Arcadia

July 1, 2022

Draft Scoping Plan Comments
NYSERDA
17 Columbia Circle
Albany, NY 12203-6399

Re: Comments of Arcadia on the Climate Action Council Draft Scoping Plan

I. Introduction

Founded in 2014 on the belief that everyone deserves access to clean energy, Arcadia is a climate technology company. We work to enable the zero-carbon economy by connecting customers and companies to innovative clean energy products that are driving decarbonization. To-date, Arcadia has primarily served as a customer acquisition platform, connecting customers with community solar subscriptions. These subscriptions directly finance community solar projects while also offering customers guaranteed savings on their monthly electricity bills. New York's ambitious climate leadership and a supportive incentive and regulatory environment have established what is now the nation's largest community solar program. Through this program, Arcadia has established a robust presence in the state; Arcadia has more community solar customers in New York than any other market.

Community solar is just one of many innovative clean energy products that Arcadia is deploying to support the energy transition. A recent slate of acquisitions has bolstered Arcadia's platform by creating access to high-fidelity, global energy data for innovative customers looking to create products tailored to energy usage and ESG accounting. This data access can empower any company, in any industry, to act on their environmental impact or build the next generation of energy products and climate technology solutions.

Given our position within the market, Arcadia appreciates the opportunity to comment on New York's ambitious Draft Scoping Plan. We are generally supportive of many of the recommendations made within the Plan. Our comments first highlight the need for customer-centric, data-driven solutions to the climate crisis. Arcadia believes that greater access to account-level energy usage data, when partnered with increasing opportunities to optimize clean energy deployment, will be fundamental toward achieving New York's CLCPA decarbonization goals.

Our comments then focus on two specific programs that should continue to be a central focus for the state. The first is the need for continued, equitable access to community distributed generation ("CDG"), which is one of the state's key tools for advancing environmental justice objectives across Disadvantaged Communities. The second is to expand innovative rate design programs that will incent the customer to make energy choices that are good for the planet and their wallet.

II. Arcadia Supports a Data-Centered Distributed Grid

Arcadia focuses on both delivering clean energy directly to consumers through our community distributed energy resource ("DER") programs as well as providing access to auditable, account-level data through Arcadia's industry-leading software platform, Arc. These programs enable customers to understand and shift their electricity usage to cleaner sources while providing the data for companies to build the energy services and technologies to support a carbon-free future. Arcadia is working to help bridge the gap between the current grid infrastructure and the decarbonized, distributed, and digital energy future envisioned in the Draft Scoping Plan.

A. Arcadia Has the Capability to Support the Data Needs of the Future

Arcadia has developed the marquee data platform that will support the growing climate technology sector, particularly with respect to DERs. Arcadia has expanded the build-out of this platform through two recent acquisitions – a tariff database and rate engine (Genability) and the largest commercial dataset of utility data (Urjanet).

Arcadia's purchase of Genability expanded the company's capabilities and commercial reach and scope to include utility data from over 2,000 utilities, 160,000 tariffs, 2 million tariff line items, and the maintenance of more than 350,000 tariff updates per year across North America.[2] The data capabilities of Genability accelerated Arcadia's decarbonization-through-data vision and facilitated the release of the Arc platform. Now, Arc fuses the nation's most comprehensive and powerful tariff engine with the nation's leading utility data platform.

In May of this year, Arcadia announced the acquisition of Urjanet, which provides specific utility consumption and usage data for more than 9,500 electricity, natural gas, water, waste, telecommunications, and cable accounts in more than 52 countries around the world for commercial and industrial users. The data set also includes residential electricity data for more than 2,000 electric utilities in North America. With the acquisition of Urjanet, Arcadia's database went from an 80 percent coverage rate of U.S. utility customers, to 95 percent. Arcadia can now aggregate utility data for most commercial and residential customers across the country. We are now positioned to help companies digitize and automate as much of the decarbonization process as possible.

B. High Quality Data is Needed to Accurately Measure and Report Decarbonization Objectives

Arcadia can track utility-grade meter interval data in real time for commercial businesses, suppliers, partners, and households through our software platforms and APIs. We believe this has numerous applications for the climate-related efforts integral to achieving the CLCPA's decarbonization goals.

For instance, Arcadia already works with 30% of the Fortune 500 companies on ESG reporting, providing the time and geographic-specific energy usage data for Scope 2 and Scope 3 reporting

today. In our view, the days of energy consumption data and emission intensity information being disaggregated, opaque, and difficult to report are over. Arcadia's utility data insights can not only provide companies with the inputs and tools to accurately report their emission intensity data in real time, we can also provide the reports to businesses in their preferred format, the regulator's required format, or both. Arcadia already provides solutions to companies to aid in climate-related disclosures, as well as procurement of clean energy to offset emissions. These offerings include energy management, energy procurement, and sustainability reporting.

Arcadia also works with companies using the U.S. Environmental Protection Agency's ENERGY STAR Portfolio Manager, allowing such users to seamlessly integrate their utility bill data directly into that platform. An online tool that helps organizations measure and track energy usage and greenhouse gas emissions, Portfolio Manager is used to benchmark more than 40% of commercial building space in the U.S., making it the de facto industry standard. More than 35% of the Fortune 500, including half of the largest U.S. healthcare organizations, major league sports teams, colleges and universities, and major cities use ENERGY STAR Portfolio Manager.[4]

Without access to time and geographic-specific energy consumption data, it will be impossible to accurately report on energy emission intensity and to better understand how successful New York's efforts are to modernize and decarbonize the energy system through increased deployment of clean energy and energy efficiency resources. Emissions calculations are often informed by regional estimates and generalized inputs resulting in substantial deviations between calculated emissions and real emissions. Research from U.C. Davis demonstrates that when averaged regionally across a longer time span, emissions intensity data may differ from actual emissions by as much as 35%, even when the data is from the latest available year.[5] Access to high quality data will make it possible for businesses and industries to better understand the emissions intensity of the energy their companies, supply chains, and even their employees consume. This will also enable the companies to contract for products and services that reduce and/or offset carbon intensive energy consumption.

Utilizing accurate time and geographic specific energy consumption data is also fundamental to informing investors of climate and investment risks.[6] Together, Arcadia and Urjanet will have connected more than 1.35 million utility accounts around the world — representing 75k GWh of energy demand annually and almost $20 billion in yearly utility bills. However, only 9% of companies use software for accurate ESG reporting.[7] Accurate ESG disclosures give investors the meaningful insight they need and provide an important level of granularity into businesses' social and environmental impacts. According to a 2021 Workiva Inc. survey, 70 percent of investors who responded believe that companies are responsible for demonstrating ESG performance to investors. Additionally, for 43 percent of respondents, data is king. They noted that they are more likely to trust ESG performance when provided with numbers and data over qualitative descriptions alone.[8] Arcadia is building the APIs that will be foundational for the carbon accounting and ESG reporting, which should be integral as New York works to meet its CLCPA's decarbonization goals.

III. Arcadia Supports the Continued Growth of New York's CDG Program

Arcadia manages the nation's leading community solar program, helping to tackle energy injustice while spurring economic growth with more than 750 megawatts ("MW") of solar under management. These projects will serve roughly 100,000 subscribers. We are thrilled to have the opportunity to contribute to the nation's leading CDG program in New York, and the increased clean energy access this program provides to all New Yorkers. This section focuses on Arcadia's capabilities regarding deployment of CDG programs as well as recommendations on how to better improve the CDG program so that the program can continue to grow and provide tangible cost savings for participating New Yorkers.

A. Arcadia is Committed to Equitable Access to Clean Energy via Community Solar

Arcadia focuses significant time and resources on enrolling and managing CDG subscribers across New York and looks forward to expanding its programs in the coming years. Through our APIs, Arcadia's CDG product offerings are one of our core business lines, where we serve as a subscriber acquisition service for CDG project. Our access to customer utility bill data has also been instrumental in advancing our efforts to subscribe low and moderate income ("LMI") customers to CDG projects via the Inclusive Community Solar Adder ("ICSA").

By directly accessing customer bills, Arcadia has industry-leading visibility into perceived bill payment risk. Arcadia has found that investor risk sentiment about financing LMI projects is largely driven by assessing FICO scores, which is not a strong indicator of utility bill non-payment. By proactively qualifying customers for CDG that have no history of non-payment or bill arrears, which we can view at the point of sale, Arcadia has dramatically increased the share of LMI customers eligible for CDG savings. The use of customer payment history as a metric for enrollment is a more accurate way to de-risk a project than the use of FICO scores. Additionally, low credit scores are unevenly distributed across the population. Low-income households are disproportionately impacted by a reliance on credit scores, effectively being locked out of the community solar market. Through Arcadia's approach, which does not rely on credit scores, Arcadia can dramatically increase the share of low-income customers participating in Community Solar programs. For example, in New York, 19% of the Community Solar participants Arcadia subscribed in 2022 qualified as Disadvantaged Community (DAC) members for the ICSA projects.

B. Community Choice Aggregations (CCAs) Should Have Reasonable Limits and Rules that Protect Customer Expectations and Access

The Draft Scoping Plan states, "NYSERDA should continue to encourage development of CCA programs where communities choose 100% renewable energy as the default supply, and where participants are automatically enrolled in Community Solar."[1] While Arcadia recognizes the theoretical public policy benefit of CCAs, their ability to create meaningful savings for customers has yet to be proven out, as evidenced by Sustainable Westchester's pause on the retail

supply offering.[2] Moreover, Arcadia cautions the Climate Action Council against unfettered access to Community Solar incentives for CCAs.

1. CCA Auto-Enrollment in Community Solar Creates Geographic Disparities to Community Solar Access

Arcadia's primary concern with CCA CDG auto-enrollment is that it will likely produce geographic disparities in customer access to CDG projects. If CCAs through auto-enrollment subscribe all of the available CDG capacity in a given utility service territory, there will be limited opportunity, if any, for those utility customers who live *outside* of municipalities served by CCAs to enroll. We share concerns expressed by Department of Public Service Staff ("Staff") about the impact of an opt-out CDG program in "utility territories that either have limited potential for CDG development, or potentially do not have sufficient pipeline capacity to support both opt-in and opt-out CDG models."[3] We agree with Staff that this issue is particularly acute in Con Edison territory where opt-out CDG CCA programs in Westchester County may "inadvertently restrict access to opt-in CDG for New York City residents and specifically impact the availability of such a program for the disadvantaged community residents that could most benefit from a CDG subscription and the savings it guarantees."[4]

In our view, the final Scoping Plan should include language that ensures CCAs will not interfere with equitable customer access. Limiting CCAs to 20 percent of the newly allocated MW Block base incentive outlined in the Public Service Commission's ("PSC") April 14, 2022 Order[5] strikes the proper balance between allowing the CCA model to demonstrate its value while also protecting consumer choice, ensuring equitable access to CDG projects within utility territories, and preserving the continued functioning of the existing CDG market in the event of an unsuccessful CCA roll out. The opt-in program plays an important role within the market by creating equitable access to CDG regardless of whether a customer happens to be served by a CCA.

2. CCA Projects Should Not be Eligible for the Community Adder or Inclusive Community Solar Adder

The final Scoping Plan should also encourage NYSERDA and other policymakers to allocate resources where they are needed to expand CDG access. CCA Administrators have repeatedly made the claim that the opt-out model is a more efficient way to acquire customers. However, there is no evidence to justify this claim. That said, if CCAs do have lower customer acquisition and management costs, then projects using CCAs for subscriber acquisition should not be eligible for the Community Adder or the ICSA.

These incentives are designed to offset the costs of marketing, enrolling, and maintaining customers in traditional CDG projects. If it is truly the case that CCAs have lower customer acquisition and management costs due to their auto-enrolling capabilities and bypassing customer choice in the first instance, then distributed solar projects participating in a CCA program do not need a Community Adder or ICSA to compensate them for such costs. If this

new CCA offering avoids customer acquisition and management costs, then CCAs have no need for the incentives that are designed to offset those costs. CCAs cannot claim that they can administer CDG programs with significant cost savings, but still claim incentives designed to compensate for those same costs.

Instead of allocating the limited funds available for the Community Adder and ICSA to CCA auto-enrollment of community solar, these incentives should be directed toward projects that need those incentives to cover costs of increasing disadvantaged communities ("DAC") enrollment and sustaining CDG projects. CCAs have claimed that their model results in lower cost of customer acquisition. If this is true, allowing CCAs to access the Community Adder incentive will simply create higher profits for developers without creating any additional consumer or ratepayer benefit. Given CCA's purported lower cost of customer acquisition, any additional CDG developed without the Community Adder is a net gain on ratepayer funds.

IV. Arcadia Supports Time Varying Rate Structures

While the state has made steps toward encouraging residential customer participation in vital demand-side management initiatives such as managed EV charging, time-varying rates, and demand response, New York has yet to be successful in driving high levels of adoption. This is in part due to a regulatory environment that does not adequately encourage or compensate utilities for robust demand-side management. It is also because utilities have not invested resources in creating customer-centric technology platforms that are necessary to connect the next generation of climate technology innovators to climate- and cost-conscious customers. These are innovations that will be required to reach New York's CLCPA decarbonization goals.

Access to customer energy usage data has the potential to unlock limitless opportunities for demand flexibility and for DERs to scale decarbonization efforts to meet the CLCPA goals. However, for this potential to be realized, both the market and the customer need clear signals in retail electricity rates to incentivize optimal use of grid infrastructure. Time-varying rates that are properly designed can provide this signal and unlock a whole host of carbon reduction benefits, including increased demand-side management and broader load flexibility. Such rates present actionable price signals to customers to optimize demand-side behavior for both individual and aggregated DERs.

For this reason, Arcadia supports the recommendations in the Draft Scoping Plan that "The PSC and DPS should lead consideration of dynamic underlying electric rate structures and programs (such as dynamic load management) that provide appropriate price signals to customers to incentivize deployment and usage of DERs, including heat pump systems, battery and thermal storage, and other load flexibility measures that promote more efficient utilization of the electric delivery system and help to mitigate summer and winter system peaks."[6] Arcadia's integrated platform can encourage participation in these programs, which are often complex and difficult to understand for most customers, via a variety of DER-specific rate designs.

A. Time Varying Rates Will Help New York Meet its CLCPA Decarbonization Goals

The Climate Action Council has outlined that "[e]nergy efficiency and end-use electrification are essential parts of any pathway that achieves New York State emission limits."[7] This is a foundational theme across all mitigation scenarios based on findings from CAC Advisory Panels and supporting analysis. Despite utility investment in advanced metering infrastructure, there has yet to be a full deployment of the advanced technology and data signals that will unlock the potential for demand flexibility necessary for New York to reach its CLCPA decarbonization goals.

The roll-out of advanced metering infrastructure across approximately 100 million customers across the United States has been extensive, and yet utilities have generally failed to capitalize on the litany of use cases for these smart meters that could result in a more efficient and resilient grid. The most obvious use-case for advanced metering infrastructure is a time-varying rate design, which could incent customers to either reduce electricity consumption or shift load to periods when the grid is less constrained, or even when the carbon intensity of the grid is lower. However, there has been very limited customer participation in these programs across the U.S., and New York is no exception. This is in large part due to a lack of customer-centric investment by the utilities in technology that would empower ratepayers to use their own data to benefit the customer and the grid.

Arcadia has the functionality to address some of these gaps. Our platform now combines automated rate optimization and smart time-of-use rate optimization with the nation's most comprehensive rate engine and tariff database. By accessing a customer's rate classification and usage patterns, Arc can enable Smart Scheduling where we present a visualization to a customer of how much money they could save by shifting their energy usage to off-peak windows. Given the historically opaque nature of complex time-of-use rates and the continued limited knowledge by customers of their real-time energy usage and costs, software-enabled technology is the final frontier to aligning customer behavior with incentives. At a minimum, this technology could be used in concert with smart thermostats, heat pumps, and other passive load control devices to reduce strain on the grid during peak emitting hours. The following sections describe two additional applications of time varying rates: on-site distributed energy resources and electric vehicle charging.

1. New York Should Explore Time-Varying Rates for On-Site DERs

Aligning energy price signals with policy goals via time-of-use rates is just one piece of the puzzle to enable broader demand-side flexibility. Deeper decarbonization will be achieved by a combination of aligning electricity price signals and enabling customers to shift demand with access to a more diverse suite of flexible devices to respond to market signals and reduce electricity demand. This is reflected in the Draft Scoping Plan on Rate Design for Distributed Energy Resources: "The State should consider improvements to dynamic underlying electric rate structures and programs (such as dynamic load management) that provide appropriate cost-based price signals to customers to encourage DER deployment and usage."[8] Grid benefits are

realized by incentivizing DER customers to consume energy either when the DER resource is producing energy (i.e., rooftop solar) or when the grid has excess capacity and therefore prices are lower.

Likewise, solar-plus-storage and stand-alone storage, given their different resource profiles, have unique profiles that should be accounted for in any time-varying rate model. This is noted in the DSP: "Utility price signals and technological innovation also should support expansion of grid-interactive buildings, energy storage, and other demand-side solutions for load shifting, reducing the need to operate peaker power plants and to build additional grid capacity."[9] For example, a solar-plus-storage resource application could utilize a time-varying rate that incentivizes the storage resource to charge when the solar resource is producing. This rate design could help enable the customer to realize the benefits of the clean energy investment more fully while also providing valuable grid reliability services.

2. New York Should Explore Time-Varying Rates and Managed Charging Use Cases for Electric Vehicles (EVs)

In addition to standard time-of-use rates for all customer classes, the Draft Scoping Plan also calls for more targeted development and adoption of rate design and EV-specific managed charging programs: "The PSC should direct utilities, as appropriate, to implement programs that offer lower rates for or otherwise encourage off-peak charging and/or controlled, managed charging…The PSC and NYSERDA should also consider how to maximize the value of ZEVs as grid-interactive assets and storage devices, which could potentially lower electric grid upgrade costs and generate revenue for ZEV owners."[10]

When customers are on EV-specific tariffs, they can pay significantly less per kilowatt-hour of electricity if they charge at times of off-peak demand, such as overnight. Unfortunately, taking advantage of the savings from optimal tariffs and smart charging can be extremely difficult and time-consuming for EV owners. Therefore, there has been such limited adoption of managed charging programs to-date. To determine what tariff they are on, customers typically must search through their utility account or call customer service. Then there's the matter of figuring out which tariff is cheapest, which is increasingly difficult as the number of options available increases, and making the switch, which requires another call to the utility. Finally, if a customer makes it that far, they must find and then tediously program peak and off-peak windows into their vehicle so that they can leverage smart charging – if these peak windows change or the tariff is otherwise revised, customers would be unaware unless they meticulously studied their utility bill or inquired about it. The complexity of these rates and barriers has ultimately led to lower adoption of managed charging, with 60% of the utilities surveyed about EV participation in managing charging programs citing "uncertainty around EV customer participation" as the most significant barrier to implementation of these programs.[11]

It should not be up to EV owners to do all the legwork to make sure they are maximizing their savings. Instead, energy innovators should be able to automate those cost-savings for them. Arcadia's Arc platform enables just that. By combining Arcadia's utility data collection

capabilities with Genability's comprehensive electricity pricing database, Arc helps companies simplify the incredibly complex energy space for their customers. Arc can enable smart EV charging by analyzing customer usage data and demonstrating savings to the customer based on an analysis of when it is optimal to charge the vehicle. This drives both DER enablement and beneficial electrification. With access to customer electricity consumption data via Arc's set of integrated APIs, Arc can signal greater savings to end-use customers while supporting the grid through optimized charging schedules that are centered around charging during periods of low aggregate demand.

Relying on data capabilities from Genability, Arcadia can also provide the personal insights that allow energy innovators to help customers manage the transition to EV ownership and resolve much of complexity involved. Genability has targeted data that makes it possible to replace generic, one-size-fits-all estimates with specific data around what drives costs in a customer's specific location. From identifying the optimal tariff for customers to automatically optimizing their charging time, Arc is providing a platform for energy innovators to help customers save money and build trust while also supporting New York's decarbonization goals.

V. Conclusion

New York is leading the long journey toward addressing the climate crisis by establishing ambitious climate goals. Arcadia hopes to be a partner in this process and support New York programs with data that can accurately measure and account for decarbonization efforts, CDG offerings that can expand the ability for more New Yorkers to access clean energy offerings, and future demand-side management opportunities around innovative rate designs. The clean energy industry is a proven partner in unlocking the innovation needed to create customer-centric solutions to assist New York in achieving its CLCPA decarbonization goals. We thank you for the opportunity to participate in the New York Climate Action Council's Draft Scoping Plan and provide these comments.

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[1] Draft Scoping Plan at 165.
[2] *Sustainable Westchester Power Pause*, Village of Hastings-on-Hudson, *available at* https://www.hastingsgov.org/home/news/sustainable-westchester-power-pause-all-current-participants-will-be-switched-westchester.
[3] Case 14-M-0224, *Department of Public Service Staff Straw Proposal on Opt-out Community Distributed Generation* (Mar. 29, 2022) ("Straw Proposal").
[4] Straw Proposal at 21.
[5] Case 21-E-0629, et al., *Order Expanding NY-Sun Program* (Apr. 14, 2022).
[6] Draft Scoping Plan at 139.
[7] Draft Scoping Plan at 73.
[8] Draft Scoping Plan at 161.

[9] Draft Scoping Plan at 122.
[10] Draft Scoping Plan at 104.
[11] *The State of Managed Charging in 2021*, Smart Electric Power Alliance, *available at* https://sepapower.org/resource/the-state-of-managed-charging-in-2021/thank-you/.