EXHIBIT A-1
Isle au Haut Electric Power Company

EXPLANATION OF FINANCIAL FORECASTS (EXHIBIT C WORKSHEETS AND SCHEDULES)[*Narrative of project and financial forecast prepared for an application to the Financial Authority of Maine and originally prepared as part of an application for a long term loan from U.S.D.A.*]

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I. Introduction

The following is a narrative explanation of the Long Range Financial Forecast (the "Forecast") for the Isle au Haut Electric Power Company, a non-profit rural electric power distribution co-operative (the "IaHEPC") solar project on Isle au Haut off mid-coast Maine. The Forecast presented in the form of an Excel Workbook consisting of several spreadsheets include a Budget spreadsheet, a Sources and Uses spreadsheet, a Forecast spreadsheet, and a Ratios spreadsheet. Each of these spreadsheets will have a section of this narrative devoted to it.

II. Solar Project – Explanation.

The solar project is a planned replacement for a 38 year old 15 KV, 6 mile undersea cable that currently connects the on-island distribution system of the Isle au Haut Electric Power Co. to the mainland grid for the benefit of its approximately 130 IaHEPC member customers (with just over 140 meters). It is expected that failure of the cable without a viable replacement would nearly triple the cost of power for a minimum of two years and leave the IaHEPC heavily in debt and likely not viable, with serious consequences for the island community. Planning for the project included estimates of the cost and feasibility of a new cable, wind with storage, solar with storage and other less feasible alternatives, e.g., tidal. A solar generation with storage system was determined to be the most reliable and cost-effective system for the island and IaHEPC.

Major project components will be 300 kW of solar, 1 MWh of supercapacitors used for storage, a 120 kW power electronics server that operates as the equivalent of an inverter and microgrid controller, and a 100 kW diesel back-up generator. So long as the cable is operational the project will retain a connection to the mainland grid, however, the system has been designed so that it will be able to function off-grid the moment the cable fails.

The project will be located on the island on IaHEPC owned land at a place called Coombs Mountain. The site is almost adjacent to the existing island electrical distribution system. The ground mounted photovoltaic system will install 896 quantity 340W modules, totaling 304.64 kWdc. Foundations will be prepared for an additional 100 kWdc.

A Sirius 1,000 kWh supercapacitor storage and a 120 kW Centauri server (inverter-microgrid controller equivalent) will be supplied by Kilowatt Labs (https://kilowattlabs.com/about). It will store power generated during sunlight hours for use when solar production is not possible (nighttime) or not sufficient for the demand. This is newly commercialized technology that has been employed largely at remote sites. On paper it is very well suited for the circumstances on Isle au Haut, but it is not widely employed.

For the first five years of project operation the facilities will be owned by Isle au Haut Solar Generation Company, NEWCO (the "NEWCO") a for-profit, special purpose entity ("SPE") subsidiary of the IaHEPC to be formed. Initially, SunRaise Capital, a tax equity investor will hold 99% of the membership interest in the NEWCO; the IaHEPC will hold a 1% membership interest. This will enable SunRaise to take advantage of the 30% federal renewable energy Investment Tax Credit ("ITC") and the tax benefits associated with net operating losses ("NOL's") for taxable entities with otherwise taxable income, and to pass along a substantial portion of those benefits to the IaHEPC to effectively reduce the cost of the project. In the sixth year of the project the tax equity investor's 99% membership interest in the NEWCO "flips" to 7.5% under the terms of its investment agreement, and the IaHEPC will buy-out the tax equity investor and will become the sole member of the NEWCO, and, accordingly, of the project.

During the initial five years (and afterwards as well) the IaHEPC will contract with the NEWCO by way of a Power Purchase Agreement (the "PPA") to take, at a fixed annual amount of $47,500, 100% of the supply of power generated and/or stored by the NEWCO or the project. The IaHEPC will also enter into an Operation and Maintenance Agreement (the "O&M") with the NEWCO to operate and maintain the project on behalf of the NEWCO in return for a payment of $10,000/year. The net of these two contracts will result in a payment by the IaHEPC to the NEWCO of $37,500/year.

Power generated by the project will be used as the primary source of electricity for the members of the IaHEPC, who constitute over 90% of the inhabitants, visitors, or occupants of Isle au Haut. The other 10% represent a couple of households that don't use electricity or have either gasoline generators or individual solar panel arrangements, or are campers on the island, 3/5ths of which is part of the Acadia National Park operated by the United States Department of the Interior.

Over the past decade the peak load of the system has been somewhat less than 100 kW and has occurred in July or August when the island population is largest. Average hourly loads at this time of year are about 60 - 70 kW. In the depths of the winter average hourly loads fall into the 35- 45 kW range. Annual system load has been between 250 and 275 MWh. The project has been designed to minimize the cost of meeting these load parameters, with the ability to increment the size of the system as load growth occurred. Solar Design Associates of Harvard, MA, Introspective Systems of Portland, ME and the Isle au Haut Electric Power Company contributed their particular expertise to the design of the system.

The seasonality of the island load means that even with increased daily consumption of electricity in occupied households in shoulder and winter season (due to shorter days and therefore lights on longer) solar production will be more than the amount needed to meet the typical island load in the summer when three times the number of houses are occupied (even though lights come on later in the day).

It is expected that every year the system will generate about 150 MWh more than the system's normal average annual load. Because the IaHEPC will be committed to the purchase of 100% of the project output, it has a strong incentive to use this excess generation.

Consequently, another major component of the project – separately financed -- will use this excess energy for winter heating requirements by powering air-to-hot-water heat pumps that will convert this excess to thermal energy storage (hot water in insulated tanks) and subsequent space heating. Hot water 'batteries' are about 10% of the cost of other batteries. A second kind of heat pump that stores thermal energy in phase change materials will be installed in some smaller buildings.

We expect this program to start with about 6 heat pumps, expanding eventually to as many as 20. Six heat pumps will consume about 30% of the excess; 20 will use all the excess and require more solar panels which can be conveniently added as the load increases. Loads generated by heat pumps will be controlled at the residence. Software using straightforward artificial intelligence and monitoring devices designed by Introspective Systems will be responsive to the scarcity and abundance of energy in the entire system, optimizing the use of excess energy.

Thermal energy storage should greatly enhance the community value of solar generation. Excess energy used for both kinds of heat pumps will be sold at half the standard rate and separately metered. Users of energy storing heat pumps should reduce their heating costs by 40% - 60%; the IaHEPC should increase its revenues from power by about 15%, the amount of solar generation that has to be 'dumped' will fall from 30% to about 10%, and the amount of displaced fossil fuel should be three to four times more than the fuel required for the diesel back-up. At the same time, the project should completely replace the fossil fuel required to generate the power currently supplied from the mainland via the aging underwater cable. Overall, heat pumps and thermal storage are expected to increase the value of the solar array by 30%. All the financial savings will be retained by local residents and the IaHEPC.

Unlike many other solar projects, it is not expected that any excess power generated will be sold into the national grid and, accordingly, no income from such sales of power is included in the Forecast. There are two reasons for this assumption. First, the project is predicated on the need to replace the island's source of power upon the failure of its underwater cable, and, when such failure occurs there would be no way to convey power back to the mainland and into the national grid. Second, the nature of the existing cable and the current switching equipment in place are such that it would be cost ineffective to upgrade our equipment to meet the interchange standards of our current energy provider, Versant Energy (formerly Emera Energy) . The project must stand on its own, on the island, and the Forecast is built on that basis.

III. Acquisition and Construction Budget (First Spreadsheet)

The first spreadsheet of the workbook is entitled "Budget". Since a part of the overall financing of this project involves attracting a tax equity investor who can pass along otherwise unavailable tax benefits to a non-profit, non-tax-paying rural electric co-op, this worksheet is broken out into two vertical column categories – Investment Tax Credit ("ITC") Eligible and Other (Budget Columns B and C). ITC eligible items listed in Budget Column B, Cell Rows 3 through 22 total $1,514,150 (Budget Cell B22) and reflect equipment and other aspects of the project the cost of which is eligible for a 30% (based on having commenced the project in 2019) federal investment tax credit which results in a $454,245 (Forecast Cell B61) tax benefit to the tax equity investor, a part of which will be passed along to the project, along with a part of the tax benefits the tax equity investor will obtain from the first-year net operating tax losses sustained by the project due to permitted significant accelerated depreciation of the hard assets of the project.

In addition, the project involves the purchase and installation of a back-up diesel generator for $90,000 (Budget Cell C10) to supplement existing back-up generators the IaHEPC owns, in the event that the solar project generates or stores less than loads require, or is down for servicing or parts replacement. It is expected that back-up power will be required annually for up to 13% of the power requirements of the island. Initially, such back-up will be provided by the underwater cable delivering shore power from our mainland energy source, but at some point, all of it will have to be provided by the on-island diesel generators when the cable fails.

The balance of the total cost of the project consists of the modest land acquisition cost of $10,000 (Budget Cell C2), acquired by the IaHEPC from the Town of Isle au Haut, and an admittedly unorthodox characterization of $296,585 (Budget C21) of costs related to getting the tax equity investor to invest $700,000 in the project. It was decided to include this cost as a project cost, rather than leaving it out and netting out the tax equity investment from $700,000

(Sources and Uses Cell B8) to $403,415 ($700,000 - $296,585) because the tax equity investor does not get the $296,585 up-front, but rather is paid over five and a half or six years, so, for purposes of creating an accurate cash flow in the Forecast section of the Workbook, it made more sense to show that cost as part of the project, and therefore part of what is needed to finance the project.

Budget Cells B25 through B27 simply break out the cost of land and equipment (hard collateral) from labor, closing costs and other financing costs (soft collateral).

Total Project Cost for purposes of Sources and Uses is **$1,910,735** (Budget Cell B27).

IV. Sources and Uses (Second Spreadsheet)

The second spreadsheet of the workbook is entitled "Sources and Uses". The IaHEPC started this project (in 2019) by purchasing the land necessary, improving the road access to the land and installing a concrete pad on the land to receive the storage system. Some brush clearing has also been performed where the solar panel racking will be installed. Additionally, the IaHEPC has purchased about half of the solar panels needed. The total of these purchases and costs of land improvement is $210,735 (Sources and Uses Cell B5) and these items will be contributed to the NEWCO in return for the IaHEPC's ownership interest in the NEWCO, and thus to the project.

In addition, permanent financing (20 year) from the United States Department of Agriculture in the amount of $900,000 (Sources and Uses Cell B7) will be needed, in part to take out the construction financing expected to be provided by a local bank (Camden National Bank), a state finance agency (Finance Authority of Maine) or a local development agency (Coastal Enterprises). For purposes of this forecast it is assumed that all $900,000 of loan proceeds will be disbursed at closing after completion and commissioning of the project, repayable in twenty equal annual principal installments of $45,000 (probably in quarterly installments of $11,250 actually, but $45,000 in total annually to facilitate an annual set up of the spreadsheet) with interest at the then current rate, but set notionally for spreadsheet conservatism at 3.5%.

Finally, we have a term sheet commitment letter from SunRaise Capital for tax equity investment for $700,000 (Sources and Uses Cell B8). These three sources equal the project cost of $1,910,735 (although, as stated above, both the cost and the SunRaise investment could be netted down by $296,585 and restated as Total Cost of $1,614,150 with SunRaise investing $403,415, but that would make the cash flows in the Forecast section more difficult to demonstrate.)

The construction period requirements (primarily during calendar year 2020) are expected to total $1,097,557 as set out in Sources and Uses Cells B12 through B17, of which $210,000 (Sources and Uses Cell B5) represents contribution of assets such as solar panels and improved land by the IaHEPC, the with the balance payable over the next five and a half or six years as set forth in the Forecast spreadsheet. Construction period interest payable to the construction lender is built into the 2020 cash requirements. (See Budget Cell B20)

V. Financial Forecast (Third Spreadsheet)

The third spreadsheet of the workbook is entitled "Forecast" and is where the laboring oar of the workbook is pulled. It starts with a series of assumptions or drivers on the left side of the spreadsheet in Columns A – D, including a recap of the budget in Cells A1 through D16.

To determine how much of a construction loan line of credit would be needed we forecast the pre-commissioning costs of the project, not including the contributions of land, road improvements, site improvements and solar panels being made by the IaHEPC, because no cash would be needed for those contributed assets. The remainder of the project can be completed by the NEWCO for $887,557 (Forecast Cell D29) as itemized in Forecast Cells A19 through B29. The IaHEPC should be in a position to fund approximately $100,000 (Forecast Cells B34 and D33) of that $887,557 from its increased revenue base in the next twelve months as its rate increase goes into effect immediately upon Maine Public Utility Commission approval. Accordingly, a $800,000, interest-only, construction line of credit is being put into place, pending commissioning and take-out by injection of the tax equity investor investment and a portion of the USDA permanent financing.

Forecast Cells A31 through B36 restate the sources and uses and the Columns C and D in those rows reflect the need to take out the construction loan in the amount of $887,557. This will come through the application of $700,000 from the tax equity investor (SunRaise Capital) investment (which comes in at commissioning, and by use of $87,557 from the long-term loan proceeds (Forecast Cells D32, D33, and D34), leaving remaining loan proceeds from the $900,000 USDA term loan at $812,443 (Forecast Cell D36).

Below the Sources Box is a box entitled "Lenders" (Forecast Cells A38 – B42) in which the loan amount ($900,000), pro forma interest rate (3.5%), term (20 years) and total interest paid ($330,750) amount are set forth.

Below the Lenders Box is a box entitled "Special Assessment" (Forecast Cells A44-D54) which sets forth a calculation of what a IaHEPC member will pay in special assessments over twenty years. The members will have the choice of an up-front payment of $6,800 or monthly payments of $35, or with interest as shown by – Cells B50 and C50). In the interest of presenting the most conservative scenario, this model does not contemplate any up-front payments, and, accordingly, all $900,000 must be borrowed from the USDA. To the extent that IaHEPC members elect to pay the discounted (for interest expense saved by the IaHEPC) assessment up-front, the borrowing amount could be reduced dollar for dollar.

Below the Special Assessment Box is a box entitled “Tax Equity Investor” (Forecast Cell A56 – B66) which sets forth information relevant only to the Tax Equity Investor and the negotiated terms of its annual preferred return of capital preference payment and an estimate of the fair market value of its buyout in five and a half years. These calculations are necessary to establish the ongoing cash needs of the project for the first five and a half years, until the buyout is complete and the IaHEPC acquires 100% of the membership interest in the NEWCO. This box is informed by data in the Tax Equity IRR Box (Forecast Cells F61 – J69 and the “Buyout DCF Calculation Box (Forecast Cells F71 – AF79). It is not relevant to the USDA forecast or ratio analysis, other than insofar as the calculations derived from it affect cash flows in the first five and one half or six years of the project.

Finally, there is a box (Forecast Cells A68 – B79) which lays out the power generation and system capacity assumptions for the project.

IaHEPC Revenues and Expenses

The spreadsheet is set up with IaHEPC revenues and expenses shown vertically for each of twenty years (Forecast Rows 3 – 37 starting in Column F) followed by a cash available analysis at the IaHEPC level.

IaHEPC Revenues

Normal IaHEPC revenues will not be sufficient to pay for the costs of the project.

IaHEPC revenues are derived from five sources – (i) a monthly meter fee, (ii) an electricity usage charge based on the actual amount of kWh consumed at each meter, (iii) a monthly special assessment fee relating specifically to this solar project financing, (iv) an annual payment by the NEWCO for operation and maintenance of the solar energy generation project for the first six years until it is merged into the IaHEPC and (v) some de minimis miscellaneous income which varies from year to year and is usually derived from daily rental of the IaHEPCs cherry picker truck or extending electrical service to a new customer from the road to the house.

The monthly meter fee is payable regardless of whether power is consumed by the customer (presently $16/meter/month) (See Forecast Cell E4 and Column E generally for a pre-project typical revenue and expense year for the IaHEPC, purchasing energy from the mainland grid, delivered through the aging cable) and expected to rise to cover recent expense increases to $25/meter/month (See Forecast Cell H4 and Row 4 generally, for the twenty year period) regardless of whether the solar project comes on line. There are currently 144 active meters (owned by approximately 130 distinct customers, with a few customers having multiple meters) (See Forecast Cell H3 and Row 3 generally). The Forecast assumes that every other year an additional meter is added to the system, based on new house or structure construction rates on the island for the past 15 years.

Accordingly, at $25/meter/month with 144 meters active in year 1 revenues of $43,200 are derived by the IaHEPC. In addition, the same 144 meters will be assessed a special assessment of $35/month or $420 annually (See Forecast Cell H5 and Row 5 generally) which will add $59,640 in revenue to the IaHEPC for a total of $103,680 (See Forecast Cell H14) initially.

Actual usage charges fall into two categories – (i) standard usage at 32 cents per kWh and (ii) incentive usage (incremental power consumed by converting fossil fuel heating systems to electricity-powered heat pump systems with thermal storage of hot water produced in sunlight conditions, stored in insulated tanks to provide heat during nighttime or cloudy days) at 16 cents per kWh. Starting in Column H in Rows 8 – 10 estimates of standard usage and incentive usage multiplied by their respective rates per kWh result in the two additional revenue numbers (Standard usage revenue of $85,248 and incentive usage revenue of $15,040) appearing in Forecast Cells H14 and 15, respectively. The slow increase in number of meters results in a slight increase in standard usage revenue every other year as one follows row 14 out the twenty year period.

The Operation and Maintenance Contract will result in additional revenue of $10,000 to the IaHEPC (See Forecast Cell H12 and generally, Row 12) for the first six years while the NEWCO is in existence before it merges into the IaHEPC.

A conservative $1,200 a year is assumed for miscellaneous income (See Forecast Cell13 and Row 13 generally). Typically, such revenue varies from $500 to $5,000 annually.

The sum of the base meter fee revenue, the special assessment fee revenue, the standard usage revenue, the incentive usage revenue, the O&M contract and miscellaneous revenue results in year one total revenues to the IaHEPC in the amount of $214,968

(See Forecast Cell H18 and Row 18, generally) and the average revenues to the IaHEPC across the twenty year project period is approximately $214,000 as revenue will decline when the Operation and Maintenance contract terminates upon the merger of the NEWCO into the IaHEPC. Of course, the annual Power Purchase Agreement expense to the IaHEPC ($47,500) will also disappear at that time.

IaHEPC Expenses

The IaHEPC expense structure is more straightforward. Presently, it has fixed costs of approximately $85,000/year and variable costs (mostly energy purchased from its mainland energy company supplier, but also some diesel fuel purchased when there are power outages on the mainland and our backup generator runs on diesel) of approximately $35,000 for a legacy expense structure of $120,000 a year (Forecast Cell E25). Going forward, we will no longer be purchasing energy from the mainland supplier (or purchasing a fraction of prior purchases for purposes of backup to our solar source and our storage capacity) and, accordingly, we have reduced our overall expense (before interest) forecast from $120,000 to $93,000 in year 1 (See Forecast Cell H21 and Row 21 generally), with an inflation factor of 2% each year thereafter.

The IaHEPC, however, will have to purchase power during the first five and a half or six years from the NEWCO and so, we have an additional expense of $47,500 (See Forecast Cell H24 and Row 24 generally) as a guaranteed and fixed Power Purchase Agreement payment for which the IaHEPC will be entitled to the entire output of the solar production NEWCO regardless of what the actual power generation is.

The IaHEPC will not be making interest payments during the first six years of the project, as those will be paid at the NEWCO level.

So, total expenses of the IaHEPC are $140,500 in year 1 (See Forecast Cell H25), increasing by just under 2% annually. (Forecast Row 25)

This results in cash generated at the IaHEPC level in the amount of $74,668 in year 1 (See Forecast Cell H26) with an average of $64,000 in the following five years. After year 6, no PPA payments will be required as the NEWCO will have merged into the IaHEPC, however, cash will be reduced in the IaHEPC by the assumption of principal and interest payments previously made by the NEWCO.

Additional Cash Reductions from IaHEPC

The Forecast assumes that there needs to be reserves for capital expenditures, replacements, or other miscellaneous cash requirements annually, generally in the amount of $7,000 (Forecast Cell H27) though these may come in higher amounts less frequently than one year, such as when a truck must be replaced, etc. Accordingly, Net Cash in the IaHEPC in year 1 is reduced to $67,668 (Forecast Cell H28).

Row 29, which is highlighted, is a critical row in this spreadsheet as it reflects the cumulative cash position of the IaHEPC at each year end. If reflects a starting cash position of $5,000 (Forecast Cell G29) plus the addition of $67,668 of net cash from operations less reserves for capital expenditures, less additional contributions to capital to the NEWCO that will be needed by the NEWCO to meet its cash obligations during its five to six year life. During the first five years these contributions to NEWCO's capital are expected to be $48,000 (See Forecast Cell H54 and Row 54 generally) thereby reducing the IaHEPC year-end cash position from $67,668 to $19,668 (Forecast Cell H 29).

During the twenty-year period the Forecast expects that the lowest IaHEPC cash will get at year-end is $19,668 (co-incidentally, in year 1).

NEWCO Revenues and Expenses

The NEWCO's only source of revenue is the fixed Power Purchase Agreement revenue ($47,500/year for its six-year life) from the IaHEPC (since it has no ability to sell power to the national grid or otherwise). The NEWCO has to exist for at least five years to enable the tax equity investor to qualify for the tax benefits associated with both the Renewable Energy Investment Tax Credit and the net operation losses generated by favorable depreciation rules mandated by Congress and promulgated by the IRS to promote renewable energy projects.

The special purpose entity NEWCO revenue and expense categories and its resulting cash available for non-deductible items such as principal payments, preferred payments to its equity investor and capital expenditures are set forth in Forecast Cells F42 – M59). By the end of year 6 the IaHEPC will have acquired 100% of the ownership interest in the NEWCO, the tax equity investor will no longer be involved, and the NEWCO will be merged into the IaHEPC which will assume all of its assets and liabilities and obligations, including the principal and interest payments remaining for the next fourteen years on the USDA loan.

The NEWCO's revenue build is quite simple – its only revenue is $47,500 derived annually from the sale of its solar generated output to its sole off-taker – the IaHEPC (See Forecast Cell H43). Likewise, it has modest expenses, namely some auditing, some state filing fees, etc. totaling $3,500, the $10,000 payment it makes to the IaHEPC for operation and maintenance of the project (See Forecast Cell H44), interest expense in year 1 of $35,000 (See Forecast Cell H 45) and, in year 1, enormous accelerated depreciation (See Forecast Cell H 46) due to the U.S. Congress-granted ability to take effectively 85% of the depreciable project costs in the first year as a "non-cash expense" generating a huge one-time net operating loss, 99% of which benefits the tax equity investor.

In subsequent years, when fully depreciated, the NEWCO will have to pay modest taxes on its revenue less expenses, less interest expense (See Forecast Cell H48 and Row 48) averaging about $1,000 a year over its six year existence.

NEWCO Cash Position

The NEWCO's revenue, derived solely from the PPA, is determined by reference to the comparable cost of such power purchased from mainland energy sources if the cable could be presumed to last for the next twenty years.

Accordingly, the limited revenue of $47,500 a year constrains what the NEWCO can provide by way of cash to meet its obligations, which include normal expenses ($3,500/year) and the O&M contract obligation ($10,000) as described above, interest expense (See Forecast Row 45 starting a Column H) averaging approximately $30,600 a year over the six years of the NEWCO's existence, taxes averaging $1,000 a year as described above, principal payments (See Forecast Row 52 starting at Column H) at $45,000 a year, approximately $86,000 a year of installment payments negotiated with the vendor of the supercapacitor storage system (See Forecast Row 50 starting at Column H, and the annual Preferred Return of Capital ($44,100) to, and the expected buyout in year 6 ($76,085) of, the tax equity investor (See Row 51 starting at Column H).

The PPA revenue is insufficient to meet all of these obligations. The shortfall is made up by a combination of capital contributions of $48,000 annually from the excess cash accumulating at the IaHEPC (See Forecast Row 54 starting at Column H), and utilization of the proceeds of the USDA loan not needed to take out the construction lender at the outset (See Forecast Row 55 starting at Column H).

This section (Forecast Cells F57 to N59) of the spreadsheet calculates the initial balance of USDA loan proceeds as $812,443. The loan amount is $900,000 less the portion needed at closing to take out the construction lender being $87,557 (See Forecast Cell D34). The tax equity investment of $700,000 is used to partially take out the construction loan thereby leaving $812,443 remaining available to the NEWCO. which declines annually along Forecast Row 57 starting at Column G until the last of this cash availability is used in year 6 just before the NEWCO is merged into the IaHEPC.

Since the NEWCO is never in a position to contribute cash from operating income its cash position (See Forecast Row 59 starting at Column G) is always equal to the amount of cash remaining available from the USDA loan proceeds. The NEWCO could elect to defer borrowing these amounts until needed, however, the USDA sets the interest rate when proceeds are made available, at least as to that drawdown, and, with interest rates at an all-time low now, it is believed that borrowing all $900,000 up front may be more prudent than borrowing annually what will be needed for the coming year at probably higher interest rates for the remaining amortization period of the loan.

VI. Ratios

The Ratios spreadsheet is self-explanatory. It takes the combined (i) taxable income of the NEWCO plus taxes paid and interest paid (EBIT) and (ii) the net cash generated by the IaHEPC before payment of any interest, principal taxes or contributions to capital to the NEWCO (but after annual reserves for depreciation and amortization) which is effectively EBIT for a non-tax paying entity, and divides that sum by the sum of principal and interest payments (debt service)to generate a debt service coverage ratio.

It also takes the same combined EBIT of the two entities and divides that by the interest expense annually to obtain an interest coverage ratio or TIER.

VII. Supplemental Spreadsheets

This workbook contains three additional spreadsheets.

One entitled “Sensitivity Output” is a sensitivity analysis of what would be required if the expected output of the solar array and/or storage system is 10% less than projected. This would result in the IaHEPC having to supplement power generation by means of its back-up diesel generator (assuming that the cable has failed). The system is oversized for this and other reasons and, as a result, would only require the purchase of approximately $5,000 more diesel at current, delivered prices. To be conservative, we have increased IaHEPC operating expenses (Sensitivity Output Cell H21 from $93,000 to $100,000, adding $7,000 more for the additional diesel and generator maintenance. To keep the cash position approximately the same as in the base case shown in the Forecast spreadsheet, and to end up with approximately $500,000 of cash built up over twenty years for replacement of any major component of the solar generation project, the IaHEPC would have to assess its members a monthly fee of $38 or $456/year rather than $35/month or $420/year as in the base case.

The second is entitled “Sensitivity Overrun” and examines the consequences of a 10% project cost overrun. The project costs not including the cost of attracting a tax equity investor are approximately $1,500,000 and so the Contingency cell (Sensitivity Overrun Cell B9, and also B25) was increased from $50,000 to $200,000. This, of course, results in additional funds required in the construction period, some additional construction period interest, and additional borrowing from the USDA to take out the higher construction loan. More interest and principal then have to be paid and the result is that to end up with approximately $500,000 of cash built up over twenty years for replacement of any major component of the solar generation project, the IaHEPC would have to assess its members a monthly fee of $39 or $468/year rather than $35/month or $420/year as in the base case.

Finally, there are two monthly cash flow analyses on the spreadsheet entitled “Monthly Cash Flow”. The first is a monthly cash flow during the construction period, assumed to be twelve months commencing in January. The revenues are seasonally adjusted reflecting the peak usage during July and August for standard usage electricity, and the expected peaks of January and February for incentive (heat pumps) usage electricity. Fees based on owning a meter (the base $25/month fee and the special assessment $35/month fee) are not seasonal and remain constant throughout the year. Miscellaneous revenue was derived by taking the annual amount and dividing by 12. No Operation and Maintenance revenue was included as the project will not have been completed until the end of this notional year. Expenses, accordingly, reflect continued purchase of power from the mainland, and no Power Purchase Agreement expense (nor any principal payments as the construction loan will be interest only.)

This spreadsheet demonstrates the need for a $787,007 (Monthly Cash Flow Cell P19) construction loan, resulting in $16,586 (Monthly Cash Flow Cell P28) construction period interest expense and the need for the IaHEPC to contribute $83,875 (Monthly Cash Flow Cell R25) from its cash flows to the project, in addition to its initial contribution of assets with a value of $210,735 discussed at the beginning of this narrative.

VII. Summary

The workbook projects a positive cash position annually for both the IaHEPC and the NEWCO based upon the assumptions made as to the cost of the project (including the cost of financing and the transactional costs), the amount of power generated, the amount of power saleable to IaHEPC customers, IaHEPC customer demand at standard rates, IaHEPC customer demand at incentive rates, fixed expenses, the variable cost of back-up power from the on-island diesel-fired generator (or, while the cable lasts, back-up power purchased from the mainland), the cost of buying out the tax equity investor, as well as the known cost of attracting tax equity investment and borrowing $1,000,000 from the USDA at a notional interest rate for this purpose set at 3.5% per instructions from the USDA (although the actual rate is expected to be considerably lower than that).

This is because the primary variable on the spreadsheet is the special assessment monthly fee of $35/meter or $420/year (See Forecast Cell H5). As assumptions have changed during this process, that special assessment amount is changed upward or downward (generally, upward, of course) so as to assure that at all times the IaHEPC is approximately $20,000 cash positive at the end of each year (See Forecast Row 29 starting at Column H) and reserving enough over the course of twenty years to have at least $500,000 ($560,462 is expected in Forecast Cell G30) available to it at the end of twenty years to replace any critical components of the system.

As a public utility, and the only practical source of electricity on the island, the IaHEPC has the ability to set this special assessment as is necessary to accomplish the twin goals of cash positiveness and estimated adequate reserves. Its discretion, however, is not unfettered as it must answer both to its membership (as a co-op) which must approve rate or assessment changes as well as the Maine Public Utilities Commission and the Maine Office of Consumer Advocacy as the regulating bodies which also must approve tariff or rate changes, which includes special assessments, after proper notice and hearings.

Nonetheless, the revenue component of the Forecast is made considerably more reliable by this ability to “set price”, so to speak, in a manner in which other borrowers may not due to their exposure to competition and market forces. While it is true that power sold to the community could be reduced by customers switching to individually sourced electricity (rooftop solar panels and whole house batteries or propane, gasoline or diesel fired home generators) the cost of such alternatives is approximately three times the cost of the special assessment the IaHEPC proposes.

If anything, the power consumption numbers may be conservative as more people on the island switch from fossil fuel to electric powered space heating, hot water heating and vehicles.