



Consent Item 9

TO: East Bay Community Energy Board of Directors

FROM: Beckie Menten, Program Manager, Building Electrification and Energy Efficiency

SUBJECT: First Amendment to Consulting Services Agreement with Recurve Analytics

DATE: June 17, 2020

Recommendation

Adopt a Resolution authorizing the CEO to execute a First Amendment to the Consulting Services Agreement with Recurve Analytics (“Recurve”) to extend the term, to add to the scope, and to increase the compensation by \$125,000, for a total amount not to exceed \$225,000.

Background and Discussion

Background

In October of 2019, EBCE contracted with Recurve Analytics to develop a baseline across EBCE service area, against which to evaluate the potential for time based pay for performance demand side programs. EBCE staff hopes to discover through pay for performance pilots if the procurement of flexible demand side resources can offer a strategy for achieving lower cost carbon free resources during evening peak periods. The initial work product with Recurve focused around developing a baseline against which to calculate program impacts; now EBCE staff seeks to extend the term of the Agreement with Recurve to support implementation of three pay for performance pilots. These pilots will help EBCE understand the feasibility of achieving evening peak reductions from energy efficiency strategies and would help inform and support a potential funding application to the California Public Utilities Commission.

EBCE is working towards achieving a 100% free electricity portfolio; to achieve this strategy cost-effectively, EBCE must find solutions for low-cost, carbon-free resources available during evening peak hours, i.e. 3-9 pm. Currently, there is a mismatch between supply of renewable power and demand for power during the evening peak period. Renewable power is most abundant in the middle of the day, whereas energy consumption peaks in the evening hours - this results in renewable power facilities being curtailed and a dearth of carbon free resources in the evening hours.

EBCE has an interest in exploring the ability to procure demand side resources, specifically flexible load resources, as a strategy for reducing carbon emissions and achieving rate stability. Flexible load demand side resources refer to behind the meter strategies to not only reduce overall energy use, i.e. energy efficiency improvements, but also targets load shifting strategies deployed at the same time. This could include, for example, an HVAC system retrofit that incorporates a programmable thermostat, enabling a homeowner to save money on bills through overall efficiency, but also maximize savings to time of use billing by “pre-cooling” a home during midday hours when renewable energy is cheap and abundant, and avoiding cooling during evening peak hours, when energy is expensive and more carbon intensive. Incorporating both overall baseload reduction as well as the ability to shift when energy demand occurs can help to minimize the overall need for energy procurement during expensive and carbon intensive evening hours (figure 1).

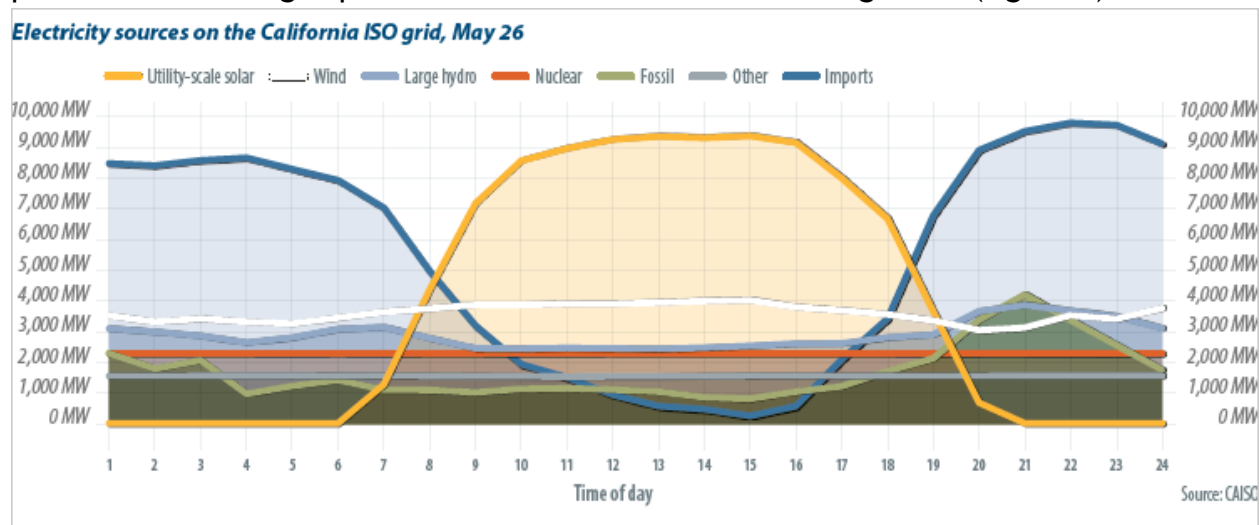


Figure 1. Image source: Harald Schütt for pv magazine. Data from CASIO.

There are many potential benefits associated with procuring these resources from behind the meter strategies, versus front of the meter storage. Energy efficiency offers many benefits to participants, including increased comfort and safety, reduced bills, and higher quality of life. Energy efficiency programs also stimulate the local economy, both through saving customers money on bills -which can be spent

elsewhere - and through local workforce development. The Local Development Business Plan cites energy efficiency as one of the best local job creators, estimating to generate around 10.5 jobs per million dollars invested¹. This pilot has the potential to generate over 7 new, local jobs; at scale, it could generate as many as 50.

EBCE Pilot Procurements

Starting in Q4 2019, Recurve imported EBCE customer data into their data analytics platform. Based on protocols defined in the CalTRACK² methodology, the Recurve dashboard then allows EBCE to select certain subsegments of the population to determine the potential benefits associated with demand side programs. Based on this, EBCE staff have designed three potential pilots targeting evening peak reductions. Programs are designed to test: 1) market readiness for P4P programs, 2) the Recurve platform for customer targeting and program operation and, 3) the ability of P4P programs to encourage “flexible load,” targeting savings during the evening ramp and evening peak hours (4-9 pm). The three pilots target single-family residential, commercial, and low-income residential customers. The proposed pilots are intended to run for one year, allowing EBCE to test both the logic of the program as well as the performance of contractors. If the pilot successfully delivers cost effective savings and demonstrates market readiness for programs that pay incentives on meter based savings, the program can be to be scaled. A scaled program would focus on much larger customer participation targets and would pay for incentives over a longer time frame, such as 3-5 years; this would increase interest and participation among contractors and improve the reliability and persistence of the energy savings.

The Recurve platform enables these pilots by offering a measurement and verification function. By developing a baseline from EBCE customer data, the Recurve platform calculates the expected energy consumption in the absence of any interventions, i.e. an energy efficiency retrofit. Once a project has been performed on a property, the actual meter based consumption post-project is compared against the expected baseline in a “no-intervention” scenario, and the difference is attributed to the project and becomes the basis of incentive payments. In other words, pay for performance programs pay an incentive based on the program impacts as measured at the meter.

¹ Local Development Business Plan at p. 72. (https://ebce.org/wp-content/uploads/Local-Development-Business-Plan_FINAL_7-12-18_hi-res.pdf)

² CalTRACK refers to a methodology for establishing a baseline and measuring impacts of a project at the meter. This methodology was developed as an open source framework and has been adopted by the California Public Utilities Commission for use in ratepayer funded pay-for-performance pilots. <http://www.caltrack.org/#:~:text=What%20is%20CalTRACK%3F,intervention%20had%20not%20taken%20place.>

An additional benefit of this platform is that it allows EBCE to do targeted outreach for these pilots, ensuring that the participants targeted for the program are those who may benefit the most from the program. Figure 2 shows the load shape of customers selected for the program (in this case, single family residential), as compared to the total population of customers and the “non-selected” customers. This figure demonstrates that the targeted customers use significantly more energy in the evening peak time frame; thus, these are customers who would benefit the most from a program targeting evening peak.

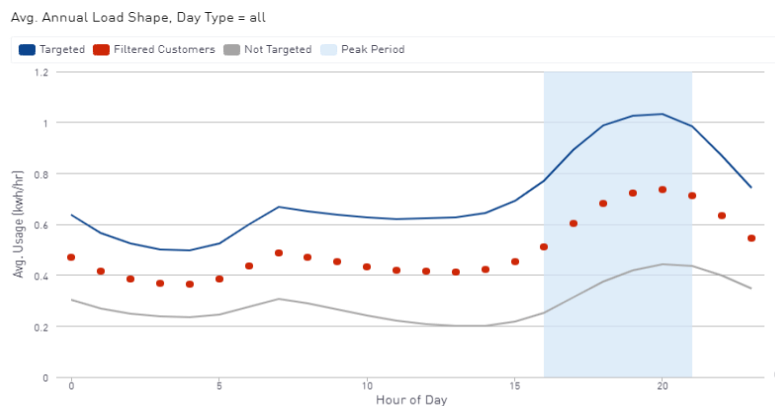


Figure 2. Load Shapes of Targeted vs. Non-Targeted Customers. Targeted customers are represented in blue, non-targeted customers are in gray, and the total population is in dashed red.

Recommendation

EBCE is pleased with the outcome of Recurve’s work product from Phase I of the effort. Recurve has been very involved in development of the CalTRACK methodology, an open source methodology used for determining savings from meter based programs in California Public Utilities Commission programs. This situates EBCE well to draw from outcomes of this pilot to inform a potential CPUC funding request. If the pilot succeeds at delivering savings cost effectively and demonstrates that contractors are comfortable with pay for performance programs that measure savings at the meter, then it would be recommended to scale the program. The ultimate goal is to pursue administration of ratepayer funded energy efficiency programs at the California Public Utilities Commission. EBCE staff estimates a potential annual budget of \$5 million / year could be available to support EBCE administered energy efficiency programs. These funds could be used to establish a program framework and provide incentive payments for the energy efficiency related portion of the program. The target date for transitioning to energy efficiency funding is July 1, 2021 - coinciding with the 21-22 fiscal year.

The pilot will also provide an important foundation upon which to build into an eventual ratepayer funded EE program. This pilot will help EBCE prepare for a filing for, and eventual implementation of, an EE program in three ways: first, it will reduce time necessary to draft cost effectiveness filings by providing empirical data to populate these filings (this includes values such as measure costs, participation

levels, appropriate incentive levels, and savings forecasts.) Secondly, it will provide a data-based foundation upon which these filings are based, which is likely to reduce stakeholder protests and supplemental filing requests, overall shortening the regulatory cycle from filing to draft Resolution. Finally, it will ensure the program is “launch ready” from day one. Frequently when first time administrators propose EE filings, there is significant guesswork involved around assumptions such as participation rates, what incentive is necessary to move the market, and the need to build awareness of programs in the contractor community. Having some certainty and program experience before going into the filing will help to ensure that forecasted results are much more closely aligned to actual results, helping EBCE to deliver on goals and allowing for any “wobble room” provided to first time implementors to be applied towards innovation and improvement, rather than trueing up to initial estimates. This will help to solidify EBCE’s status as a leader in innovation and implementation right out of the gate.

EBCE staff therefore seek to amend the existing Agreement with Recurve to move into Phase II of this effort, namely the implementation of pay for performance pilots. In developing this recommendation, staff has reviewed the EBCE Administrative Procurement Policy; as Recurve is a preferred vendor resulting from a Southern California Public Power Authority Request for Qualifications for a substantially similar scope of work, the policy allows for EBCE to engage Recurve for these services under Section VII. Cooperative Purchasing (2.).

The proposed Amendment proposes to increase compensation by \$125,000, with an overall not to exceed amount of \$225,000, amends the contract to introduce additional scope, and extends the term to December 31, 2021. Additions to the Scope include refreshing the data in the Recurve dashboard to the most recently available, introduction of new EBCE member agencies into the platform, and measurement and verification services to support the implementation of pay for performance pilots. The amendment also adds a contingency budget of \$25,000 (included in the total above) for additional staff support and platform processing hours.

Fiscal Impact

The proposed amendment will be funded from an existing allocation in the Local Development Budget.

Attachments

- A. Resolution Authorizing the CEO to Execute a First Amendment to the Agreement with Recurve Analytics
- B. First Amendment to Consulting Services Agreement with Recurve Analytics

RESOLUTION NO. __

**A RESOLUTION OF THE BOARD OF DIRECTORS
OF THE EAST BAY COMMUNITY ENERGY AUTHORITY AUTHORIZING THE CEO TO
EXECUTE A FIRST AMENDMENT TO THE AGREEMENT WITH RECURVE ANALYTICS TO
PROVIDE TECHNICAL SERVICES FOR ENERGY EFFICIENCY PROGRAMS**

WHEREAS The East Bay Community Energy Authority (“EBCE”) was formed as a community choice aggregation agency (“CCA”) on December 1, 2016, Under the Joint Exercise of Power Act, California Government Code sections 6500 *et seq.*, among the County of Alameda, and the Cities of Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Piedmont, Oakland, San Leandro, and Union City to study, promote, develop, conduct, operate, and manage energy-related climate change programs in all of the member jurisdictions. The cities of Newark and Pleasanton, located in Alameda County, along with the City of Tracy, located in San Joaquin County, were added as members of EBCE and parties to the JPA in March of 2020.

WHEREAS in October 2019 EBCE entered into a Consulting Services Agreement with Recurve Analytics (“Recurve”) to develop a baseline for time-based demand side resource procurement programs and to provide technical energy efficiency consulting services.

WHEREAS there is a desire to pilot procuring cost-effective demand-side resources through pay for performance programs in the EBCE service area.

WHEREAS Recurve possess the skill, experience, ability, background, and knowledge to provide measurement and valuation services to support implementation of time based pay for performance pilots.

WHEREAS EBCE seeks to amend the existing Agreement with Recurve to increase the compensation by \$125,000 for a total not-to-exceed of \$225,000, add additional scope to support the implementation of pay for performance pilots, and extend the Agreement term to December 31, 2021.

NOW, THEREFORE, THE BOARD OF DIRECTORS OF THE EAST BAY COMMUNITY ENERGY AUTHORITY DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. The Board of Directors hereby authorizes the CEO to negotiate and execute an Amendment to the Consulting Services Agreement with Recurve Analytics to increase the total compensation by \$125,000, increase the total not to exceed to \$225,000, to add new scope, and extend the term of the Agreement, in substantially the form attached hereto, with clarifying or clerical changes proposed by the CEO and approved by the General Counsel.

ADOPTED AND APPROVED this 17th day of June 2020.

Dan Kalb, Chair

ATTEST:

Stephanie Cabrera, Clerk of the Board

First Amendment to Consulting Services Agreement by and Between East Bay Community Energy Authority and Recurve Analytics

This First Amendment to the Agreement with Recurve Analytics for Consulting Services (“First Amendment”) is made this 17 of June, 2020, by and between the East Bay Community Energy Authority, a Joint Powers Agency formed under the laws of the State of California (“EBCE”) and Recurve Analytics (“Recurve”), a Delaware corporation, for the purposes of adding additional compensation, adding additional services to the scope, and extending the termination date.

Recitals

- A. EBCE and Recurve entered into that certain Consulting Services Agreement dated 15th October 2019 (“Agreement”), wherein Recurve agreed to provide data analytics and energy efficiency (“EE”) baseline assessment services to EBCE, with compensation not to exceed \$100,000.
- B. EBCE and Recurve now desire to amend the Agreement to add additional compensation, increasing the not-to-exceed amount by \$125,000 to cover platform and program management support for pay for performance pilot programs for a total amount not to exceed \$225,000, to add additional services to the scope of services including refreshing the data in the Recurve platform and providing platform support and measurement and valuation services for pay for performance pilots, and to extend the term of the Agreement.

Now therefore, for good and valuable consideration, the amount and sufficiency of which is hereby acknowledged, the Parties agree as follows:

- 1. Section 2 of the Agreement (“Term”) is amended to extend the term of the Agreement through December 31, 2021.
- 2. Section 6.1 of the Agreement (“Compensation and Payment”) is amended in part to increase the total compensation of the Agreement by \$125,000 for a total amount not to exceed two hundred thousand five dollars (\$225,000).
- 3. Exhibit A (“Scope of Work”) of the Agreement is replaced in its entirety by Exhibit A, attached hereto.
- 4. Exhibit B (“Schedule”) of the Agreement is replaced in its entirety by Exhibit B, attached hereto.
- 5. Exhibit E (“Compensation/Budget”) of the Agreement is replaced in its entirety by Exhibit E, attached hereto.
- 6. Section 7.2 of the Agreement (“Records Retention and Ownership of Work Product”) is amended as per below.

- a. The last sentence of 7.2 reads, “EBCE agrees that the Work Product will not be disclosed, sold, assigned, leased or otherwise disposed of or made available to third parties by EBCE, commercially exploited by or on behalf of EBCE, nor provided or made available to any other party without written authorization.”
- b. That sentence is deleted in its entirety, and the following language is appended to 7.2:

“7.2(a) For any purposes other than pursuing and exploiting the energy efficiency and procurement opportunities within the EBCE Service territory and otherwise enjoying the intended benefits of the Work Product, EBCE agrees that the Work Product will not be disclosed, sold, assigned, leased or otherwise disposed of or made available to third parties by EBCE, commercially exploited by or on behalf of EBCE, nor provided or made available to any other party without written authorization.

7.2(b) For the purposes of pursuing and exploiting the energy efficiency and procurement opportunities within the EBCE Service territory and otherwise enjoying the intended benefits of the Work Product, EBCE agrees that the Work Product will not be sold, assigned, or leased by EBCE, or commercially exploited by or on behalf of EBCE. For these purposes, EBCE can make Work Products available to third parties without written authorization but must provide notification to Recurve within thirty (30) days. EBCE cannot make Recurve software available to third parties for any purpose.”

7.2(c) Notwithstanding the above, it is understood that EBCE is subject to the California Public Records Act (Gov. Code § 6250 et seq.). If a request under the California Public Records Act is made to view the Work Product, EBCE shall notify Recurve of the request and the date that such records will be released to the requester unless Recurve obtains a court order enjoining that disclosure. If Recurve fails to obtain a court order enjoining that disclosure, EBCE will release the requested information on the date specified and EBCE shall have no liability regarding such release.

Section 12.6 of the Agreement is added to the agreement. Section 12.6 reads:

“EBCE agrees, at its sole cost and expense, to indemnify, defend, with counsel reasonably approved by Consultant, protect and hold harmless Consultant, its officers, directors, employees, agents, attorneys, designated volunteers, successors and assigns, and those Consultant agents serving as independent contractors in the role of Consultant staff (collectively “Consultant Indemnitees”) from and against any and all damages, costs, expenses, liabilities, claims, demands, causes of action, proceedings, penalties, judgements, liens and losses of whatever nature that arise, directly or indirectly, in whole or in part, out of or are in any way related to EBCE’s unauthorized release of any personally identifiable information

contained in Consultant Work Product as described in Sections 7.2(a) and 7.2(b).”

7. All other terms and conditions in the Agreement not otherwise modified by this First Amendment will remain in full force and effect.

In witness whereof, the Parties have entered this Amendment on the date written above.

East Bay Community Energy Authority,
A Joint Powers Authority

Recurve,
A Recurve Analytics

Nick Chaset
Chief Executive Officer

Name:
Title:

Date: _____

Date: _____

Approved as to form:

Name:

Title:

Date: _____

EBCE General Counsel

Exhibit A

Scope of Work

I. Scope of Work

Recurve will make its platform available until October 31, 2021. Platform will access customer consumption records and other data agreed upon by both parties to support development and deployment of pilot programs as described below. Data outputs will be stored in Recurve's Data Warehouse and will be made available to EBCE through the Recurve dashboard(s), the Recurve API, and by database transfer (copy of the Recurve dataset back to the EBCE Google Cloud Platform BigQuery project, or other similar mechanism).

Task 1. Data Refresh: Recurve will refresh its existing territory-wide analysis of EBCE's building stock, using all available 2019-2020 data, and update its data warehouse tables as well as its "Portfolio Summary and Analytics" and "Targeting Analytics" dashboards.

Recurve utilizes Google Cloud Storage and related tools for raw data storage and cloud-based data science. Recurve will upload Item 17 (or equivalent) consumption data provided by EBCE corresponding to the electric and natural gas meters in the EBCE service territory. EBCE will provide the data in the same structure and method as it has employed in the initial Scope of Work.

Consumption data is geocoded and mapped to building sites, which are in turn mapped to known DERs. This mapping allows Recurve to create longitudinal profiles of the installed DER base in the service territory. The relational database structure provides the foundation for subsequent analytics.

Recurve fits building energy models to all sites within the service territory following CalTRACK protocols (docs.caltrack.org). First, the relationship between changes in outdoor temperature and changes in energy consumption (heating and cooling) are determined for both daily and hourly increments in all buildings. Along with these weather factors, this method produces useful model error metrics that provide visibility into buildings with erratic energy consumption. Additional metrics like peak to shoulder ratio, summer and winter consumption, gross consumption, and load shape profiles provide the basis for customer targeting for future DER procurements.

Deliverable: Recurve dashboard will be updated with 2019 data and inclusive of new EBCE communities (cities of Pleasanton, Newark, Tracy).

Task 2: Resource Planning for P4P Pilots

The same data that is used to create the baseline calculations, as well as the targeting profiles, will be used to operationalize procurements for load resources. Data that was used for planning will be repurposed to support pay for performance pilot implementation, including through establishing baselines, quantifying program impacts, and targeting customers for participation in the pilots. Recurve, in conjunction with EBCE staff, will develop a measurement and verification (M&V) strategy and related guidance for determining net impact to load shape and associated incentive payment obligations to contractors.

Deliverables:

- M&V plan for three P4P pilots

Task 3: Fleet Management: Recurve will provide program tracking for three pilot programs. The savings results for these programs will be updated no less frequently than monthly and a final savings value will be calculated for each participant based on the program design either at the end of the program reporting period or at the point of termination of this Scope of Work. Recurve will track customer enrollment to determine if contractors are to receive one-time “kicker” incentives agreed upon by the parties (e.g. enrollment bonuses.)

Deliverables:

- Monthly status reports (including enrolled projects, contractors, and eligible enrollment bonuses)
- Final report on program impacts, including at a minimum program energy savings with savings during peak periods (3-9 pm) being separately reported, total incentive payment, total participating contractors, total projects
- Transfer of enrollment data back to EBCE on a monthly basis via the EBCE Google Cloud Platform, or other similar mechanism.

Task 4. Customer Success Package: Recurve will provide up to 100 hours of Consultant Staffing time to support EBCE, covering both Resource Planning and Fleet Management.

III. Consultant Staffing

Matt Golden
McGee Young
Adam Scheer
Natalie Kozlowski
Mariano Teehan

Exhibit B

Schedule

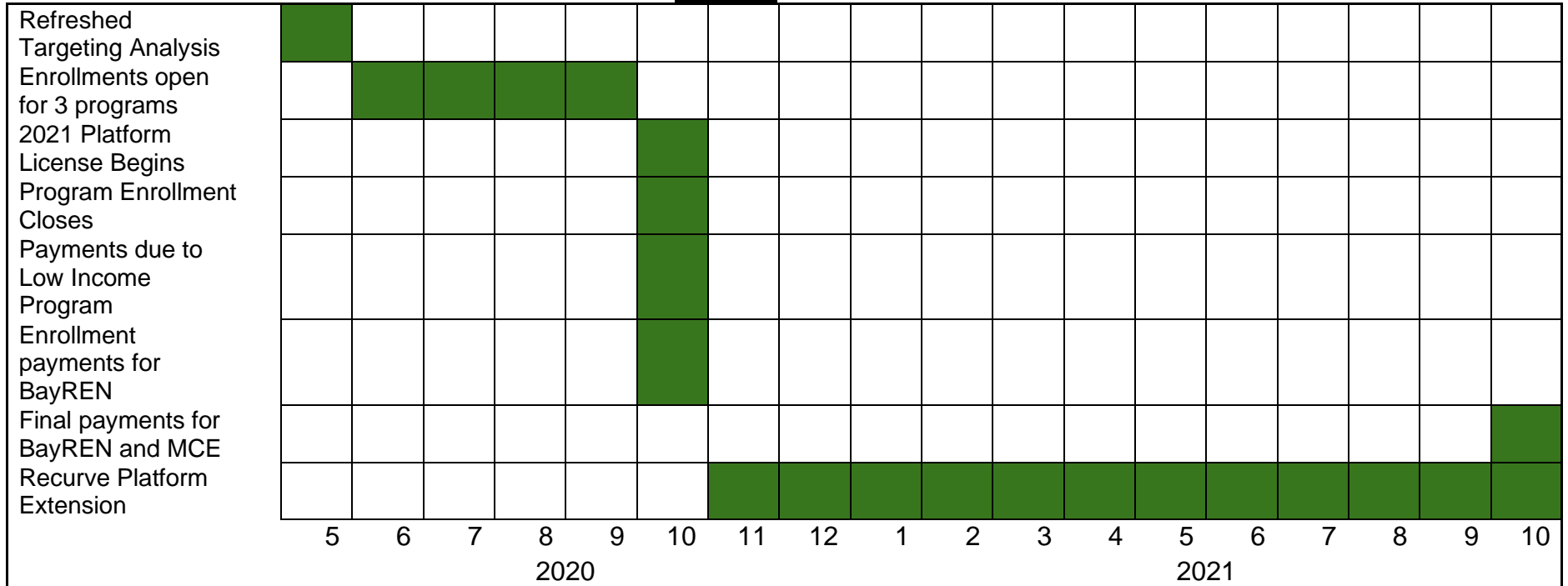


Exhibit E

Compensation/Budget

IV. Compensation/Budget

1. Recurve Platform
 - a. \$5,000/month, billable on a quarterly basis, prepayment starting the month following the end of the current agreement term
2. Resource Planning
 - a. Refresh of Customer Baseline/Targeting analysis = \$16,000 billable on a deliverable basis.
3. Customer Success
 - a. 100 hours = \$24,000 billable on an annual prepayment
4. Contingency Budget: \$25,000
 - a. Support hours above 100 available at \$275/hour as accrued.
 - b. vCPU hours above 5,000 per month available at \$1.18/vCPU hour as accrued