



# Request for Board Approval: Kings and Shoreham Energy Storage Agreements

Prepared for LIPA Board of Trustees

December 18, 2024



# Discussion Topics

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 Summary of LIPA's 2021 RFP for Bulk Energy Storage Systems

 Contract Awards

 Contract Provisions

 Contract Value

# Timeline for LIPA's Storage Procurement

Item	Date
LIPA releases RFP seeking 175 MW (or more) of bulk energy storage systems ("BESS")	Apr 2021
78 proposals submitted totaling over 3,300 MW	Jul 2021
5 Proposals (329 MW) selected for contract negotiations and presented to the LIPA Board	Sep 2022
2 of 5 short-listed proposals terminated: unable to hold firm pricing	Sep 2023
Update for the Board on contract negotiations	May 2024
Contract negotiations successfully completed for 2 BESS projects	Dec 2024

# RFP Developments and External Factors

<b>RFP Developments</b>	<u>April 2021</u> RFP Issued	<u>Jul 2021</u> Proposals submitted	<u>Aug 2022</u> 5 proposals selected for negotiations	<u>Q1 2024</u> 2 projects withdraw: unable to hold price	<u>Dec 2024</u> Successful contract negotiations
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<b>External Factors</b>	<u>Late-2021</u> Vendors start raising prices for Li-ion batteries	<u>Aug 2022</u> IRA provides ITC for standalone storage	<u>Dec 2022</u> NYSERDA proposes statewide procurements in Storage Roadmap	<u>Thru 2023</u> Supply chain issues and clarification of rules on ITC delay negotiations	<u>Summer 2024</u> New tariffs on batteries from China delay negotiations
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# Finalized Contracts

Project	Capacity / Energy	Point of Interconnection
Shoreham BESS	50 MW / 200 MWh	Shoreham 138 kV Substation
Kings BESS	79 MW / 316 MWh	Kings 138 kV Substation

# KCE Kings BESS Project

- **79 MW / 316 MWh lithium-ion energy storage project**
- **Proposed by Key Capture Energy (KCE)**
- **Located on a 4-acre site in the Town of Islip, NY near LIPA's Kings Substation**
- **Environmentally permitted ("Neg Dec")**
- **Construction currently prohibited due to Islip's temporary moratorium on energy storage projects**
  - KCE has submitted a hardship waiver application

# KCE Shoreham Project

- **50 MW / 200 MWh lithium-ion energy storage project**
- **Located on a LIPA-owned 2.3 acre site within the Shoreham Nuclear Power Plant property**
- **Site to be leased to KCE Shoreham under a separate Lease Agreement**
- **Project received its SEQRA Negative Declaration with LIPA acting as the Lead Agency**
- **Unlike the KCE Kings Project, there is no local moratorium in effect for this project**

# Build-Own-Operate-Optional-Transfer (“BOOOT”) Agreement

- **Developer builds the project, owns and operates it for 7 years under a PPA-like arrangement, then transfers it to LIPA at a predetermined price**
- **LIPA has the option to take ownership at end of year 7, or continue the PPA arrangement for an additional 13 years**
  - LIPA acquires a proven project, if it exercises the transfer option
  - Decision to exercise transfer option will be driven by economics and perceived risks
- **Terms of the Asset Purchase Agreement are an appendix to the BOOOT agreement**



# Risk Allocation in the BOOOT Agreement

- Developer bears risks inherent to project development and during the operating period
- “Pay-for performance” – KCE only gets paid if the project delivers capacity to LIPA
- KCE guarantees round trip efficiency (charge-store-discharge cycle)
- LIPA can terminate agreement for chronic poor performance

# Shoreham Property Lease to KCE

- **KCE will lease the Shoreham site from LIPA for a 20-year period subject to termination after seven years if LIPA exercises its purchase option**
- **Option for KCE to extend the lease for an additional 5 years post-BOOOT**
- **Lease charges**
  - Fair Rental Value developed by independent appraiser
  - KCE's rent payment during the term of the BOOOT reimbursed by LIPA per the terms of the RFP
- **LIPA pays for relocating/removing any equipment on the site so that KCE can commence construction**
- **At the end of the Term, KCE Shoreham is responsible for decommissioning the Project and returning the site to its original condition**

Questions?



**FOR CONSIDERATION**

December 18, 2024

**TO:** The Board of Trustees

**FROM:** John Rhodes

**SUBJECT:** Authorization to Execute the Energy Storage Build-Own-Operate-Optional Transfer Agreements with KCE NY 29, LLC (“KCE Kings”) and with KCE NY 31, LLC (“KCE Shoreham”) and the Agreement of Lease with KCE Shoreham

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**Requested Action**

The Board of Trustees of the Long Island Power Authority (the “Board”) is requested to approve a resolution authorizing the Acting Chief Executive Officer or his designee to execute the Energy Storage Build-Own-Operate-Optional Transfer Agreements (“BOOOT”) with Key Capture Energy for the KCE NY 29, LLC (“KCE Kings”) and KCE NY 31, LLC (“KCE Shoreham”) energy storage projects, and the Agreement of Lease with KCE Shoreham, and to take such other actions as may be reasonably necessary to implement arrangements for LIPA to purchase (i) 79 MW and 316 MWh of energy storage products and services produced by KCE Kings located in Hauppauge, NY and delivered to LIPA’s Kings 138 kV Substation located in close proximity to the project and (ii) 50 MW and 200 MWh of energy storage products and services produced by KCE Shoreham located in Shoreham, NY and delivered to LIPA’s Shoreham 138 kV Substation located in close proximity to the project, which resolution is attached hereto as **Exhibit A**.

**Background**

New York State (“NYS”), through the Climate Leadership and Community Protection Act (“CLCPA”) enacted in 2019, has set a target that 70% of the state’s electricity be procured from renewable resources by 2030, with the additional express goal of achieving a zero-emissions statewide electrical demand system by 2040. Included in the CLCPA targets is 3,000 MW of statewide energy storage by 2030. This target was preceded by a December 2018 New York Public Service Commission (“NYPSC”) Order establishing a 1,500 MW energy storage target for 2025. The NYPSC changed the target date for compliance to the end of 2028 in an Order issued and effective on March 16, 2023.

In 2024, NYSPSC adopted a funding mechanism for the NYSERDA’s bulk storage procurement program obligating load serving entities (LSEs) to pay their proportionate share of program costs. As a non-jurisdictional LSE, LIPA plans to participate on a voluntary basis in this program through a combination of its own contracted storage resources, including KCE Kings and KCE Shoreham, and program payments to NYSERDA.

## Discussion

On April 30, 2021, PSEGLI issued a Request for Proposals for Bulk Energy Storage (“BES RFP”) on behalf of LIPA with the goal of obtaining approximately 175 MW of new bulk energy storage projects to be interconnected to the Long Island electric grid. The RFP stated that LIPA may select more or less than this goal depending on the cost-effectiveness of the Proposals.

The BES RFP was unique for LIPA in two major ways compared to past RFPs. First, LIPA offered the opportunity to lease LIPA-controlled properties for storage development, including: (i) two sites that LIPA owned and believed were suitable for energy storage development (i.e., the Shoreham Generating Site and property in close proximity to its Southold Substation) and (ii) five sites (i.e., Port Jefferson Power Station, E.F. Barrett Power Station, Far Rockaway, Glenwood Landing, and West Babylon) that were then owned by National Grid Generation LLC (“National Grid”) but that LIPA has rights to acquire for purposes of generation development as a result of its acquisition of Long Island Lighting Company in 1998 under “Schedule F” to the acquisition agreement.<sup>1</sup>

The second unique feature of the BES RFP was the required contract. Prior RFPs would award developers long-term (typically 20-year) power purchase agreements (“PPAs”) for projects that the developers would own and operate. In the BES RFP, LIPA intended to purchase, own, and operate the selected projects, either upon commercial operation through a Build-Own Transfer (“BOT”) contract, or at the expiration of a seven-year term of a Build-Own-Operate-Transfer (“BOOT”) contract. The BOOT contract obligates the developer to own and operate the Project for a period of seven years, at the end of which the project is transferred to LIPA. By owning the projects, LIPA can use its lower cost of capital than a typical developer, which reflects LIPA’s strong credit rating and exemption from Federal Income Taxes. For this reason, the BES RFP required that developers select either a BOT or a BOOT.

By the proposal submittal deadline on July 30, 2021, PSEGLI had received 57 proposals for 3,339 MW of capacity from 20 developers. Twenty-four of the proposals were for projects on LIPA-owned or Schedule F sites. Forty-six of the proposals used the BOOT contract form and 11 used the BOT contract form. All projects chose the BOOT contract form, meaning that LIPA would purchase the products (Capacity and Ancillary Services) from the projects for the first seven years and then KCE would sell the project to LIPA, which would own, operate, and maintain it after seven years through its remaining life. Two of the five finalists withdrew their proposals in early 2024, leaving three remaining projects proposed by KCE.

During the negotiations, the parties agreed on an optional transfer arrangement that gives LIPA the right to either purchase each project at the end of year seven or continue the agreement as a purchase of dispatch rights for an additional 13 years following the initial seven-year term. For this reason, the word “Optional” was added to the name of the agreement, making it the “Build-Own-Operate-**Optional**-Transfer Agreement” or the “BOOOT.” (emphasis added)

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<sup>1</sup> Schedule F to the Agreement and Plan of Merger, dated June 26, 1997, among BL Holding Corp., Long Island Lighting Company, Long Island Power Authority and LIPA Acquisition Corp. (“Schedule F”), allows certain parcels owned by National Grid Generation LLC to be available for LIPA to acquire for development.

## **KCE Kings Project**

The KCE Kings Project will be developed on a 4-acre project site which is part of a larger parcel (6+ acres) in Hauppauge, Town of Islip, NY. There is currently a commercial building on the site with an occupying tenant that will vacate the building, and it will be demolished. If LIPA exercises its option to purchase the project in year seven, KCE will subdivide the property so that LIPA obtains ownership of the 4-acre project site.

Under state law, the KCE Kings Project was required to undergo an environmental review under New York's State Environmental Quality Review Act ("SEQRA") which requires all local, regional, and state government agencies to examine the environmental impacts along with the social and economic considerations for a jurisdictional project during their discretionary review. The Town of Islip acted as the Lead Agency for the SEQRA review of the KCE Kings Project and issued a Negative Declaration for the Project on April 13, 2023.

In April 2024, the Town of Islip enacted a six-month moratorium on the development of energy storage projects that allows for "hardship waivers". KCE is currently pursuing an application for a hardship waiver which requires a safety analysis prepared by Tesla (its intended battery vendor). The moratorium does not impact the SEQRA Negative Declaration for the Project; however, it will delay the start of construction until the moratorium is lifted.

The BOOOT agreement requires KCE to obtain all the required State and local permits and reach a key Project construction milestone by a certain date subject to "Excused Failure Days" that accommodate the moratorium, but not indefinitely. The Project would be subject to payment of specified liquidated damages for failure to meet the construction milestones. The agreement is a pay-for-performance contract meaning that KCE is paid only when it provides capacity to LIPA. KCE has also committed to a roundtrip efficiency guarantee which is a measure of the energy lost during charging and storage. Moreover, LIPA has the right to terminate the agreement in the event of chronic underperformance.

LIPA will purchase a guaranteed 79 MW and 316 MWh of production from the Project during the first seven years of its life, and LIPA will provide the charging energy required by the Project for all contract years. To meet the guaranteed amounts of Contract Capacity and related energy storage capability, KCE will overbuild the Project at commercial operation and then augment the Project during the first seven years as necessary by adding additional battery cabinets as batteries degrade, to continue to meet the performance guarantees.

Prior to the seven-year anniversary of commercial operation, LIPA will need to decide whether to purchase the Project or to continue purchasing the energy storage products from KCE under the terms of the BOOOT for the remaining 13 years. If LIPA decides to purchase the Project, the terms and conditions of the purchase are set forth in the Asset Purchase Agreement appended to the BOOOT. If LIPA purchases the Project, KCE is required to provide training to LIPA and its contractors who would operate and maintain the Project. Under this option, LIPA would be responsible for deciding whether to augment the Project to maintain its 79 MW of capacity as it degrades over its remaining project life.

The estimated net cost of the KCE Kings Project for the first year is approximately \$4.7 million or approximately \$0.19 per month for the average LIPA residential ratepayer.

### **KCE Shoreham Project**

The KCE Shoreham Project will be developed on a 2.34-acre project site owed by LIPA that will be leased to KCE Shoreham for the duration of the Project's life unless LIPA exercises its option to purchase the Project in year seven of the BOOOT, in which case the lease will terminate when LIPA takes ownership of the Project. The Project site is located on property that is part of the former Shoreham Nuclear Power Plant site in Shoreham, Town of Brookhaven, NY. PSEGLI currently has its Heavy Equipment Training Academy using the site. The Academy is being moved to another location to accommodate the Project. There are also abandoned sanitary piping and related septic facilities, underground cables, water mains, hydrants, and an active transformer on the site that would need to be either relocated or removed before KCE can begin Project construction on the site.

Just as with the KCE Kings Project, the KCE Shoreham Project was required under state law to undergo an environmental review under SEQRA which requires all local, regional, and state government agencies to examine the environmental impacts along with the social and economic considerations for a jurisdictional project during their discretionary review. LIPA acted as the Lead Agency during the SEQRA review of the KCE Kings Project, in coordination with the Brookhaven IDA (an involved agency under SEQRA). LIPA reviewed the long form Environmental Assessment Form that was prepared for the KCE Shoreham Project, which was supplemented by a number of appendices containing technical analyses of specific environmental issue areas including land use and community character, natural resources, visual impacts, energy, noise, construction, traffic, community facilities, and human health. Based on a detailed review of the KCE Shoreham Project, LIPA concluded that there would be no potential significant adverse environmental impacts associated with the Project and issued a Negative Declaration for the Project.

The BOOOT agreement requires KCE to obtain all of the required State and local permits and reach a key Project construction milestone by a certain date subject to "Excused Failure Days." Unlike KCE Kings, there is no moratorium impacting the KCE Shoreham Project. Similar to KCE Kings BOOOT, the agreement for KCE Shoreham is pay-for-performance contract, includes specified liquidated damages for failure to meet construction milestones, and has a minimum roundtrip efficiency guarantee. LIPA has the right to terminate the agreement in the event of chronic underperformance.

LIPA will purchase a guaranteed 50 MW and 200 MWh of production from the Project during the first seven years and provide the charging energy. To meet the guaranteed amounts of Contract Capacity and related energy storage capability, KCE will overbuild the Project at commercial operation and then augment the Project during the first seven years as necessary by adding additional battery cabinets as the batteries degrade, to continue to meet the performance guarantees. Prior to the seven-year anniversary of commercial operation, LIPA will need to decide whether to purchase the Project or to continue purchasing the energy storage products from KCE

under the terms of the BOOOT. If LIPA decides to purchase the Project, the terms and conditions of the purchase are set forth in the Asset Purchase Agreement which is an appendix in the BOOOT for the remaining 13 years. If LIPA purchases the Project, KCE is required to provide training to LIPA and its contractors who would operate and maintain the Project. Under this option, LIPA would be responsible for deciding whether to augment the Project to maintain its 50 MW of capacity as it degrades over its remaining project life.

The estimated net cost of the KCE Shoreham Project for the first year is approximately \$2.9 million or approximately \$0.11 per month for the average LIPA residential ratepayer.

### **KCE Shoreham Lease**

LIPA will lease the project site for KCE Shoreham under a 20-year agreement that will terminate after seven years if LIPA exercises its option to purchase the Project. KCE has an option to extend the lease for five additional years following the 20-year term (if LIPA does not exercise its purchase option in year seven) and pay a 7.5% premium over the fair market value rent determined by a new independent third party appraisal performed prior to the end of the 20<sup>th</sup> year. The lease contains cross default provisions such that it terminates if LIPA terminates the BOOOT Agreement for KCE's fault. In certain other instances of BOOOT termination, KCE has the option to continue the lease. It also requires KCE Shoreham to restore the Project site to its original condition at the end of the lease term if LIPA does not exercise its option to purchase the Project. KCE Shoreham will pay LIPA the fair market rental value which will be determined by an independent third party appraiser with this rate escalation. LIPA will reimburse this rent to KCE during the term of the BOOOT. The lease has LIPA's standard commercial terms including requirements for insurance coverage and indemnification protections from hazardous materials brought on site by KCE, fires, and personal and third-party liability. In conjunction with the KCE Shoreham Lease, LIPA will grant KCE Shoreham an easement for a cable to connect the Project to LIPA's Shoreham substation.

### **Recommendation**

Based on the foregoing, I recommend approval of the above-requested action by adoption of a resolution in the form of the attached draft resolution

### **Attachments**

**Exhibit "A"** Resolution



**AUTHORIZATION TO EXECUTE THE ENERGY STORAGE BUILD-OWN-OPERATE-OPTIONAL TRANSFER AGREEMENT WITH KCE NY 29, LLC (“KCE KINGS”) AND WITH KCE NY 31, LLC (“KCE SHOREHAM”) AND THE AGREEMENT OF LEASE WITH KCE SHOREHAM**

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**WHEREAS**, pursuant to the April 30, 2021 Request for Proposals for Bulk Energy Storage issued and administered by PSEG Long Island, LIPA staff selected proposals by Key Capture Energy (“KCE”) to develop (i) a 79 MW /316 MWh energy storage project (“KCE Kings”) in the Town of Islip, NY and (ii) a 50 MW /200 MWh energy storage project (“KCE Shoreham”) in the Town of Brookhaven, NY; and

**WHEREAS**, each Project would be a valuable energy storage resource that will contribute to LIPA meeting the clean energy goals established by the Trustees and constitute LIPA’s contribution toward the State’s meeting of the clean energy goals of the Climate Leadership and Community Protection Act; and

**WHEREAS**, LIPA and KCE have negotiated the major terms and conditions of a separate Build-Own-Operate-Optional Agreement (“BOOOT”) for each KCE Kings and KCE Shoreham under which KCE will construct, own, operate and maintain each Project and sell the Project capacity to LIPA for a term of seven years, with an option for LIPA at that time to either (i) purchase, operate, and maintain the Project under the terms of the Asset Purchase Agreement (“APA”), included as an appendix in the BOOOT, or (ii) continue to purchase Project capacity from KCE for 13 years;

**WHEREAS**, LIPA and KCE have negotiated the major terms and conditions of an Agreement of Lease (“Lease”) and easement for the KCE Shoreham site under which KCE can occupy the site to develop the Project to fulfill its obligations under the BOOOT;

**NOW, THEREFORE, BE IT RESOLVED**, that the Acting Chief Executive Officer and his designee be and hereby are authorized to execute on behalf of the Authority and effect the BOOOT with KCE NY 29, LLC (“KCE Kings”) and the BOOOT with KCE NY 31, LLC (“KCE Shoreham”) and the Agreement of Lease and the easement with KCE Shoreham and other related agreements and arrangements, consistent with the terms of the accompanying memorandum, and to perform such further acts and deeds as may be necessary, convenient, or appropriate, in the judgment of the Acting Chief Executive Officer or his designee, to implement LIPA’s purchase of energy storage products and services produced by KCE Kings and KCE Shoreham.

Dated: December 18, 2024