble a multi-disciplinary team with the capacity for creative problem solving and with skill sets related to:

- Legal understanding of requirements and solutions for utility, capital, consumer, and real estate and insurance stakeholders
- Utility financing and revenue requirements
- Private-sector capital provider requirements, and expectations around risks and rewards
- Residential installations, transactions (for example, those involving supply chains and contractors)
- Customer economics of investment options
- Project financing
- Performance risk assessment and assignment, site-level investment criteria
- Consumer protection
- ESJ and consumer market engagement
- Consumer / property owner product and service offering design
- Marketing, customer acquisition strategies
- IT / billing system interface

This stakeholder team should be charged with research and analysis, supported by outreach to capital providers and others that might be under-represented among proceeding intervenors.

The Commission should also examine opportunities to accrue actual field experience via fast-feedback pilots through related initiatives such as Technology and Equipment for Clean Heating (TECH).

Proceeding Timing and Sequence (Schedule)

Given the intense policy interest in residential building electrification, as reflected in proceedings R.19-01-011 and R.12-11-005, as well as the advocacy efforts of many intervenors and stakeholders, VEIC encourages the Commission to take up residential sector questions at the outset. These would also involve active consideration of the TOB pathway. As *Accessible Financing* recommends, threshold policy guidance (Stage 1) is necessary to set in motion the necessary planning process for TOB. Such guidance should be issued at the earliest opportunity.

As part of that guidance, VEIC suggests that the Commission expand on the scope and timeline for completing the due diligence process (Stage 2). The due diligence will then provide the evidentiary basis for the Commission to authorize programs and provide direction pertaining to:

- Performance metrics for program success, considering potential metrics such as default or charge-off rates, market share, participant demographics, contribution to customer wealth building, economic performance, GHG emissions reductions, and other social outcomes
- Scope of decarbonization measures and criteria for integrating multiple funding sources
- Assignment of indirect costs (for example, cost of capital, program administration, M&V, and loss reserves) to participating customers, as opposed to ratepayers, leading to authorized funding from ratepayer sources
- Program parameters, including consumer protection mechanisms, capital sources, and risk allocation

Finally, the Commission should undertake due diligence and work toward a Stage 3 Proposed Decision in parallel with the Proposed Decision addressing financing issues related to the California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA)..

Conclusion

VEIC reiterates its support for the Commission's intention to examine options that encourage larger-scale and deeper clean-energy investments at customer sites, along with options for multiple sources of funding by combining and leveraging ratepayer funds with private financing to support these more comprehensive investments. It is our hope that these comments will assist the Commission in achieving these outcomes.

Respectfully submitted,

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