# MOODY'S INVESTORS SERVICE

# **CREDIT OPINION**

29 August 2022

# Pre-Sale



## **Closing date**

29 September 2022

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# Pre-sale: Utility Debt Securitization Authority, Restructuring Bonds Series 2022

Utility Debt Securitization Authority, Restructuring Bonds Series 2022

## **Capital structure**

Exhibit 1 Provisional (P) rating

Series*	Provisional rating	Expected amount** (\$)	Tax Status	Coupon	Scheduled maturity date***	Legal final maturity date***
2022TE	(P)Aaa (sf)	\$810,320,000	Tax-Exempt	[.]	12/15/2050	12/15/2052
2022T	(P)Aaa (sf)	\$65,880,000	Taxable	[.]	12/15/2039	12/15/2041
Total		\$876,200,000				

\* See Press Release for full list of tranches

\*\*Amounts are subject to change

\*\*\*Reflects the latest maturities among the series of tranches

Source: Utility Debt Securitization Authority, Restructuring Bonds, Series 2022 preliminary official statement, Moody's Investors Service

## Summary

We have assigned provisional ratings of (P)Aaa (sf) to the federally-taxable and tax-exempt restructuring bonds (the 2022 bonds or RBs) that Utility Debt Securitization Authority (UDSA or the issuer) will issue. New York State legislation formed the issuer to securitize a special charge (the restructuring charge) imposed on Long Island Power Authority's (the Authority, A2 stable) customers' utility bills. The servicer of the transaction will be Long Island Lighting Company, a wholly owned subsidiary of the Authority operating as LIPA and Power Supply Long Island, which will collect the restructuring charges (RCs) from all current and future ratepayers in the Authority's service area. The restructuring property gives UDSA the right to bill and collect RCs on essentially all of the Authority's existing and future customers, with minimal exceptions, until the 2022 bonds are repaid in full. The Authority will use the proceeds of the securitization to retire a portion of its outstanding debt, as well as a portion of UDSA's outstanding debt, and to finance system resiliency costs. The Series 2022 bonds will be the sixth issuance of restructuring bonds sponsored by the Authority since 2013 under

This pre-sale report addresses the structure and characteristics of the proposed transaction based on the information provided to Moody's as of 25 August 2022. Investors should be aware that certain issues concerning this transaction have yet to be finalized. Upon conclusive review of all documents and legal information as well as any subsequent changes in information, Moody's will endeavor to assign definitive ratings to this transaction. The definitive ratings may differ from the provisional ratings set forth in this report. Moody's will disseminate the assignment of definitive ratings through its Client Service Desk. This report does not constitute an offer to sell or a solicitation of an offer to buy any securities, and it may not be used or circulated in connection with any such offer or solicitation.

the LIPA Reform Act and the first under Chapter 369, the amendment of the Securitization Law, effective 2 August 2021.

Key credit strengths of the transaction include (i) the strength of the Securitization Law and Financing Order, (ii) the true-up adjustment mechanism, (iii) strong ratepayer base and service territory, and (iv) the strength and experience of the servicer. Key credit challenges include (i) potential challenges to the Securitization Law and Financing Order, (ii) potential for insufficient collections, and (iii) the relatively high restructuring charge.

Our provisional ratings reflect our assessment of the legal and structural aspects of the transaction including the State of New York's law, the New York Public Authorities Control Board (PACB) approval of the Financing Order, the statutory non-impairment state pledge, the mandatory uncapped true-up mechanism, the level of the restructuring charge compared to previous transactions, the service area's diversity and size, the economic stability and diversified ratepayer base, and the experience, expertise, and financial stability of the servicer.

## **Credit strengths**

- Strength of Securitization Law and Financing Order: The State of New York's legislation (Part B of the LIPA Reform Act, or the Securitization Law), coupled with an irrevocable Financing Order that became final and non-appealable on 17 June 2022, permits the the issuance of the bonds and the creation of the restructuring charge and strongly protects the restructuring property securing the bonds. Similar to other utility cost recovery charge (UCRC) securitizations we rate, this transaction will benefit from the Securitization Law's inclusion of a state non-impairment pledge under which the State of New York pledges to bondholders that it will not (1) take or permit any action that limits, alters or impairs the value of restructuring property; or (2) reduce, alter or impair transition charges that are imposed, collected and remitted for the benefit of the owners of restructuring bonds, any assignee, and all financing entities, until until the bonds and associated costs are paid in full, except as required by the adjustment mechanism described in the restructuring cost Financing Order (the state pledge). In addition, the Securitization Law and Financing Order contain the typical true-sale and security interest provisions. The restructuring property grants the issuer the irrevocable right to impose, bill and collect irrevocable, non-bypassable restructuring charges based on electricity usage, and related rights, including a mandatory uncapped true-up mechanism that periodically adjusts the charges to ensure timely bond payments until the bonds are repaid in full. Nonbypassable refers to the requirement that the charges be levied on all of the Authority's existing and future retail electric customers receiving transmission and distribution services in its service area, including customers of any Authority successor or assignee. (See "Asset description Securitization Law" & "Asset description The Financing Order")
- Statutory uncapped true-up adjustment mechanism: The true-up adjustment mechanism mandatorily adjusts the RCs at least annually to ensure sufficient collections to make timely payments of interest and scheduled principal on the bonds as well as associated ongoing financing costs until the bonds are paid in full. In addition, the Financing Order authorizes more frequent interim adjustments at any time if the servicer deems necessary to ensure timely bond payments. The servicer may also elect to perform a voluntary mid-year true-up adjustment to adjust charges to customers to correct for overcollections or undercollections in any year. This voluntary mid-year adjustment helps reduce the volatility of the restructuring charge to customers. In addition, the transaction includes an operating reserve account which, inclusive of the debt service reserve account, provide sufficient funds to offset the typical variance in collections versus projections in order to meet the projected amortization schedule between true-ups. (See "Asset description Statutory uncapped true-up adjustment mechanism")
- » Large ratepayer base and service territory: The size, economic stability and diversity of the ratepayer base in the Authority's service area are credit strengths. The service area is fixed by the Securitization Law and primarily includes the Long Island counties of Nassau and Suffolk, which are two of the most affluent counties in the US with median household incomes well above the national average and low unemployment rates. The service area primarily includes a mix of residential customers (54% by revenue) and commercial customers (44% by revenue) with no industrial customers. The concentration of residential customers and is a strength to the transaction as the consumption is relatively more stable than commercial and industrial customers and less tied to the business cycle. (See "Asset description Service area")

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on https://ratings.moodys.com for the most updated credit rating action information and rating history.

Strength and experience of the servicer: LIPA has considerable prior servicing experience with restructuring charges, including acting as servicer for the Authority's four outstanding UCRC securitizations. Although LIPA is the named servicer for this securitization, PSEG Long Island LLC (PSEG-LI), a subsidiary of <u>Public Service Enterprise Group Incorporated</u> (Baa2, stable), will perform LIPA's key servicing duties pursuant to an operations services agreement, including billing and collecting RCs, meter reading and forecasting electricity usage, among others. PSEG-LI currently performs these same functions for the four outstanding utility cost recovery charge securitizations sponsored by the Authority. LIPA will be responsible for the true-up adjustments and certain reporting requirements. (See "Asset description - Servicing")

## **Credit challenges**

- » Challenges to the Securitization Law and Financing Order: Potential state and federal legislative and regulatory actions could weaken the strength of the legal protections of the restructuring property. However, we view this risk as remote. New York does not have a referendum or initiative process by which voters could challenge the Securitization Law. Therefore, the only way to repeal or amend the Securitization Law, or for the Authority to amend or revoke the Financing Order, would be through a legislative action which would violate the state non-impairment pledge. The risk that the State of New York would take legislative action that would compromise its state pledge to the significant detriment of bondholders is remote because state impairment would give rise to claims under state and federal laws prohibiting government impairment of contracts and taking of private property without reasonable reimbursement under state and federal "taking" claims. The irrevocable and unconditional nature of the Financing Order mitigates any concern that it could be altered. (See "Asset description Securitization Law" & "Asset description The Financing Order")
- » Potential for insufficient collections: Collections arising from the restructuring property could fall short of debt service on the bonds resulting from inaccurate forecasting of electrical consumption by PSEG-LI, on behalf of the servicer, unanticipated customers' delinquencies and defaults, population migration, self-generation and storm damage. PSEG-LI's estimates of market demand, energy prices and growth within its service area could also be inaccurate. These concerns are mitigated by the mandatory and interim uncapped true-up adjustment mechanism. (See "Asset description - Statutory uncapped true-up adjustment mechanism", and "Asset analysis - Forecasting electricity consumption")
- Relatively high restructuring charge: The Authority expects the securitization's initial restructuring charge to represent around 2.3% of the total monthly bill that a 1000 kilowatt hour (kWh) residential customer in the Authority's service area will receive as of December 2021. The initial restructuring charge for the 2022 transaction, combined with the current restructuring charge for the 2013, 2015, 2016A, 2016B, and 2017 transactions, is expected to represent approximately 12.8% of a 1000 kWh residential customer's bill. The combined charge is higher than the average charge of around 5% for prior UCRC transactions that we rate, but is expected to ultimately decline over time due to the amortization schedule of the bonds. A high cumulative restructuring charge could incentivize a legal challenge to the restructuring charges or the Securitization Law, or could increase political pressure to rescind or change the Securitization Law through legislation. The Authority expects that the issuance of restructuring bonds, including the 2022 RBs, the retirement of certain indebtedness of the Issuer and the Authority along with the financing of system resiliency costs, will result in savings to customers on a net present value basis. (See "Asset analysis Cash flow analysis & Comparables")

## **ESG considerations**

In general, we consider ESG risks low for UCRC securitizations. Our fundamental credit analysis of each securitization, which considers ESG risks, including the strength of the legal framework, particularly the true-up adjustment mechanism, which mitigates environmental and social risks. In addition, governance risk is largely mitigated by the Securitization Law, the Financing Order/the collection right established by law, the structure of the transaction and our consideration of the transaction parties, in particular the servicer. Please refer to our Cross-Sector Rating Methodology: <u>General Principles for Assessing Environmental</u>, <u>Social and Governance</u> <u>Risks</u>, which explains our general principles for assessing ESG risks in our credit analysis globally. The link is set forth in the "Moody's related publications" section below.

- » Environmental considerations: The environmental risk for this UCRC transaction is low owing to the true-up adjustment mechanism, which mitigates the risk of severe weather or other environmental events that could result in significant disruption to the electricity transmission and distribution network. For example, hurricanes or tropical storms affecting Long Island could reduce electricity consumption and therefore collections available to repay the bonds. (See "Asset analysis — ESG - Environmental considerations")
- » Social considerations: The social risk for this transaction is low. The state non-impairment pledge mitigates the risk of the State of New York changing or rescinding the securitization charges or the Securitization Law that authorizes them owing to public or political pressure. The likelihood of the state taking such actions is remote because it would be in violation of the state non-impairment pledge included in the Statute and Financing Order. (See "Asset analysis ESG Social considerations")
- » **Governance considerations:** This securitization's governance risk is low and typical of other UCRC transactions we rate. (See "Additional structural analysis ESG Governance considerations")

# **Key characteristics**

#### Exhibit 2

## Asset Characteristics (as of 31 December 2021)

Asset characteristics	
Assets	Restructuring property, which consists of all rights and interest of the issuer under the financing order,
	including the right to impose, bill, collect and receive irrevocable, binding, nonbypassable charges based on
	the usage of electricity from all existing or future customers receiving transmission or distribution service
	from the Authority or its successors or assignees.
Service area	The Authority's service area covers approximately 1.2 million residential, commercial customers in Nassau
	and Suffolk counties* and the Rockaway Peninsula.

\*Excludes the Nassau County villages of Freeport and Rockville Centre and the Suffolk County village of Greenport Sources: Utility Debt Securitization Authority, Restructuring Bonds, Series 2022 preliminary official statement; Moody's Investors Service

Exhibit 3

#### Securitization structure characteristics

Securitization structure	
Securities offered	Federally taxable and tax-exempt, fixed rate bonds with semi-annual payments
Amount	~\$876 Million
Structure	Conduit issuer / Sinking fund schedule
Credit enhancement	Mandatory true-up at least annually, and more frequently, if necessary, to ensure timely payment of principal and interest on the 2022 RBs and related financing costs, and an equity contribution equal up to 0.50% of the initial aggregate principal of the bonds to the debt service reserve account and 0.50% to the operating reserve account.
Sponsor/Seller/Servicer	Long Island Power Authority (A2 stable)
Issuer	Utility Debt Securitization Authority
Trustee	Bank of New York Mellon Trust Company, N.A (long-term issuer rating Aa2/ long-term CR assessment Aa1(cr), short-term CR assessment P-1(cr), BCA a1)

Sources: Utility Debt Securitization Authority, Restructuring Bonds, Series 2022 preliminary official statement; Moody's Investors Service

## Asset description

The assets securing the bonds will consist of the restructuring property, the issuer's rights under the Financing Order and under various agreements, and other collateral of the issuer held by the indenture trustee. New York State legislation, along with an irrevocable Financing Order adopted by the Authority on 18 May 2022, authorizes the creation of the restructuring property.

The bonds are also secured by funds on deposit in the collection account, including the debt service reserve subaccount, operating reserve subaccount, and the excess funds subaccount, by the issuer's rights under the various transaction documents, by the issuer's right to compel the servicer to file for and obtain true-up adjustments, and by all payments on or under the pledged collateral and by all proceeds with respect to the pledged collateral.

## Securitization Law

#### General

The Securitization Law establishes the issuer and allows the Authority to finance the retirement of a portion of its and the issuer's outstanding debt through the issuance of restructuring bonds by the issuer as well as to finance system resiliency costs. The Authority expects that the issuance of the restructuring bonds will result in savings to the Authority's customers on a net present value basis. The Securitization Law gives the Authority the right to impose restructuring charges, which is the key asset backing this securitization.

The Securitization Law, coupled with the adoption of additional Financing Orders, authorizes the Authority to create additional restructuring property as collateral for the issuance of bonds. The Authority will use this issuance to retire a portion of its outstanding debt, finance system resiliency costs, and financing costs, including the costs of issuing, supporting and servicing the bonds. The Securitization Law, as amended by Chapter 369 on 2 August 2021, allows for an aggregate amount not to exceed \$8.0 billion, inclusive of the previously issued bonds, and provides the Authority with the ability to finance system resiliency costs. System resiliency costs as defined by the Securitization Law include costs of rebuilding, improving or constructing transmission and distribution assets to increase their resiliency, better withstand changes in climate, absorb impacts from outage events, and recover quickly from outages. The Series 2022 issuance will be the sixth issuance of restructuring bonds sponsored by the Authority since 2013 under the LIPA Reform Act and the first under the latest amendment of the Securitization Law.

## The state pledge

The Securitization Law includes a pledge from the State of New York to the bondholders that it will not (1) take or permit any action that limits, alters or impairs the value of restructuring property; or (2) reduce, alter or impair transition charges that are imposed, collected and remitted for the benefit of the owners of restructuring bonds, any assignee, and all financing entities, until any principal, interest and redemption premium in respect of restructuring bonds, all ongoing financing costs and all amounts to be paid to an assignee or financing party under an ancillary agreement are paid or performed in full, except as required by the adjustment mechanism described in the restructuring cost Financing Order.

The risk that New York would take state and federal legislative and regulatory actions that would compromise its nonimpairment pledge to the significant detriment of bondholders is remote. State impairment would give rise to reasonable reimbursement under state and federal "taking" claims. Under the laws of New York and the US, New York could not constitutionally take any legislative action, including repealing or amending the Securitization Law, which would substantially limit, alter or impair the restructuring property or other rights vested in the bondholders pursuant to the Financing Order or substantially limit, alter, impair or reduce the value or amount of the restructuring property. The Securitization Law provides that the Financing Order is irrevocable and is not subject to modification or termination.

Any action of the New York legislature adversely affecting the restructuring charges or the ability to impose, charge or collect the restructuring charges would likely require the State of New York to pay just compensation under the "takings clause" of the United States and State of New York Constitutions.

The state pledge provides protection to bondholders. To the extent the Authority or the State of New York have obligations under the Financing Order (e.g. to file for true-up adjustments), the Securitization Law provides that the owner of the restructuring property (the issuer), or the trustee representing the bondholders, are expressly permitted to bring actions for enforcement of the Financing Order. The state pledge will be incorporated into the bonds' transaction documents for the benefit of the indenture trustee on behalf of the bondholders. A breach of such pledge triggers an indenture event of default.

## The Financing Order General

The Authority adopted Financing Order No. 6 (the Financing Order), which was approved by the New York Public Authorities Control Board (PACB) on 18 May 2022. On 17 June 2022, the Financing Order became irrevocable, final and non-appealable. The Financing Order authorizes restructuring bonds that will be secured by restructuring property that would be created pursuant to the Financing Order. Similarly, the Series 2013 restructuring bonds that the issuer issued pursuant to Financing Order No. 1 are secured by the 2013 restructuring property, the Series 2015 restructuring bonds that the issuer issued pursuant to Financing Order No. 2 are secured by the 2015 restructuring property, the Series 2016A restructuring bonds that the issuer issued pursuant to Financing Order No. 3 are secured by the 2016A restructuring property, the Series 2016B restructuring bonds that the issuer issued pursuant to Financing Order No. 4 are secured by the 2016B restructuring property, and the Series 2017 restructuring bonds that the issuer issued pursuant to Financing Order No. 4 are secured by the 2016B restructuring property, and the Series 2017 restructuring bonds that the issuer issued pursuant to Financing Order No. 4 are No. 5 are secured by the 2017 restructuring property.

The Financing Order authorizes: 1) the creation of the restructuring property; 2) the Authority to sell the restructuring property to the issuer (the restructuring property is created simultaneous with its sale to the issuer); 3) the imposition, billing and collection of restructuring charges on, to and from the customers in the service area; 4) the issuance of the bonds by the issuer; 5) the issuer to use the bond proceeds to purchase the restructuring property from the Authority and pay upfront financing costs; and 6) the Authority to use the proceeds of the sale of the restructuring property to retire a portion of its outstanding debt.

Prior to the issuance of the bonds, the Financing Order requires the servicer to file an issuance advice letter with the Authority setting forth: 1) the expected savings to customers from the securitization; 2) the estimated ongoing financing costs; 3) the initial restructuring charge; and 4) the final terms of the bonds. The Financing Order authorizes a designee of the Authority to review and approve the issuance advice letter for the purpose of confirming that the stated terms are consistent with the Financing Order. The designee's approval will be final and incontestable.

## The restructuring charges

Under the Financing Order, the servicer (on behalf of the issuer as owner of the restructuring property) has the right to impose, bill and collect irrevocable and nonbypassable restructuring charges from all of the Authority's customers in an amount sufficient to: 1) pay interest on the bonds when due and principal of each tranche of bonds according to the related expected amortization schedule; 2) pay the fees and expenses of the securitizations' service providers; and 3) replenish the operating reserve and debt service reserve subaccounts to the required levels.

There is no cap on the level of restructuring charges that the servicer may impose on ratepayers through the true-up adjustment mechanism. This is designed to ensure the expected collections are sufficient to timely pay the amounts specified above. Accordingly, the restructuring charges may continue to be imposed and collected until the bonds are repaid in full, without any specified time limit.

The Financing Order authorizes the servicer to collect restructuring charges directly from the Authority's current and future customers. The restructuring charge will be the same for all customer classes. Under the Securitization Law, the charges and any adjustments thereto are not subject to review or regulation by the New York State Department of Public Service, the staff arm of the New York Public Service Commission.

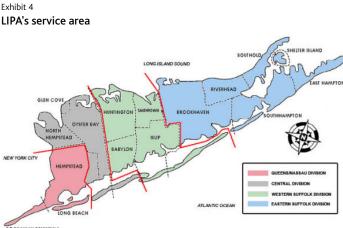
The restructuring charges are nonbypassable; "nonbypassable" as set forth in the Securitization Law and the Financing Order means that the customer, current and future, is obligated to pay the restructuring charges (and may not legally avoid payment of such charges) as long as such customer is connected to the transmission and distribution (T&D) system (the Authority's delivery system, which includes transmission and distribution lines and substations) and is taking electric delivery service in the service area, even if such customer produces its own electricity or purchases electric generation services from a provider of electric generation services other than the Authority and even if the Authority no longer owns the T&D system assets. Additionally, customers that self generate renewable power will only be responsible for their consumption, less their generation.

## The service area

The Authority provides electric T&D services in its service area which includes two counties in Long Island, NY – Nassau County and Suffolk County (except for the Nassau County villages of Freeport and Rockville Centre and the Suffolk County village of Greenport, each of which has its own municipal electric system) – and a small portion in Queens, NY known as the Rockaways. The population of the service area is around three million.

The Securitization Law defines the service area as the geographical area within which the Authority provided electric T&D services as of 29 July 2013. Thus, the service area is fixed by the legislation.

As of 31 December 2021, the service area included approximately 1.2 million retail customers. In 2021, retail electric usage was approximately 50.7% residential, 46.7% commercial, 0.5% street lighting and 2.0% other public authorities. Exhibit 4 below shows the service area.



#### ROCKAWAY PENINSULA

Service territory excludes the Nassau County villages of Freeport and Rockville Centre and the Suffolk County village of Greenport Source: LIPA

LIPA's annual net charge-offs as a percentage of billed revenues for their customers for the years 2017 to 2021 have been relatively low, fluctuating between 0.28% and 0.73%. In the past two years the net charge-offs have declined due to state moratoriums related to COVID-19. (see Exhibit 5)

#### Exhibit 5

#### Annual net charge-offs as a percentage of billed electric revenues

	12/31/17	12/31/18	12/31/19	12/31/20	12/31/21
Electric revenues billed (\$000)	3,457,210	3,659,782	3,614,157	3,812,469	4,046,947
Net charge-offs (\$000)	25,217	19,479	17,974	13,928	11,271
Percentage of revenue billed	0.73%	0.53%	0.50%	0.37%	0.28%

Source: Utility Debt Securitization Authority, Restructuring Bonds, Series 2022 preliminary official statement

The balance of all delinquent amounts as a percentage of total annual billed revenues of the Authority's customers for each of the years ended 2017 through 2021 have been steady and relatively low, in line with rates of other utilities (see Exhibit 7). However, due to the COVID-19 pandemic, delinquency rates have been higher in 2021.

In March 2020, the State Legislature passed a bill that amended Article 2 of the State's Public Service Law (Article 2) to prevent residential disconnections during and including a 180-day period following the end of the COVID-19 state of emergency. Although not generally subject to the Public Service Law, the Authority is required by the State's Public Authorities Law to provide its customers the rights and protections provided in Article 2. In May 2021, an extension of the disconnection moratorium was signed into law. That extension expired on December 21, 2021. Commercial disconnections resumed in November 2021 and residential disconnects resumed in July 2022.

The delinquency data for 2020 and 2021 reflect higher levels of delinquencies compared to prior years due to the impact of COVID-19, including customer impacts and implementation of disconnection policies.

#### Exhibit 6

## Delinquencies as a percentage of total billed revenues (days past due)

	12/31/17	12/31/18	12/31/19	12/31/20	12/31/21
30-59 days	1.08%	1.04%	1.03%	1.07%	1.06%
60-89 days	0.52%	0.48%	0.45%	0.52%	0.56%
90+ days	2.18%	1.85%	1.75%	2.09%	3.50%
Total	3.79%	3.37%	3.23%	3.69%	5.12%

Source: Utility Debt Securitization Authority, Restructuring Bonds, Series 2022 preliminary official statement

#### Statutory uncapped true-up adjustment mechanism

Under the Securitization Law and the Financing Order, the servicer will adjust the restructuring charges through the securitization's true up mechanism to ensure timely bond payments. The adjustments to the charges will continue until the bonds are repaid in full and there is no cap on the amount of charges that may be imposed on customers resulting from the adjustments.

The mechanics of the true-up adjustments are as follows:

- » Mandatory annual True up:
  - to correct for any overcollections or undercollections to date and anticipated to be experienced up to the date of the
    next annual adjustment and to ensure that the expected collections are sufficient to timely pay interest and scheduled
    principal (according to the expected amortization schedule) on the bonds and all other ongoing financing costs
- » Mid-year review
  - mandatory adjustments to the restructuring charges only if the servicer forecasts that charge collections will be insufficient to ensure timely payment of interest and scheduled principal on the bonds and all other ongoing financing costs
  - voluntary adjustments to decrease the restructuring charges to customers if the servicer forecasts that charge collections
    will be greater than the amount required to ensure timely payment of interest and scheduled principal on the bonds and
    all other ongoing financing costs
- » Optional true-up
  - more frequent adjustments at any time without limits as to the frequency to ensure that the expected charge collections are adequate to ensure timely payment of interest and scheduled principal on the bonds and all other ongoing financing costs
- » Quarterly true-up after schedule final
  - after the last scheduled maturity date of the bonds (of any series), quarterly adjustments to ensure that charge collections
    will be sufficient to timely pay interest and principal on the next payment date, in addition to all other ongoing financing
    costs; the adjustments will be set at levels estimated to generate revenues sufficient to fully repay the bonds on the next
    payment date, plus all other ongoing financing costs

All adjustments will be designed to cause: 1) the outstanding principal balance of the bonds (or any series of bonds) to be equal to the scheduled balance (based on the expected amortization schedule); 2) the amount in the operating reserve and debt service reserve subaccounts to be equal to the required levels; and 3) with respect to the annual true-up only, any amount in the excess funds subaccount to be equal to zero by the payment date immediately preceding the effective date of the next annual adjustment.

## Servicing

LIPA, acting as servicer under the servicing agreement, or any successor servicer as the Financing Order provides, will be responsible for servicing the restructuring property, including: 1) obtaining meter reads; 2) forecasting electricity usage; 3) calculating, billing and collecting the restructuring charges; 4) processing, accounting for and depositing charge collections and making periodic remittances; 5) calculating and implementing the true-up adjustments to the restructuring charges; 6) investigating and handling delinquencies and selling defaulted or written off accounts; 7) responding to inquiries from customers, the Authority, or any governmental authority regarding the restructuring property and the restructuring charges; and 8) furnishing periodic reports and statements.

Although LIPA is the named servicer for this securitization, PSEG-LI, a subsidiary of Public Service Enterprise Group Incorporated (PSEG, Baa2 Stable), will perform LIPA's key servicing duties pursuant to an operations services agreement, including billing and collecting the restructuring charges, meter reading and forecasting electricity usage, among others. PSEG is a publicly traded energy and energy services company. PSEG is the parent holding company of PSEG Power LLC, New Jersey's largest wholesale merchant generator with approximately 3.8 GW of capacity; Public Service Electric and Gas Company, New Jersey's largest regulated electric and gas T&D utility; and PSEG Energy Holdings L.L.C., which owns a portfolio of leveraged leases and is also pursuing investments in renewable generation.

There is no named backup servicer at closing though the Financing Order allows for a replacement servicer if the current servicer defaults in its performance obligations. In addition, the Financing Order allows the servicing fee to step-up from 0.05% to as much as 0.60% of the initial principal balance of the bonds if LIPA is replaced as servicer by a successor servicer not affiliated with the owner of the T&D system assets.

## Asset analysis

#### Strong service area

Long Island's economy benefits from a highly skilled labor force, close proximity to New York City, more than 20 colleges and universities and core research institutions.

Long Island's median household income is substantially higher than that of the US. According to 5-year estimate data published by the United States Bureau of the Census, Nassau and Suffolk Counties had median household incomes of \$120,036 and \$105,362 (in 2020 dollars), respectively, compared to a national median of \$64,994<sup>1</sup>.

Exhibit 7 below shows the percentage of total billed revenue attributable to each customer class since 2017 and illustrates the higher concentration of residential consumption compared to the other rate classes.

Total	3,361	100%	3,557	100.0%	3,484	100.0%	3,688	100.0%	3,934	100.0%
Other Public Authorities	49	1.5%	49	1.4%	37	1.1%	42	1.2%	42	1.1%
Street Lighting	19	0.6%	20	0.6%	19	0.5%	18	0.5%	19	0.5%
Commercial	1,471	43.8%	1,488	41.8%	1,553	44.6%	1,569	42.5%	1,740	44.2%
Residential	1,822	54.2%	2,000	56.2%	1,875	53.8%	2,059	55.8%	2,133	54.2%
Yearly Revenue (\$ millions)	2017	%	2018	%	2019	%	2020	%	2021	%

#### Exhibit 7

#### Total billed electric revenues (dollars in millions) from LIPA retail customers by customer rate class and percentage composition

Source: Utility Debt Securitization Authority, Restructuring Bonds, Series 2022 preliminary official statement

Overall, the Authority's historical annual total energy sales volumes to retail electric customers in the service territory has been relatively steady. As seen in Exhibit 9, total sales have slightly recovered in 2021 since 2020. From 2017 to 2021, the share of electricity consumption from customers located within the Authority's service territory was around 48%-52% for residential customers, 46% to 49% for commercial customers, around 0.5% for street lighting, and around 2% for other public authorities. Electric sales volumes for commercial customers declined in 2020, primarily owing to the COVID-19 pandemic, but has slightly improved in 2021.

#### Exhibit 8

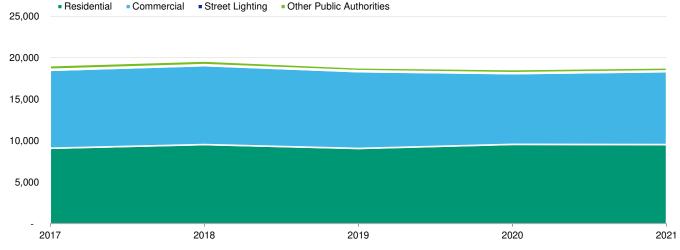
# Annual total energy volumes delivered to retail electric customers (as measured by billed GWh sales) by customer class and percentage composition

Total	19,048	100.0%	19,610	100.0%	18,801	100.0%	18,581	100.0%	18,798	100.0%
Other Public Authorities	438	2.3%	437	2.2%	366	1.9%	390	2.1%	383	2.0%
Street Lighting	120	0.6%	119	0.6%	109	0.6%	101	0.5%	98	0.5%
Commercial	9,401	49.4%	9,515	48.5%	9,250	49.2%	8,522	45.9%	8,782	46.7%
Residential	9,089	47.7%	9,539	48.7%	9,076	48.3%	9,568	51.5%	9,535	50.7%
Customer Rate Class	2017	%	2018	%	2019	%	2020	%	2021	%

Source: Utility Debt Securitization Authority, Restructuring Bonds, Series 2022 preliminary official statement

#### Exhibit 9

#### Annual total energy volumes delivered to retail customers (as measured by billed GWh sales) by customer rate class



Source: Utility Debt Securitization Authority, Restructuring Bonds, Series 2022 preliminary official statement

The annual average number of retail electric consumers in the Authority's service territory has been increasing modestly from 2017 through 2021 (see Exhibit 11). There were no customers that accounted for 2% or more of the Authority's revenues in 2021.

#### Exhibit 10

#### Number of Retail Electric Customers and Percentage Composition in Long Island as of December 31 of the Year Shown Below

Avg # of Customers	2017	%	2018	%	2019	%	2020	%	2021	%
Residential	1,008,486	89.3%	1,011,527	89.3%	1,015,708	89.3%	1,020,864	89.3%	1,024,507	89.3%
Commercial	115,358	10.2%	115,455	10.2%	115,915	10.2%	116,042	10.2%	117,435	10.2%
Street Lighting	5,464	0.5%	5,468	0.5%	5,619	0.5%	5,605	0.5%	5,491	0.5%
Other Public Authorities	129	0.0%	129	0.0%	129	0.0%	129	0.0%	129	0.0%
Total	1,129,437	100.0%	1,132,579	100.0%	1,137,371	100.0%	1,142,640	100.0%	1,147,562	100.0%

Source: Utility Debt Securitization Authority, Restructuring Bonds, Series 2022 preliminary official statement

#### Growth of customer base

The ratepayer base is sensitive to many economic and macroeconomic factors, including service territory population and household formation growth and expected disconnects due to use of self-generation. We view the risks to the transaction of ratepayer base declines due to any of these factors to be low.

## Remote risk of severe ratepayer base declines

The Series 2022 bonds are exposed to the risk of declines in the ratepayer base in the service area. However, declines in the ratepayer base dramatic enough to impact the rating of the bonds are unlikely given the size, projected population growth, and economic stability of the service area's strong ratepayer base. Considering the stability customer base and forecasted economic growth, the risk of a severe decline in the ratepayer base is low.

<u>Stable customer base</u>: The customer base that constitutes the Authority's service territory has slightly grown since 2017. Forecasted growth for Nassau and Suffolk is slower, but in line with the historical customer data. The close proximity to New York City as well as the lower population density and single family homes support the forecasted long-term stability of the customer base in the region.

<u>Steady economic growth</u>: The economy of Long Island, namely Nassau and Suffolk county, is recovering from the pandemic albeit at a slightly slower pace, supported by healthcare and consumer spending. The long-term growth prospects while positive are likely to be tempered due to the higher cost of living. However, Long Island's median household income is substantially higher than that of the US.

#### Self-generation poses low risk

We look at the potential for increased use of self-generation as a minor headwind to the transaction. Self-generation, which primarily includes solar and wind, reduces the ratepayer base's consumption and increases the burden of restructuring charges on other non-self-generating ratepayers. Customers that self-generate will only be responsible for paying restructuring charges based upon their netbilled consumption. The Securitization Law and Financing Order do not provide for exit fees to be charged to any customers that might leave the grid to self-generate.

#### Storm damage

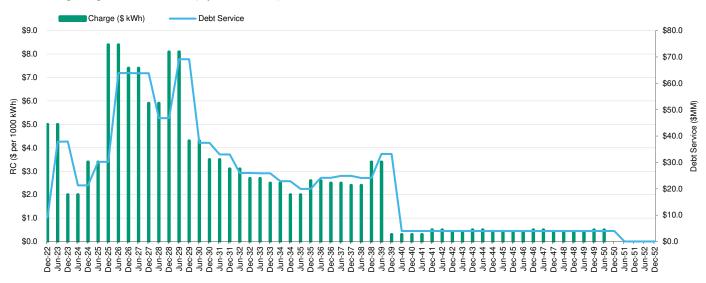
Exhibit 11

We view the risk of reduced collections due to weather events or weather trends to be low, and substantially mitigated via the true-up mechanism. Hurricanes, tropical storms or wind storms may impact the Authority's operations, temporarily interrupting transmission, distribution and consumption of electricity, hence reducing the collections of restructuring charges. There might be longer-lasting weather-related adverse effects on residential and commercial development and economic activity in the Authority's service area, which could cause the per-kWh restructuring charge to be greater than expected.

## Forecasting electricity consumption

The RCs are assessed based on forecasted customer usage. The amount and the rate of RCs collections will depend on actual electricity consumption and the amount of collections and write-offs. If LIPA as servicer inaccurately forecasts electricity consumption or underestimates customer delinquency or write-offs when setting or adjusting the RCs, there could be a shortfall or material delay in RC collections prior to the next true-up.

Exhibit 13 shows LIPA's forecasted RC per 1000 kWh residential retail electric customer and scheduled debt service payments over the life of the transaction.



## Restructuring charge and debt service (\$ per 1000 kWh)

Source: Long Island Power Authority

## Forecast variance

For there to be insufficient funds to pay ultimate principal and timely interest on the 2022 bonds, there would need to be unexpected, persistent and extensive drops in electricity consumption. Additionally, there may be insufficient funds if the servicer inaccurately forecasts electricity consumption or uses inaccurate customer delinquency or charge-off data when setting or adjusting the RCs. We view this risk as low, as LIPA's historical annual forecast variances since 2017 have been, except for 2017 and 2021, generally around 0.5% to 1.1%.

Exhibit 12

#### Annual forecast variance for ultimate electric delivery (MWh)

	2017	2018	2019	2020	2021
Forecast (in '000s)	19,522	19,398	18,890	18,690	18,058
Actual (in '000s)	19,047	19,610	18,801	18,580	18,798
Variance (%)	-2.43%	1.09%	-0.48%	-0.59%	4.10%

Source: Utility Debt Securitization Authority, Restructuring Bonds, Series 2022 preliminary official statement

## **Cash flow analysis**

We reviewed the cash flows projections provided by LIPA that the RCs will generate under various scenarios. Specifically, the projections test the sensitivity of the charges to various scenarios described below. The purpose of the cash flow projection was primarily to see how high the RCs can go as a percentage of a 1000 kWh residential customer's bill and also to illustrate how the RCs behave under various scenarios of customer demand. Our ratings are primarily based on qualitative analysis of the political, legal and regulatory aspects of the securitization and the strength of the ratepayer base. However, we review these scenarios to evaluate the level of the RCs relative to other transactions.

We reviewed three scenarios: the base scenario reflects LIPA's base case projected electricity consumption; (b) Scenario 1 reflects a linear decline in consumption over time to 50% of LIPA's base case projected consumption for residential consumers and 65% for non-residential consumers; and (c) Scenario 2 reflects a constant 25% decline in consumption against LIPA's base case projected consumption.

The base case scenario is reflects the 2.3% expected initial RC. Stress scenario 1 has the largest maximum charge of around 9.5%, which is higher than other transactions. The maximum charge for Scenario 2 is around 6.7%.

## Comparables

The Authority expects the 2022 securitization's initial RC to represent around 2.3% of the total monthly bill that a 1000 kilowatt hour (kWh) residential customer in the Authority's service area will receive after closing. When combined with the similar charges from outstanding securitizations, the restructuring charge is expected to represent around 12.8% of the total monthly bill that a 1000 kWh residential customer in the Authority's service area will receive. The combined charges are higher than the average charge of about 5% for prior UCRC transactions that we rate. The relatively high combined charge is mitigated by the expectation that the charge will decline over time as the bonds amortize.

Exhibit 13

Securitization charge at transaction closing	% of an average residential customer's bill)

Deal name	Average residential customer's electricity usage	Initial charge
UDSA 2022	1000 kWh	2.3%
UDSA Combined <sup>1</sup>	1000 kWh	12.8%
PG&E Wildfire Recovery Funding 2022-B	500 kWh	1.4%
PG&E Wildfire Recovery Funding 2022-A	500 kWh	1.7%
PG&E Recovery Funding 2021-A	500 kWh	0.4%
PG&E combined <sup>2</sup>	500 kWh	3.5%
Cleco Securitization I LLC, Series 2022-A	1000 kWh	4.0%
ouisiana Utilities Restoration Corporation Project/ELL combined <sup>3</sup>	1000 kWh	8.6%
Texas Stabilization Subchapter N Bonds, Series 2022	1000 kWh	0.4%
Entergy Texas Restoration Funding II, LLC combined <sup>4</sup>	1000 kWh	5.5%
DTE Electric 2022-A combined <sup>5</sup>	650 kWh	1.3%
SCERF 2022-A combined <sup>6</sup>	550 KWh	0.4%
Rayburn County 2022	1000 kWh	9.3%
DEP 2021-1	1000 kWh	1.9%
DEC 2021-1	1000 kWh	0.5%
WEPCo 2021-1	750 kWh	0.4%
SCERF 2021-A	550 kWh	0.2%
AEP 2019	1000 kWh	1.1%
AEP Texas combined <sup>7</sup>	1000 kWh	8.1%
PSNH 2018-1	600 kWh	7.8%
UDSA 2017	1000 kWh	0.6%
UDSA 2016B	1000 kWh	2.7%
UDSA 2016A	1000 kWh	0.8%
DEF 2016-1	1000 kWh	2.6%
UDSA 2015	1000 kWh	2.1%

1. Includes UDSA 2013, 2015, 2016, and 2017 transactions

2. Includes the 2021-A, 2022-A, and 2022-B transactions

3. Includes series 2014 and series 2022-A

4. Includes the Series 2022-A and the Series 2009 transition bonds

5. Includes PSSCs & DSCs.

6. Includes the SCE 2021-A and SCE 2022-A transactions

7. Includes charges from the ATCT 2006, ATCT 2012, AEP Texas 2019 transactions

Sources: Long Island Power Authority; Moody's Investors Service

#### Additional asset analysis

## ESG-Environmental considerations

Environmental risk for this UCRC transaction is low. Severe weather or other environmental events could result in significant disruption to the electricity supply and/or consumption reducing the collections arising from the securitization charges, resulting in a shortfall in debt service and/or scheduled principal. The mandatory uncapped true-up adjustment mechanism, in which the servicer is obligated to adjust the securitization charges periodically throughout the year to ensure timely payments of the bonds, mitigates this risk. In addition, the size of the service area combined with the economic stability and diversity of the ratepayer base in the service area limits the extent of a disruption resulting from severe weather or other environmental events.

#### **ESG-Social considerations**

Social risk for this UCRC transaction is low. The state non-impairment pledge mitigates the risk of the State of New York changing or rescinding the securitization charges or the Securitization law that authorizes them, owing to current or future public or political pressure or court challenges. The higher the charges the greater the risk, because higher charges, both in absolute terms and as a percentage of the customer's energy bill, increase the economic incentive to challenge the charge and/or the Securitization Law. However, we view this social risk as low. The likelihood that the State of New York would take legislative action that compromises its state non-impairment pledge to the significant detriment of bondholders is remote because state impairment would give rise to claims under state and federal laws prohibiting government impairment of contracts and taking of private property without reasonable reimbursement under state and federal "taking" claims. In addition, the irrevocable and unconditional nature of the Financing Order

mitigates any concern that it could be altered. The state non-impairment pledge is included in the Securitization Law and Financing Order.

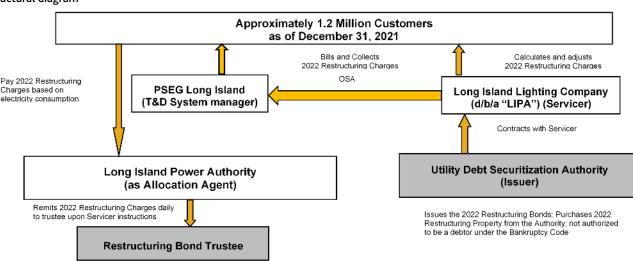
In addition, the risk of public or political pressure is low owing to the restructuring offset charges which are in an amount equal to and opposite the restructuring charges to keep the customers' monthly bills stable. Additionally, an increase in the charge would be spread over the diverse ratepayer base.

Finally, New York has no voter initiative or referendum process.

## Securitization structure description

The transaction structure is similar to other UCRC deals we rate.

#### Exhibit 14 Structural diagram



Source: Utility Debt Securitization Authority, Restructuring Bonds, Series 2022 preliminary official statement

## Detailed description of the structure

## Credit enhancement

Credit enhancement for the bonds will be provided by the true-up mechanism, as well as by the debt service reserve account and operating reserve account.

## Trust Accounts

Pursuant to the Indenture, the issuer will establish trust accounts for the bonds in the name of the indenture trustee with an eligible institution. The collection account will consist of four subaccounts: general subaccount, debt service reserve account, operating reserve account, and excess funds subaccount.

<u>General subaccount</u>: The indenture trustee will deposit collected RCs remitted to it by the servicer into the general subaccount. On each payment date, the indenture trustee will allocate amounts in the general subaccount according to the transaction's payment priority.

<u>Operating reserve account</u>: On or before the date of issuance of the bonds, the Authority will deliver to the trustee for deposit into the operating reserve account an amount not less than 0.5% of the initial aggregate principal amount of the Series 2022 bonds. Amounts may be withdrawn from the account to pay scheduled principal on the Series 2022 bonds, provided however that an amount not less than 0.5% remains on deposit in the account.

<u>Debt Service Reserve account</u>: On or before the date of issuance of the bonds, the issuer will make a capital contribution to the trustee in an amount up to 0.5% of the aggregate outstanding principal amount of the bonds, which will be deposited in the debt service reserve account. Under the Financing Order, any funds in the debt service reserve subaccount in excess of the required debt service reserve level shall be retained in the subaccount and applied to subsequent payments.

*Excess funds subaccount*: The excess funds subaccount will be funded on any semiannual payment date with collected RCs in excess of amounts necessary to pay any and all amounts due on such payment date. The excess funds subaccount will also hold all investment earnings on the collection account in excess of amounts necessary to make payment due on the payment date.

Periodic true-up adjustments of the RCs will be calculated to eliminate any amounts held in the excess funds subaccount.

If amounts available in the general subaccount are insufficient to pay the fees and expenses due on any payment date, to make required or scheduled payments to bondholders and, to replenish any amounts drawn from the debt service reserve account, the indenture trustee will first draw on any amounts in the excess funds subaccount to make those payments.

## Cash commingling

The servicer will be required to remit all RC collections to the collection account no later than two business days. LIPA, as servicer, will not segregate the RCs from the other funds it collects from consumers or its general funds. The RCs will only be segregated when the servicer pays them to the trustee. The Securitization Law provides that the priority of a lien and security interest is not impaired by the commingling of funds arising from restructuring charges with other funds.

## **Payment priority**

On each semiannual payment date, or for items 1 through 4 below, on any business day, the trustee will pay or allocate, at the direction of the servicer, all amounts on deposit in the collection account in the following order of priority:

- 1. to the trustee, i) all fees, expenses and ii) any outstanding indemnity amounts not to exceed \$800,000 in each year;
- 2. servicing fee and all prior unpaid servicing fees, which amounts to 0.05% of the aggregate principal balance of the bonds in each year;
- 3. administration fee (\$100,000 per year) and all prior unpaid administration fees;
- 4. all other operating expenses to the persons entitled to such payment;
- 5. any overdue interest (together with, to the extent lawful, interest on such overdue interest at the applicable bond interest rate), then, interest due on such payment date;
- 6. principal due and payable on the bonds as a result of an event of default and an acceleration of the bonds or on the legal final maturity date of a tranche of bonds;
- 7. principal for such payment date, sequentially according to the related expected amortization schedule;
- 8. to the trustee, indemnity amounts in excess of \$800,000 in each year;
- 9. servicing fee and all prior unpaid servicing fees in excess of 0.60% of the aggregate initial principal balance of the bonds in each year;
- 10. to the debt service reserve subaccount, the amount, if any, by which the required reserve level (0.5% of the aggregate outstanding principal balance of the bonds less the minimum principal amount due according to the expected amortization schedule) exceeds the amount in the debt service reserve subaccount as of such payment date;
- 11. to the operating reserve subaccount, the amount, if any, by which the required operating reserve level (0.5% of the aggregate initial principal balance of the bonds) exceeds the amount in the operating reserve subaccount as of such payment date;

- 12. any funds in the debt service reserve subaccount in excess of the required debt service reserve level shall be retained in the debt service reserve subaccount and applied to clauses 5 through 7 above on the next payment date; and
- 13. to the excess funds subaccount, the balance, if any, for distribution on subsequent payment dates

If funds in the general subaccount are insufficient to make the payments required under items 1 through 9, the trustee will first, draw from amounts in the excess funds subaccount and second, draw from amounts in the operating reserve subaccount, in each case, to make the payments required under items 1 through 9. In addition, if funds in the general subaccount, together with moneys available in the excess funds subaccount and the operating reserve subaccount, are insufficient to make the payments required under items 5 through 7, the trustee will draw from amounts in the debt service reserve subaccount, up to the amount of such shortfall. If funds in the general subaccount are insufficient to make the allocations under item 10, the trustee will draw from amounts in the excess funds subaccount to make such allocations.

LIPA will calculate the annual true-up adjustment to eliminate any amounts in the excess funds subaccount by the payment date immediately preceding the effective date of the next annual true-up adjustment. Should LIPA perform a mid-year true-up adjustment, LIPA will similarly calculate the mid-year true-up adjustment to eliminate any amounts in the excess funds subaccount by the payment date immediately preceding the effective date of the next mid-year true-up adjustment.

## **Events of default**

An event of default with respect to the bonds is defined in the indenture as any one of the following events:

- 1. failure to pay interest or redemption price on any bond when due (after a five day cure period);
- 2. failure to pay principal of any tranche of a bond on the legal final maturity date for such tranche;
- 3. failure of the issuer to perform a covenant (after a cure period);
- 4. breach by the issuer of its representations or warranties (after a cure period);
- 5. commencement of an involuntary bankruptcy or similar proceeding against the issuer which remains in effect for 90 days;
- 6. commencement of a voluntary bankruptcy or similar proceeding by the issuer; or
- 7. an action violating the Financing Order or state pledge.

## Issuance of additional bonds

UDSA may in the future, apply for additional Financing Orders to authorize the issuance of additional restructuring bonds to be secured by restructuring property similar to the property securing the 2022 bonds. Any new series of such securities may include terms and provisions that would be unique to that particular issue. The issuance of additional bonds is subject to certain conditions including the satisfaction of the rating agency condition (RAC).<sup>2</sup>

## Asset transfer, true sale and bankruptcy remoteness

The Securitization Law provides that an electric utility's transfer of restructuring property is a true sale and is not a pledge of or a secured transaction relating to the electric utility's right, title and interest in the restructuring property (other than for federal and state income and franchise tax purposes) and that legal and equitable title passes to the transferee, if the agreement governing that transfer expressly states that the transfer is a sale or other absolute transfer.

The Securitization Law created the issuer, a bankruptcy-remote special purpose corporate municipal instrumentality, and a political subdivision and public benefit corporation of the State of New York. Under the Securitization Law, the issuer is not authorized to be a debtor under Chapter 9 or any other provision of the Bankruptcy Code.

The issuer was formed solely to purchase and own the restructuring property, to issue the bonds which are to be secured by the restructuring property, and to perform any activity incidental thereto. The issuer has no commercial operations.

The issuer will issue the bonds under an indenture with the trustee and will use the bond proceeds to purchase the restructuring property from the Authority and to pay the cost of issuing the bonds. The issuer will pledge the restructuring property to secure the bonds.

#### Sponsor and seller

The Authority will be the securitization's sponsor and the seller of the restructuring property. The Authority is a corporate municipal instrumentality and a political subdivision of the State of New York, and is authorized to be a Chapter 9 debtor pursuant to its enabling legislation.

The Authority took over as the retail supplier of electric service in the service area in 1998 by acquiring the Long Island Lighting Company (LILCO) as a wholly-owned subsidiary of the Authority through a merger. Since the merger, LILCO has done business under the name "LIPA." LIPA, acting through LILCO provides electric delivery service in the service area.

The Authority is governed by a Board of Trustees and is generally not regulated by the New York Public Service Commission (PSC) or the Federal Energy Regulatory Commission. The Authority is authorized under its enabling statute to set rates for electric service in the service area without obtaining the approval of the PSC or any other State regulatory body.

The Authority and LIPA are parties to a financing agreement providing for their respective duties and obligations relating to the financing and operation of the retail electric business. Under the agreement, LIPA conducts the electric business in the service area and is responsible for providing service to customers in the service area. The Authority and LIPA are also parties to an administrative services agreement pursuant to which the Authority provides personnel, personnel-related services and other services necessary for LIPA to provide electric service in the service area.

## Administrator

LIPA will provide or arrange for the provision of administrative services to the issuer pursuant to an administration agreement, including services relating to the preparation of financial statements, required filings with the SEC, any tax returns the issuer might be required to file, qualifications to do business, and minutes of the issuer's managers' meetings. LIPA, as administrator, will be entitled to receive an annual administration fee of \$100,000 payable annually, in arrears.

## Securitization structure analysis

The key structural feature of this transaction is the true-up mechanism. Our rating is highly dependent on the extent to which the mechanism adjusts the charges to correct for past shortfalls or forecasted future shortfalls. The effectiveness of those rate changes in raising funds depends, in turn, on how easily customers can escape the charges and how sensitive electricity usage is to increases in the utility charges. Therefore, our analysis of the true-up mechanism goes together with our analysis of how bypassable the cost recovery charges are and how easily customers can cut back on electricity usage.

In this transaction, the strong true-up mechanism combined with nonbypassable charges mitigates the need for credit enhancement in the form of alternative sources of funds. The operating reserve and debt service accounts provide sufficient funds to offset the typical variance in collections versus projections in order to meet the projected amortization schedule between the semi-annual true-ups.

## Additional structural analysis

## Asset transfer, true sale and bankruptcy remoteness

The asset transfer, true sale, bankruptcy remoteness characteristics of the transaction, as described above, are sufficient for the transaction to achieve our ratings.

## Cash commingling and collection account

The servicer is obligated to remit all RCs to the collection account within two business days, at most. This ensures that not more than a fraction of the month's collections are in the servicer's possession at any one time. This arrangement is sufficient for the transaction to achieve our ratings.

#### **ESG-Governance considerations**

This securitization's governance risk is low and typical of other UCRC transactions in the market. As described in our publication <u>Governance considerations are a key determinant of credit quality for all issuers</u>, we examine five governance considerations in our analysis: 1) financial strategy and risk management; 2) management credibility and track record; 3) organizational structure; 4) the board structure; and 5) compliance and reporting. Governance risks are mitigated by this transaction's structure, documentation and characteristics of the transaction parties as described below.

1) Financial strategy and risk management – the Issuer is a conduit issuer and its other series of bonds or notes are or will be secured by instruments separate and apart from the Indenture securing the 2022 Bonds and are or will be payable from different sources of revenue.

2) Management credibility and track record – this securitization sponsor/servicer's experience, expertise and track record, and the legal structure and documentation of the transaction, mitigates the governance risk.

3) The organizational/transaction structure — the Securitization Law and the Financing Order allow UDSA to issue the RBs, and UDSA as a state instrumentality is not authorized to file for voluntary bankruptcy or be subject to an involuntary bankruptcy. The Securitization Law and the Financing Order provide for the bondholders security interest in the assets, and authorizes and governs the true-up adjustment mechanism.

4) The board structure – the issuer is governed by a board consisting of three trustees appointed by the governor. The trustees shall not be trustees, directors, officers, or employees of the authority, LIPA, or any successor owner of the transmission and distribution system assets.

5) Compliance and reporting - this securitization will benefit from the consistency and quality of reporting in the form of servicer reports.

## Methodology and monitoring

The principal methodology used in this rating was <u>Utility Cost Recovery Charge Securitizations Methodology</u> published in February 2021. Please see the Rating Methodologies page on www.moodys.com for a copy of this methodology.

In monitoring this transaction, we apply the key components of our methodology. More specifically, we analyze, whether bond balances are in line with the scheduled principal amortization, which indicates the extent to which payments have been in line with our original expectations.

We review the periodic information received and look at whether there has been a draw on the reserve accounts. This data point provides further clues as to the steadiness of the cash flows and accuracy of true-up adjustments.

In addition, we analyze the factors that determine the future strength of the transaction. For example, we monitor any legal or political developments that could indicate an increased risk of changes in the legislation that could impair future cash flows to the transactions. Such risk may materialize, for example, in case of continued high financial imbalances in the system that may lead the system deficit to be viewed as unsustainable over the long-term.

We also follow the economic health of the service region and the potential for changes in the size and composition of the ratepayer base. Furthermore, we monitor the rating of the Long Island Power Authority (as an indicator of its financial condition) to track the risk, typically quite small, that a bankruptcy could lead to disruption in billing and collections and in the remittance of payments to the bondholders.

Thus changes in our expectations and other analytical components could have an impact on the rating of the securities and may result in a reassessment of the rating

## Appendix 1: Moody's ESG Solutions physical climate risk analysis

Moody's ESG Solutions scores sub-sovereign entities' exposure to several climate change hazards in order to provide quantitative, forward looking climate risk assessments for these entities. Sub-sovereign entities, including US counties and cities, are assigned a score based on how they rank relative to their geographic counterparts. This allows for the inclusion of several important dimensions of

future climate risk, capturing both relative and absolute changes in the frequency and severity of extreme conditions between historical conditions and a forecast period of 2030-2040. The forward-looking data on sub-sovereign entities' exposure to extreme rainfall, heat stress, hurricanes & typhoons, sea level rise, water stress and wildfires shows which risks are likely to affect a given municipality, even when these risks might not be apparent today or reflected in the historical data.<sup>3</sup>

## Exhibit 15

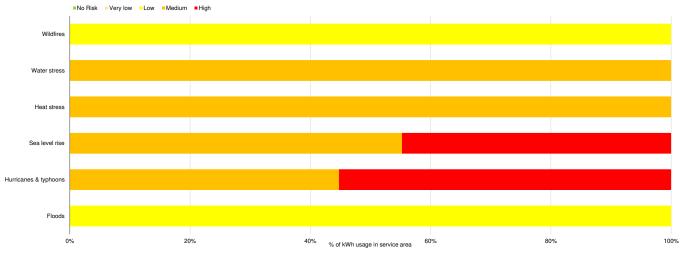
Climate risk categories for counties by electricity usage in the Authority's service territory

Tota	al pool weighted average			18,798,395,530	Low (7.21)	High (87.5)	Medium (59.0)	Medium (52.3)	Medium (62.9)	Low (27.3)
Тор	3 counties		100.0%	18,798,395,530						
3	Queens	NY	2.3%	436,618,126	Low	Medium	High	Medium	Medium	Low
2	Nassau	NY	42.4%	7,978,058,506	Low	Medium	High	Medium	Medium	Low
1	Suffolk	NY	55.2%	10,383,718,898	Low	High	Medium	Medium	Medium	Low
	County	State	% by kWh usage	2021 electric usage (kWh)	Floods	Hurricanes & typhoons	Sea level rise	Heat stress	Water stress	Wildfires

Sources: Long Island Power Authority; Moody's ESG Solutions

#### Exhibit 16

## Share of risk exposure of the Authority's service territory to seven categories of climate risk



Sources: Long Island Power Authority; Moody's ESG Solutions

## **Climate Hazard Indicators & Scales**

## Floods

The flood score measures the susceptibility to historical floods (both rainfall- and riverine-based flooding), the frequency of future heave rainfall events, and the intensity of prolonged periods of heavy rainfall. Two-thirds of the overall risk category weight is based on the fraction of the population in a 25-by-25 km grid cell that is at risk of flooding during a one-in-100-year flood. This is a flood event that has a 1% change of occurring in a given year and is at an inundation level greater than 0.2m, slightly higher than the average doorstep. Since flood data is at a higher resolution than the population data, only those population areas where at least 10% of the population is least 10% of the population are inundated during a one-in-100-year event are considered flooded. The baseline period is 1975-2005 (rainfall) and 1,000 year simulated history (flood susceptibility). The projection period is 2030-2040.

## Hurricanes & Typhoons

The hurricanes & typhoons score captures geographical exposure to past hurricanes and typhoons, also known as tropical cyclones. The score is derived from a measure of the cumulative wind velocity from recorded cyclones. This cumulative measure reflects both the severity of storms with the highest maximum winds, and the frequency with which a severe storm has hit an area. Moody's ESG Solutions uses a dataset of all recorded tropical cyclones, hurricanes and typhoons between 1980 and 2019 (3,169 tropical cyclones in total) to construct the hurricanes & typhoons score. Hurricanes and typhoons are a major source of weather-related damage globally. They are most common in the northwestern Pacific Ocean and northern Atlantic Ocean, and to a lesser extent, in the Eastern Pacific Ocean, Indian Ocean, and southwestern Pacific Ocean.

## Sea Level Rise

The sea level rise score measures the fraction of an area's population that is susceptible to a one-in-100-year coastal flood event during which wave heights are greater than elevation of the coastline or coastline infrastructure. The analysis leverages global high-resolution digital elevation model data as well as local storm surge and sea level rise estimates between 2017 and 2040. Using the most recent tidal gauge data available provides the most accurate indication of how sea level rise will exacerbate tidal floods during storm surges. This analysis incorporates local flood risk statistics, as well as local median sea level rise projections under the highest emission pathway, known as Representative Concentration Pathway (RCP) 8.5. The baseline period is 1986-2005 and the projection period is the current period to 2040.

## Heat Stress

The heat stress score measures the relative change over time in both the frequency and severity of hot days, as well as average temperatures. High forecasted changes relative to recent history signal locations which are more likely to be affected by temperatures, unlike those previously experienced, even if these locations are not projected to experience the absolute hottest temperatures. Moody's ESG Solutions's analysis includes variables related to changes in energy demand, additional hot days and maximum temperature change. The baseline period is 1975-2005 and the projection period is 2030-2040.

## Water Stress

The water stress score measures the projected changes in drought-like patterns over time. The water stress score includes indicators that measure current water stress, current inter-annual rainfall variability, and absolute and relative percent changes in supply and demand for surface water (rainfall or rivers; not lakes or groundwater) available for consumptive use between the current period and 2040 (the projection period). The baseline period is 1975-2005.

#### Wildfires

The wildfires score measures wildfire potential in absolute terms and relative change compared to the historical baseline, as well as the availability of burnable fuel in the form of land cover. The score integrates forward-looking climate information by using precipitation and temperature projections from downscaled climate models to calculate projected soil moisture deficit values during a baseline period (1975-2005) and the future period (2030-2040). The wildfires score, which includes both severity and frequency indicators, is built upon the Keetch-Byram Drought Index (KBDI), which is a proxy for soil moisture deficit. KBDI evaluates precipitation and temperature patterns that can lead to the drying of vegetation and fuel build-up for wildfire activity.

The wildfires score is not intended to project specific wildfire events, but rather the areas that are more likely to burn given existing land cover and projected climate conditions. The occurrence of individual wildfire events and their characteristics depend on many discrete factors, including but not limited to topography, an ignition source, and wind, which are not captured in Moody's ESG Solutions methodology.

## Moody's related publications

Utility Cost Recovery Charge Securitizations Methodology, 26 February 2021

## Endnotes

- 1 See Nassau County Census Bureau data, Suffolk County Census Bureau data, US Census Bureau data
- 2 Please see Moody's Ratings Symbols and Definitions, published June 2022, which makes it clear that the decision to issue a RAC remains entirely within Moody's discretion, and it may be that Moody's will not provide a RAC even if the transaction documents (to which Moody's is not a party) require it.
- 3 For more information on Moody's ESG Solutions Physical Climate Risk Scores and the methodology for deriving them see <u>https://esg.moodys.io/climate-solutions</u>.

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