

**BEFORE THE STATE OF NEW YORK
PUBLIC SERVICE COMMISSION**

In the Matter of the Value of Distributed Energy Resources) **Case 15-E-0751**
)

**REPLY COMMENTS ON THE STAFF WHITEPAPER REGARDING
HIGH-CAPACITY-FACTOR RESOURCES ELIGIBLE FOR
COMMUNITY DISTRIBUTED GENERATION**

Interested Hydroelectric Parties (Hydro Parties)

prepared by



Dated: October 28, 2019

I. Introduction

The Interested Hydroelectric Parties (Hydro Parties), including Albany Engineering Corporation, Ampersand Energy Partners, Azure Mountain Power, Boralex Hydro Operations, Boundless Energy, Brookfield Renewable, Buttermilk Falls Hydro, Cube Hydro Partners, Current Hydro, Davis Hydro, Eagle Creek Renewable Energy, EONY Generation Limited, Gravity Renewables, Kruger Energy, Natural Power Group, Northern Power & Light, Salisbury Hydro Associates, Wappingers Falls Hydroelectric and the National Hydropower Association (NHA)¹ file these comments in response to the “Staff Whitepaper Regarding High-Capacity-Factor (HCF) Resources” published on August 13, 2019. The Hydro Parties appreciate the opportunity to provide constructive feedback and express concerns from our diverse collective of hydropower stakeholders interested in the Community Distributed Generation (CDG) program under the Value of Distributed Energy Resources (VDER)² tariff.

¹ NHA is a national non-profit association dedicated exclusively to advancing the interests of the U.S. hydropower industry, including conventional, pumped storage, and new marine and hydrokinetic technologies. NHA's membership, many of whom are in New York, consists of 240 organizations, including public power utilities, investor-owned utilities, independent power producers, project developers, equipment manufacturers, environmental and engineering consultants, and attorneys.

² VDER Transition Order. Case 15-E-0751, Value of Distributed Energy Resources, Order on Net Energy Metering Transition, Phase One of Value of Distributed Energy Resources, and Related Matters (issued March 9, 2017).

Small hydropower projects are a critical resource to facilitate the transition of the New York electric grid to 70% renewable sources by 2030 and to reduce statewide greenhouse gas emissions by 85% by 2050 as mandated by the Climate Leadership and Community Protection Act (CLCPA). With the proper policies in place, small hydropower projects can make the transition to a cleaner electric grid smoother and more affordable.

New York State does not currently recognize the value of environmental attributes associated with renewable energy resources (including hydropower) older than 2015, although it assumes these resources will remain in place to achieve future targets.³ The Commission and Staff have encouraged small independent hydro producers to pursue customer-facing programs like CDG. Thus, the CDG program has become increasingly important to the Hydro Parties, seemingly providing the sole mechanism for independent small hydro owners to improve on historically low wholesale prices for their electricity products.

Should the Commission accept the recommendations in the staff Whitepaper, CDG will become uneconomic for independent small hydro operators. Most independent hydros are in upstate utility zones, where the energy and capacity components of the value stack are low. Pre-2015 resources which do not qualify for E-value rely on the Market Transition Credit (MTC) and Community Credit (CC) as critical components of the Value Stack and the primary benefit of CDG operation. The Whitepaper recommendation to discount the CC rate for hydro resources by 72% will reduce the Community Credit from \$.0225/kWh to \$.0063/kWh for nearly all qualifying resources. This would bring the net benefit of CDG below the cost of customer administration, effectively excluding hydro from participating in CDG altogether. For this reason, the Hydro Parties urge the Commission not to adopt the recommended remedy in the Whitepaper, or to exclude hydroelectric resources from the remedy. To that end, the Hydro Parties submit the following Comments.

Background

On May 10, 2019, the Joint Utilities (JU)⁴ filed a Petition Seeking Clarification of the Treatment of High-Capacity-Factor Resources Eligible for Community Distributed Generation (JU Petition) expressing concern that the application of the MTC and CC to the production of fuel cell-based DERs in Con Edison territory could result in excessive cost shifts inconsistent with Commission decisions and guidance. The JU Petition pointed to an inconsistency in the VDER program: the tranche system by which the rights to receive MTC/CC credits are awarded is based on MW installed capacity, but the credits themselves are paid out based on kWh production. The JU Petition pointed out that the available tranche capacity for each utility was calculated using an

³ Hopkins, Asa., et al, Policies to Cost Effectively Retain Existing Renewables in New York, Synapse Energy Economics, Inc. prepared for the Alliance for Clean Energy New York, (December, 2017).

⁴ Central Hudson Gas & Electric Corporation, Con Edison, NYSEG, National Grid, Orange and Rockland Utilities, Inc., and RG&E.

assumed average capacity factor for solar photovoltaic generators of 14%, rather than accounting for participation of others of the diverse resources which qualify for the program. The JU Petition is in references to fuel cells, which the JU claims produce six times as many kWh per MW of capacity than a solar array. The Joint Utilities asserted that to the extent that MW of tranche capacity are granted to these fuel cell resources, the MTC and CC payments risk exceeding the 2% cap.

The JU Petition suggested two possible solutions: 1) tranche capacity allocated to fuel cells could be adjusted to reflect the resource’s capacity factor (i.e. a 1MW fuel cell would take up 6MW of tranche capacity); or 2) the MTC/CC credits should be adjusted downward for fuel cell resources, (i.e. 1 kWh from a fuel cell would only earn 1/6th of a Community Credit).

Staff issued the Whitepaper on August 13, 2019 endorsing the Joint Utility’s proposed Option 2 and recommending a discount factor to reduce the CC credit amount for all “High Capacity Factor” (HCF) resources. Although the JU Petition did not raise concerns about resource types other than fuel cells, Staff included wind and hydro resources in their recommendation and calculated discounts for them based on resource-average capacity factors of unknown origin. The recommended adjustment factors are listed in Figure 1.

	Average Capacity Factor	Adjustment Factor for CC
Solar PV	0.14	1.00
Wind ⁸	0.23	0.61
Small Hydro	0.50	0.28
Fuel Cells	0.87	0.16

Figure 1 - Whitepaper Assumed Capacity Factors and Discount Rates

The proposed discount to each resource type results in the actual CC rates in \$/kWh in Figure 2.

	CC capacity (MW)	Effective rate for all	Hydro (.28)	Wind (.61)	Fuel Cell (.16)
Natl Grid	500	0.0225	0.0063	0.0137	0.0036
NYSEG	125	0.0225	0.0063	0.0137	0.0036
RGE	80	0.0225	0.0063	0.0137	0.0036
Con Edison	350	0.12	0.0336	0.0732	0.0192

Figure 2 - Resulting CC Discount Rates (\$/kWh) by Resource Type and Service Territory

The discount factor for hydro is proposed to be .28, resulting in a 72% reduction in CC value for a hydro CDG. For most independent small hydro located within NYSEG, National Grid and RG&E territories the effective CC rate will be reduced from \$0.0225/kWh to \$.0063/kWh. Existing resources do not qualify for the E-value, which makes the MTC/CC the primary benefit of CDG. With a CC of only \$.0063, the Value Stack does not offer enough additional revenue over wholesale LBMP to cover the additional costs of administering CDG. Customer acquisition service costs can vary from \$500-\$1400 per customer, and ongoing customer management ranges approximately from \$.012-\$.022/kWh. The proposed change effectively excludes pre-2015 hydropower from the CDG program and makes the ongoing attrition of these resources more likely, affecting the baseline for New York's Clean Energy Standard (CES) mandates.

II. General Responses

A. The Staff Whitepaper provides an overly blunt solution to a narrowly identified problem raised by the JU Petition.

1. *The JU petition raises concerns about fuel cells in Con Edison territory with no mention of other resource types or territories. Staff's proposal to include hydro and wind in the MTC/CC discount for high-capacity-factor resources is arbitrary and unsupported.*

The JU Petition provides the example of 14 fuel cells in the CDG queue with a combined 53 MW capacity, anticipated to generate at a 90% capacity factor, receiving CC of \$0.12/kWh in Con Edison territory which will total \$50 million per year. Their example is limited to fuel cells generating around the clock, and to Con Edison, where the MTC rate is significantly higher than the other utility tranches.

The JU Petition example does not apply to hydro or wind DER. There are currently no qualifying wind or small hydro resources located in Con Edison territory. Nearly all qualifying hydro resources in the state are in utility territories that utilize the Community Credit of \$0.0225/kWh – a fraction of the rate in Con Edison territory. Including hydro and wind in the solution to a perceived problem caused by a different technology under different rate prices and geographic characteristics is arbitrary. To the extent that the Whitepaper includes resources other than fuel cells, it offers a solution to a problem which has not been raised in the record.

2. *The cost shift analysis used in JU Petition is limited to fuel cells in Con Edison territory and is insufficient to justify a broad solution that includes hydro and wind and applies to all utility territories in New York.*

The JU Petition provides a brief analysis of fuel cell installations in the queue in Con Edison territory to document the cost shift problem there, referencing the 14 CDG fuel cell projects with 53 MW of capacity currently in the queue in Con Edison territory. The JU state that if these

projects all receive \$0.12/kWh of CC and use natural gas to operate around-the-clock at 90% CF the result will be \$50 million of annual CC or a \$1.3 billion revenue shift over the 25-year CC period.

No such analysis was provided for other resource types or other territories, in either the JU Petition or the Staff Whitepaper. The Hydro Parties offer the following parallel, representative analysis:

Table 1 - Wind and Hydro Capacity in the DER Queue

MW of Wind and Hydro in DER Queue 8/19

	Wind	Hydro
Niagara Mohawk	10	3.8
NYSEG & RG&E	0	0
Central Hudson	0	3.7
O&R	0	0
Con Edison	0	0
PSEG/LI	0	0

Table 1 shows that there are 3.8 MW of hydro and 10 MW of wind in the queue in National Grid, and 3.7 MW of hydro in Central Hudson.

A review of data in the 2016 NYISO Gold Book reveals that there are 128 hydroelectric facilities of 5MW or less within the New York Control Area (NYCA), not including the New York Power Authority (NYPA) assets. The combined nameplate capacity of these facilities totals 233.6 MW. Of these 128 facilities, only 94 facilities with a combined nameplate capacity of 200.7 MW injected electricity in 2016. Excluding low and high outliers, these producing hydro facilities have a median capacity factor of 41.6%.

Using the same analytical framework as the JU Petition, the 3.8 MW of CDG hydro in National Grid operating at the median resource average Capacity Factor of 41.6% and receiving the full Community Credit value of \$.0225/kWh would result in an annual cost shift of \$312,000, or \$7.8M over 25 years. A solar array of the same capacity at 14% CF would produce a cost-shift of \$105,000, or 2.6M over the same period, so the “excess” cost shift represented by the hydro facilities is the difference: \$207,000, or \$5.2M over 25 years. This is not in the same scale as the \$50M annual and \$1.3 Billion in total cost-shift alleged in the JU Petition.

3. *Unlike fuel cells, existing hydro is a finite resource and does not pose a risk of excessive cost shifts due to unrestrained growth.*

The JU justify their concerns about fuel cells partly on the grounds that there is no physical limitation to the amount of fuel cells that can theoretically be developed.

The same cannot be said about hydropower. The total capacity of existing hydro resources which qualify for CDG in each utility territory is very small compared to the total tranche availability. The shared experience of the Hydro Parties suggests that many, if not most, of these resources would be ineligible to participate for various reasons, such as being interconnected to a non-utility-owned high voltage line or being grouped behind a single connection point (PTID). The small number and installed capacity of eligible facilities limits the amount of tranche capacity and the potential revenue shift they may cause. Combined with the fact that these facilities have a demonstrably lower average CF than Staff estimate, the potential excess cost-shift they represent is less than a margin of error in the overall CDG program.

Broadening the analytical framework above to assume that as many as half the 94 qualifying operable facilities participate in CDG (a very unlikely scenario), with combined 100 MW of capacity the result would still be an “excess” annual cost shift of only \$5.5M statewide. This is insignificant compared to the total statewide annual cost shift of \$110M contemplated by the VDER Order.

4. *The 2% Revenue Impact Target is “not a hard cap” and is in no urgent danger of being exceeded*

The 2% revenue impact target is not stated in the underlying law PSL 66-J but rather is established in the VDER Order, which states:

“To manage the potential impacts of the VDER Phase One tariff on nonparticipants, an incremental net annual revenue impact of **approximately 2%** for each utility will be established for all projects interconnected after the date of this order. **The 2% upper bound will not result in a hard cap**, but instead is used to design capacity-based allocations for mass market and CDG projects.” (*emphasis added*)

The VDER Order clearly states that the 2% incremental net annual revenue impact is approximate. The Order also contemplates the allocation of tranche capacity beyond the 2% cap, stating that projects will continue to be placed in Tranche 3 even after the full allocation has been reached, even absent any further action taken by the Commission.⁵ In January, 2018, the Commission observed that the number of projects already awarded tranche positions in Central Hudson and Orange & Rockland territories would likely cause the 2% target to be exceeded. Nevertheless, in the same Order, the Commission established a Tranche 4 MTC for

⁵ VDER Order, March 2017, p 133.

these territories, allowing for additional projects which would, according to Staff's calculation, exceed the initial 2% impact target.⁶

Rather than a hard cap, the 2% revenue impact target was simply to serve as the basis for Staff's estimation of the amount of capacity which should be allocated. It is regrettable that not all qualifying resources were included in this calculation. To punish resource types who were overlooked in order to strictly adhere to the 2% target, when the Commission has already set the precedent of exceeding that target in some territories, is inconsistent and gives the appearance of resource discrimination.

Of the capacity which has been allocated to community solar, only a small fraction of projects are developed, and there is still uncertainty about the overall success of the program. Hydro is not only a qualifying technology with as much right to VDER compensation as any other resource, but hydro also has the potential to contribute to the overall success of VDER programs. Excluding hydro at this early stage to avoid exceeding a theoretical cap which may never be reached is unnecessary, as well as discriminatory.

B. Renewable energy companies that participate in CDG require program stability and resource parity to be successful.

Instability and complexity are weaknesses of the VDER program. All participants in VDER have been on notice since the start of Phase 1 that the crediting program was subject to future refinement, but to provide some sense of stability, two principles were established and have been largely adhered to: 1) further refinements would be based on the value of injections; and 2) projects which were already significantly under development would be exempted from unfavorable changes. The proposal in the Whitepaper violates both principles.

The practical result of the Whitepaper recommendation to reduce the CC rates for hydro and wind will be a significant harm to these resource types. If the recommendations in the Whitepaper are adopted, the rules are shifting in the middle of the program, affecting companies doing business in the DER space and undermining projects which are already underway. The volatility of the program already serves as a disincentive for developers and financiers. If the program is modified here in a way that effectively excludes entire resource types, it sets the precedent for other resources or types of projects may be subject to similar harms in the future. For VDER programs to succeed and for businesses to be able to rely on it, stability is essential.

⁶ Order Regarding Compensation of Community Distributed Generation Projects, NY-PSC January 18, 2018, 15-E-0751.

III. Valuation of HCF Resources

A. Discounting the MTC/CC rates for wind and hydroelectric resources is discriminatory, arbitrary and unsupported.

1. *The proposed HCF discount runs contrary to the Commission's transition to value resources based on the actual, calculable values that the generator output provides to the electric system.*

The fundamental premise of the VDER system is to provide DERs with “compensation based on the actual, calculable benefits that such resources provide.” While the Hydro Parties recognize that the MTC and CC credits fall partly outside of this framework, that fact does not justify valuing the kWh of qualifying resources differently for no other reason than to compensate for a program design error in the way least disruptive to one particular technology. In effect, the remedy proposed in the Whitepaper devalues and excludes hydro simply to preserve tranche capacity for solar. This blatant discrimination between resource types is not supported by the VDER Order, PSL 66-J, or basic principles of fairness.

On the contrary, PSL 66-J treats all qualifying resources the same regardless of technology or vintage. VDER adds many layers of granularity by valuing the injections of resources differently based on the benefits they provide to the electric grid but does not directly discriminate between resource types. All participants of the CDG program deserve to receive compensation for their injections at full MTC or CC value, regardless of which qualifying technology their project utilizes. Failure to value resources equally for the value of their injections is discriminatory and causes the absurd result of incentivizing investment in less productive resources over more productive ones.

2. *The Staff Whitepaper provides no analysis demonstrating a danger of cost-shifts from the participation of hydro and wind resources at full value.*

The JU Petition documented the potential cost-shift posed by specific fuel cell projects which are currently in the queue in Con Edison territory. No such analysis was provided for other resource types or territories. Staff also failed to perform an analysis estimating or quantifying a danger of cost-shifts from the additional resources included in the remedy proposed in the Whitepaper.

This lack of analysis and documentation would make the implementation of these recommendations arbitrary. The Whitepaper in effect proposes valuing resources differently without documenting any difference in the “actual, calculable benefits that such resources provide,” as the solution to a potential cost-shift problem for which no analysis was provided.

B. Staff’s use of a 50% capacity-factor for hydroelectric generation to calculate the discount rate is arbitrary and unsupported.

The resource average CF approach used by Staff for hydro does not accurately represent actual CDG qualifying hydro resources in NY. The relatively low capacity-factor of distributed solar photovoltaic technology provides no basis to conclude that all other non-solar resources are “high” capacity-factor resources. In fact, Hydropower and Wind do not have “high” capacity factors when compared to the full range of renewable energy resources eligible for VDER, unlike fuel cell, nuclear, geothermal and landfill gas. According to EIA, the capacity-factor for utility scale hydroelectric resources ranged from 35.8% to 43.1% between 2013 and 2018. (See Figure 3).⁷ Similarly, utility scale wind had capacity factors ranging from 32.4% to 37.4% during the same period.

Period	Nuclear	Conventional Hydropower	Wind	Solar Photovoltaic
Annual Factors				
2013	89.9%	38.9%	32.4%	NA
2014	91.7%	37.3%	34.0%	25.9%
2015	92.3%	35.8%	32.2%	25.8%
2016	92.3%	38.2%	34.5%	25.1%
2017	92.2%	43.1%	34.6%	25.7%
2018	92.6%	42.8%	37.4%	26.1%

Figure 3 - Capacity Factors for Utility Scale Generators (EIA)

However, distributed hydropower and wind typically have even lower capacity factors than their utility scale counterparts, and a greater variation between facilities. The 94 sub-5MW hydro facilities in NYCA listed in the 2016 NYISO Gold Book had in that year a range of CF from 11% to 89%. Of these, 24 had a CF of less than 30%, 35 had a CF between 30% and 50%, 34 had a CF of between 50% and 75%, and 1 had a CF above 75%⁸. This illustrates that the characteristics of a hydro site have a great influence on the capacity factor of the installation, perhaps more so than other renewable resources. Not only is a 50% capacity factor demonstrably too high, the application of any resource average to such a diverse cohort of facilities is blunt and arbitrary.

According to the US Department of Energy, 2017 Distributed Wind Market Report, the small wind three-year average capacity factor was 16%, the mid-size turbine project three-year

⁷ Source: https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_6_07_b

⁸ Analysis of injections from sub-5MW hydro facilities listed in the NYISO “Gold Book” 2016.

average capacity factor was 20%, and the large-scale turbine project three-year average capacity factor was 32%.⁹

Reducing the MTC/CC rates for resource types based on average capacity-factors that have no basis in fact is an arbitrary and factually unsupported action, and, as presented herein, will unnecessarily disadvantage those resources.

C. The CDG Program and the Value Stack are critical factors in the preservation of the existing small hydropower fleet in New York State.

1. Hydropower offers values to the community which are not measured in electricity rates or the Value Stack.

Hydropower offers values to the community which are not measured in electricity rates or the Value Stack, such as flood mitigation, opportunities for wildlife preservation and fish protection, dam safety and recreational access to rivers. CDG may be the only program that keeps some of these resources operational in New York State. Many communities in New York host small hydro facilities, often right in the middle of town. A succession of factors such as utility consolidation, industrial decline, PURPA and deregulation has had the result that many of these resources are not under local control and with less apparent direct economic benefits, though in many cases there are significant indirect economic benefits, such as water level maintenance. CDG offers these communities opportunities to reconnect with valuable local resources that have not existed in decades by allowing clear value creation through engagement with these resources. When these connections are made, both the community and the facility benefit.

Community members can support critical local infrastructure by choosing where to send their energy dollars. Through the power of consumer choice, they also gain some measure of control over the facility; a resource which depends on its community is one that is responsive to its community. Discounts to subscribers and other partners localize the value of the resource.

The successful CDG subscription efforts of Azure Mountain Power in Franklin County and Natural Power Group in Walkill, NY demonstrate that there is a market and demand for hydro CDG. The desire to connect is mutual on the part of existing renewable resources and local customers.

2. Additional attributes related to reliability and resiliency are unique to hydropower and are not adequately compensated for under VDER.

Resource diversity in the DER fleet is critical to grid balance. In addition to the environmental benefits of carbon free electricity, small hydropower projects may provide system benefits,

which will only grow in importance as the resource mix shifts from conventional generation sources to renewables.

Instead of discounting the rate of compensation based on an unsupported assumed average capacity factor of small hydropower projects, the New York PSC should prioritize how to increase value recognition of the full suite of benefits that those projects provide.

IV. Recommended Remedies

A. Any remedy adopted to address the concerns raised in the JU Petition should be confined to those technologies which the JU Petition references, and/or to Con Edison territory where the potential for excess cost shifts has been documented.

The JU Petition made no mention of hydro or wind resources and documented no danger of cost shifts similar to those posed by fuel cells. Staff likewise provided no such analysis. As has been shown here, no danger of significant cost shifts exists. Furthermore, any excess cost-shift is the result of a program design flaw and has nothing to do with the characteristics of these equally qualifying resource types. Therefore, hydro and wind should be excluded from any remedy which would negatively affect the value of their injections.

Though the Petition references the existence of fuel cell projects in National Grid territory, the cost-shift danger is only documented in Con Edison's territory. Given the much greater MTC value in Con Edison, it is likely that more fuel cell development will be seen there than in upstate zones. Further, the high MTC/CC rates in Con Edison are better able to absorb discounts while still providing significant development incentives.

B. The remaining Community Credit tranche capacity should be recalculated to assume a nominal participation by wind and hydro

Staff have recalculated the availability of credits subject to the 2% cap more than once already, to supplant the MTC with the CC and to accommodate the proposed \$0.01 Community Credit for commercial customers (which has not yet been adopted). The Commission has also clarified that tranche capacity allocated to projects which are canceled will be added back to the pool, which will necessitate recalculation to the extent that canceled projects were awarded a higher MTC rate than is available to new projects at the time they are canceled.

Given the large amount of tranche capacity remaining unclaimed, it would not be difficult to recalculate the remainder assuming a nominal participation of other qualifying resources besides solar, as it now appears clear should have been done initially. The inclusion of these resources would simply be for the purpose of the calculation and not serve as a "carve out". In

this way it would not limit the participation of any other resources, merely provide parity between equally eligible resource types.

C. The allocation of tranche capacity to qualifying projects should be determined by each project's estimated or historical capacity factor

The Staff Whitepaper recommends the second option put forward by the JU Petition, but does not consider the first: awarding tranche capacity based on capacity factor, not simply installed capacity. The alleged cost-shift danger is the result of an oversight in the calculation of the available tranche capacity. That is therefore the most logical, and fair, place to correct it. Under this approach, a 1MW fuel cell which produces 6 times as many MWh per MW as a solar array would take up 6MW of tranche capacity. This would result in the same number of kWh being produced by DERs as initially intended without arbitrarily discriminating between resources. It is after all the number of kWh that matters, not the number of MW.

This approach also offers the opportunity for greater granularity than the current system. It is not necessary to use resource-average capacity factors when each project has either an installation-specific estimated CF, or a documented historical CF. If the intent is to come as close to the 2% impact target as possible without exceeding it, this would be the most accurate and non-discriminatory approach; however, further analysis and discussion would be warranted to arrive at the correct capacity factors to utilize for this purpose.

D. If the Commission adopts the recommendations in full, then exemptions should be provided for CDG developers who have already made investments based on the current MTC/CC rates.

The proposed discount in HCF values poses an existential threat to hydropower CDG early adopters who rely on the MTC/CC rates as previously published by the Commission. The Whitepaper recommendation will negatively impact several hydro and wind resources already participating in CDG or in the midst of investing in the administrative infrastructure to develop CDG programs in other service territories. The Whitepaper recommends that the grandfathering date for projects to qualify for full CC compensation be set at the date the Whitepaper was issued, August 9, 2019.

The VDER Transition Order was issued on March 9, 2017, but the grandfathering date for Net-Metering was set forward, allowing time for projects already invested in NEM to continue their efforts. Resources preparing to net-meter were given ninety days from the VDER Order to qualify for NEM before VDER took effect. Staff should take the same approach here. Today there are several hydros developing CDG in the study phase who have not locked in their tranche position yet. Their investments should not be lost because of an adjustment to the program design that was no fault of their own.

V. Conclusion

The Staff Whitepaper proposes a blunt and harmful approach to address a program design flaw that stands to discriminate against hydropower and wind resources. The proposal uses flawed analysis lacking any factual basis in determining capacity factors for all resources involved. Hydropower specifically is a finite resource with very little potential capacity likely to go into the CDG queue and virtually no likelihood of causing a significant cost shift impacting ratepayers. The early adopters who are pursuing CDG as a means to improve project economics and stay viable even without any credit for the value of their environmental attributes have a very thin margin to do business and rely on the CC rate as published in the April 2019 Order. All resources involved require program stability, and Staff should not change the rules that alter compensation based on the value of injections or disrupt resource parity. Any remedy adopted to address the concerns raised in the JU Petition should be confined to Con Edison service territory, or to the specific technologies referenced in the JU Petition.

The Hydro Parties support the ongoing work of refinements of the VDER programs and are pleased to participate in the conversation improving CDG and the VDER programs.

Dated: October 28, 2019

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