

Securitization:

Using a Well-Established Tool to Support a More Affordable Energy Transition in Massachusetts

Authors:

Susan Tierney

Paul Hibbard

September 10, 2025

Acknowledgments

This is an independent study prepared by the authors at the request of the Massachusetts Office of Energy Transformation. The study, provided on a pro-bono basis, reflects the analysis and judgment of the authors alone. The views in it do not necessarily reflect the views of the Commonwealth of Massachusetts, Analysis Group or any other organization.

Additionally, since the summer of 2024, Mr. Hibbard and Dr. Tierney have been providing technical and analytical assistance on a pro-bono basis to the Massachusetts Office of Energy Transformation's <u>Working Group on Financing the Transition</u>, which is part of the Commonwealth's Energy Transformation Advisory Board.

The authors appreciate the research support of their colleagues Scott Ario, Rachel Anderson, Grace Maley, Claire Paoli, Phil Ross, Hea Akau, Sumit Shrestha, and Zack Campbell.

About the Authors

Sue Tierney is a Senior Advisor at Analysis Group, where she has advised a wide variety of organizations. Previously, she served as the Assistant Secretary for Policy at the U.S. Department of Energy, and in Massachusetts she was Secretary of Environmental Affairs, Commissioner at the Department of Public Utilities, and Executive Director of the Energy Facilities Siting Council. She chairs the Board of Resources for the Future as well as the Board of the Alfred P. Sloan Foundation. She is a Trustee of the Barr Foundation and chairs the National Academies' Board on Environmental and Energy Systems. She has served on several National Academies' committees: The Future of the Electric Grid; Net Metering in the Evolving Electricity System; Accelerating Decarbonization in the U.S.; and Climate Crossroads Advisory Committee. She previously chaired the Department of Energy's Electricity Advisory Committee. She received her Ph.D. in regional planning from Cornell University.

Paul Hibbard, a Principal at Analysis Group, is a former Chairman of the Massachusetts Department of Public Utilities and has held positions in both energy and environmental agencies in Massachusetts. During his tenure on the Commission, Mr. Hibbard served as a member of the Massachusetts Energy Facilities Siting Board, and testified before Congress, state legislatures, and federal and state regulatory agencies. Mr. Hibbard is now a Principal in Analysis Group's Boston office and has public and private sector experience in energy and environmental technologies, economics, market structures, and policy.

About Analysis Group

Analysis Group is one of the largest international economics consulting firms, with more than 1,500 professionals across 15 offices in North America, Europe, and Asia. Since 1981, we have provided expertise in economics, finance, health care analytics, and strategy to top law firms, Fortune Global 500 companies, and government agencies worldwide. Our internal experts, together with our network of affiliated experts from academia, industry, and government, offer our clients exceptional breadth and depth of expertise. The firm's energy and climate practice area is distinguished by its expertise in economics, finance, market modeling and analysis, economic and environmental regulation, analysis and policy, and infrastructure development. Analysis Group's consultants have worked for a wide range of clients, including energy suppliers, energy consumers, utilities, regulatory commissions, other federal and state agencies, tribal governments, power system operators, foundations, financial institutions, and start-up companies.

Table of Contents

l.	Ex	ecutive Summary	4
II.	Se	curitization of Utility Costs: The Basic Mechanics	7
	A.	The starting point: How do utilities traditionally raise funds for investment and operations?	7
	B.	What is securitization and how does it compare to traditional utility debt and equity financing	? 10
III.	Illu	strative Examples of Utility Securitization	.15
	A.	Illustrative example of cost recovery of energy efficiency budgets for the Mass Save Program	า 15
	B.	Illustrative example of cost recovery of an electric distribution investment	17
	C.	Examples from actual securitizations in the past	19
IV.	Co	nclusion	.20
Appe	ndix	1: Useful Resources on Securitization:	.21
Appe	ndix	2: Electric Industry Securitizations: 1995-2024	.22

I. Executive Summary

Hikers know that when they're setting out for a long trek with potentially changing and uncertain conditions, it's smart to equip oneself with a Swiss Army knife, providing lots of tools adaptable to addressing lots of challenges.

Quite some time ago, Massachusetts set out on a journey to usher in a major transformation of the state's energy economy. In 2008, Massachusetts enacted laws to deepen the adoption of energy efficiency measures and renewable energy, promote clean energy technologies and jobs in the state, and reduce greenhouse gas emissions in the Commonwealth. Since then, the legislature has passed many more laws to help tap offshore wind, hydropower and storage resources, modernize the state's electricity grid, promote energy equity, gradually shift energy use in buildings and motor vehicles to electricity, and spur other actions to decarbonize the economy, lower energy use, reduce air pollution, improve public health, and transition the state's workforce.

Massachusetts is well on its multi-decade journey. Recently, however, this energy transition overlaps with a period of relatively high inflation, high natural gas prices and high electricity prices in the state (and elsewhere), causing concerns and challenges for consumers. In response, Governor Healey has tasked members of her Administration with finding ways to address energy affordability and in May 2025 proposed the

Securitization is a tool that has been frequently used to lower the cost of financing utility expenditures and investments.



Energy Affordability, Independence, and Innovation Act to further support that goal.³ The bill includes an array of policy tools, one of them – securitization of different types of utility costs – is a financing tool that was previously used in Massachusetts during a prior period of energy transition in the state and has been used elsewhere since then in dozens of applications around the country as a way to lower costs to ratepayers.⁴

As described in a recent white paper published by the national utility regulators' association, securitization is a special form of financing that is specifically designed to lower a utility's borrowing costs, which in turn lowers the amount of money customers will have to repay. Working with their legislature, utility commissions, and independent financial advisors, utilities can issue high-quality

¹ 2008 Green Communities Act, https://malegislature.gov/Laws/SessionLaws/Acts/2008/Chapter169); 2008 Green Jobs Act, https://malegislature.gov/Laws/SessionLaws/Acts/2008/Chapter307); 2008 Global Warming Solutions Act, https://malegislature.gov/Laws/SessionLaws/Acts/2008/Chapter298).

² Over the past decade, the major statutes enacted by Massachusetts policy makers and related to the clean energy transition include:

⁻ The 2016 Energy Diversity Act, https://malegislature.gov/Laws/SessionLaws/Acts/2016/Chapter188;

⁻ The 2018 Clean Energy Act, https://malegislature.gov/Laws/SessionLaws/Acts/2018/Chapter227;

⁻ The 2021 Roadmap for Climate Policy Act, https://malegislature.gov/Laws/SessionLaws/Acts/2021/Chapter8;

⁻ The 2022 Clean Energy and Offshore Wind Act, https://malegislature.gov/Laws/SessionLaws/Acts/2022/Chapter179;

⁻ The 2024 Clean Energy Act, https://malegislature.gov/Laws/SessionLaws/Acts/2024/Chapter239.

³ Energy Affordability, Independence and Innovation Act, announced and filed by Governor Healey on May 13, 2025, https://www.mass.gov/doc/2025-energy-affordability-independence-and-innovation-act-filing-letter-and-bill-text/download.

⁴ Kevin Ryan and Gabe Grossman, "Credit FAQ: The Rationale Behind U.S. Utility Securitization And Reasons For Recent Growth," *S&P Global Market Intelligence*, March 4, 2024 (hereafter "S&P Global *RatingsDirect*, May 2, 2024"), https://www.spglobal.com/ratings/en/regulatory/article/240304-credit-faq-the-rationale-behind-u-s-utility-securitization-and-reasons-for-recent-growth-s12609481.

securitized bonds. The bonds receive a "AAA" rating – the highest possible — from Wall Street rating agencies that assess creditworthiness, making them more attractive to investors eager for safe, reliable, long-term returns on their investment.⁵

In recent years, states have used securitization as a tool to address innovative ways to pay for the costs of such things as wildfires, spiking energy prices, grid resilience, and utility stranded costs. Securitization efforts start with enactment of statutes allowing for securitization where it is in the public interest and with subsequent regulatory action to determine whether specific proposals meet that standard (relative to traditional ratemaking) and, if so, to allow the utility to proceed with that securitization. Legislators have authorized securitizations most often for electric service but increasingly also for natural gas.⁶

Given the wide variety of things that go into the provision of electric utility service – from installing new electrical circuits on the local grid, upgrading equipment to handle increased customer demand or to better withstand extreme weather, paying crews to maintain the wires, investing in equipment like utility trucks, providing incentives for customers to install energy efficiency measures – authorizing a range of financing tools, including the option of securitizing investments or other costs is sensible policy.

The investor-owned electric distribution utilities in Massachusetts (responsible for delivering electricity to over 90 percent of the state's electricity customers⁷) use a combination of ways to finance their investments and operations, relying primarily on shareholder equity, long-term corporate bonds and short-term debt. These different financing mechanisms have different risk profiles and therefore involve different costs of capital. Shareholder equity – typically the least secure (or most risky) form of capital for utilities – is more expensive than debt, and investor-owned utilities use a blend of debt and equity to finance their investments and operations.

These financing costs show up in the rates that electric utilities are allowed to charge their ratepayers. In the Commonwealth, investor-owned electric distribution utilities' rates are fully regulated by the Massachusetts Department of Public Utilities ("DPU") and are based on DPU decisions about the utility's cost to provide electricity service. The cost of service includes expenses (such as labor, fuel for utility trucks, taxes), on which the utility is not allowed to earn a profit. When the utility invests in capital equipment (e.g., poles, wires, trucks, computer hardware) with a useful life beyond one year, the cost of service includes depreciation (reflecting a year of value provided by that investment) as well as financing costs including debt repayment and an amount of profit to compensate the utility's shareholders for use of their capital. The financing costs allowed in traditional rates reflect

⁵ Joseph Fichera, "Managing Electricity Rates Amidst Increasing Capital Expenditures: Is Securitization the Right Tool? An Update," *NRRI Insights*, National Regulatory Research Institute (hereafter "NRRI Report on Securitization"), 2019, https://pubs.naruc.org/pub/34058ED0-1866-DAAC-99FB-B8BC5BCC625C.

⁶ While there are dozens of instances where electric utility costs have been securitized and recovered in electricity customers' rates over the past few decades (as discussed later in this report), there are some recent examples where storm-related costs associated with spiking natural gas prices were allowed to be recovered from local gas distribution ratepayers. See for example, the Texas Natural Gas Securitization Finance Corporation's issuance of \$3.52 billion in rate relief bonds in 2023 to allow natural gas utilities to recover extraordinary costs associated with purchases of natural gas service during winter storm Uri. https://tngsfc.com/about; https://tngsfc.com/bonddocs/TNGSFC%20CRR%20Bonds,%20Taxable%20Series%202023.pdf.

⁷ Statistics in this section are from the Energy Information Administration's <u>861 database</u>. Massachusetts investor-owned electric utilities are: Eversource Energy; National Grid; and Unitil.

⁸ John Quakenbush, "Cost of Capital and Capital Markets: A Primer for Utility Regulators," National Association of Regulatory Utility Commissioners," December 2019, https://pubs.naruc.org/pub.cfm?id=CAD801A0-155D-0A36-316A-B9E8C935EE4D.

regulators' decisions about various aspects of the utility's capital costs, such as the blend of equity and debt that is appropriate for the utility, the utility's cost of debt given the utility's credit rating, and the authorized rate of return (or profit) on undepreciated investment in the utility's rate base, taking into account market conditions.

Relative to traditional ratemaking, having the option to use securitization for particular bundles of costs could provide benefits to ratepayers in several ways:

- First, securitization can lower the utility's overall cost to finance *investment* by shifting financing from a combination of higher-cost corporate debt and shareholder equity to 100% low-risk, lower-cost debt.
- Second, securitization can typically spread investment financing costs over a long-term time period with a
 uniform repayment schedule, which lowers near-term financing charges relative to rate-based regulation,
 which tends to have higher financing costs in early years compared to later years.
- Third, securitization of *expenses* typically allows them to be repaid over a time period longer than a single year and at a lower cost than corporate debt. Even though this introduces some financing costs, the approach which, like a home mortgage, adds debt repayment charges to the expense (compared to simply using cash at the outset) allows for spreading out costs to make them more affordable.

For securitization to achieve these outcomes, it requires several critical features that support the ability of the utility to obtain relatively low-risk, low-cost debt. These features are: legislative authorization of securitization as a potential tool for utilities to use to recover the costs of financing some of their expenses and investments, subject to review and approval by utility regulators; regulators' review of any actual specific securitization proposal submitted by the utility with any

Given the wide variety of things that go into the provision of electric utility service as conditions change over time, authorizing a range of financing tools, including the option of securitizing investments or expenditures, is sensible policy.

regulatory approval based on a finding that the proposal is in the public interest, that the costs will be included in rates, and that the terms of cost recovery will not be revisited over the life of debt; and measures to ensure the costs to repay the securitized debt are fully recovered in consumers' rates.

Since the mid-1990s, utilities across the country have been authorized to securitize billions of dollars of costs resulting in savings to consumers. In 2022-2024 alone, electric utilities issued securitization actions amounting to \$24.9 billion and did so with debt issuance ratings of higher quality and lower interest rates than would have occurred under the utilities traditional debt. Those recent securitizations were used primarily to recover the costs of wildfires, higher-than-normal energy price spikes, grid upgrades, and stranded costs.

Having the option to use securitization does not mean that it will be used under all circumstances. Just as it is prudent to carry a robust Swiss Army knife on a long hike and have the right tool ready to use as needed when circumstances change over time, even if not used on every trip, it is sensible public policy to authorize use of securitization as a potential tool and then allow and encourage utilities to use it when – and only when – utility regulators find that it is in the public interest to do so.

⁹ Appendix 1 includes additional documents related to utility securitizations.

¹⁰ These total amounts reflect the securitization issuances of utilities rated by S&P Global. S&P Global *RatingsDirect*, May 2, 2024, updated with additional research by the authors. See the list of utility securitizations in Appendix 2.

II. Securitization of Utility Costs: The Basic Mechanics

A. The starting point: How do utilities traditionally raise funds for investment and operations?

The standard ways that investor-owned electric utilities finance their business are through debt (e.g., by issuing corporate bonds and taking on commercial loans) and use of shareholder equity. These financing methods represent different sources of funds with different risk profiles.

Debt is a loan with an obligation for the borrower to repay it over time according to the terms, including interest rate and repayment schedule, set forth in the loan agreement or bond issuance documents. The loan does not convey to the lender an ownership interest in the borrower's firm or assets, as happens with the investors who hold ownership shares in the firm. In the event of a bankruptcy, however, debt holders have a priority over owners' equity interest, in terms of being repaid. Debt is less risky than equity, and therefore interest rates for loan repayments are typically lower than expected returns on equity.

These are the realities of traditional financing options for investor-owned electric utilities and these realities affect the rates these utilities are allowed to charge their customers for electricity service. The cost of borrowing is built into the utility's cost of service which is the fundamental basis for establishing utility rates. For utility rate cases occurring in the U.S. toward the end of 2024, the average allowed return on equity was 9.84 percent, ¹¹ compared to the interest rate on corporate bonds for a relatively creditworthy utility of 5.8 percent during the same period. ¹² To diversify their portfolio of capital costs, investor-owned utilities rely on a mix of debt and equity, and regulators set a target capital structure (e.g., 50% debt/50% equity, or 60% debt/40% equity).

In a simplified version of standard utility ratemaking, the cost of capital affects rates in the following way (as shown in Figure 1 below): When an investor-owned electric utility makes an investment – let's say, for \$1 billion in new distribution infrastructure – which regulators determine to be prudent, used and useful in a rate case, those dollars go into the utility's rate base at original cost, or with \$1 billion being added to rate base in this example. Let's assume that the facilities funded by this investment have a 40-year useful life such that its original cost is spread out in rates (through depreciation charges) over 40 years. In the utility's rate case, to allow for recovery of that new investment, a \$25 million depreciation expense will be added to that year's cost of service (or revenue requirement) so that ratepayers together will need to repay the utility for that year's use of those assets. In addition, ratepayers need to repay the utility for its costs to finance that investment over its useful life. The basic ratemaking formula for including financing costs in the cost of service is: (a) cost of capital times (b) the original cost less accumulated depreciation expense. In the year that the new investment enters rates, this would be the cost of capital (comprised on the blend of interest rate on debt and allowed rate of return on equity) times the

¹¹ Edison Electric Institute, Rate Review 2024 Q4, Quarterly Financial Updates, Average Awarded ROE (Return on Equity), https://www.eei.org/en/issues-and-policy/finance-and-tax.

¹² This reflects the bond rating for Moody's Seasoned Baa Corporate Bond Yield (BAA), not seasonally adjusted, as of December 2024, https://fred.stlouisfed.org/series/BAA.

¹³ "Rate base" refers to that portion of the utility's revenue requirement associated with capital investment (rather than, e.g., annual expenses), and on which the utility is allowed to earn a return at the utility's approved cost of capital.

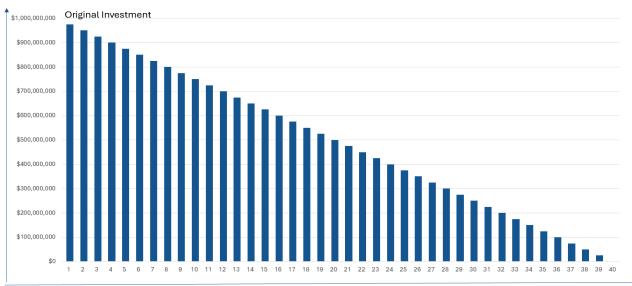
original cost of \$1 billion less \$25 million in cumulative depreciation. If the blend of debt and equity is 50%/50%, and the cost of debt is 5.8% and the allowed return on equity is 9.8%, then the financing costs built into rates would be \$76.05 million:

Figure 1: Illustrative Example of Calculating Traditional Utility Investment Financing Costs: #1



The recovery of financing costs goes down over time for a given level of investment, by virtue of the ratemaking formula in which financing costs in rates drop as depreciation expenses are subtracted from the amount in undepreciated rate base declines year by year. For example, using the same original \$1 billion of new investment entering rate base in year 1, the undepreciated amount in rate base drops by \$25 million each year, as shown in the illustrative example in Figure 2 below. If (a) the cost of capital remained constant over time (that is, if interest rates on debt (5.8%) and the allowed return on equity (9.8%) did not change over the 40 years of investment recovery for the \$1 billion dollars) and (b) the utility made no subsequent incremental investment (an unrealistic assumption), then (c) the rate base would have the pattern shown below, and the annual financing costs in rates would drop as accumulated depreciation increased and the undepreciated amount in rate base steadily declined year over year.

Figure 2:
Undepreciated Amount in Rate Base –
Illustrative Example of a \$1 Billion Investment with a 40-Year Life



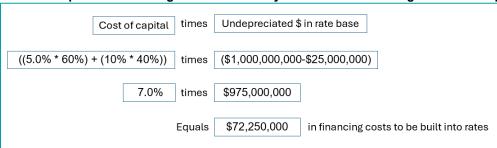
Depreciation Period for Cost Recovery of the Investment

The second-year financing charge in rates would be 7.8% times \$950,000,000, or \$74.1 million, rather than the first year amount of \$76.05 million. The next year's financing charges in rates would be 7.8% times \$925,000,000, or \$72.15 million, and so on, down to the 40th year, when there is no more undepreciated amount remaining from that original \$1 billion investment.

In this way, financing charges are higher in the early years of investment recovery, as compared to the later years.

To further illustrate the mechanics of how the cost of capital affects rates under traditional cost-of-service and rate-based regulation: if the allowed debt/equity ratio were 60% debt and 40% equity, with cost of debt and equity set respectively at 5% and 10%, then the financing costs for the \$1 billion in new investment built into new rates would go down to \$72.25 million. (See Figure 3, below.) The utility's revenue requirement for recovering this new investment would go down by \$3.8 million a year, assuming these changes in the cost of capital.

Figure 3
Illustrative Example of Calculating Traditional Utility Investment Financing Costs: Example #2



Thus, customers' rates are affected by the borrowing costs of the utility, and small changes can affect the bottom-line impacts on customers' rates. As noted above, traditional ratemaking does not allow the utility to earn a return on expenses, as opposed to investments. ¹⁴ (Again, "expenses" typically refers to goods or services whose usefulness does not extend beyond the time period in which the cost is incurred. An example is fuel: typically, fuel to move utility trucks provides service in the year it is paid for, without long-lived benefits.)

In some circumstances, certain expenses are recovered in a single-year's revenue requirement (and consequently in a single-year's rates) even when they involve programs where the activity has an impact beyond the single-year cost recovery period. For example, the dollars that fund the budgets of some energy efficiency programs, such as those collected by the utilities in Massachusetts to fund the Mass Save program, lead to reduced energy use that goes well beyond the year those dollars are collected from ratepayers, as illustrated in Figure 4 below. Specifically, energy efficiency measures and programs often continue to benefit ratepayers for ten or more years (depending on the energy efficiency measures applied) beyond the year that the energy efficiency expense is incurred and collected from ratepayers. In this way, some energy efficiency expenditures could be viewed more as investments, with a cost-recovery profile that should be reasonably tied to the useful lives of efficiency measures rather than treated as expenses (for ratemaking purposes) fully collected the year in which program dollars are spent.

¹⁴ Utilities need working capital to allow them to pay expenses (e.g., salaries for labor, fuel to run utility trucks) before receiving the revenues when customers pay their utility bills associated with the same period in which expenses are incurred.

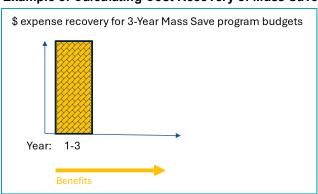


Figure 4
Illustrative Example of Calculating Cost Recovery of Mass Save Expenses

B. What is securitization and how does it compare to traditional utility debt and equity financing?

As described in a recent white paper published by the national utility regulators' association, "securitization is a special form of financing that is specifically designed to lower a utility's borrowing costs, which in turn lowers the amount of money customers will have to repay. Working with their legislature, utility commissions, and independent financial advisors, utilities can issue high-quality securitized bonds. The bonds receive a 'AAA' rating – the highest possible — from Wall Street rating agencies that assess creditworthiness, making them more attractive to investors eager for safe, reliable, long-term returns on their investment." ¹⁵

As noted in that quoted text above, there are several key components of securitization financings:

- First, the state legislature enacts statutory language authorizing utilities to create the financing mechanism and to issue highly secure, low-risk bonds tied to highly secure cost recovery from the utility's customers;
- Second, the state's utility regulators review applications by the utility to issue the securitized bond and to
 collect revenues from customers to repay the bonds over time, and if the specific terms of the
 securitization application are determined to provide benefits to customers, the regulators issue a
 "financing order" which, among other things, indicates that the terms of repayment of the bond will not
 change over its life;
- Third, upon receiving regulatory approval, the utility undertakes the core securitization actions: It creates a special purpose financing mechanism (sometimes called a special purpose entity, or "SPE") to issue the bond; the utility adds a bond-repayment charge to its customer bills with that charge dedicated to repaying the securitized bond; as customers repay the charge over time, the revenues associated with this charge go to the SPE, which uses the funds to repay the bond; and the utility continues to collect the revenues

¹⁵ NRRI Report on Securitization.

from customers until the bond is fully repaid over time, at which point the monthly charge is removed from customers' bills.

Because the financing order has been authorized by the legislature, issued by regulators, and sets the cost-recovery terms of the bond repayment, the financing is very low risk, has a strong credit rating ¹⁶ and has a relatively low interest rate compared to corporate debt and shareholder equity (which not only have higher capital costs than the securitized bond, but also can change over time).

Securitization is not a new financing tool. Electric utilities started using securitization in the mid-1990s as part of the changes that accompanied many states' efforts to restructure their electric industries. At the time, many states (like Massachusetts) required that vertically-integrated utilities exit the generation business and divest their power plants, some of which were not fully depreciated, and were no longer economic as new power plants with lower costs were entering the newly formed competitive wholesale electricity markets. This resulted in "stranded costs" (i.e., costs that are unrecoverable in a market). Many states, including Massachusetts, ¹⁷ addressed this through legislation enabling utilities to sell the power plants and refinance the residual stranded costs or investments (i.e., the remaining undepreciated balances less revenues earned through the sale of the assets) through securitization mechanisms and to pass along the resulting financing-related cost savings (and actual securitized stranded costs) to consumers.

Since the mid-1990s, utilities have been authorized to securitize nearly \$76 billion of costs resulting in savings to consumers. Figure 5 below shows the year-by-year dollar amounts of securitizations issued by U.S. electric utilities from 1995 through 2024, including ones in the late 1990s in Massachusetts, in which these financing measures contributed to lowering rates to consumers.

In 2022-2024 alone, electric utilities issued securitization actions amounting to \$24.9 billion, and did so with issuance ratings of higher quality and lower interest rates than what would have occurred if the utilities had issued traditional corporate bonds. ¹⁸ These actions, authorized by state legislatures and approved by utility regulators, have provided savings to utility ratepayers. ¹⁹ As shown in Figure 6 below (excerpted from S&P Global), the securitizations in 2022-2023 were issued primarily to recover the costs of wildfires, spiking energy prices during extreme weather events, debt repayment and system/grid resilience, and stranded costs. ²⁰

¹⁶ The utility-related securitizations rated by S&P Global Ratings have been assigned 'AAA (sf)' ratings, which is higher (better) than most utility's credit ratings. *See* (hereafter "S&P Global *RatingsDirect*, May 2, 2024"), pp. 5-6.

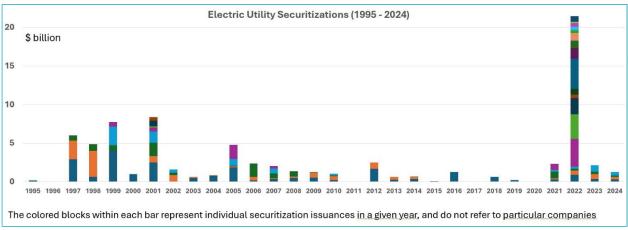
¹⁷ Massachusetts' restructuring legislation included provisions allowing its investor-owned distribution utilities to recover costs for their investments in generation assets, generation-related regulatory assets (i.e. expenses that had been approved for deferred recovery), and above-market costs of purchased power contracts (including the company's share of nuclear power plant investments and the associated decommissioning costs), among other stranded costs. The act also empowered electric utilities to petition regulators to refinance their stranded costs through securitization to help achieve mandatory rate reductions. See Massachusetts Statute XXII.164.1G.

¹⁸ See Appendix 2.

¹⁹ S&P Global RatingsDirect, May 2, 2024.

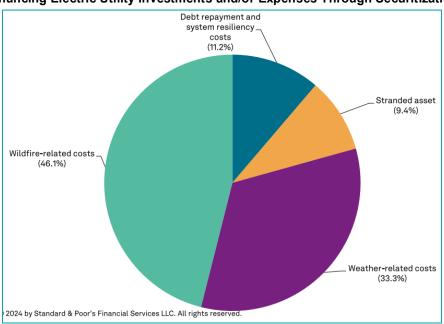
²⁰ According to S&P Global *RatingsDirect*, May 2, 2024, "Why has issuance increased in the last few years? The growth in issuance of utility-related securitizations since 2021 was driven by a combination of factors, including to recover costs associated with natural disasters (e.g., catastrophic wildfires and related mitigation efforts in California), severe weather events (e.g., hurricanes in Louisiana

Figure 5



(Appendix 2 provides a list of the individual securitization actions that are shown in Figure 5.)

Figure 6
Purpose of Refinancing Electric Utility Investments and/or Expenses Through Securitizations (2022-2023)



and damaging storms in North Carolina), stranded assets (e.g., retirement of coal plants in Indiana and Michigan), and excessive fuel costs (e.g., weather-induced spikes in the cost of fuel used by utilities to produce electricity in Oklahoma), among others."

All of these securitization efforts started with a state's enactment of statutes allowing for securitization where it is in the public interest. Such statutory authority then led to specific utility proposals for approval by regulators (or in the case of publicly owned utilities, by their governing board), and then regulatory reviews to determine whether any particular proposal to securitize utility costs was in the public interest and could then proceed. Legislators have authorized securitizations most often for electric service but increasingly also for natural gas.²¹

Although utilities are not necessarily eager to securitize investment dollars (because it means that they do not have the opportunity to earn a shareholder profit on any investment dollars that are securitized rather than going into rate base), they have been open to securitizing some expenditures and investments under certain circumstances where they are looking for cash from diverse sources, for strategies to mitigate rate impacts or regulatory risk, and/or for ways to mitigate more expensive financings that otherwise would affect customer rates. Securitization is another tool in their financing toolkit that has been found to be attractive when there are unexpected large expenses (e.g., elevated energy prices during winter storms; wildfire-related costs) and where the utility is trying to manage numerous investment and expenditure pressures and their impacts on rates (e.g., pollution control equipment costs; grid modernization costs).

According to S&P Global Ratings (one of the nation's leading credit rating agencies), such securitizations provide benefits to the utility and its customers. These securitizations are:

...positive for the corporate credit rating on the originator. Absent securitization, a utility would typically recover the associated expenses over a longer timeframe, leveraging the utility's balance sheet and weakening its financial performance and credit quality. Furthermore, S&P Global Ratings typically makes an analytical adjustment to the financial statements of the sponsoring utility that effectively removes utility-related securitization bonds from its balance sheet, thereby improving the utility's credit metrics. In addition, since a utility's risk of default is usually higher than the risk of recovering costs through a non-bypassable charge on the customer's bill, the interest rate for securitization is usually lower than a utility independently financing these costs. As such, the impact to the customer bill is less, modestly reducing regulatory risk for the utility.²³

Under securitization, the utility accesses relatively low-cost debt because the authorizing legislation and regulators' financing orders mean that recovery of all securitized costs is certain and regulators are not allowed to change the terms and conditions of cost recovery over time. ²⁴ On the other hand (and as mentioned above), neither the utility nor its shareholders receive direct financial benefit from securitization and, in some cases, may be forgoing

²¹ Recently, storm-related costs associated with spiking natural gas prices were allowed to be recovered from local gas distribution ratepayers. See for example, the Texas Natural Gas Securitization Finance Corporation's issuance of \$3.52 billion in rate relief bonds in 2023, to allow natural gas utilities to recover extraordinary costs associated with purchases of natural gas service during winter storm Uri. https://tngsfc.com/about; https://tngsfc.com/bonddocs/TNGSFC%20CRR%20Bonds,%20Taxable%20Series%202023.pdf.

²² S&P Global *RatingsDirect*, May 2, 2024.

²³ S&P Global RatingsDirect, May 2, 2024.

²⁴ Some observers note that In theory, securitizations (compared to traditional rate-of-return regulation of rate-based assets) may shift risk from utility shareholders to utility ratepayers because under traditional ratemaking, rates are set such that they provide the utility with the *opportunity* to earn the profit level (i.e., return on equity) allowed by regulators without *guaranteeing* that the allowed return is achieved, and because interest rates may decline after being locked in during securitization issuances. The latter point is also true for utilities' long-term corporate debt which is repaid at a particular interest rate over a period during which interest rates might also drop.

profits/returns they could otherwise earn, and therefore may not be eager to pursue securitization without direction from policy makers.

III.IIIustrative Examples of Utility Securitization

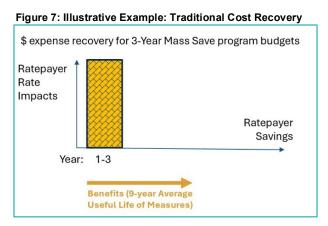
The details of any particular securitization – such as the interest rate on the securitized bond as compared to the interest rate of a specific utility with its individual credit rating and the allowed return on equity approved for that utility by its regulators – varies considerably across utilities and over time. It is nonetheless helpful to understand some examples to elucidate how a securitization might work in practice.

Here are two illustrative examples: one to indicate how securitization might work for recovering hypothetical program costs of the Mass Save program budgets through a securitization instrument (as compared to the current approach used in Massachusetts to recover these program budgets as an expenses collected over a relatively short period of cost recovery through utility rates charged to customers); and another example of a hypothetical investment in assets to modernize the local distribution system.

A. Illustrative example of cost recovery of energy efficiency budgets for the Mass Save Program

Under current practice in Massachusetts, the costs associated with supporting cost-effective energy efficiency programs is collected through multiple revenue sources, including through a "fully reconciling funding mechanism" on the bills of electric and gas ratepayers as approved by the DPU. ²⁵ This mechanism recovers program costs for the approved three-year program budgets of Mass Save over the same time period. The utilities do not earn a return on equity associated with the funds collected on their customers' bills, and there are no utility financing costs built into the amount recovered in customers' bills.

The pattern of cost recovery looks like this: the portion of the DPU-approved three-year Mass Save budget collected on electricity and gas bills is fully collected in three years (as shown illustratively in Figure 7). Yet the program benefits to ratepayers, in terms of savings of electricity and gas energy use and reduced utility bills, continue for many years beyond the program-and-budget years (which, in the case of some energy efficiency measures, can continue for well over ten years). (In Figure 7's illustrative example, energy



²⁵ See DPU order on the petitions of electric and gas distribution utilities for approval by the Department of Public Utilities of Three-Year Energy Efficiency Plans for 2025 through 2027, D.P.U. 24-140 through D.P.U. 24-149, Order dated February 28, 2025, https://ma-eeac.org/wp-content/uploads/DPU-24-140-through-DPU-24-149-2025-2027-Three-Year-Plans-Order-FINAL-2.28.25.pdf. Although most of the budget of the energy efficiency programs are collected from ratepayers (Order, p. 201), "to recover costs related to energy efficiency, electric Program Administrators must first fund the Three-Year Plans from multiple revenue sources, which are: (1) a mandatory \$0.0025 per kilowatt-hour ("kWh") system benefits charge ("SBC"); (2) revenues from the forward capacity market ("FCM") administered by ISO-NE; (3) revenues from cap-and-trade pollution control programs (e.g., Regional Greenhouse Gas Initiative ("RGGI")); (4) energy efficiency surcharge ("EES"); and (5) other funding sources. Guidelines § 3.2.1; see also G.L. c. 25, § 19(a). The Department may also approve funding from gas and electric ratepayers through a fully reconciling funding mechanism, after considering the rate and bill impacts on consumers. G.L. c. 25, § 19(a), (b); Guidelines §§ 3.2.1; 3.2.2." Order, p. 16.

savings are assumed to last for nine years.) That is, although energy efficiency program dollars are recovered as if these were like fuel expenses (i.e., fully recovered from current ratepayers in the year the expenses are incurred), the program funds energy efficiency measures with multi-year benefits that accrue to current and future customers (e.g., in terms of avoided energy and capacity, and in terms of bill savings).

Thus the benefits of energy efficiency measures tend to resemble those of long-lived assets funded by utility investments with cost-recovery occurring over the life of the asset (even though the utility does not end up actually owning the energy efficiency equipment itself).

One way to match the cost recovery period for these energy efficiency measures with their energy-reduction benefits could be through securitization, which could spread program costs over the benefit period. Doing so would set the cost-recovery period over a longer timeframe that better matches the flow of benefits from the funded programs. And while securitization would introduce financing costs, it would do so by accessing financing dollars at a lower cost than would occur if the utility needed to use traditional debt and equity financing to collect the costs of support a three-year Mass Save budget over a period longer than three years.

How might this work? To illustrate the mechanics, let's start with one of the same assumptions of the prior example – i.e., that the average life of the energy efficiency measures supported by the three-year program budgets is on average nine years (although the energy-savings benefits of some equipment might be longer, of course). The efficiency measures funded in the first year of the illustrative three-year program budget produce savings for nine years after installation; the measures funded in the third year of the three-year program budget produce savings for nine years thereafter. If the budget were securitized with a nine-year cost-recovery period, there would be relatively low-cost debt introduced to finance the securitized bond and the financing costs would be part of the money that would be collected through a levelized charge on customers' bills to repay the principal and interest on the securitized bonds over nine years. Cost recovery for the securitized program budget would look more like the right-hand side of Figure 8, as compared to the traditional way of funding the program (shown again on the left).

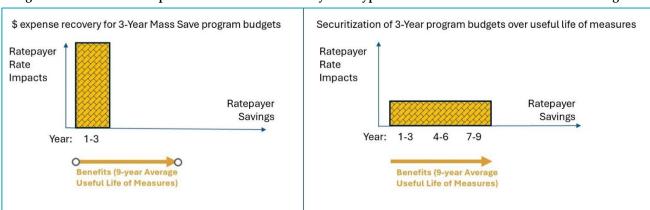


Figure 8: Illustrative Example: Traditional Cost Recovery and Hypothetical Securitization of a Mass Save Budget

Let's assume, in a different version of this illustrative example, that there is a series of three-year program budgets, with one approach using the traditional approach of fully recovering the costs of program budgets in the three program years and another approach using a securitization approach like the one described above. In this illustrative example, there are four rounds of program budgets with the second round funded at a lower overall

budget level than the first, third and fourth rounds, to mitigate bill impacts for affordability reasons. (This assumption is made here to illustrate that in each successive round of approvals by regulators, different budget levels may result based on decisions that balance program benefits, costs, and affordability considerations.) Figure 9 below shows the different patterns of cost recovery with bill impacts on customers of the two cost-recovery approaches. In the left side of the figure, there are four rounds of three-year program budgets collected over a twelve-year period under traditional ratemaking for the program, with the benefits of the programs extending for nine years beyond the period when budgets are recovered from customers. The right side of the figure assumes a series of four securitizations of the three-year program budgets, with cost recovery occurring over the assumed nine-year useful life of the energy-efficiency measures. This cost-recovery pattern on the right side aligns costs with benefits, and it allows for managing cost recovery in a way that allows for accommodation of other near-term cost pressures showing up in customers' utility bills. (It also resembles cost recovery for rate-based investment, in which over time, new investment is added to rate base and old, fully depreciated investment dollars roll out of rate base.)

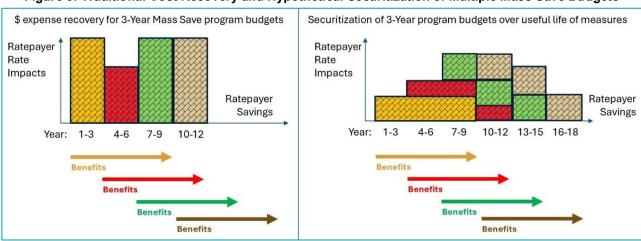


Figure 9: Traditional Cost Recovery and Hypothetical Securitization of Multiple Mass Save Budgets

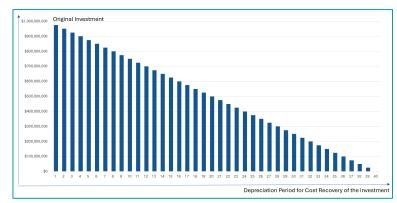
In practice, the cost recovery period could reflect the anticipated life of the assets, or some other time period that the DPU might find to be in the public interest, given the particular facts in an actual securitization proposal. Some of those facts might include consideration of inclusion of securitization-related financing costs at relatively low interest rates, and any customer benefits from leveraging the time value of money for customers (where a dollar spent in the future has lower intrinsic value than a dollar spent today).

B. Illustrative example of cost recovery of an electric distribution investment

Scenarios designed to illustrate how securitization might work for recovering the costs of a utility's investment in a very long-lived distribution asset would look somewhat different, given the contrast between traditional rate-based ratemaking for utility investment and a securitization approach to finance a similar investment.

Figure 2 above (repeated here to the right) shows the way in which recovery of financing costs for rate-based investment are recovered in a front-loaded fashion. In any year in that traditional ratemaking approach, rates would

reflect the depreciation expense relating to use of the asset over a year, as well as dollars related to financing the remaining undepreciated amount in rate base over that same year. In the early years of investment recovery, most of the investment dollars have not yet been depreciated so financing costs are relatively high (compared to later years' cost recovery) to cover undepreciated investment dollars in rate base. Over time, the financing



costs go down as the undepreciated balance declines.

A securitization would have a flatter pattern of investment cost recovery. A typical securitization includes a bond to cover the investment amount plus the low-cost financing costs and a repayment schedule that levelizes cost recovery over the repayment period.

Figure 10 (excerpted from a Saber Partners paper²⁶ on securitization) compares the levelized cost recovery of the securitization bond (shown in the horizontal orange line) against the declining pattern of cost recovery for the rate-based investment (shown by the gray line). The early years of cost recovery under traditional regulation have higher costs to ratepayers due to the impact of financing undepreciated rate-based

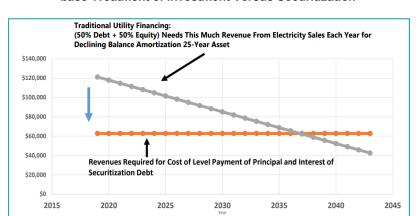


Figure 10: Comparison of Cost Recovery Under Traditional Ratebase Treatment of Investment Versus Securitization

investment (as described above) as well as the higher costs of financing cost recovery using shareholder equity and corporate debt (as compared to relatively low-risk securitized bonds). Figure 10 indicates that in the out years of cost recovery under securitization, ratepayers might pay somewhat more to repay the securitization bond than they would under traditional ratemaking. In many cases, the time value of money and the financing-cost advantages of securitization can lead to savings for ratepayers.

²⁶ Saber Partners, LLC. "Investor-Owned Utility Securitization Possibilities, Processes, Pitfalls," November 8, 2020, https://nasuca.org/wp-content/uploads/2019/09/Securitization-NASUCA-Fichera-11-8-20.pdf.

The potential cost advantages of securitization result from the combined effects of: the levelized cost recovery pattern; using 100% debt and no equity return; and the lower cost of debt compared to traditional financing costs tied to a blend of somewhat riskier corporate debt and higher-risk shareholder equity.

In practice, for a securitization to go forward, regulators would need to examine the specific cost conditions in the market for low-risk debt (i.e., AAA-rated debt) compared to a particular utility's borrowing costs given its credit rating (i.e., for its corporate debt) and its allowed return on equity, and determine whether there are benefits to ratepayers that would result from a securitization. To know whether, in present value terms, financial benefits accrue, one needs to know the cost-recovery period for the securitized asset (compared to rate-base treatment) and the difference in the cost of capital to know whether a particular securitization action increases or decreases the NPV of the investment.

C. Examples from actual securitizations in the past

Securitization was used extensively two decades ago as policy makers were restructuring the industry and looking for ways to allow for lower-cost recovery of the net undepreciated balance of power plants that were no longer economic with the advent of competition. But securitizations have also been used for other types of expenses and investments. For example, one of the earliest electric utility securitizations (in 1995) was for recovery of costs associated with commission-approved energy conservation programs.²⁷

As shown in Figure 5 above (and listed in Appendix 2 below), billions of dollars of stranded costs have been securitized and recovered in utility rates. Appendix 2 lists the dozens of securitizations that have occurred since 1995 (which together total nearly \$25 billion of relatively low-cost financings). These financings range from recovering stranded costs to resilience investments to storm-related, wildfire and energy efficiency expenses.

In recent years, as electricity costs have spiked in some locations as a result of winter weather storms having affected wholesale electricity prices and from damages from wildfires, many states have turned once again to securitization as a tool to help lower electricity bills compared to what they would have been under traditional regulation. In each case, the core enabling factors in securitization actions – clear statutory authority, regulatory review of securitization applications from utilities, and issuance of regulatory financing orders setting forth the existence of benefits to ratepayers and the terms of cost recovery for securitized bonds – have served as pathways to relatively low-risk and low-cost financing of investments and expenses through highly secure bonds.

²⁷ In 1995, Puget Sound Power & Light Company securitized \$202 million of expenses related to energy conservation programs. The transaction was authorized by the Washington legislature through a law creating "a new property right, known as 'bondable conservation investment' [with the new law allowing] electric utilities to convert a regulatory promise of cost recovery into a statutory right to recovery. Most important, this secured revenue stream may be sold, pledged, or assigned as the basis for issuing securities." Andrea Kelly and Donald Gaines, "Mortgaging Your Conservation: A Way Out for Stranded Investment?" *Public Utilities Fortnightly*, October 15, 1995, https://www.fortnightly.com/fortnightly/1995/10-0/mortgaging-your-conservation-way-out-stranded-investmentandrea-l-kelly-and.

IV. Conclusion

Lowering the cost to consumers of certain utility investments and expenditures through securitization could be a helpful strategy for the state's journey to transition its energy systems in a more affordable way at a time of relatively high inflation, high natural gas prices, and high electricity prices in the state. Having the option to use securitization depends upon the enactment of new legislative provisions and careful consideration of actual use of the tool for creative ways to manage the costs of utility service for ratepayers.

In recent years, other states have used securitization as a tool to address the costs of such things as wildfires, spiking energy prices, grid resilience, and utility stranded costs. Such actions have been authorized in specific state statutes allowing for securitization and in regulatory actions to determine whether particular proposals to securitize utility costs are in the public interest. Regulators have reviewed the specific circumstances of a proposed securitization to approve it only when it offers benefits relative to what would be allowed under traditional ratemaking.

Given the wide variety of things that go into the provision of electric utility service – from installing new electrical circuits on the local grid, upgrading equipment to handle increased customer demand or to better withstand extreme weather, providing incentives for customers to install energy efficiency measures – authorizing a range of financing tools, including the option of securitizing investments or expenses, is sensible policy.

Appendix 1: Useful Resources on Securitization:

W. Hall, "Securitization and Stranded Cost Recovery," *Energy Law Journal*, 1997, pp. 380-381, https://www.ebanet.org/wp-content/uploads/2023/02/4-Vol18_No2_1997_Art_Securitazation-and.pdf.

A. Kelly and D. Gaines, "Mortgaging Your Conservation: A Way Out for Stranded Investment?" *Public Utilities Fortnightly*, October 15, 1995, https://www.fortnightly.com/fortnightly/1995/10-0/mortgaging-your-conservation-way-out-stranded-investmentandrea-l-kelly-and.

R. Lehr and M. O'Boyle, "Comparing 2019 Securitization Legislation in Colorado, Montana, and New Mexico," Energy Innovation, September 2020, https://energyinnovation.org/wp-content/uploads/2020/09/Securitization-Brief September-2020.pdf.

MCR, "Securitization: A Valuable Tool for Cost Recovery Opportunities Outside a Normal Rate Case," no date, https://www.mcr-group.com/wp-content/uploads/2023/10/Securitization-White-Paper v2.pdf.

National Regulatory Research Institute. "Managing Electricity Rates Amidst Increasing Capital Expenditures Is Securitization the Right Tool? An Update," January 2019, https://pubs.naruc.org/pub/34058ED0-1866-DAAC-99FB-B8BC5BCC625C.

J. Quakenbush, "Cost of Capital and Capital Markets: A Primer for Utility Regulators," National Association of Regulatory Utility Commissioners," December 2019, https://pubs.naruc.org/pub.cfm?id=CAD801A0-155D-0A36-316A-B9E8C935EE4D.

Rocky Mountain Institute. "Securitization in Action: How US States Are Shaping an Equitable Coal Transition," March 2021, https://rmi.org/securitization-in-action-how-us-states-are-shaping-an-equitable-coal-transition/.

K. Ryan and G. Grosberg, "The Rationale Behind U.S. Utility Securitization And Reasons For Recent Growth," S&P Global *RatingsDirect*, May 2, 2024, https://csgwest.org/wp-content/uploads/2024/08/RatingsDirect_CreditFAQTheRationaleBehindUSUtilitySecuritizationAndReasonsForRecentGrowth_57532202_Jun-05-2024.PDF.pdf.

Saber Partners, LLC. "Investor-Owned Utility Securitization Possibilities, Processes, Pitfalls," November 8, 2020, https://nasuca.org/wp-content/uploads/2019/09/Securitization-NASUCA-Fichera-11-8-20.pdf.

Appendix 2: Electric Industry Securitizations: 1995-2024

Date	Issuer	State	Ratings at Issuance	Size (\$mm)	Use of Proceeds	Sources and Notes
------	--------	-------	------------------------	----------------	--------------------	-------------------

June 1995	Puget Sound Power & Light Company	WA	AAA	0.2	Energy Conservation Costs	https://www.fortnightly.com/fortnightly/1995/10-0/mortgaging-your-conservation-way-out-stranded-investmentandrea-l-kelly-and
November 1997	California Infrastructure and Economic Development Bank Special Purpose Trust PG&E-1 (Pacific Gas & Electric)	CA	AAA	2,901	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
December 1997	California Infrastructure and Economic Development Bank Special Purpose Trust SCE-1 (Southern California Edison)	CA	AAA	2,463	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
December 1997	California Infrastructure and Economic Development Bank Special Purpose Trust SDG&E,-1 (San Diego Gas & Electric)	CA	AAA	658	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
December 1998	MPC Natural Gas Funding Trust 1998-1 (Montana Power)	МГ	AAA	63	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
December 1998	ComEd Transitional Funding Trust (Commonwealth Edison)	IL	AAA	3,400	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions-1997-present/
December 1998	Illinois Power Special Purpose Trust (Illinois Power)	IL	AAA	864	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
March 1999	PECO Energy Transition Trust (PECO Energy)	PA	AAA	4,000	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
April 1999	Sierra Pacific	CA	AAA	24	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
July 1999	Massachusetts RRB Special Purpose Trust BEC-1 (Boston Edison)	MA	AAA	725	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
July 1999	PP<ransition Bond Company LLC (Pennsylvania Power &Light)	PA	AAA	2,420	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions-1997-present/

Date	Issuer	State	Ratings at Issuance	Size (\$mm)	Use of Proceeds	Sources and Notes
November 1999	West Penn Funding, LLC (West Penn Power)	PA	AAA	600	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions-1997-present/
April 2000	PECO Energy Transition Trust (PECO Energy)	PA	AAA	1,000	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocarb-bond-transactions-1997-present/
January 2001	PSE&G Transition Funding LLC (Public Service Electric &Gas)	NJ	AAA	2,525.00	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions-1997-present/
February 2001	PECO Energy Transition Trust (PECO Energy)	PA	AAA	805.5	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocarb-bond-transactions-1997-present/
March 2001	The Detroit Edison Securitization Funding LLC	MI	AAA	1,750	Stranded Costs	https://sabemartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions-1997-present/
March 2001	Connecticut RRB Special Purpose Trust CL&P-1 (Connecticut Light and Power)	СТ	AAA	1,438	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocarb-bond-transactions-1997-present/
April 2001	PSNH Funding LLC (Public Service Company of New Hampshire)	NH	AAA	525	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions-1997-present/
Mary 2001	Massachusetts RRB Special Purpose Trust WMECO-1 (Western Massachusetts Electric)	MA	AAA	155	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions-1997-present/
October 2001	CenterPoint Energy Transition Bond Company I, ILC	TX	AAA	749	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
October 2001	Consumers Funding ILC (Consumers Energy)	MI	AAA	469	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocarb-bond-transactions-1997-present/
January 2002	PSNH Funding LLC 2 (Public Service Company of New Hampshire)	NH	AAA	50	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions-1997-present/
January 2002	CPLTransition Funding ILC (Central Power & Light)	TX	AAA	797	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions-1997-present/

Date	Issuer	State	Ratings at Issuance	Size (\$mm)	Use of Proceeds	Sources and Notes
June 2002	JCP<ransition Funding LLC (Jersey Central Power & Light)	NJ	AAA	320	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions-1997-present/
December 2002	Atlantic City Electric Transition Funding LLC (Atlantic City Electric)	NJ	AAA	440	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions- 1997-present/
August 2003	Oncor Electric Delivery Transition Bond Company LLC	TX	AAA	500	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions- 1997-present/
December 2003	Atlantic City Electric Transition Funding LLC (Atlantic City Electric)	NJ	AAA	152	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions- 1997-present/
May2004	TXU Electric Delivery Transition Bond Company LLC	TX	AAA	790	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions- 1997-present/
July 2004	Rockland Electric Company Transition Funding LLC (Rockland Electric)	NJ	AAA	46	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions- 1997-present/
January 2005	PG&E Energy Recovery Funding ILC (Pacific Gas & Electric)	CA	AAA	1,888	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions- 1997-present/
February 2005	Massachusetts RRB Special Purpose Trust 2005-1 (Boston Edison and Commonwealth Electric)	MA	AAA	675	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
September 2005	PSE&G Transition Funding II LLC (Public Service Electric &Gas)	NJ	AAA	103	Deferred Balances	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions- 1997-present/
September 2005	West Penn Power, Ser. 2005-A	PA	AAA	115	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
October 2005	PG&E Energy Recovery Funding LLC (Pacific Gas & Electric)	CA	AAA	844.5	Regulatory Asset	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/

Date	Issuer	State	Ratings at Issuance	Size (\$mm)	Use of Proceeds	Sources and Notes
December 2005	CenterPoint Energy Transition Bond Company II, LLC	TX	AAA	1,851	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions-1997-present/
August 2006	JCP<ransition Funding II LLC (Jersey Central Power & Light)	NJ	AAA	182	Deferred Balances	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions- 1997-present/
Expired	Wisconsin Electric Power	WI	AAA	450	Environmental	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
October 2006	AFP Texas Central Transition Funding II IIC	TX	AAA	1,740	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions- 1997-present/
April 2007	MP Environmental Funding LLC (Monongahela Power)	WV	AAA	345	Environmental	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions- 1997-present/
April 2007	PE Environmental Funding LLC (Potomac Edison)	WV	AAA	115	Environmental	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions- 1997-present/
May2007	FPLRecovery Funding LLC (Florida Power &Light)	FL	AAA	652	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions-1997-present/
June 2007	RSB BondCo LLC (Baltimore Gas & Electric)	MD	AAA	623	Deferred Balances	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
June 2007	Entergy Gulf States Reconstruction Funding I, LLC	TX	AAA	330	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions-1997-present/
January 2008	CenterPoint Energy Transition Bond III,	TX	AAA	488	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions- 1997-present/
February 2008	Cleco Katrina/Rita Hurricane Recovery Funding LLC	LA	AAA	181	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions-1997-present/

Date	Issuer	State	Ratings at Issuance	Size (\$mm)	Use of Proceeds	Sources and Notes
July 2008	Louisiana Public Facilities Authority (Louisiana Utilities Restoration Corporation/ELL)	LA	AAA	688	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions-1997-present/
July 2008	Louisiana Public Facilities Authority (Louisiana Utilities Restoration Corporation/EGSL)	LA	AAA	278	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions- 1997-present/
October 2009	Entergy Texas Restoration Funding, LLC	TX	AAA	546	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
November 2009	CenterPoint Energy Restoration Bond Company, LLC	TX	AAA	665	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
December 2009	PE Environmental Funding LLC (Potomac Edison)	WV	AAA	22	Environmental	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
December 2009	MP Environmental Funding LLC (Monongahela Power)	WV	AAA	64	Environmental Environmental	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
July 2010	Louisiana Local Government Environmental Facilities and Community Development Authority (Louisiana Utilities Restoration Corporation Project/EGSL)	LA	AAA	244	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
July 2010	Louisiana Local Government Environmental Facilities and Community Development Authority (Louisiana Utilities Restoration Corporation Project/ELL)	LA	AAA	469	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions- 1997-present/
August 2010	Entergy Arkansas Energy Restoration Funding, LLC	AR	AAA	124	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
September 2010	Entergy Louisiana Investment Recovery Funding I, ILC	LA	AAA	207	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
January 2012	CenterPoint Energy Transition Bond Company IV, ILC	TX	AAA	1,695	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions- 1997-present/

Date	Issuer	State	Ratings at Issuance	Size (\$mm)	Use of Proceeds	Sources and Notes
March 2012	AEP Texas Central Transition Funding III LC	TX	AAA	800	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions-1997-present/
June 2013	FirstEnergy Ohio PIRB Special Purpose Trust 2013	ОН	AAA	445	Deferred Balances	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
July 2013	Ohio Phase-In-Recovery Funding, LLC	ОН	AAA	267	Deferred Balances	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
November 2013	Appalachian Consumer Rate Relief Funding U.C	WV	AAA	380	Deferred Balances	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
July 2014	Consumers 2014 Securitization Funding, ILC	MI	AAA	378	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions- 1997-present/
August 2014	Louisiana Local Government Environmental Facilities and Community Development Authority (Louisiana Utilities Restoration Corporation Project/ELL)	LA	AAA	244	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
August 2014	Louisiana Local Governments Environmental Facilities Authority (Louisiana Utilities Restoration Corporation Project/EGSL)	LA	AAA	71	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
July 2015	Entergy New Orleans Storm Recovery Funding I, LLC.	LA	AAA	99	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
June 2016	Duke Energy Florida Project Finance, LLC	FL	AAA	1,294	Nuclear Plant Retirement	Closed nuclear plant (unrecovered costs): The interest rate was 2.72%, "much lower than Duke's ROR" [debt and equity and will save "customers \$680m over 20 years". (Harriet Moyer Apteker, Crest Policy Consulting, "Utility Asset Securitization," presentation to the MY House Climate and Energy Committee, 2-2-21) https://www.house.mn.gov/comm/docs/9GEEqTPxkikOKffRAlkzg.pdf; https://saberpartners.com/list-of-investor-owned-utility-securitization-roorrb-bond-transactions-1997-present/
May2018	PSNH Funding LLC 3 (Public Service Company of New Hampshire)	NH	AAA	636	Stranded Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
September 2019	AEP Texas Restoration Funding LLC	TX	AAA	235	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/

Date	Issuer	State	Ratings at Issuance	Size (\$mm)	Use of Proceeds	Sources and Notes
February 2021	SCE Recovery Funding, LLC (Southern California Edison)	CA	AAA	338	Wildfire Mitigation	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions-1997-present/
May 2021	WEPCO Environmental Trust I (Wisconson Electric Power)	WI	AAA	119	Environmental Facilities	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
November 2021	PG&E Recovery Funding LLC	CA	AAA	860	Wildfire	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
November 2021	Duke Energy Carolina	NC	AAA	237	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
November 2021	Duke Energy Progress	NC	AAA	770	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
February 2022	Rayburn (Not IOU-Coop)	TX	AAA	908	Storm Recovery	https://www.forbes.com/sites/llewellynking/2022/02/15/uri-fallout-texas-rayburn-electric-is-first-co- op-to-securitize-uri-debt-still-expected-to-suc/; https://saberpartners.com/list-of-investor-owned- utility-securitization-rocrrb-bond-transactions-1997-present/
February 2022	SCE Recovery Funding LLC	CA	AAA	533	Wildfire Costs	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
March 2022	DTE Electric Securitization I	MI	AAA	236	Coal Plant Retirement; Tree Trimming	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions- 1997-present/
March 2022	Entergy Restoration Funding II	TX	AAA	291	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions-1997-present/
May2022	PG&E Wildfire Recovery Funding	CA	AAA	3,600	Wildfire Damages	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions-1997-present/
May 2022	Entergy	LA	AAA	3,194	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/

Date	Issuer	State	Ratings at Issuance	Size (\$mm)	Use of Proceeds	Sources and Notes
June 2022	ERCOT	TX	AAA	2,116	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions-1997-present/
June 2022	Cleco Power	LA	AAA	425	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
July 2022	ODFA/OGE	OK	AAA	762	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
July 2022	PG&E Wildfire Recovery	CA	AAA	3,900	Wildfire	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
August 2022	ODFA/ONG	OK	AAA	1,354	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
September 2022	Long Island Power Authority	NY	AAA	936	Resilience, Other	https://www.lipower.org/wp-content/uploads/2025/05/Q1_2025_UD8A-Financial-Statements.pdf
October 2022	ODFA/Summit	OK	AAA	82	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
November 2022	PG&E Recovery Funding	CA	AAA	983	Wildfire	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions- 1997-present/
November 2022	Kansas Gas Service	KS	AAA	336	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions- 1997-present/
December 2022	Conserv (Not IOU-Coop)	TX	AAA	460	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-roomb-bond-transactions- 1997-present/
December 2022	United Electric (Not IOU-Coop)	TX	AAA	452	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/
December 2022	Louisiana (Entergy New Orleans)	LA	AAA	209	Storm Recovery	https://saberpartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions- 1997-present/

Date	ksuer	State	Ratings at Issuance	Size (\$mm)	Use of Proceeds	Sources and Notes
December 2022	Brazos (Not IOU-Coop))	TX	AAA	713	Storm Recovery	https://sabempartners.com/list-of-investor-owned-utility-securitization-rocmb-bond-transactions-1997-present/
June 2023	CenterPoint	IN	AAA	341	Coal Plant retirement	https://investors.centerpointenergy.com/ratings-assigned-2023-senior-secured-bonds; https://investors.centerpointenergy.com/sigeco-securitization-i-lle; https://investors.centerpointenergy.com/securitization-bond-company
November 2023	Consumers Energy	MI	AAA	646	Coal Plant Retirement	https://disclosure.spglobal.com/ratings/en/regulatory/article/-/view/type/HIML/id/3101673; https://disclosure.spglobal.com/ratings/en/regulatory/article/-/view/sourceld/12923694
November 2023	Public Service of New Mexico	NM	[]	343	Coal Plant Retirement	https://www.txnmenergy.com/~/media/Files/P/PNM-Resources/Securitization/I%20-%20Energy%20Trans%20Bond%20Co/8k/PNM_SPE_final%20prospectus_2023-11-08_140314.pdf
November 2023	Long Island Power Authority	NY	AAA	833	Resilience, Other	Note that as "of March 31, 2025, a total of \$6.3 billion of UDSA [Utility Debt Securitization Authority, a unit of LIPA] Restructuring Bonds have been issued resulting in \$1.7 billion in remaining statutory capacity." https://www.lipower.org/wp-content/uploads/2025/05/Q1_2025_UDSA-Financial-Statements.pdf.
2024	Empire/Liberty Utilities	МО	AAA	305	Storm/Coal Plant	Customer savings of \$32 million. https://central.libertyutilities.com/all/securitization.html; https://psc.mo.gov/Electric/PSC_ksues_Decision_in_Liberty_Securitization_Cases-pr-23-37
February 2024	Evergy Missouri West	МО	AAA	331	Storm Recovery	https://disclosure.spglobal.com/ratings/en/regulatory/article/-/view/type/HTML/id/3123332; https://investors.evergy.com/static-files/1b720937-8e83-4e97-9bf7-104541a5294; https://www.hunton.com/news/hunton-advises-evergy-missouri-west-on-331million-offering-of-securitized-utility-tariff-bonds
April 2024	Duke Energy Progress	SC	AAA	177	Storm Recovery	"Duke Energy Progress customers in South Carolina will save \$35 million in repair costs from a series of historic storms from 2014 through 2022 thanks to innovative legislation allowing the company to securitize the costs through the sale of lower interest rate bonds. Residential customers in the Pee Dee region of the state using 1,000 kM per month will save about 33% compared to traditional storm cost recovery approaches, with bills initially increasing approximately \$8.38 per month in the first few months and then decreasing to about \$5 per month in early 2025." Also: https://news.duke-energy.com/releases/bonds-save-35-million-from-historic-storm-costs-over-past-decade-for-duke-energy-progress-customers-in-south-carolina.https://disclosure.spglobal.com/ratings/en/regulatory/article/-/view/type/HIM/id/3151740
Pending as of 12-2024	Centerpoint Energy	TX	Pending as of 12- 2024	450	Storm Recovery	https://www.stocktitan.net/news/CNP/center-point-energy-outlines-plan-to-minimize-may-2024-derecho-storm-7uzbxjjjdio3.html; https://investors.centerpointenergy.com/news-releases/news-release-details/centerpoint-energy-outlines-plan-minimize-may-2024-derecho-storm