BURLINGTON
BOARD OF ELECTRIC COMMISSIONERS
585 Pine Street
Burlington, Vermont 05401

To be held at Burlington Electric Department (and)
Via Microsoft Teams
+1 802-489-6254
Conference ID: 736895379#

AGENDA
Special Meeting of the Board of Electric Commissioners
Thursday August 1, 2024 – 1:00 p.m.

1.	Agenda	1:00 (5 min.)
2.	Public Forum	1:05 (5 min.)
3.	Net Zero Energy & Grid Reliability Revenue Bond ballot item for November 2024 (Discussion & Vote)	1:10 (15 min.)

Attest:

Elena Alexander, Temporary Board Clerk

If anyone from the public wishes to speak during the public forum portion of the Commission Meeting and/or wishes to be present for the Meeting of the Board of Electric Commission via Microsoft Teams, please email

Note: Members of the public may speak during the Public Forum, or when recognized by the Chair during consideration of a specific agenda item.

ealexander@burlingtonelectric.com to receive a link to the meeting, or call (802) 489-6254, Conference ID: 736895379#

Note: Members of the public may speak during the Public Forum, or when recognized by the Chair during consideration of a specific agenda item.

MEMORANDUM

To: Burlington Electric Commission

From: Darren Springer, General Manager
Emily Stebbins-Wheelock, Manager of Strategy and Innovation

Date: August 1, 2024

Subject: November 2024 ballot item for Net Zero Energy and Grid Reliability Revenue Bond

Burlington Electric Department (BED) is pleased to provide this proposal to the Electric Commission to recommend that the City Council approve placing a Net Zero Energy and Grid Reliability BED Revenue Bond question on the November 5, 2024 special election ballot for consideration by the voters of Burlington. This revenue bond would provide the next tranche of financing necessary to fund continued investment in our critical infrastructure and Net Zero Energy (NZE) Roadmap[1] goals in a way that reduces pressure on BED's retail rates and annual budgets.

When voters approved the first $20 million Net Zero Energy Revenue Bond in December of 2021, BED referenced that the bond was the first of two tranches of funding envisioned to create an electric grid capable of managing new loads from electric vehicles, heat pumps, and other strategic electrification technologies while continuing the reliability Burlingtonians have come to expect. In addition, with the passage of major federal legislation including the Infrastructure Investment and Jobs Act and the Inflation Reduction Act, access to matching funds to bring federal dollars to Burlington will be important. BED has already demonstrated success in applying for competitive federal programs through the Grid Resilience & Innovation Partnership grants offered by the Department of Energy, drawing $1,158,695 of federal funds.[2] BED was able to successfully compete for those funds in part due to access to matching funds through the current Net Zero Energy Revenue Bond. BED has pending applications for additional funds to support EV charging infrastructure, grid demand management, and battery storage opportunities. Having access to the Net Zero Energy and Grid Reliability Bond proposed will ensure BED has adequate matching funds as these or other federal grant opportunities come to fruition.

For all of the aforementioned reasons, BED is now requesting authorization for a new revenue bond issuance of up to $20 million, with timing and number and amount of issuances to be determined.[3]

[1] www.burlingtonelectric.com/nze
[2] https://www.energy.gov/sites/default/files/2023-10/DOE-GRIP-Burlington-Electric-Department.pdf
[3] The timing and number of issuances would be determined based on several factors, including capital spend rate on the current 2022 revenue bond, interest rates, issuance costs, and guidance from BED and the City's financial advisor, PFM.

Results and Status of 2022 Net Zero Energy Revenue Bond

As you know, Burlington's Net Zero Energy goal is one of the most ambitious local climate goals anywhere in the nation, and national reporting has highlighted a gap in financing that exists for cities to meet their climate goals and a need for additional climate funds at the local level to provide matching funds for federal grants under the Inflation Reduction Act and Infrastructure Investment and Jobs Act.[4] The Net Zero Energy goal is a true community goal requiring partnerships, community participation, and complementary policies and funding at all levels of government.[5] BED, however, plays a critical role in supporting progress toward the goal through incentives for strategic electrification, innovative and progressive rate structures, and making the grid and technology system upgrades necessary to support higher electricity demand, flexible load management and end-use rates, and greater adoption of distributed energy resources such as heat pumps, electric vehicles, and battery storage.

In 2022, following unanimous Electric Commission and City Council support and overwhelming approval by Burlington voters, BED issued its first $20 million Net Zero Energy Revenue Bond, the first of its kind nationwide for a public power utility,[6] to invest in grid, generation, technology, and NZE infrastructure upgrades that would accelerate progress toward Burlington's bold climate goals, while reducing upward rate pressure for BED customers. As of June 24, 2024, BED had expended $11.7M of the $20M construction fund provided by the bonds. BED expects to invest the remaining funding from the 2022 Net Zero Energy Revenue Bond on capital projects planned for FY25. Below is an update on the status of the 2022 NZE revenue bond, key areas of investment over the past three years, and plans for spending the remainder of the bond proceeds.

2022 NZE Revenue Bond Projects	Investment as of 6/24/24	
Grid/Distribution	$	7,753,551
Generation	$	1,624,676
Technology	$	1,497,092
Fleet EVs	$	414,995
Public EV chargers, other NZE	$	408,347
Total	**$**	**11,698,661**

1. **Grid Upgrades –** To prepare for a NZE future of higher electricity demand resulting from greater strategic electrification and to continue to improve grid reliability, BED has invested $7.8M of the 2022 NZE revenue bond to date in distribution system upgrades. These upgrades included new transformers, switches, and reclosers, as well as the upgrade, rebuilding, and/or reconductoring of lines and circuits including Scarff Avenue, Appletree Point, Buell Street, Heineberg Road, Edgemoor Drive, Lyman Avenue, Sunset Cliff, Ethan Allen Parkway, Austin Drive, Battery Street, Booth Street, Loomis Street, Pleasant Street, Fern Hill, Killarney Drive, North Street, and School Street. The 2022 NZE revenue bond has also

[4] https://www.smartcitiesdive.com/news/cities-behind-climate-goals-brookings-report/603708/ and https://icma.org/blog-posts/municipal-budgets-are-force-addressing-climate-change

[5] Many of those efforts are underway, including through City policy changes such as rental weatherization standards and the carbon fee ordinance requirements for new construction, and use of a $100 per ton carbon price in evaluating City fleet purchases. Partnerships have included working with CVOEO on equity issues related to electricity and fuel use, partnering with CarShare Vermont to deploy EVs in their fleet, working with Green Mountain Transit on new electric buses, and work with UVM and Senator Sanders on the solar test center located at the McNeil Waste Wood yard. State and federal funding for climate-related initiatives and infrastructure could also support Burlington's Net Zero Energy goals. Notably absent, at the moment, is any carbon price for thermal or transportation fuels at the state, regional, or national level.

[6] https://energynews.us/2021/11/05/burlington-asks-voters-to-approve-a-20-million-net-zero-energy-bond/

funded critical upgrades to our supervisory control and data acquisition (SCADA) system used by grid operators, including new field devices, switches and other network enhancements, servers, video displays, and the initial stages of a major software upgrade to an advanced distribution management system (ADMS).

BED's FY25 distribution capital budget includes an additional $5.1M of 2022 revenue bond-funded projects to replace switches and underground cables, rebuild infrastructure on several streets, fund new transformer purchases, and complete the first two phases of the ADMS project to replace BED's SCADA system and implement a distribution management system.

2. **Technology Upgrades –** With the funding from the 2022 NZE revenue bond, BED has made several important upgrades to technology systems. As part our IT Forward program, in 2023 we successfully implemented our new meter data management system (MDMS) and our new customer portal, which now gives customers detailed usage information and online payment and bill-viewing functionality in a single platform. In spring 2024 we implemented MDMS grid analytics modules, adding new capabilities for transformer loading, line loss analysis, and voltage analysis that have already provided tremendous value and efficiency to BED's engineering and billing teams. The 2022 revenue bond has also funded necessary upgrades to BED's advanced metering infrastructure, disaster recovery, and backup systems.

   BED's FY25 IT capital budget includes an additional $1.3M of 2022 revenue bond funding associated with a new customer information system (CIS; target kick-off date October 1, 2024). Combined with the new MDMS, the new CIS will give BED additional capabilities to offer innovative rates and enhanced service for customers in support of NZE, such as new dynamic rates and expanded end-use rates (such as our current electric vehicle charging rate) to other technologies such as cold-climate heat pumps. Smart rate designs will help save customers money and encourage more customers to switch from fossil fuel to electricity. The FY25 IT capital budget also includes $533,000 in 2022 revenue bond funding for the early stages of a new financial system implementation.

3. **Generation and NZE Infrastructure Upgrades–** The 2022 revenue bond has funded $1.6M of capital improvements at the Winooski One hydro facility and the McNeil Generating Station. Converting BED's gas turbine peaking plant located on the waterfront to renewable fuel is in progress—the GT is now running on B20 biodiesel, with plans to convert to B100 or R99[7]—but to-date these operational changes have not required capital improvements to the facility and have not drawn on revenue bond funding. The NZE revenue bond has also funded over $340,000 of investment in public EV charging infrastructure, including Burlington's first modern DC fast charger located at 585 Pine Street, a level 2 charger at Oakledge Park, and a new DC fast charger in the Marketplace Garage. Finally, the 2022 revenue bond has funded over $400,000 of BED electric fleet vehicle purchases, including matching funds (with a state grant) for the first all-electric bucket truck in the State of Vermont and funds to purchase five light-duty EVs (including F150 Lightning trucks to replace fossil fuel trucks).

   The FY25 capital budget includes approximately $400,000 in funding from the 2022 NZE revenue bond for replacement of Winooski One's rubber dam. (Due to damage sustained in the July 2023 flood, BED

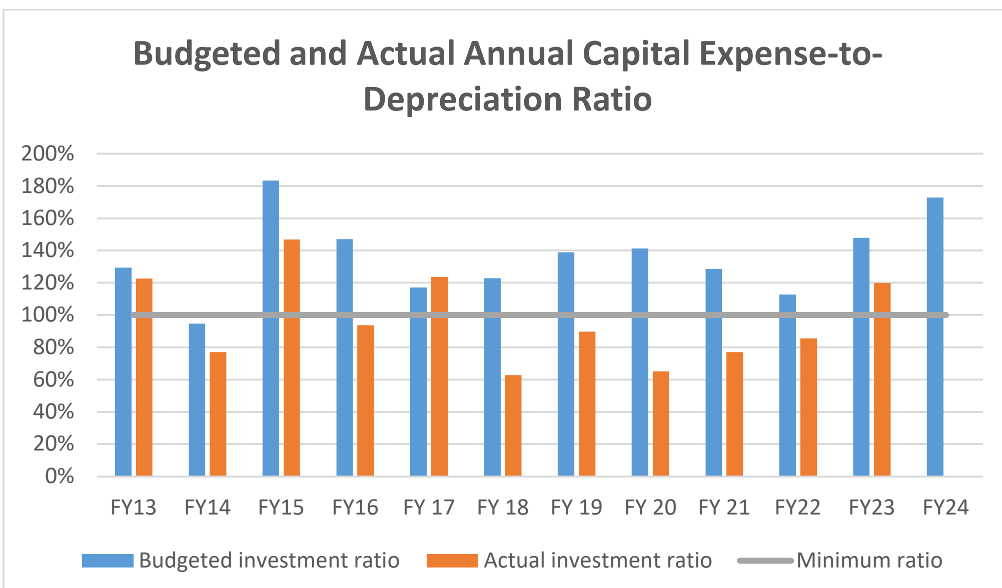
[7] B100 is 100 percent biodiesel. R99 is a 99% blend of renewable diesel, which may require less modifications given its similar chemical properties to conventional diesel - https://afdc.energy.gov/fuels/renewable-diesel.

expects approximately 75% of the dam replacement costs to be funded through a FEMA public assistance grant.) The FY25 capital budget also includes 2022 NZE revenue bond funding for a second all-electric bucket truck (amount TBD based on available grant funding) and investments in electric fleet charging infrastructure at BED's 585 Pine Street headquarters.

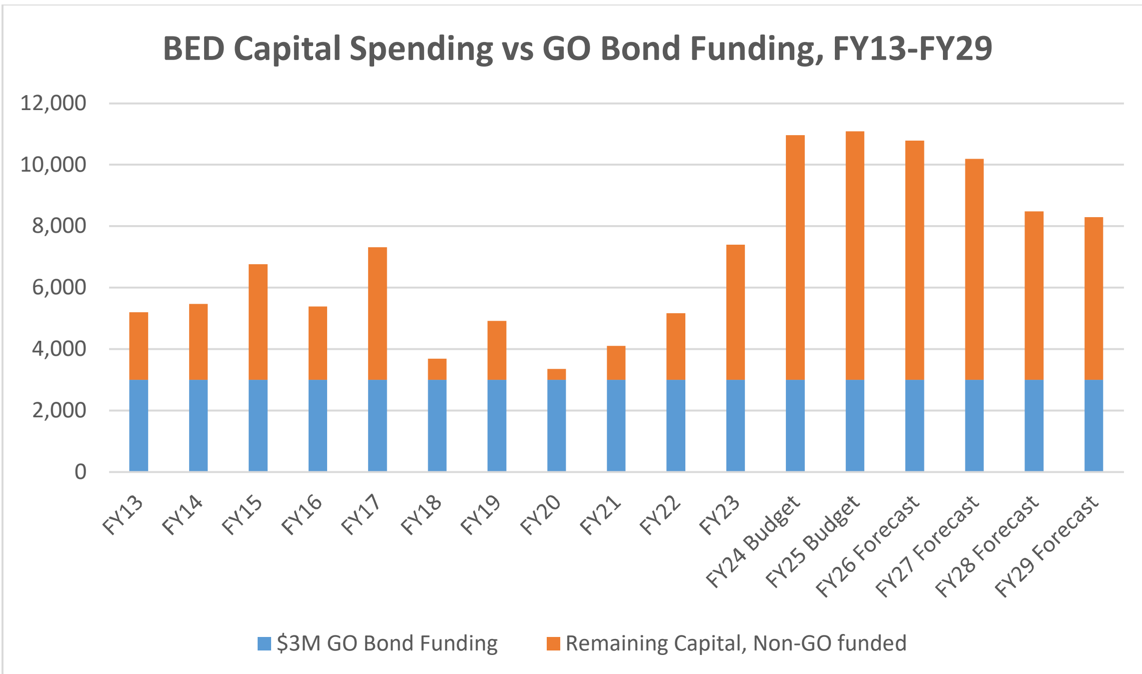
BED 5-Year Capital Plan, FY25-FY29

BED's customers benefit from our robust capital program, which supports high reliability, customer service, and innovation toward our NZE goal by keeping our distribution system and generation plants in good working order, supporting and retaining knowledgeable employees with safe and modern tools and equipment, and investing in new technologies.

As a rule of thumb, a company's annual capital expenditures should be greater than its annual depreciation expense because (a) depreciation expense is based on the actual cost of past investments and future replacement costs are likely to be higher and (b) if an organization is growing (in scope, scale, complexity, etc.) additional capital investment will be needed above historical levels to meet new demands. As of FY23, BED's annual depreciation and amortization expense was just over $6M. As shown in the chart below, over the past 12 years BED has typically *budgeted* for annual capital expense in excess of annual depreciation expense, but in only four of those years has *actual* capital investment exceeded depreciation expense.



Looking forward, BED's most recent update of its five-year capital plan indicates growing capital needs as labor, materials, and other expenses have increased due to rising and persistent inflation over the past few years and the deferral of some expenditures in prior years to preserve cash balances. As shown in the chart below, for many years, BED's annual general obligation (GO) borrowing, set in City Charter at $3 million in 2012, covered a substantial portion of BED's capital needs. As capital costs increase, however, the annual $3 million GO bond is projected to fund only 27-36% of total annual capital needs for FY25 and beyond, not counting other demands on cash reserves such as strategic electrification incentive funding. In 2021 when BED proposed its first NZE revenue bond, we noted that the gap between the size of BED's annual capital program (net of customer contributions) and BED's $3 million annual GO bond allocation would result in "pressure on BED's annual budget, retail rates, and cash position to fully fund capital projects and Net Zero Energy initiatives" without new financing capacity. We also noted that the 2022 NZE revenue bond would help address this gap over the next several years, but that we would need to explore additional financing options to support our capital needs and NZE progress beyond FY25. Thus, we present the current proposal for an additional $20M in revenue bond funding to support capital needs through FY29.



<u>Proposed Net Zero Energy and Grid Reliability Revenue Bond Areas of Focus</u>

The NZE and Grid Reliability revenue bond, if approved, would fund similar key areas of investment as the 2022 NZE revenue bond, all of which are expected to qualify for tax-exempt revenue bond financing based on our review with bond counsel. Below are the project categories proposed to be funded by the bond[8], and attached to this memorandum, please find the full project list.

Proposed NZE & Grid Reliability Revenue Bond Projects	FY26	FY27	FY28	FY29	Total
Generation	$1,215,858	$535,383	$150,972	$122,500	$2,024,713
Distribution	$4,015,675	$5,075,901	$4,580,873	$5,056,103	$18,728,551
General Plant/Fleet EVs	$432,580	$230,000	$97,000	$160,000	$919,580
IT	$1,535,069	$0	$165,000	$0	$1,700,069
Other-Demand Response, Flexible Load Mgmt, etc.	$132,536	$62,461	$64,022	$65,623	$324,642
Total	**$7,331,718**	**$5,903,744**	**$5,057,867**	**$5,404,226**	**$23,697,555**

[8] Full-year funding is shown for FY29 projects which is why the total exceeds $20 million, even though it is expected that proceeds from the proposed new revenue bond will be fully expended at some point during FY29.

1. **Grid Upgrades –** The primary investment proposed from the new revenue bond is to continue to upgrade and maintain a reliable electric grid distribution system. Approximately $12.3 million of the planned projects primarily support BED grid reliability through investment in our distribution and SCADA/ADMS systems. The revenue bond proposal includes funding for approximately $5.4 million of NZE-related grid upgrades to increase BED's distribution system capacity, a new outage management system as the final phase of the new ADMS, and new switches, transformers, and line rebuilds necessary for continued reliability of our current distribution system. These investments will help ensure we continue to have capacity on the grid to add more EVs, heat pumps, geothermal systems, electric buses, and other strategic electrification measures as more customers adopt these technologies. The grid capacity prior to the first Net Zero Energy Revenue Bond was approximately 77 megawatts. With projects already implemented it is now above 80 megawatts, and with the projects planned here the grid capacity would reach 90 megawatts (against a current peak of approximately 65 megawatts, leaving room for new electrification as well as growth in demand due to new construction projects). The new revenue bond would also fund cost-share for a pending Department of Energy grant application, were BED to be selected for an award.

2. **Technology Systems Upgrades –** Approximately $2 million of the proposed revenue bond will fund technology upgrades, including new dynamic rate and load control capabilities. Specifically, the bond would fund the final stages of new CIS implementation, the majority of new FIS implementation costs, replacement of critical data center hardware, and cost-share for a new distributed resource management system (DERMS) for which BED received grant funding from the State of Vermont. These new systems will give BED additional capabilities to offer innovative rates and enhanced service for customers in support of Net Zero Energy, including new dynamic pricing options and expansion of our end-use rates (such as our current electric vehicle charging rate) to other technologies such as cold-climate heat pumps. Smart rate designs will help save customers money and encourage more customers to switch from fossil fuel to electricity. We also plan to include aspects of load control in future dynamic rates to help mitigate grid and peak demand impacts as we move toward strategic electrification. Our current systems rely too heavily on manual processes, and the new systems will help us automate and innovate our rate designs and service delivery for the future.

3. **Generation and Net Zero Energy Capital Projects –** Approximately $2 million will be invested in BED's generation plants, including the FERC relicensing of Winooski One, a wood chip dryer and NoX catalyst replacement at McNeil to improve efficiency and support continued air emissions reduction, and EVs for our forestry team. Maintaining and upgrading existing renewable generating assets will be critical for achieving NZE (as will efforts in the future to secure additional renewable generation to meet growing loads from strategic electrification). Approximately $2.7 million of bond proceeds will be designated for the expansion of public EV charging in Burlington and be available to provide cost-share funds for two pending EV charging grant applications. Finally, about $1 million will be dedicated toward continued electrification of BED's vehicle fleet, including a second all-electric bucket truck, a new electric forklift, and other fleet replacements.

The investments above include tangible climate action, including:

- adding 10 new EVs to BED's fleet;
- adding a new all-electric bucket truck to replace a fossil fuel bucket truck;

- adding a new all-electric forklift to replace a fossil fuel forklift;
- 50new level 2 public EV charging stations; and
- 38 new modern DC fast charge public EV charging stations in Burlington.

In addition, the grid investments will ensure capacity for continued strategic electrification and continued reliability as customers use the electric grid for their transportation and heating/thermal needs. The technology system investments will enable dynamic rates, to help lower the cost for customers using electricity for transportation and heating and reduce peak demand impacts. The funds will as mentioned support potential match for federal grants, expanding the reach of the $20 million from the Revenue Bond to achieve even more.

The list of proposed revenue bond projects has a weighted average expected asset life of approximately 30 years, well beyond the 20-year period during which BED would pay the associated debt service on a new bond issuance.

Projected Impacts of the Proposed Revenue Bond on BED's Financial Metrics

BED proposes to ask voters to approve a revenue bond borrowing of up to $20 million, with timing and number of issuances to be determined. BED will consider factors including the interest rate environment, FY24 and FY25 financial performance and projected financial metrics, closing costs, and other factors in determining whether to pursue a single $20 million issuance or two $10 million issuances a few years apart. Ten-year pro forma debt service schedules for each of these scenarios are shown in the table below.

10-Year Pro Forma Debt Service Schedules for Proposed Revenue Bond

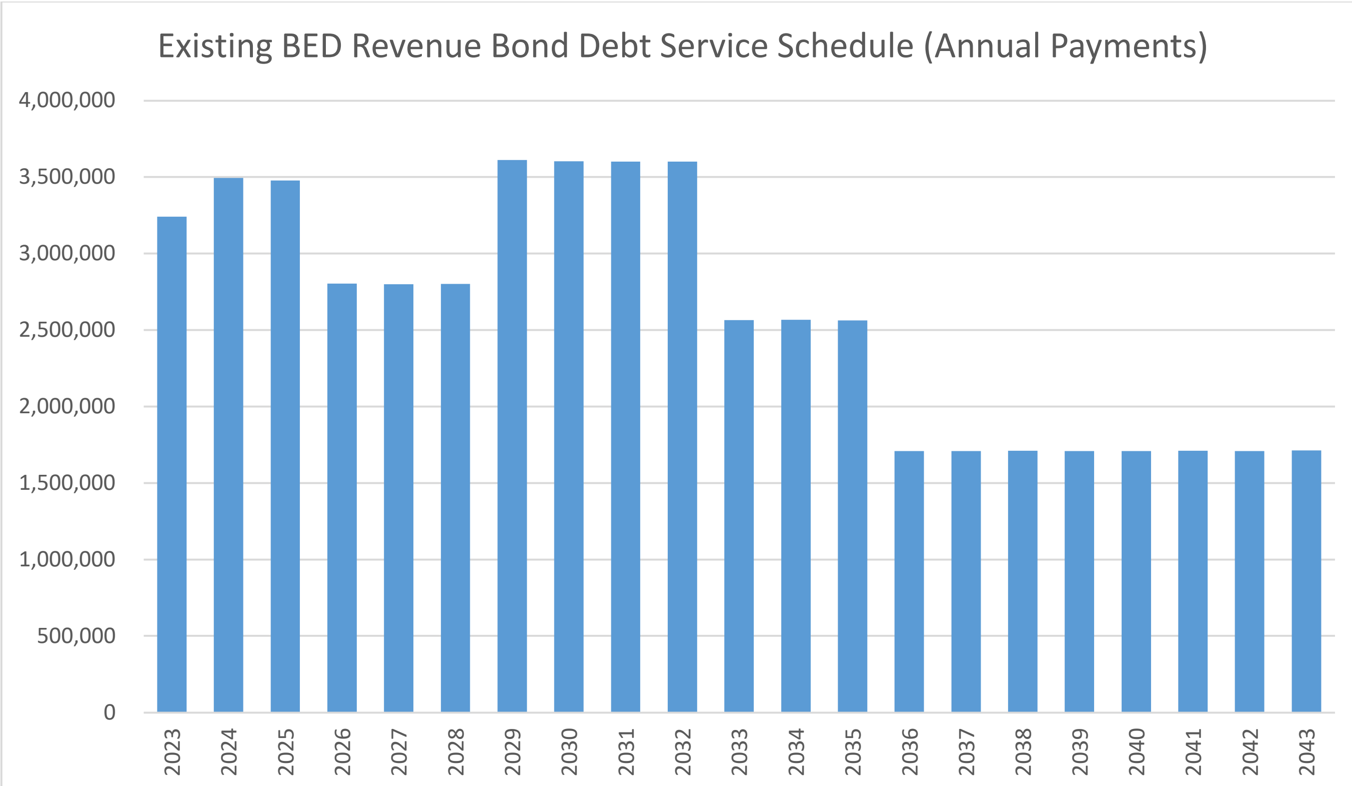
	Single $20M Issuance (FY26)			Two $10M Issuances (FY26 and FY29)		
Fiscal Year	**Principal***	**Interest****	**Total Payment**	**Principal***	**Interest*****	**Total Payment**
2026	$0	$400,000	$400,000	$0	$200,000	$200,000
2027	$0	$800,000	$800,000	$0	$400,000	$400,000
2028	$0	$800,000	$800,000	$0	$400,000	$400,000
2029	$0	$800,000	$800,000	$0	$575,000	$575,000
2030	$0	$800,000	$800,000	$0	$750,000	$750,000
2031	$0	$800,000	$800,000	$0	$750,000	$750,000
2032	$998,822	$780,024	$1,778,846	$499,411	$740,012	$1,239,423
2033	$1,038,775	$739,272	$1,778,047	$519,387	$719,636	$1,239,023
2034	$1,080,326	$696,890	$1,777,215	$540,163	$698,445	$1,238,608
2035	$1,123,539	$652,812	$1,776,351	$1,080,020	$667,337	$1,747,357
10-Year Total	**$4,241,462**	**$7,268,997**	**$11,510,459**	**2,638,982**	**5,900,429**	**$8,539,411**

* Principal payments would be deferred for 5 years.

** Assumes interest rate of 4.00%. Actual interest rate to be determined upon bond issuance.

***Assumes interest rate of 4.00% for first issuance and 3.50% for second issuance. Actual interest rate to be determined upon bond issuance.

In terms of existing revenue bond debt service, BED's 2014B revenue bond, which has had average annual debt service payments of approximately $684,000, will mature in 2025. Principal payments on the 2022 revenue bond, which were deferred for five years, begin in FY29. In FY32, both the 2017A and 2017B revenue bonds, with combined annual payments of approximately $1 million, will mature, followed by the 2014A revenue bond in FY35.



On December 12, 2023, Moody's Investors Service affirmed BED's A3 credit rating, with a stable outlook. BED targets A-range values for its credit rating financial metrics, which include days cash on hand, debt ratio, and adjusted debt service coverage ratio. BED also monitors compliance with its revenue bond covenant 1.25 debt service coverage ratio, which we consistently exceed and expect to continue to do so. By design, the Moody's metrics check and balance each other (for example, liquidity can be improved with borrowing, but increased borrowing will negatively affect the debt ratio and adjusted debt service coverage ratio), so that the financial management challenge becomes maintaining all three metrics at satisfactory levels. After 12 years without a rate increase, BED's days cash on hand and adjusted debt service coverage ratios have been challenged in recent years as expenses increased, sales to customers have been flat to declining, and cash reserves were depleted without offsetting revenue increases.

BED's rate changes over the past four years have improved the adjusted debt service coverage ratio, while helping to maintain at least 90 days cash on hand, including our line of credit at its former $5 million level. The 2022 Net Zero Energy revenue bond has been a critically important source of financing for BED's capital investments that mitigated what otherwise would have been significant upward rate pressure if the same projects had to have been funded from operating cash sources. To continue to maintain adequate cash reserves while also continuing to fund needed capital projects, strategic electrification incentives, and other activities, additional financing will be necessary. Without the proposed NZE and Grid Reliability Revenue Bond as a financing source, BED would face a choice of either dramatically reducing capital investment and curtailing incentive funding or needing much larger rate increases in the near term to fund our projects while maintaining A rating metrics for days cash on hand.

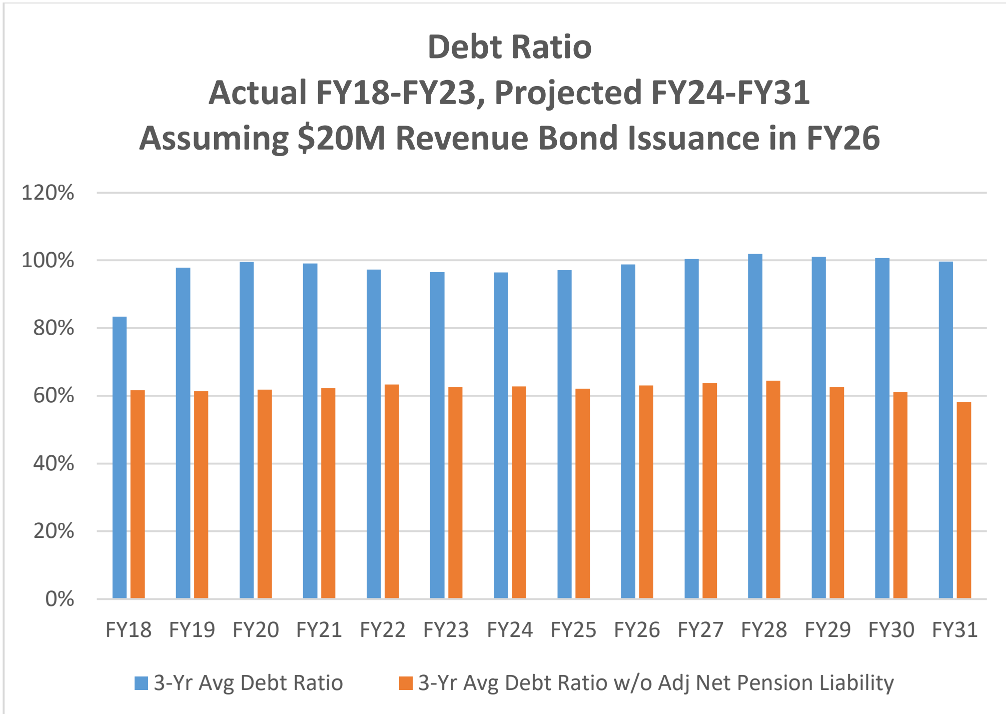
For FY26, as an illustrative example, absent new revenue bond funding and assuming we still attempted to fund both our capital needs (including Net Zero grid and technology upgrades) and strategic electrification incentives above the level required by State law, BED would be faced with implementing a 12.8 percent rate increase in order to maintain 120 days cash on hand (including the $10 million line of credit). BED does not believe this level of rate increase would be justifiable or support affordability for customers. By contrast, current estimates show that, with the financing from the proposed Net Zero Energy & Grid Reliability Revenue Bond, we would achieve 120 days cash on hand in FY26 with only 2.9 percent of upward rate pressure.

FY26 Projected Rate Pressure to Reach 120 Days Cash On Hand *(assuming full funding of capital projects and including $10M line of credit)*

Financing	Rate Pressure FY23
Without Revenue Bond	+12.8%
With Revenue Bond	+2.0%

Again, this scenario demonstrates how much rate pressure would exist without the Net Zero Energy & Grid Reliability Revenue Bond if we still sought to fund the same projects based on current forecasts and operating revenues. It is not an actual rate case proposal for any of the fiscal years mentioned. Such a proposal would include consideration of many other factors. However, in this context, the proposed revenue bond offers a way to invest in our system and free up cash reserves for our strategic electrification programs while significantly reducing upward rate pressure compared to alternate funding mechanisms and maintaining strong credit rating metrics, a true win-win scenario for our customers and community.

A new Revenue Bond would put pressure on BED's adjusted debt service coverage ratio (because debt service would increase in the short-term, before older revenue bonds mature) and debt ratio. Moody's A-rating range for the debt ratio (in simplest terms, debt+pension liability/assets) is 60-80%. In 2019 Moody's changed its methodology to include net pension liability in the debt ratio calculation. With this methodology change, BED's debt ratio jumped from 61% to 92% in a single year. The chart below shows BED's actual debt ratio (3-year running average) through FY23, with projections for the 3-year running average for FY24 and beyond, assuming a single $20 million revenue bond issuance in FY26. The 3-year running average not including the adjusted net pension liability is shown for comparison purposes. The chart shows that BED's debt ratio is not dramatically affected by the new revenue bond issuance. Including the net pension liability, the 3-year running average of the debt ratio is projected to peak at 102.3% in FY28 and then slowly decline (assuming no other borrowings). (Omitting the net pension liability, the 3-year running average is projected to peak at 64.6% in FY28 before declining.)



Conclusion

BED believes the Net Zero Energy & Grid Reliability Revenue Bond proposal is a fiscally responsible and innovative means of financing needed capital improvements and providing access to liquidity to support additional incentives for accelerating strategic electrification and our community's progress toward our NZE climate goal. The proposed Revenue Bond would support BED's capital needs and ensure BED's continued efficient and economical operations. Burlington's precedent-setting issuance of a revenue bond for energy efficiency in 1990 and the first NZE Revenue Bond in 2022 provide a strong foundation upon which to pursue this new Net Zero Energy & Grid Reliability Revenue Bond. Given our ambitious 2030 goal and our desire to maintain strong financial metrics and affordable rates for our customers, this financing option provides the best avenue moving forward.

BED respectfully requests that the Commission recommend that the City Council approve placing a question on the November 2024 special election ballot for voters to consider authorizing BED to issue $20 million in revenue bonds for the purposes described in this memo. We will be available to answer any questions or provide additional information at the Commission's August 1, 2024 special meeting. Thank you.

Attachment: Proposed NZE and Grid Reliability Revenue Bond Projects, FY26-FY29

Proposed Net Zero Energy & Grid Reliabilty Revenue Bond Projects	FY 26	FY 27	FY 28
Distribution			
1L1/1L4 Long Span Removal	$ -	$ -	$ -
2L3 Rebuild 927S to Sub#7	$ -	$ -	$ 165,478
2L3 Rebuild UH303 to 929S	$ -	$ -	$ 668,118
Add automation to manual switch 801S (Pine St and Home Ave)	$ -	$ -	$ 75,756
Add automation to manual switch 986S (Maple St and S Winooski Ave)	$ -	$ 42,737	$ -
Bayview Street Reconductor Poles P896-P851	$ -	$ 18,749	$ -
Distribution Transformers	$ 400,000	$ 300,000	$ 250,000
Distribution Transformers Engineering	$ 6,124	$ 6,308	$ 6,497
Extend 1L2 to P3097 on North Avenue & transfer load from 1L4 to 1L2 (814S-214D-218D-P3097)(NZE #1 by 2024) (Peak >80 MW)	$ -	$ 1,637,504	$ 1,582,399
Grey Meadows UG Rebuild	$ 88,872	$ -	$ -
Install 4-Way Padmount or Submersible Switch (1002S, 1003S, 1004S, 1005S) at Starr Farm Rd & North Ave (Peak >90 MW)	$ -	$ 345,748	$ -
Lake Forest UG Replacement	$ 54,867	$ -	$ -
Lake Street Battery Bank Replacement	$ 44,698	$ -	$ -
Level 2 Chargers	$ 321,255	$ 330,892	$ 202,554
Level 3 Chargers	$ 431,461	$ 444,405	$ 376,178
Little Eagle Bay UG Rebuild	$ -	$ -	$ -
Pole Replacement	$ 254,088	$ 239,901	$ 269,562
Rebuild 1L4 from P2838 to P2795 (Institute Rd to Bike Path)	$ 149,439	$ -	$ -
Rebuild Deforest Rd	$ 501,235	$ -	$ -
Rebuild Howard Street OH, Poles P828 to P836	$ 29,905	$ -	$ -
Rebuild Howard Street OH, Poles P892-P843	$ -	$ 17,260	$ -
Rebuild Lakeside Avenue OH, Poles P2302-P526	$ -	$ -	$ 14,911
Rebuild Plattsburg Avenue OH, poles P3762 to P3752	$ 26,650	$ -	$ -
Rebuild Plattsburg Avenue poles P3762 to P3752	$ -	$ 27,449	$ -
Rebuild S. Union Street OH, Poles P925-P929	$ -	$ -	$ 15,749
Rebuild St. Paul Street OH, Poles 1004 – P1011	$ 20,428	$ -	$ -
Rebuild Wells Street OH, Poles P191-P183	$ 23,505	$ -	$ -
Replace 348S/230S/145S/427S (Battery & Cherry)	$ -	$ -	$ 342,016
Replace direct buried underground cables along Oakledge Drive	$ -	$ 136,788	$ -
Replace Disconnect #346D (normal open point between 3L1 & 3L2) with a SCADA controlled switch.	$ 85,688	$ -	$ -
Replace livefront transformer #2355 (Pearl Street - Courthouse)	$ 14,138	$ -	$ -
Replace livefront transformer #2598 (St. Paul Street - Decker Towers)	$ 44,740	$ -	$ -
Replace livefront transformer #2889 (Battery St - Hilton)	$ -	$ 11,426	$ -
Replace Sub#7 328S/602S/704S/740S switch	$ -	$ 324,649	$ -
Replace Switch # 716S/728S/729S (Lake Street) 9/97	$ -	$ 66,941	$ -
Replace switchgear at College St Substation	$ -	$ -	$ 542,384
Replace the undeground system at Fairmount Place 1985	$ -	$ -	$ -
Replace the underground feed to Stafford Green House	$ -	$ -	$ 13,785
Replace the underground system at Birch Court (Off North Avenue)	$ -	$ -	$ 55,485
Replace the underground system at Juniper Terrace (Off Summit Street)	$ 198,568	$ -	$ -
Replace the underground system at Overlake Condos (Off S. Prospect Street)	$ -	$ -	$ -
Replace the underground system at River Watch	$ -	$ 873,171	$ -
Replace the underground system at Village at North Shore	$ -	$ 251,973	$ -
Replace the underground system to UVM Aiken Center	$ 13,978	$ -	$ -
Replace UG St. Paul St. (Bank St to Cherry St)	$ 298,429	$ -	$ -
SCADA ADMS Phase III/IV	$ 772,276	$ -	$ -
Transfer load between 1L1 to 1L4 (Woodlawn Rd, Woodbury Rd)	$ 167,734	$ -	$ -
UH#328 Switch Relocation	$ -	$ -	$ -
Upgrade the manual switch 917S P1765 to a SCADA operated switch	$ 67,595	$ -	$ -
General Plant			
All electric forklift	$ 137,580	$ -	$ -
BED Fleet EV charging (civil work)	$ 30,000	$ 30,000	$ 50,000
C3 Freightliner Hybrid Bucket Truck Replacement w/All-Electric	$ 200,000	$ -	$ -
Replace Vehicle C15 F350 Cube van with Transit electric	$ 65,000	$ -	$ -
Replace Vehicle C18 Technicians F150	$ -	$ -	$ -
Replace Vehicle C23 Nissan Leaf	$ -	$ -	$ 47,000
Replace Vehicle C29 Ford Fusion	$ -	$ -	$ -
Replace Vehicle C5 F350 Cube van with Transit electric	$ -	$ 150,000	$ -
Replace Vehicle C64 Subaru Outback-Safety with electric	$ -	$ 50,000	$ -
Generation-Mcneil			
McNeil Catalyst Replacement for Nox System	$ 125,000	$ 20,000	$ -
McNeil Energy Efficiency Improvements	$ 2,500	$ 2,500	$ 2,500
McNeil Forestry Vehicle	$ 20,000	$ 20,000	$ 20,000
McNeil Wood Dryer	$ 250,000	$ -	$ -
Generation-Other			
WinOne Automatic Voltage Regulator (AVR)	$ 150,000	$ -	$ -
WinOne Unit #1 Bearing Replacement	$ -	$ 100,000	$ 128,472
WinOne Unit 3 Bearing Replacement	$ -	$ 124,790	$ -
Winooski One Relicensing	$ 668,358	$ 268,093	$ -
IT			
IT Forward - CIS Replacement	$ 413,896	$ -	$ -
IT Forward - FIS Replacement	$ 906,173	$ -	$ -
Refresh Velco Production Compute/Storage	$ 165,000	$ -	$ -
Upgrade Smart Grid Collection Engine to Riva platform	$ 50,000	$ -	$ -
Virtualized Hardware Refresh Pine	$ -	$ -	$ 165,000
Other-Demand Response			

DER	$ 33,644	$ 34,485	$ 35,347
DER Aggregator/Flexible Load Management	$ 71,599	$ -	$ -
P&P R&D	$ 27,294	$ 27,976	$ 28,675
Project Totals	**$ 7,331,718**	**$ 5,903,744**	**$ 5,057,867**
Revenue Bond Funding Totals (FY25 @ 50%)	**$ 7,331,718**	**$ 5,903,744**	**$ 5,057,867**

Resolution Relating to

NOVEMBER 5, 2024 SPECIAL CITY MEETING—
ISSUANCE OF REVENUE BONDS—
FOR BURLINGTON ELECTRIC DEPARTMENT - Net Zero Energy and Grid Reliability Projects

RESOLUTION________
Sponsor(s):
Introduced: ____________________
Referred to: ____________________
____
Action: ________________________
Date: __________________________
Signed by Mayor: ________________

CITY OF BURLINGTON

In the year Two Thousand Twenty-Four ……………………………………………………………………

Resolved by the City Council of the City of Burlington, as follows:

That WHEREAS, the City of Burlington (the "City") and the Burlington Electric Department ("BED") have previously adopted a goal to reduce and eventually eliminate fossil fuel usage in heating and ground transportation (the "Net Zero Energy Goal"), as set forth in that Net Zero Energy Roadmap, dated September 5, 2019; and

WHEREAS, the City and BED have identified the need for various capital improvements to implement the City's Net Zero Energy Goal, including upgrades to further support electric grid updates to meet increased electricity needs resulting from greater strategic electrification and to ensure the continued reliability of BED's current distribution system, grid demand management and battery storage opportunities, generation plant upgrades, IT system/technology system upgrades, acquisition of municipal electric vehicles and support of EV charging infrastructure; and

WHEREAS, the City has determined that the costs of such improvements are too great to be paid out of the ordinary annual income and revenue of BED and that, in order to fund the costs of such capital improvements, it will be necessary to incur indebtedness for that purpose; and

WHEREAS, it is expected that these improvements will benefit current and future ratepayers, the City and the general public; and

WHEREAS, Sections 433 and 477 of the City Charter and other applicable law provide that, with at least a majority vote of the City's voters, the City shall have the authority to issue bonds, from time to time, for the purpose of financing the cost of any improvement to the City's electric plant and for energy transformation and energy efficiency projects, with such bonds payable from the revenues of its electric system or revenues derived from electric service; and

WHEREAS, the Board of Electric Commissioners, at its August 1, 2024 meeting, approved advancing the proposed revenue bonding for electric system improvements for City-wide consideration and a public vote at a City Special Meeting to be held on November 5, 2024; and

WHEREAS, the proposed financing of such capital improvements may be through a public or private issuance of bonds or notes or a combination thereof, and may be done in one or more series, and over multiple fiscal years; and

NOW, THEREFORE, BE IT RESOLVED that the City Council hereby requests, pursuant to Section 25 of the City Charter, that the Mayor call a Special City Meeting to be held on November 5, 2024 and that the following question be placed on the ballot of that Special City Meeting:

"Shall the City be authorized to issue revenue bonds or notes in one or more series on behalf of the Electric Light Department, in an amount not to exceed $20,000,000 in the aggregate, to be issued pursuant to the City Charter, as may be determined by the City Council, and payable from the net revenues of the electric system, for the purpose of paying for (i) capital additions and improvements to the City's electric system, and energy transformation and energy efficiency projects, in furtherance of the City's Net Zero Energy goals, including capital improvements for the distribution system, grid demand management and battery storage opportunities, generation plant upgrades, IT system/technology system upgrades, acquisition of municipal electric vehicles and support of EV charging infrastructure (the "Project"), and (ii) funding a debt service reserve funds and paying costs of issuance?"

Total Estimated Project Cost:	$20,000,000
City Electric Department Share of Total Cost:	$20,000,000

Revenue Bond Discussion and Vote Motion

I make a motion to recommend that the Board of Finance and the City Council place a question on the ballot of the November 5, 2024 special meeting of the City to authorize the City to issue up to $20 million in Revenue Bonds on behalf of Burlington Electric Department, in one or more issuances, consistent with the purposes and as further set forth in the materials provided at today's Electric Commission meeting.