BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Continue the Development of Rates and Infrastructure for Vehicle Electrification.	Rulemaking 18-12-006 (Filed December 13, 2018)

COMMENTS OF THE VEHICLE-GRID INTEGRATION COUNCIL ON THE TRANSPORTATION ELECTRIFICATION FRAMEWORK (SECTIONS 3.4 AND 11.3)

Edward Burgess
Policy Director

Zach Woogen
Senior Analyst

VEHICLE-GRID INTEGRATION COUNCIL
2150 Allston Way, Suite 400
Berkeley, California 94704
Telephone: (510) 665-7811
Email: vgicregulatory@vgicouncil.org

Dated: May 11, 2020

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Continue the Development of Rates and Infrastructure for Vehicle Electrification.	Rulemaking 18-12-006 (Filed December 13, 2018)

COMMENTS OF THE VEHICLE-GRID INTEGRATION COUNCIL ON THE TRANSPORTATION ELECTRIFICATION FRAMEWORK (SECTIONS 3.4 AND 11.3)

In accordance with Rules of Practice and Procedure of the California Public Utilities Commission ("Commission"), the Vehicle-Grid Integration Council ("VGIC") hereby submits these comments on the *Administrative Law Judge's Ruling Adding Staff Proposal for a Draft Transportation Electrification Framework to the Record and Inviting Party Comments* ("Ruling") issued by Administrative Law Judge ("ALJ") Patrick Doherty on February 3, 2020. Pursuant to *E-mail Ruling Denying Joint Motion to Stay Proceeding and Resetting Procedural Schedule* issued by ALJ Patrick Doherty on March 24, 2020 and the modified schedule adopted therein, VGIC timely files these comments on Sections 3.4 and 11.3 of the Draft Transportation Electrification Framework ("Draft TEF") on May 11, 2020.

I. INTRODUCTION.

A. Overview of VGIC

VGIC is a 501(c)6 membership-based advocacy group committed to advancing the role of electric vehicles ("EVs") and vehicle-grid integration ("VGI") through policy development, education, outreach, and research. VGIC supports the transition to decarbonized transportation and electric sectors by ensuring the value from EV deployments and flexible EV charging and

discharging is recognized and compensated in support of achieving a more reliable, affordable, and efficient electric grid.

B. Organization of VGIC's Comments

VGIC's comments are organized as follows:

- First, VGIC raises some **overarching recommendations for enhancing the Draft TEF Scorecard Framework proposed in Section 3.4**.
- Second, VGIC addresses **specific questions for stakeholders from Sections 3.4 and 11.3**. In responding to these questions, VGIC provides several recommendations for the Commission's consideration.
- Finally, VGIC provides a **summary of recommendations** from its answers to the questions.

II. RECOMMENDATIONS FOR ENHANCING THE DRAFT TEF SCORECARD FRAMEWORK PROPOSED IN SECTION 3.4.

A. VGIC strongly supports the Commission's efforts to establish performance metrics to illuminate progress achieved through TE investments, but believes metrics should be explicitly informed by – and firmly linked to – specific regulatory outcomes.

VGIC understands and supports the Commission's goal of developing a Scorecard to identify Metrics and Targets that measure and demonstrate publicly the progress of investor-owned utilities' ("IOUs") transportation electrification ("TE") programs toward state goals. The Draft TEF states that imposing these data collection requirements will "illuminate progress

towards State and IOU-specific goals." [1] VGIC agrees with this statement and believes relevant statutory objectives and policy goals should be translated into TE-specific regulatory outcomes. Metrics and targets could then be firmly tied to measuring achievement against these specific outcomes.

B. A Goals-Outcomes-Metrics hierarchy can provide a foundation and extensible platform for TE metrics development

By constructing a foundational goals-outcomes hierarchy to inform TE metric development, the Commission can create an extensible platform to transform broad regulatory goals, which are, by nature, high-level, into more specific regulatory outcomes. This two-level hierarchical approach provides a lens through which to evaluate whether particular TE investments or programs are adequately achieving desired regulatory outcomes. The goals-outcomes hierarchy, in turn, informs possible performance metrics toward the development of targets or scorecards. This organization is visualized in the figure below.[2]

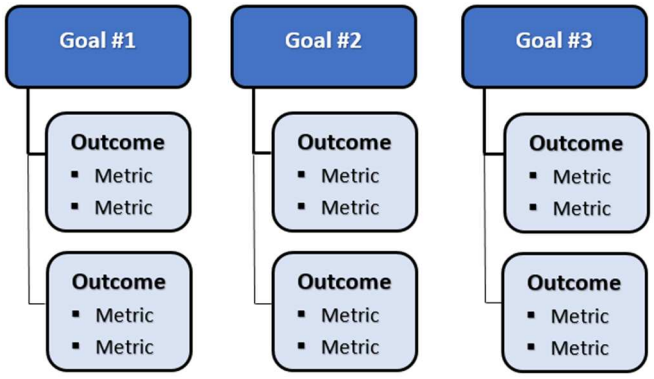

Figure 1. Goals-Outcome Hierarchy

[1] Draft TEF at 30.
[2] *See In re Hawaii Public Utilities Commission*, *Instituting a Proceeding to Investigate Performance-Based Regulation*, Docket No. 2018-0088, Order No. 35542, filed June 20, 2018, at 45 ("Hawaii Order No. 35542").

Goals can provide the highest-level orientation for what the TEF could seek to achieve. TEF goals would anchor and inform consideration of specific outcomes that result from TE investments and programs. Existing statutory directives or policy goals, such as those articulated in SB 350 (De Leon, 2015), Executive Order B-48-18 (Brown, 2018), SB 1000 (Leyva, 2016), and SB 676 (Bradford, 2019), can inform the identification of appropriate goals.

Outcomes are a more specific set of factors that derive, in whole or in part, from utilities' operations and business decisions. Outcomes should represent the many ways that TE investments and programs are experienced by customers and market participants, as well as through the economy and society at large. Outcomes are usually observable, whether through quantitative or qualitative measures, and in many cases can be measured through one or more *metrics*.

Metrics are the ways that outcomes are measured. A metric should be quantifiable and verifiable, when possible, as well as consistent with state energy policies. Metrics are frequently defined by a specific unit of measure (e.g., tons of CO_2e avoided). In some cases, more than one metric can be attached to a single outcome (e.g., by way of analogy, power system reliability can be measured by SAIDI, SAIFI, and numerous other metrics). It may be appropriate to adopt various metrics across the complete list of TE outcomes, from which a subset could be used for target setting, and even associated incentives. Many metrics may be tracked without specific targets attached as part of a benchmarking scorecard effort, which can still be useful to inform utility performance, ongoing market evaluation, policy assessments, and input to the development of metrics or performance targets in the future.

As outlined in Synapse's "Utility Performance Mechanisms: A Handbook for Regulators," defining a metric typically involves the following:

- Specific data definitions;
- A precise formula used to quantify each metric;
- Data collection and analysis practices and techniques, including identification of the entity responsible for collecting and reporting the data;
- Requirements for measurement and reporting; and
- Verification techniques and designation of the entity responsible for verifying data.[3]

Targets should be adopted for a limited set of priority outcomes and metrics, to provide expectations for what level of performance is desired or expected. Where feasible and appropriate, targets should be aspirational to encourage exemplary utility performance and market outcomes. Especially for newer or more innovative metrics, a target can support future evaluations to understand how TE investments or programs do or do not serve this desired result, and to adopt and/or refine TE approaches appropriately.

C. TEF metrics should be designed in accordance with key principles

To be most effective, metrics must be carefully designed, keeping in mind several key principles. To support further discussion with parties and possible adoption in the proceeding, Staff offers a set of five principles for metric design, again adapted from Synapse's "Utility Performance Mechanisms: A Handbook for Regulators".

Metrics should

1. Reflect desired outcomes.
2. Be clearly defined.

[3] Whited, M., Woolf, T., Napoleon, A. *Utility Performance Incentive Mechanisms: A Handbook for Regulators*, Synapse Energy Economics, March 2015, ("Synapse Report") at 19.

3. Be quantifiable through reasonably available data.
4. Be easily interpreted.
5. Be easily verifiable.

Each principle is discussed in more detail below.

Reflect Desired Outcomes. Metrics should reflect desired outcomes and clearly consider the degree to which outcomes are to be achieved. Metrics should report useful data that ties to prioritized outcomes. Some outcomes may require the use of multiple metrics.

Clearly Defined. In order to avoid confusion or contentious debate, metrics must be clearly defined. Definitions should include a precise formula used to quantify each metric. Calculation methods that are precise and unambiguous will allow for useful comparison between utilities, possibly with other jurisdictions, and over time. Metric definitions should specify which data is to be collected; how often it should be collected and by whom; and methods for data analysis, reporting, and verification. Metrics should utilize regional or national definitions where possible.4

Utilize Reasonably Available Data. Metrics should be able to be quantified using reasonably available data. Rather than requiring costly data collection for information that is not already collected, using data that is already reported can save costs and reduce administrative burden.[5] However, as the electricity system is changing, some emerging outcomes may require the collection of new types of data. New customer- and grid-facing technologies may provide additional transparency into the grid, potentially generating new data resources. This new,

[4]Synapse Report at 28.

[5]Synapse Report at 29.

possibly more granular data can, in turn, result in improved accuracy and precision. VGIC explores new data pathways in Section 3A of these comments.

Easily Interpreted. Metrics should be easily interpreted to provide stakeholders with a better understanding of utility and market performance. Per-unit metrics (per kWh, or per customer) allow for comparison across utility territories and time, while also ensuring that the interpretation of the metric remains useful even as load or total customers change.[6]

Easily Verified. Metrics should be easily verified. To increase transparency and avoid data manipulation, "the use of straight-forward data collection and analysis techniques should be used."[7] Third-party evaluation can be helpful when evaluating performance tracking and reporting, especially for metrics that have financial incentives or disincentives attached. Third-party evaluation also can help to minimize the potential for gaming of measurement and resulting performance incentives.

D. The Draft TEF should include an appropriate mix of Activity-, Program-, and Outcome-based Metrics

In addition to establishing design principles, it is helpful to understand the nature of underlying activities or system characteristics that metrics measure. Metrics can be categorized as activity-, program-, or outcome-based, depending on what they are measuring.

Activity-based metrics track specific actions or decisions that the utility is performing directly. Examples of activity-based metrics include: recruitment and training of a large number of contractors to participate in a new program, developing education or training courses for

[6]Synapse Report at 30.

[7] Synapse Report at 31.

customers on new technologies, or strategies with an assessment of actions taken by customers. Activity-based metrics do not necessarily reflect the achievement of a desired outcome since they tend to focus on intermediate steps toward achieving an outcome; however, these metrics are helpful indicators of progress, especially when direct measurement is difficult.

A step away from process and toward results, **program-based metrics** measure the relative success of utility programs. For example, a program-based metric for load reduction might measure peak reduction in MW attributable to customers that are participating in an event-based demand response program, compared to an established baseline where performance is measured *ex-post* against a forecasted "business as usual" scenario and normalized for exogenous factors like weather. They can, in some cases, unduly emphasize narrow programs that may constrain more systemic changes that are needed. Furthermore, in some circumstances, they may operate to limit the potential for new and innovative approaches to achieve outcomes. In addition, a measure-by-measure estimation can also be subject to disputes over baseline assumptions, calculation methods, and the challenge of "proving the counterfactual."[8]

Outcome-based metrics can be used when direct measurement of results is possible. Examples of outcome-based metrics include pounds of CO_2 per MWh for carbon intensity, or per an absolute MW measurement for total system peak. If applied well, outcome-based metrics can allow the utility flexibility in choosing which programs and technologies should be used for achieving outcomes. Under the right circumstances, outcome-based metrics can allow utilities to determine the most effective strategy to achieve policy objectives, including the development of new business strategies that would not be considered under narrower, program-based metrics,

[8] Orvis, Robbie. *Avoiding Counterfactuals in Performance Incentive Mechanisms: California as a Case Study*, America's Power Plan, April 2016.

while somewhat relieving regulators from dictating program terms. By measuring changes at a system level and not as siloed programs or activities, outcome-based metrics can also mitigate disagreements over counterfactuals and attribution.

Outcome-based metrics can be appropriate where programmatic inputs are not simple to isolate, and where the desired outcome is best pursued by a holistic approach and a range of activities – including those of customers and unregulated third parties – that jointly influence the outcome. However, outcome-based metrics have limitations as well, including concerns that it may be unfair or risky to attribute to utilities results that are significantly influenced by exogenous factors such as weather, economic activity, or the decisions of other market participants. Nonetheless, outcome-based metrics can be a useful measure of the overall achievement of regulatory outcomes, and tracking these as metrics alone does not necessarily suggest that the metric be directly tied to financial incentives.

In practice, a mix or blended portfolio of metric types is warranted, and VGIC recommends such a portfolio in the TEF. In particular, program-based metrics can be helpful during transitional phases of market development and while less-established, outcome-based metrics are explored. Activity-based metrics may also be appropriate in limited circumstances, such as for tracking progress on system planning or data sharing.

E. The Draft TEF should leverage best practices for metrics development from leading jurisdictions.

VGIC offers that as the Commission works to refine the organization, focus, and prospective efficacy of the TEF scorecard framework that it might look to leverage the experience of other leading jurisdictions that have begun to tackle issues related to the

development of performance metrics, even if such efforts have not focused primarily on transportation electrification.

To that end, the experience of Minnesota through Docket No. E-002/CI-17-401, where the Minnesota Public Utilities Commission ("MPUC") is working to identify performance metrics, and potentially, incentives for Xcel Energy's electric utility operations, is instructive. On January 8, 2019, the MPUC issued an order establishing a Performance Incentive Mechanism ("PIM") Process.[9] The PIM process includes seven steps; the January 2019 order accomplished steps 1 ("articulate goals") and 2 ("identify desired outcomes").

Hawaii is another noteworthy example, particularly for the process design and approach it has taken through its comprehensive investigation into performance-based regulation in Docket No. 2018-0088. More specifically, the Commission adopted a strategically sequenced process approach to metrics development that aligns closely with that of Minnesota. To wit, the Hawaii Public Utilities Commission adopted a PBR Design Process that began with (1) the articulation of goals; and (2) the identification of desired regulatory outcomes.[10]

The experiences of both Minnesota and Hawaii demonstrate some emerging best practices for metrics development that can and should help inform the design of the TEF Scorecard Framework.

[9] *In re Application of Northern States Power for Authority to Increase Rates for Electric Service in the State of Minnesota*, Docket No. E-002/GR-15-826, Findings of Fact, Conclusions, and Order, filed June 12, 2017, at 23.
[10] Hawaii Order No. 35542 at 43-44.

III. RESPONSES TO COMMISSION QUESTIONS AND RECOMMENDATIONS FOR TEF SECTIONS 3.4 AND 11.3.

In this section, VGIC responds to the specific questions and recommendations posed in the Ruling related to the following sections of the TEF:

- Section 3.4: Targets, Metrics, and Reporting
- Section 11.3: Investor Owned Utilities' Low Carbon Fuel Standard ("LCFS") Programs

A. Response to Questions on Section 3.4: Targets, Metrics, and Reporting.

Section 3.4, Question 1: *How could the financial metrics proposed in the draft Scorecard be expanded and leveraged to help develop cost-effectiveness metrics?*

VGIC cautions against the strict application of cost-effectiveness metrics for TE, as this may place undue burden on TE investments and pose significant barriers to meeting state policy goals. Cost-effectiveness tests are primarily used for energy efficiency investments and may not be appropriate for other utility investments, specifically TE infrastructure. While cost-effectiveness tests answer the important question of whether benefits outweigh costs, cost-efficiency is the more relevant concept for TE as it addresses whether a policy is implemented at the lowest overall cost. Cost-effectiveness tests should not be strictly applied in the context of TE as they may screen out measures that would otherwise have significant benefits in terms of cost-efficiency or long-term market development benefits not accounted for in cost-effectiveness tests.

Whether the Commission pursues the development of cost-effectiveness metrics or shifts its focus towards cost-efficiency principles, VGIC offers that three cost-benefit perspectives may

be useful to consider when developing metrics in the draft Scorecard. The specific tests detailed below were not created to address state TE and decarbonization goals, and therefore should serve to generally inform, rather than strictly limit, the development of metrics in the draft Scorecard.

- The total "energy wallet" for each IOU service territory, or the state overall. This approach considers the total amount spent on transportation in the state as internal combustion engine ("ICE") vehicles are replaced with EVs. This is commonly referred to in electricity economics and the California Standard Practice Manual as the Total Resource Cost ("TRC") test.
- The costs and benefits to each IOU's customers. This compares electricity bill revenue to the marginal cost incurred by the utility to serve load. In electricity economics, this is commonly referred to as the Ratepayer Impact Measure ("RIM").
- Total societal costs and benefits. This approach considers the costs and benefits experienced by society as a whole, including health and environmental benefits. This perspective is commonly referred to as the Societal Cost Test.

The table below indicates some of the costs and benefits that could be included in each perspective.

	Energy Wallet Perspective	Utility Customers' Perspective	Societal Perspective
Incremental upfront vehicle cost	Cost		Cost
Charging infrastructure cost	Cost	Cost (if funded by TE programs)	Cost
Electricity supply cost to serve EVs	Cost	Cost	Cost
Federal EV tax credit	Benefit		Benefit
Vehicle operations and maintenance savings	Benefit		Benefit
Avoided vehicle gasoline	Benefit		Benefit
Utility bills paid by EV drivers		Benefit	
Utility GHG compliance	Benefit		
Environmental and health impacts			Benefit
Energy security			Benefit

VGIC specifically encourages the consideration of the utility customer perspective (ratepayer impact) when evaluating cost-efficiency (or cost-effectiveness) of TE programs, as it helps capture the full potential for VGI to maximize downward pressure on rates.

The Draft TEF proposes four program-specific Financial Metrics, one of which is "Ratepayer dollars spent per site electrified."[11] VGIC seeks clarification from the Commission on whether this metric refers to the ratepayer dollars spent on costs related to installation, costs for the charging at the site once EVSE is installed, or a different meaning, as the precise definition may impact the opportunity to reduce the value of this metric by implementing VGI strategies.

To further highlight the potential for managed charging to enhance the availability of net benefits for all customers, VGIC notes the analysis conducted by E3 and ICF in the California Transportation Electrification Assessment, Phase 2: Grid Impacts, as well as the analysis for the

[11] Draft TEF at 175.

Hawaiian Electric Companies' Electrification of Transportation Strategic Roadmap.[12] To demonstrate the benefits of smart charging, E3 modeled an illustrative Smart Charging case. This Smart Charging behavior lowers the cost to the utility's customers by increasing the amount of low-cost solar integrated into the electricity supply, and by avoiding distribution upgrades that would otherwise be needed to support charging during the evening peak. The result from E3's analysis was a 53 percent increase in net benefits versus the unmanaged charging case.[13]

As the Commission examines the potential expansion of financial metrics in the draft Scorecard, VGIC recommends that strong consideration be given to an approach that captures the importance of VGI elements such as managed charging as it relates to the opportunity to place downward pressure on rates for all customers. VGIC also recommends that cost-efficiency (or cost-effectiveness) measures should be considered dynamic rather than static, as VGI strategies and resulting shifts in load can improve as the market continues to evolve.

Supporting nascent market segments leads to long-term market development benefits that may be difficult to quantify and are not traditionally included in cost-effectiveness tests. VGIC recommends that determinations of cost-efficiency (or cost-effectiveness) based on financial metrics adopted in the Final TEF should consider the market development benefits of TE programs, including their VGI components.

Section 3.4, Question 3: *What methodologies for calculating greenhouse gas emission and air pollutant reductions could be applied to IOU TE*

[12] California Transportation Electrification Assessment, Phase 2: Grid Impacts, October 23, 2014, at 19-20, *available at* https://caletc.com/wp-content/uploads/2016/08/CalETC_TEA_Phase_2_Final_10-23-14.pdf; Hawaiian Electric, Maui Electric, Hawaii Electric Light, *Electrification of Transportation Strategic Roadmap*, March 2018, *available at* https://www.hawaiianelectric.com/documents/clean_energy_hawaii/electrification_of_transportation/201803_eot_roadmap.pdf ("HECO EoT Roadmap").

[13] HECO EoT Roadmap at 35.

programs to better track their effectiveness? Should a new emissions reduction measuring methodology be developed specifically for transportation electrification infrastructure programs?

VGIC believes that the California Self-Generation Incentive Program ("SGIP") greenhouse gas ("GHG") emissions signal, developed by WattTime, may offer a practical methodology for calculating greenhouse gas emissions that could be applied to IOU TE programs to better track their effectiveness.[14] WattTime's automatic emissions reduction technology is also in use for commercial offerings, providing EV customers an option to reduce GHG emissions by shifting their charging behavior.[15] The WattTime tool could be applied to IOU TE programs. If a new emissions reduction measuring methodology is to be developed specifically for TE infrastructure programs – which would likely be a time- and resource-intensive effort -- the WattTime tool should provide a valuable starting point in the development of any new methodology.

VGIC recommends the Commission also consider methodologies for tracking the impact that TE could have on reducing local criteria pollutants within disadvantaged communities ("DACs") by tracking locations where charging is occurring relative to those communities. While actions resulting from SB 1000 (Lara, 2018) concern the equitable distribution of TE infrastructure, it may also be important to track where charging occurs as an approximation of the locations where ICE vehicle travel is predominately being displaced by EVs. Overlaying charging behavior with DAC areas may be able to help identify ways to enhance TE and charging activities in regions that have higher burdens of local air pollution.

[14] California Self-Generation Incentive Program Greenhouse Gas Signal http://sgipsignal.com/
[15] See, for example, Enel X JuiceNet Green https://evcharging.enelx.com/products/juicenet-green

Section 3.4, Question 5: *Is there sufficient data, or a path to collect data, to evaluate whether IOU TE programs or planned TE portfolios could cause downward pressure on customers' volumetric energy rates?*

VGIC does not believe that TE inherently or necessarily places downward pressure on rates. Unmanaged charging could increase EV load coincident with peak demand, which would increase system costs and in turn electricity rates. This not only highlights the importance of enabling widespread VGI to significantly increase the likelihood of putting downward pressure on rates, but also points to the need to source EV charging data with adequate temporal and spatial granularity to determine whether IOUs' TE investments result in beneficial electrification.

VGIC recommends the Commission explore potential pathways of data collection that engage relevant market participants. One potential pathway to collect data would be to leverage the technology contained in EVSE and EVs to provide data from the assets directly to IOUs. Automotive original equipment manufacturers ("OEM") or EV service providers ("EVSP") could partner with IOUs to provide data from these non-IOU assets. A reasonable implementation of such a data-sharing program would likely require data to be anonymized and aggregated under relevant privacy laws and Commission regulations. If this solution were to be pursued, OEMs and EVSPs would need to have access to a compensation mechanism for the data collection and transmission service they would provide to IOUs, as implementation would impose costs on these industry participants.

Another potential pathway for data collection may be through the Electric Power Research Institute's ("EPRI") Open Vehicle-Grid Integration Platform ("OVGIP"). OVGIP could provide a data clearinghouse for EV data, playing an important role in transmitting data for

the purposes of TE program evaluation and progress tracking.[16] VGIC recommends the Commission further consider the role of OEMs and EVSPs in collecting and reporting the data entailed by the Final TEF.

VGIC believes that EV and EVSP-sourced data, such as Vehicle Miles Traveled ("VMT") and kWh consumption, can inform many relevant TEF metrics. VGIC leaves further discussion on the application of these types of data and determination of specific metrics – and their application to outcomes according to the framework recommended in Section II of these comments – to the upcoming workshop on Section 3.4 of the Draft TEF.

B. Response to Questions on Section 11.3: LCFS Programs.

Section 11.3, Question 1: Do Energy Division staff's proposed LCFS holdback program options benefit existing and/or future EV drivers? Why or why not?

It is likely – but not guaranteed – that the Energy Division staff's proposed LCFS holdback program options would benefit existing and/or future EV drivers. LCFS holdback funds should not be viewed as a guaranteed source of funding for TE programs. With an eye towards long-term planning goals, VGIC strongly cautions against the use of LCFS holdback funds to provide the core funding for TE programs. LCFS revenues are tied to the LCFS credit price, the value of which is somewhat uncertain. The purpose of the LCFS regulation is to lower the carbon intensity ("CI") of California's transportation sector fuel, and regulated entities not expecting to meet the set CI target have traditionally complied with the regulation by purchasing credits from entities that generate LCFS credits based on the provision of clean fuels, such as

[16] See https://www.epri.com/#/pages/product/3002008705/?lang=en-US for more information on EPRI's OVGIP.

IOUs providing electricity for residential EV charging. This level of demand for credits has traditionally resulted in a relatively high credit price.[17] However, if regulated entities implement new technologies that allow them to comply with the regulation at a lower cost, the credit price would decrease. Therefore, the possibility that regulated entities may embrace new technologies to comply with the LCFS regulation, if and when those technologies become available, represents an inherent uncertainty that should impact the extent to which LCFS funds are relied upon for TE programs.

VGIC cautions against using LCFS funds as a core funding source for a given TE program, or VGI element of a TE program, due to the uncertainty mentioned above. In a scenario where the core source of funding for TE or VGI programs is diminished, there may be negative consequences beyond the immediate loss of funding for infrastructure investment and/or program costs. For example, by failing to implement a TE program, customer expectations around TE infrastructure and VGI programming may not be fulfilled, leading to a potential drop in EV deployment as customers are discouraged from new EV purchases – which is counter to the express purpose of LCFS proceeds to be used to promote EV adoption.

To mitigate these risks, LCFS holdback funds should be viewed as a supplementary source of funding, rather than as the core or primary source of funding for TE programs. Energy Division Staff's recommended holdback program option 2 states, "reduce the cost to ratepayers of existing school bus or transit charging infrastructure programs… Staff sees an opportunity to reduce the cost of these programs to ratepayers by supplementing the budgets with LCFS credit revenue."[18] VGIC would support such a use of LCFS credit revenues.

[17] The LCFS regulation imposes a price ceiling and associated cost containment mechanisms due to concerns over the high credit price.
[18] Draft TEF at 149.

Another potential use for LCFS holdback funds would be to establish a grant pool or supplement an existing grant fund. VGIC also supports this approach to using LCFS credit revenues, as a shift in LCFS credit prices would not directly impact existing or future TE program budgets. VGIC recommends the Commission explore both the grant pool approach and the budget supplement approach as potential lower-risk paths forward for LCFS holdback funds.

Additionally, VGIC echoes previous comments made by us and several other parties on the Draft TEF that the Commission should not be overly prescriptive in limiting areas of IOU investment in TE infrastructure and programs, and we believe this sentiment extends to the potential investment of LCFS holdback funds. [19]

Whether the Commission adopts strict limitations or high-level guidance on IOU use of LCFS holdback funds – and whether the grant pool or budget supplement approach is implemented – VGIC strongly supports funding EV resiliency efforts, like those discussed and recommended in Section 5.2 of the TEF. [20] For example, LCFS holdback funds could be used to establish a grant pool and funding opportunities could be targeted to helping mitigate costs of vehicle-to-microgrid or vehicle-to-building systems for resiliency purposes. Another example could be to use LCFS holdback funds to help mitigate these costs by supplementing program budgets for these solutions. As discussed in previous comments, VGIC strongly supports Commission authorization of IOU funding – in general – for solutions addressed in Section 5.2.[21] If the Commission adopts strict limitations on IOU use of LCFS holdback funds, then VGIC would support the use of LCFS holdback funds to supplement the EV resiliency program budgets or establish a grant pool for future projects related to EVs and resiliency.

[19] See, for example, VGIC Opening Comments on TEF Sections 3.1, 3.2, 3.3, 4, and 5 at 3-5, NRDC et al. Joint Opening Comments at 6, and Tesla Opening Comments at 2-3.
[20] Draft TEF at 45-50 and 58.
[21] Opening Comments of VGIC on Sections 2, 3.1, 3.2, 3.3, 4, and 5 of the Draft TEF at 13-14.

V. SUMMARY OF RECOMMENDATIONS.

In responding to the questions above, VGIC proposes several recommendations, which can be summarized as follows:

Overarching recommendations to enhance the Scorecard framework:

- VGIC highlights existing best practices in setting metrics
- VGIC proposes core principles and a conceptual structure that highlights the importance of first articulating goals and identifying regulatory outcomes as a comprehensive enhancement to Staff's proposed Scorecard framework.

Section 3.4:

- VGIC highlights the risks of strictly applying cost-effectiveness tests in the context of TE and recommends a shift towards cost-efficiency.
- VGIC suggests the consideration of three cost-benefit perspectives that could be useful when developing metrics: the "energy wallet" or Total Resource Cost, the customer perspective or Ratepayer Impact Measure, and the cost to society.
- The consideration of ratepayer impact and inclusion of market development benefits are important elements of cost-effectiveness or cost-efficiency as they relate to VGI strategies.
- VGIC points to an existing methodology for calculating GHG emission reductions that could be applied to IOU TE programs.
- Methodologies for tracking the impact that TE could have on reducing local criteria pollutants within DACs by tracking locations where charging is occurring should be considered.
- VGIC recommends the Commission consider potential roles for industry participants in data collection and reporting.

Section 11.3:

- LCFS credit holdback funds should not be a core or sole source of funding for TE programs due to LCFS credit price risk. Instead, LCFS revenues could be used to supplement TE program budgets or to establish a grant pool – or contribute to an existing grant pool - therefore preventing overreliance on the uncertain source of funding.
- The Commission should not be overly prescriptive in its guidance on the use of LCFS holdback funds.

- If the Commission adopts explicit direction for LCFS holdback funds, VGIC supports use of LCFS fnuds to supplement budgets or provide grant funding for EV resiliency efforts.

V. CONCLUSION.

VGIC appreciates the opportunity to submit these opening comments on the TEF Scorecard and LCFS programs sections of the Draft TEF. We look forward to further collaboration with the Commission and stakeholders on this initiative.

Respectfully submitted,

Edward Burgess
Policy Director
VEHICLE GRID INTEGRATION COUNCIL
2150 Allston Way, Suite 400
Berkeley, California 94704
Telephone: (941) 266-0017
Email: eburgess@vgicouncil.org

Date: May 11, 2020