



Appendix 3.13-2

Total Site Energy Analysis

Sands Casino

Total Site Energy Analysis

JB&B | May 8, 2024

January 13, 2023



AGENDA

- Executive Summary
- Energy Model Inputs
- Energy Model Results
- NYS Energy Code Compliance

Executive Summary

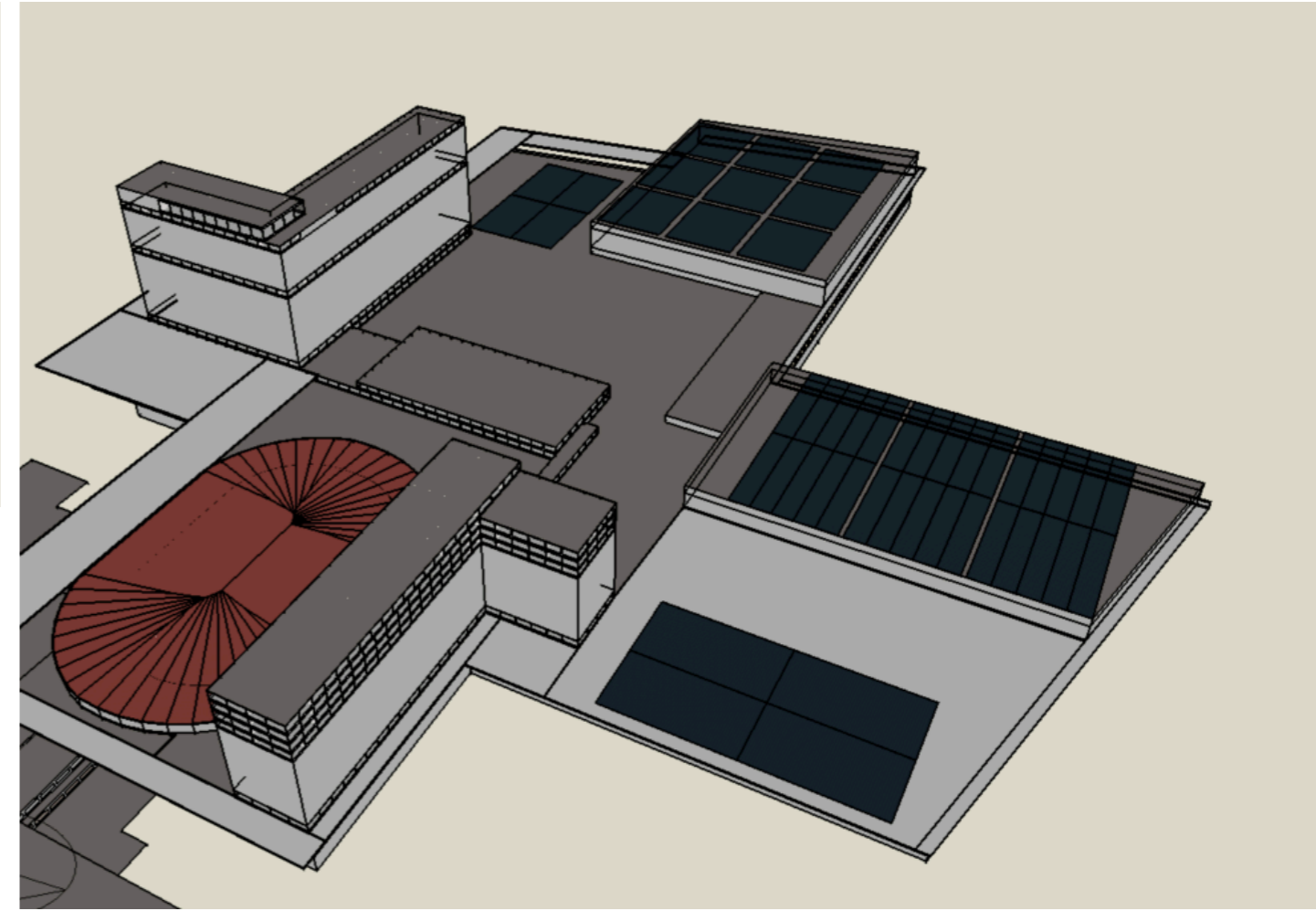
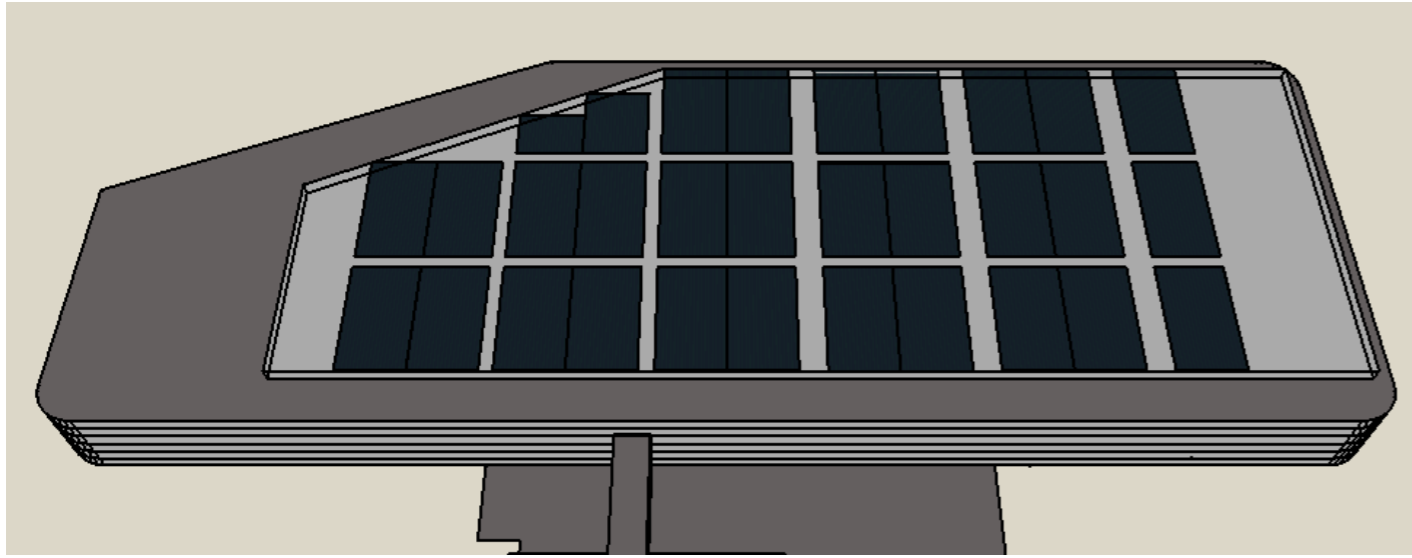
Sands New York Full Site Buildout

- 7,500,000 sf consisting of Hotel, Amenities, Food & Beverage, Retail, Casino, MICE, Entertainment, Support, and Transportation
- 8,400 sf of PV Arrays

Energy Model Developed to Estimate Annual Energy Consumption and Demonstrate Code Compliance

- Estimated annual energy consumption of 131,415,000 kwh
- Estimated 8% of annual energy will be sourced from PV arrays
- NYSECC 2020 limits the amount of renewable energy a project can credit to 5%
- Full Site buildout estimated to beat the code baseline model by 8%

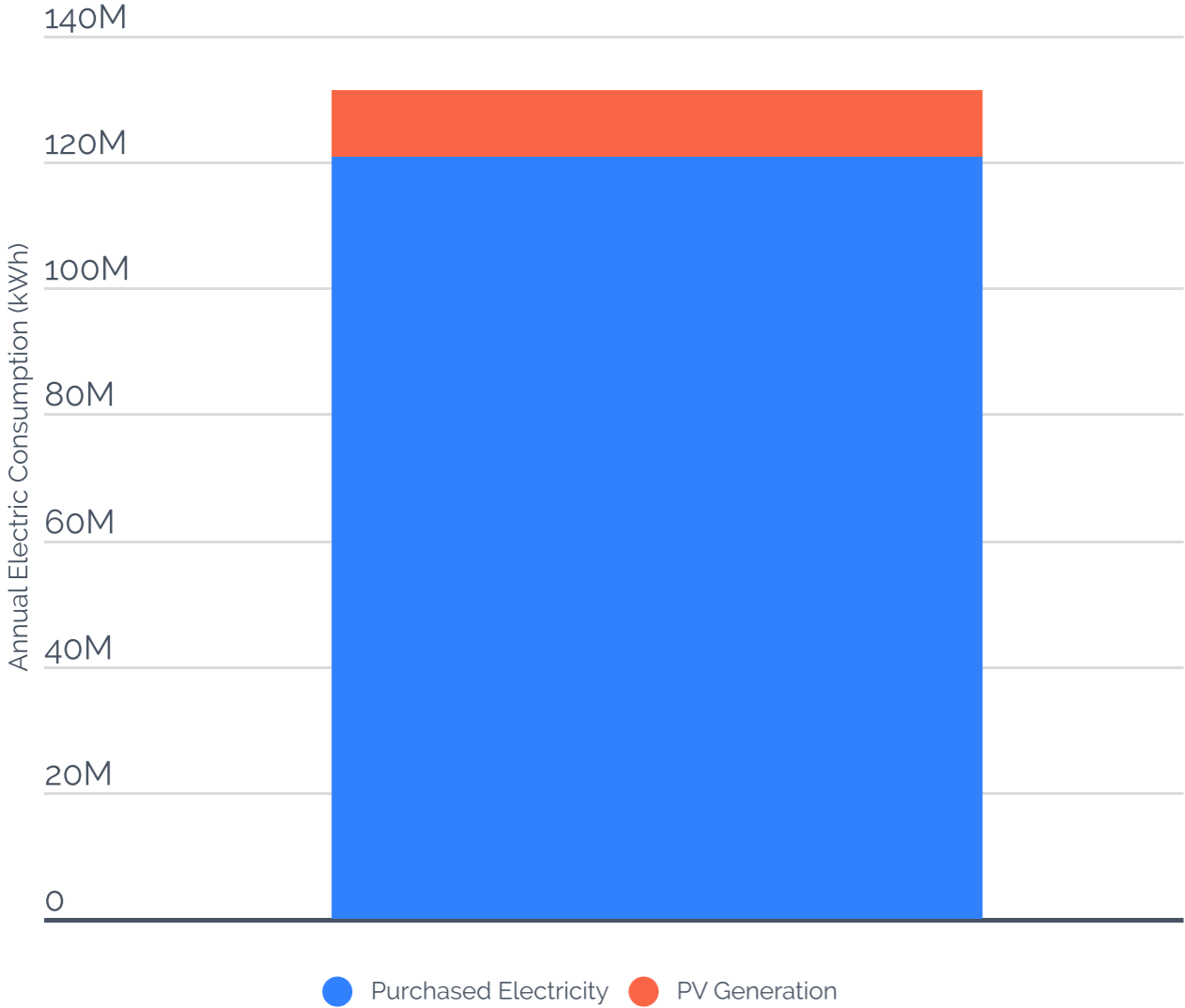
Total Site Energy Analysis - Energy Model Inputs



Category	Array Size (kW)
Parking A	3,134
MICE	895
Theater	714
Parking B	1,846
Parking C	1,812
TOTAL	8,401

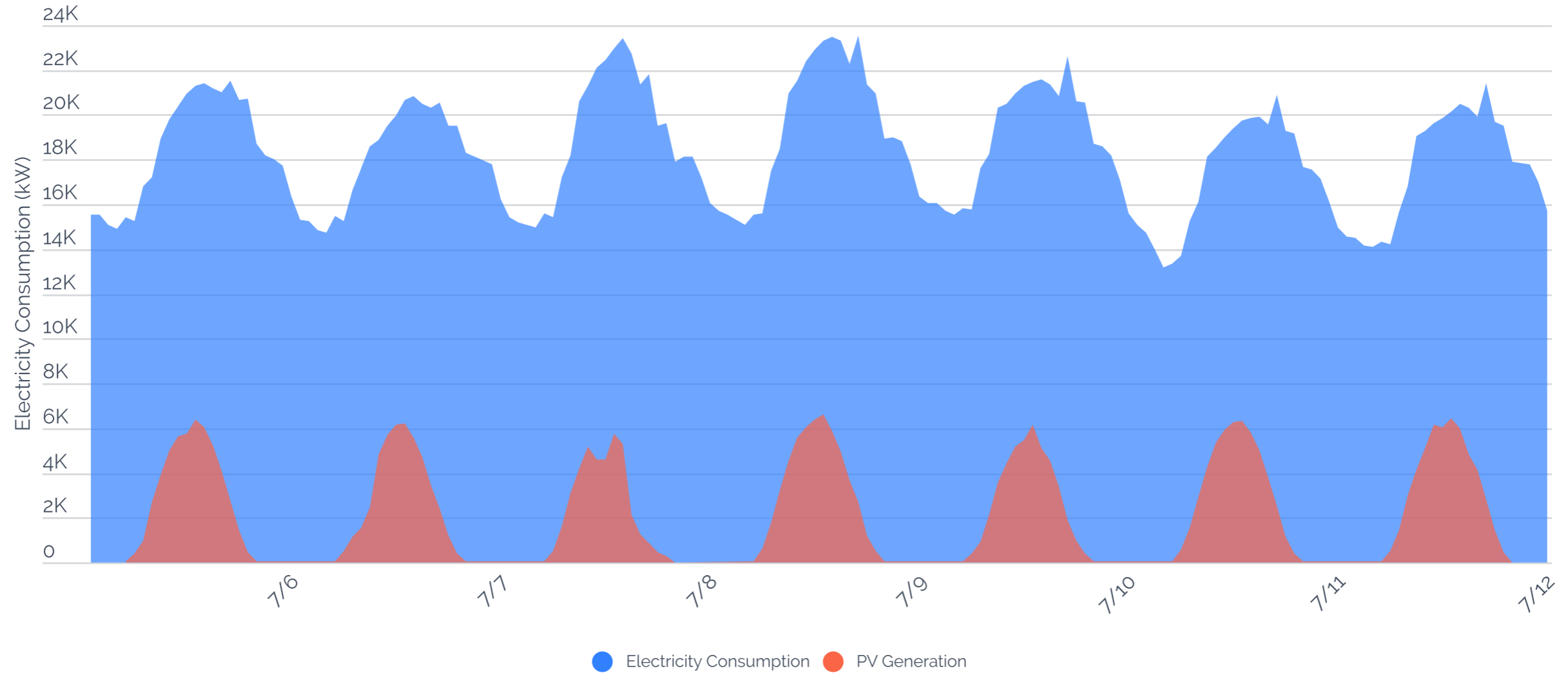
The Proposed PV System is based on the Maxeon 6 solar Panel series and a net panel efficiency of 18.75%

Total Site Energy Analysis - Energy Results

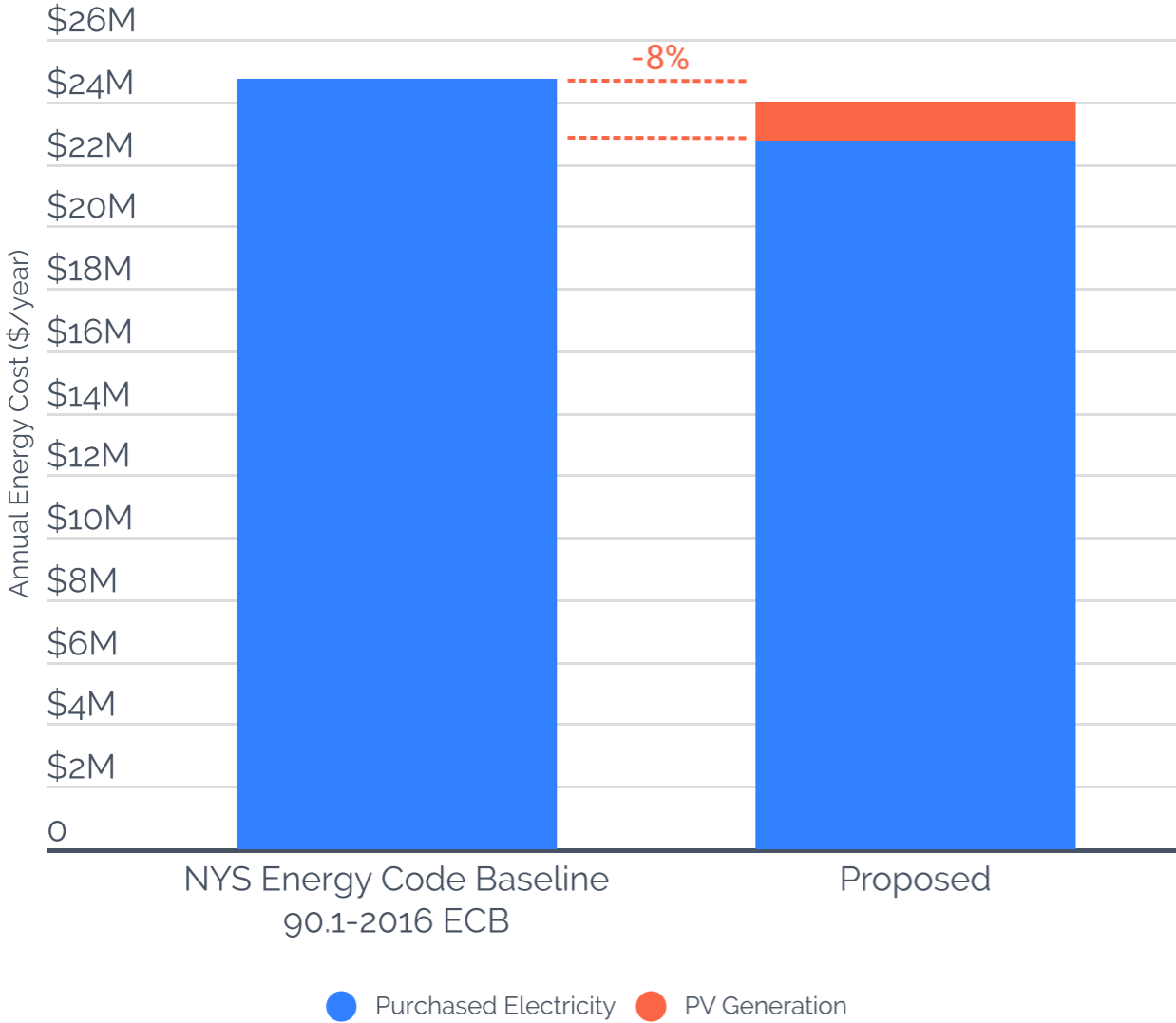


Category	Phase 1	Phase 2	Total
Total Estimated Annual Electricity Consumption (kWh)	41,455,000	89,960,000	131,415,000
Total Estimated PV Generation (kWh)	3,514,000	6,873,000	10,387,000
Estimated % of Total Annual Electricity Generated from PV	8%	8%	8%

Total Site Energy Analysis - Summer Design Week



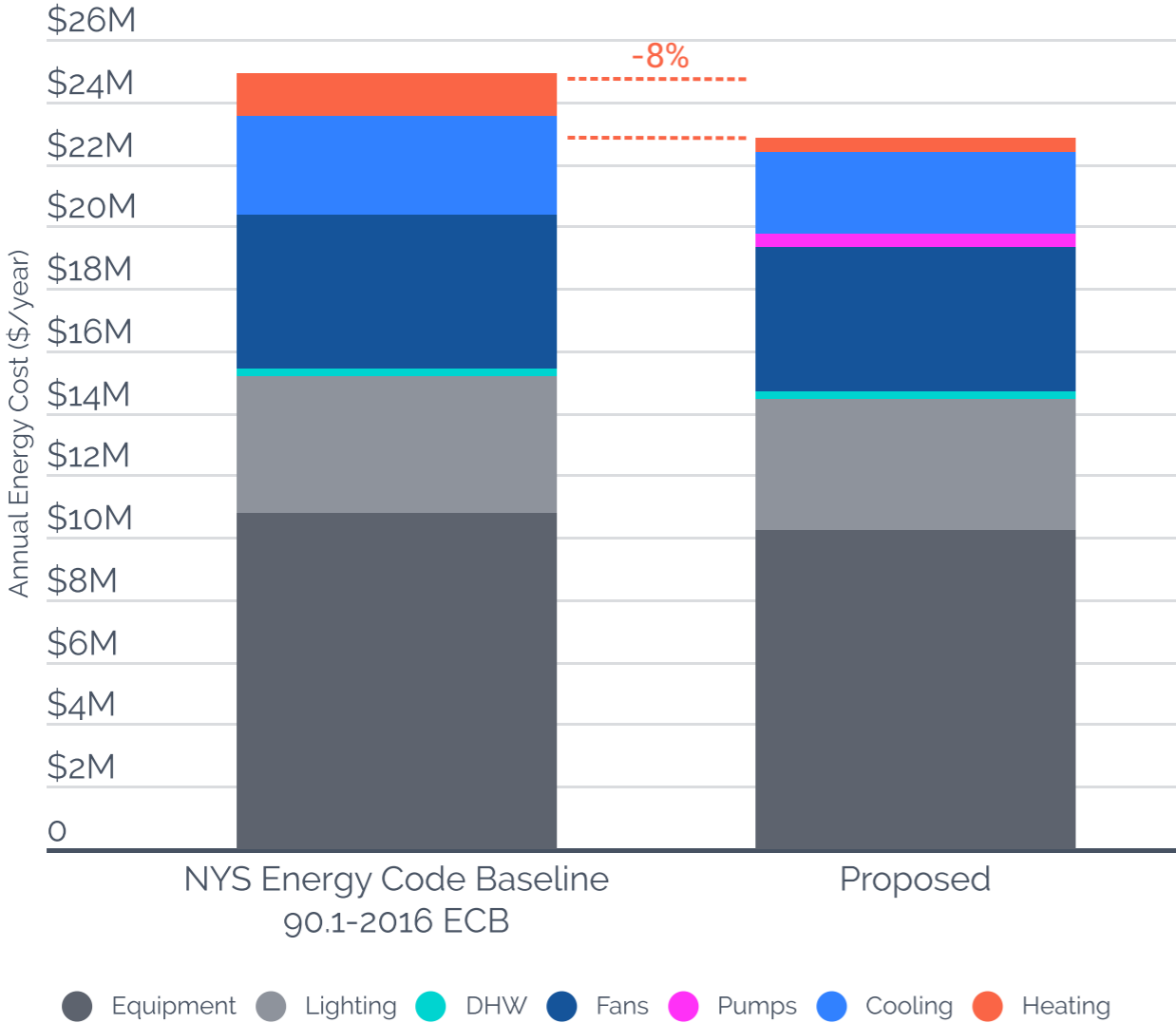
Total Site Energy Analysis - NYSECC 2020 Energy Code Compliance



Category	NYS Energy Code Baseline	Proposed
Total Estimated Annual Electricity Consumption (kWh)	135,491,000	131,415,000
Total Estimated Annual Energy Cost (\$)	\$24,741,000	\$22,759,000
Estimated % Better than Code	-	8%

NYSECC 2020 limits the amount of renewable energy the proposed building can account for to 5%. PV System contributes to 5% of the total 8% margin better than code.

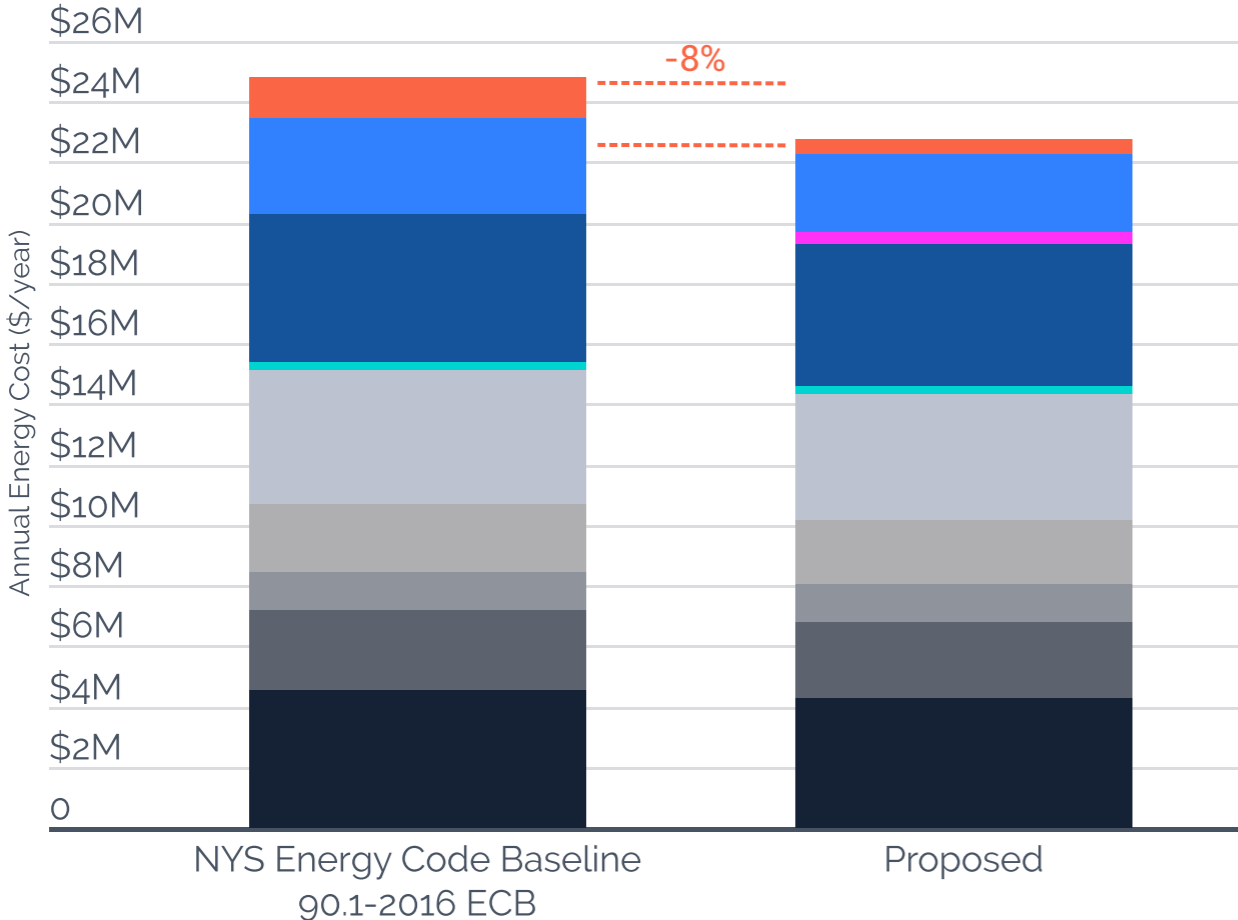
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- Gaming Equipment
- Electric/IT Rooms
- Parking EV Charging
- All Other Plug Loads
- Lighting
- DHW
- Fans
- Pumps
- Cooling
- Heating

Energy Modeling Inputs - NYSECC 2020 Energy Code Compliance

Space Type	Area (sf)	Peak Equipment Power Density (W/sf)	Annual Plug Load Electricity Consumption (kWh)
Gaming	472,459	8	24,959,000
Elec/IT	48,000	45	14,399,000
Parking Garage	3,548,828	0.23 (EV Charging)	7,196,000
Guestroom	1,111,665	0.5	2,532,000
Back of House	454,535	2.07	2,838,000
F&B	147,292	15	2,326,000
Mechanical Room	495,406	1	1,469,000
Circulation	835,706	0.34	1,215,000
Theater	195,000	1	776,000
Retail	31,200	3.78	354,000
Ballroom	102,740	1	172,000
Lobby	20,000	1	142,000
Pool	30,000	3	127,000
Spa	28,000	3	114,000
Fitness	6,000	3	25,000