



EV Make Ready Program

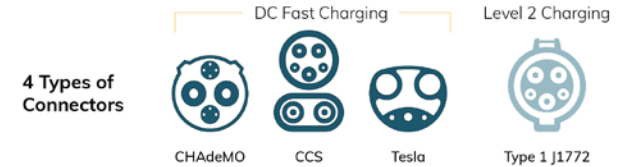
EV 101

• Levels of Charging

- **Level 1** (Approximately 8-20 hours) – J1772
 - Uses ordinary household current with a standard outlet (120V)
- **Level 2** (Approximately 4-8 hours) – J1772
 - Supplies 240V, like for an electric dryer or oven
- **Direct Current Fast Charger (DCFC)** (Less than 20 minutes for an 80% charge) – CCS/CHAdeMO
 - Supplies 480V

• Vehicle Types

- Battery Electric Vehicles (BEV)
 - Can use Level 1, Level 2 or DCFC
- Plug-In Hybrid Electric Vehicles (PHEV)
 - Mainly only use Level 1 or Level 2
- Hybrid Electric Vehicles
 - These do not plug into anything



Port: The number of simultaneously operable cable-connections between the **Charger** and the EV.

Charger: The physical cabinet that powers the **Ports** and provides the user interface. May be multiple **Ports per Charger**.

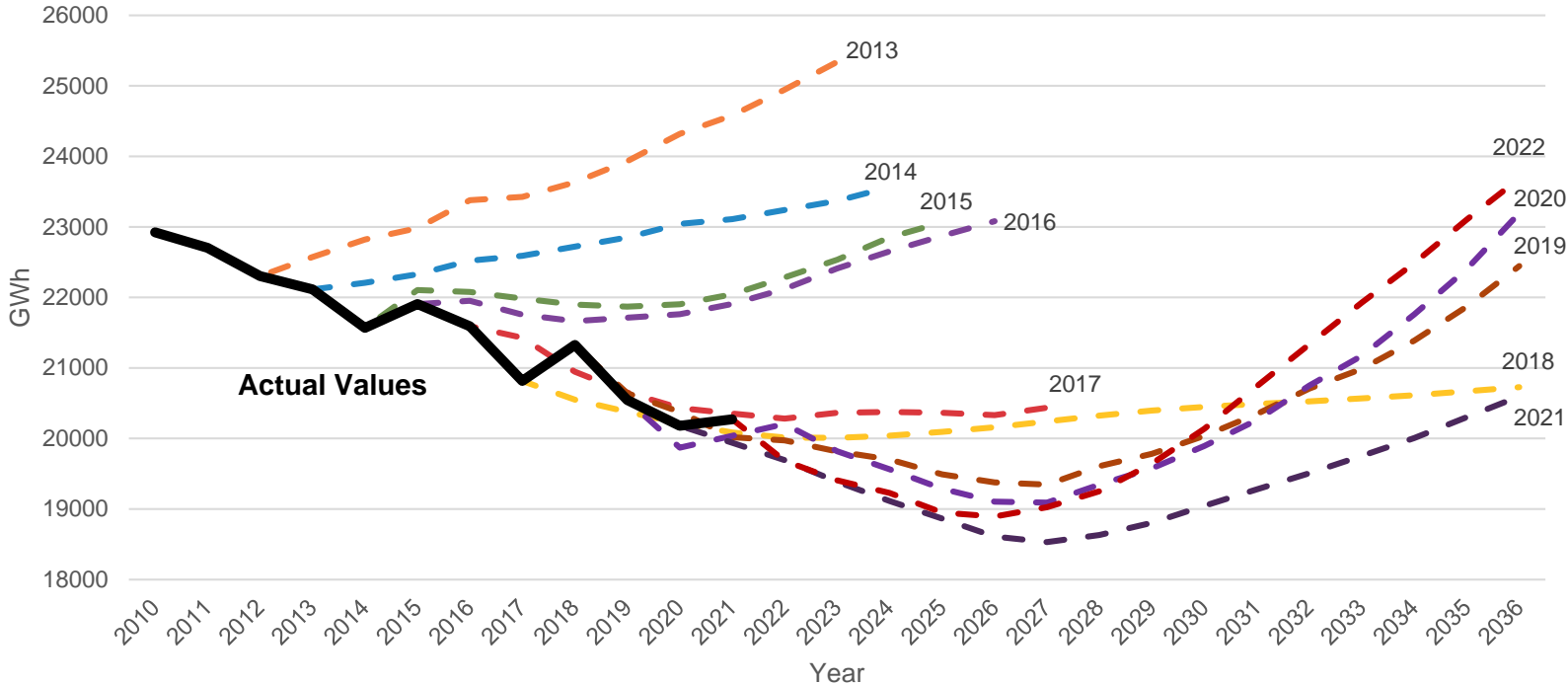


Location: Physical address where equipment is sited and charging takes place. Usually multiple **Chargers** per **Location**. Often synonymous with "Site".

Success Story: Annual Energy Forecast

- Long Island’s Annual Energy Forecast increases while peak demand decreases
- Optimizes grid use

NYISO Gold Book Baseline Annual Energy Forecasts

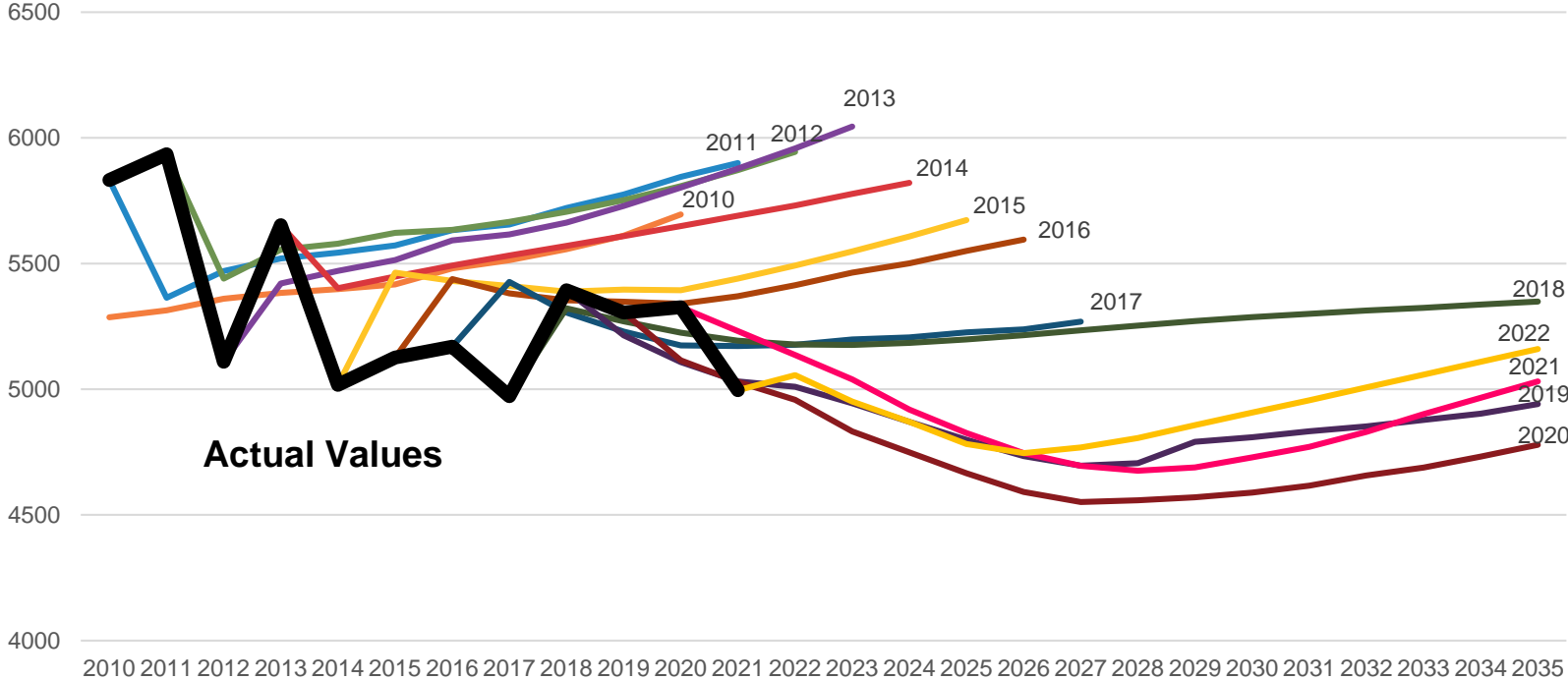


— 2013 — 2014 — 2015 — 2016 — 2017 — 2018 — 2019 — 2020 — 2021 — 2022

Success Story: Annual Peak Load Forecast

- Long Island’s Annual Energy Forecast increases while peak demand decreases
- Optimizes grid use and improves system efficiency

Coincident Summer Peak Demand for Zone K (MW)



- 2010
- 2011
- 2012
- 2013
- 2014
- 2015
- 2016
- 2017
- 2018
- 2019
- 2020
- 2021
- 2022
- Actual

New York State Goals

- **As part of the NY Climate Act, NYS's goal is to have 850,000 EV's on the road by 2025**
 - Long Island's portion is 21% of the goal (tied to vehicle registration) – 178,500 EV's by 2025
 - As of Feb 2023, there are 38,000 EVs on LI (21% of goal)
- **New York State's fiscal year 2022-2023 budget established a nation-leading commitment for all new school buses purchased to be zero emission by 2027 and all school buses in operation to be electric by 2035.**
- **New York has signed onto the Advanced Clean Trucks (ACT) rule**
 - The legislation sets a statutory goal for all new light-duty vehicles sold in the Empire State to be zero-emissions by 2035 and all new medium-and heavy-duty vehicles by 2045.

PSEG Long Island's Efforts to Date

- **Electric Vehicle Make Ready Program**
 - Offers incentives to developers/customers to install public/private EV charging stations to help promote adoption of electric light-duty vehicles (LDV)
 - Help ease fears of range anxiety
 - Offer higher incentives for fast charging stations and for those installed in Low-Income / Disadvantaged Communities
 - Funding out to 2025, with a goal to add 4,247 Level 2 ports, and 498 DCFC ports on Long Island
- **Medium-duty and Heavy-duty Vehicle (MHDV) Make-Ready Study**
 - Commissioned in Feb 2023
 - Identified the existing MHDV fleets on Long Island
 - Policies and Market Trends that show how quickly vehicles will electrify
 - Grid Impacts and Energy Requirements to serve these vehicles
 - Indicates how many electric MHDV's will be on the road in the future
 - Will help PSEGLI develop a program specific to fleets in the 2023 Utility 2.0 Filing
- **Fleet Advisory Services RFP**
 - Solicitation currently out to procure a web-based tool that customers/fleet operators can use to assess their fleet electrification plans
 - Aiming for this to be available Q3 2023

EV Make Ready Program

Program Overview



What is it?

- **Authorized under 2020 DPS Order (Case 18-E-0138)**
 - Orders NYS Utilities to offer incentives to developers to promote EV adoption
 - Contributes to NYS Climate Act (aka CLCPA) goals
 - EV Adoption necessary to meet State goal of 850,000 EVs = 178,500 registered EVs on Long Island by end of 2025 (21%)
 - As of Feb 2023, there are 38,000 EVs on LI (21% of goal)
- **Our program is similar in setup to the NY Joint Utility Make Ready Program**
- **Funding through 2025**
- **Port targets through 2025:**
 - 4,247 L2 Ports
 - 498 DCFC Ports

Program Goals

- **Build the Charging Station Infrastructure to animate EV adoption on Long Island**
- **Reduce Concerns about range anxiety and provide incentives for developers to install charging stations**
- **Geographically optimize where chargers are installed and ensure they serve all of our communities**
- **Key considerations include charger type, quantity of charger & ports, power output, location, and communities served**
 - Benefit ratepayers across the territory, targeting equitable return on investment
 - Service territory covers Far Rockaway, Nassau, and Suffolk



Build charging station infrastructure



Decrease range anxiety



Incentives to install charging stations



Service territory coverage

EV Make Ready Study

In 2020, PSEGLI conducted a study with a 3rd party to determine what EV adoption looked like presently, what it would look like in the future, where people drive, and where chargers had to be installed

Light-Duty Vehicle AADT

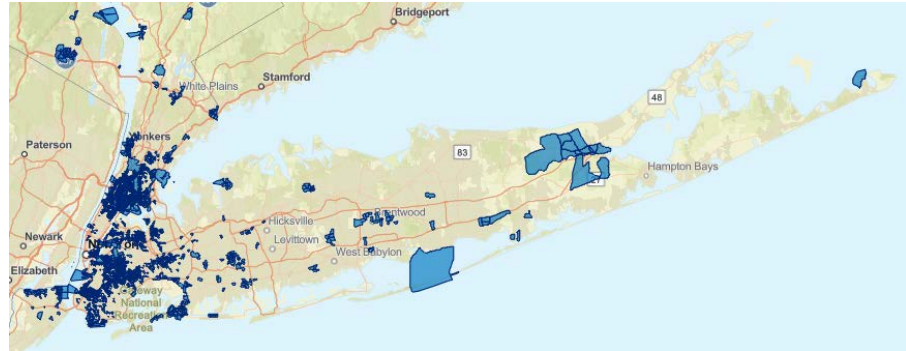
- ≤19,350
- ≤30,348
- ≤52,389
- ≤124,360
- ≤199,861



	Total	Corridor	Com - Gen. Use	Com - LI/EJ	Com - Dest.
Total New DCFC Locations:	130	54	59	14	3
Total New DCFC Ports:	498	270	177	42	9

	Total	Workplace L2	Public-L2	LI/EJ - L2
Total New L2 Locations:	708	467	209	32
Total New L2 Ports:	4,247	2,803	1,254	190

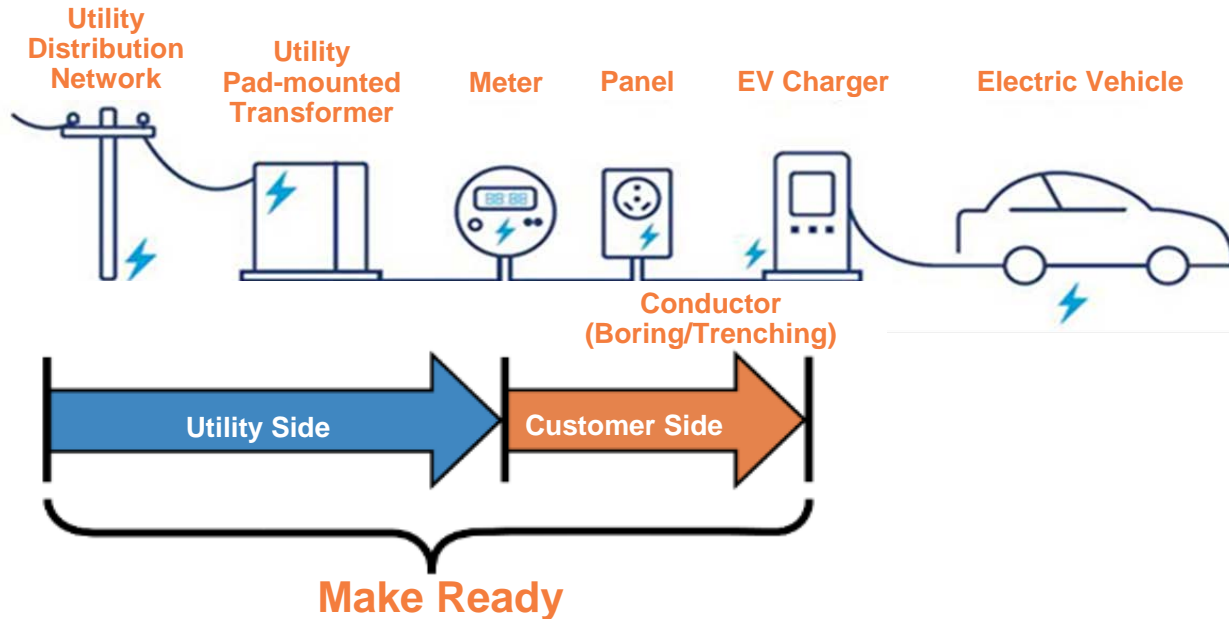
Environmental Justice/Low Income (EJ/LI) Communities




EVMR - USMR | CSMR

- **Utility Side Make Ready (USMR):** Distribution infrastructure equipment up to the meter (aka Contribution in Aid of Construction – CIAC))
- **Customer Side Make Ready (CSMR):** Infrastructure equipment from the meter up to the EV Charger

Note: The EV Charger is not eligible for incentives under the EV Make Ready Program



EVMR Program – Cost Components

	PSEG Long Island Make-Ready Program Components			
				
	Utility-Side Infrastructure	Customer-Side Infrastructure	EVSE Hardware	Other Soft Costs
Component Example	<ul style="list-style-type: none"> • Distribution Network • Transformers • Meters • Conductor 	<ul style="list-style-type: none"> • Panel • Conductor • Boring • Trenching • Conduit 	<ul style="list-style-type: none"> • Charging Station • Network Equipment 	<ul style="list-style-type: none"> • Signs • Bollard • Network • Maintenance • Assoc. Fees
Paying Entity	PSEG Long Island Make-Ready Program (Covers up to 50%, 90%, 100%)*		Customer Responsibility	
	Potential Customer Contribution		NYSERDA (When available)	
Owning Entity	PSEG Long Island	Customer Responsibility		

EVMR Program – Incentive Structure

Location Type	100% Tier	90% Tier	50% Tier
DCFC Corridor Within 1 mile of major roadway	<ul style="list-style-type: none"> 4+ plugs simultaneously operable, each delivering a min of 150 kW or higher Universal Plugs Future-proofed infrastructure For Public-Use Accepts Universal Forms of Payment 	<ul style="list-style-type: none"> 2+ plugs simultaneously operable, delivering less than 150 kW Proprietary plugs matched one-for-one with Universal Plugs of equal or higher power For Public-Use Accepts Universal Forms of Payment 	<ul style="list-style-type: none"> 2+ plugs simultaneously operable, each delivering less than 150 kW Proprietary plugs that meet all other requirements but are not matched one-for-one For Private-Use Does not accept Universal Forms of Payment
DCFC Community Beyond 1 mile of major roadway	<ul style="list-style-type: none"> 2+ plugs simultaneously operable, each delivering a min of 50 kW or higher Universal Plugs Located within <1 mile of a Disadvantaged Community For Public-Use Accepts Universal Forms of Payment 	<ul style="list-style-type: none"> 2+ plugs simultaneously operable, each delivering a min of 50 kW or higher Proprietary plugs matched one-for-one with Universal Plugs of equal or higher power For Public-Use Accepts Universal Forms of Payment 	<ul style="list-style-type: none"> 2+ plugs simultaneously operable, each delivering a min of 50 kW or higher Proprietary plugs that meet all other requirements but are not matched one-for-one For Private-Use Does not accept Universal Forms of Payment
Level 2	<ul style="list-style-type: none"> 2+ plugs simultaneously operable (no kW requirement) Universal Plugs Located within <1 mile of a Disadvantaged Community For Public-Use Accepts Universal Forms of Payment 	<ul style="list-style-type: none"> 2+ plugs simultaneously operable (no kW requirement) Universal Plugs For Public-Use Accepts Universal Forms of Payment 	<ul style="list-style-type: none"> 2+ plugs simultaneously operable (no kW requirement) Proprietary ports that meet all other requirements but are not matched one-for-one For Private-Use Does not accept Universal Forms of Payment

Incentive Caps

- **Maximum Power**
 - DCFC – 2 MW
 - Level 2 – 100 kW
 - *Sites may be subject to a grid impact review*
- **Incentive Caps**
 - DCFC Corridor - \$529,302
 - DCFC Community - \$205,623
 - L2 - \$30,366
- **Entity**
 - No more than 20% of the overall budget should go towards any one entity



Incentive Calculations

- **Incentive Formula**

$$\text{Calculated Incentive} = ((\text{USMR} + \text{CSMR}) * \text{Tier \%}) - \text{USMR}$$

- The actual incentive is the lesser of the calculated incentive and incentive cap
- Paid upon site energization

- **L2**

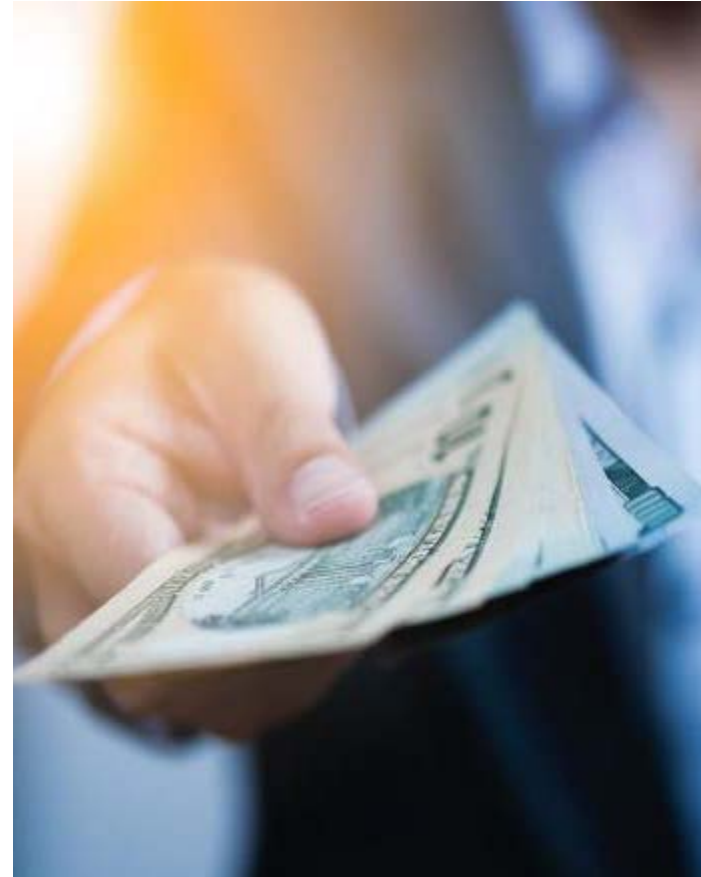
- Cash incentives paid following completion of energization

- **DCFC**

- Lease-to-Buy Model for large sites
 - CSMR equipment will be capitalized by LIPA over 10 year term which will then be handed back to the customer
 - Customer agrees to maintain CSMR equipment during term

- **Hybrid Sites (Mix of L2 & DCFC)**

- Cash Rebate or Lease-to-Buy driven by port majority and total project cost (case-by-case basis)



EVMR – L2 Scenario 1

USMR: \$1,000

CSMR: \$40,000

Incentive Tier: 100%

- EVMR Total: \$41,000, capped at \$30,366 (Level 2)

$$\text{Calculated Incentive} = ((\text{USMR} + \text{CSMR}) * \text{Tier \%}) - \text{USMR}$$

$$\text{Calculated Incentive} = ((\$1,000 + \$40,000) * 100\%) - \$1,000$$

Calculated Incentive = \$40,000

Eligible Incentive = \$30,366

- Calculated incentive is more than the incentive cap (\$30,366)
- Developer receives \$30,366 as a cash rebate and their out-of-pocket costs amount to \$9,634
- LIPA assumes ownership of USMR
- Developer assumes ownership of CSMR

EVMR – L2 Scenario 2

USMR: \$0

CSMR: \$30,000

Incentive Tier: 90%

- EVMR Total: \$30,000, capped at \$30,366 (Level 2)

Calculated Incentive = ((USMR + CSMR) * Tier %) – USMR

Calculated Incentive = ((\$0 + \$30,000) * 90%) – \$0

Calculated Incentive = \$27,000

Rebate Incentive = \$27,000

- Developer receives \$27,000 as a cash rebate and their out-of-pocket costs amount to \$3,000
- LIPA assumes ownership of USMR
- Developer assumes ownership of CSMR

EVMR – L2 Scenario 3

USMR: \$3,000

CSMR: \$20,000

Incentive Tier: 50%

- EVMR Total: \$23,000, capped at \$30,366 (Level 2)

Calculated Incentive = ((USMR + CSMR) * Tier %) – USMR

Calculated Incentive = ((\$3,000 + \$20,000) * 50%) – \$3,000

Calculated Incentive = \$8,500

Rebate Incentive = \$8,500

- Developer receives \$8,500 as a cash rebate and their out-of-pocket costs amount to \$11,500
- LIPA assumes ownership of USMR
- Developer assumes ownership of CSMR

EVMR – DCFC Scenario 1

USMR: \$20,000

CSMR: \$200,000

Incentive Tier: 90%

- EVMR Total: \$220,000, capped at \$205,623 (Community)

$$\text{Calculated Incentive} = ((\text{USMR} + \text{CSMR}) * \text{Tier \%}) - \text{USMR}$$

$$\text{Calculated Incentive} = ((\$20,000 + \$200,000) * 90\%) - \$20,000$$

Calculated Incentive = \$178,000

- Developer is eligible for \$178,000 in incentives which goes towards the CSMR
- PSEG Long Island would enter into a Lease Agreement with the EV Station Owner and issue a check for the full \$200,000 (CSMR)
 - The difference between the \$200K - \$178K = \$22K would then be paid by the customer on Day 1 in the form of a check to PSEG Long Island
 - PSEGLI assumes ownership of CSMR over 10 year period which at the end of the term is handed back to the developer
 - EV Station Owner will maintain CSMR equipment, and would receive all revenue/losses associated the EV station

EVMR – DCFC Scenario 2

USMR: \$100,000

CSMR: \$800,000

Incentive Tier: 50%

- EVMR Total: \$900,000, capped at \$529,302 (Corridor)

$$\text{Calculated Incentive} = ((\text{USMR} + \text{CSMR}) * \text{Tier \%}) - \text{USMR}$$

$$\text{Calculated Incentive} = ((\$100,000 + \$800,000) * 50\%) - \$100,000$$

Calculated Incentive = \$350,000

- Developer is eligible for \$350,000 in incentives which goes towards the CSMR
- PSEG Long Island would enter into a Lease Agreement with the EV Station Owner and issue a check for the full \$800,000 (CSMR)
 - The difference between the \$800K - \$350K = \$450K would then be either paid by the customer on Day 1 in the form of a check to PSEG Long Island or can be done in monthly payments with potential fees
 - PSEGLI assumes ownership of CSMR over 10 year period which at the end of the term is handed back to the developer
 - EV Station Owner will maintain CSMR equipment, and would receive all revenue/losses associated the EV station

Operational Requirements

- **Station data collection for minimum of 5 years**

- Fee structure of station
- Total charging revenues per year
- Operating costs per year
- Daily Number of charging sessions per year with start and stop time, peak kW, total kWh
- Port outage information (Reliability)

- **95% Up-Time annually per port**

- **99% Up-Time annually per station, minimum of 50% of the ports available**

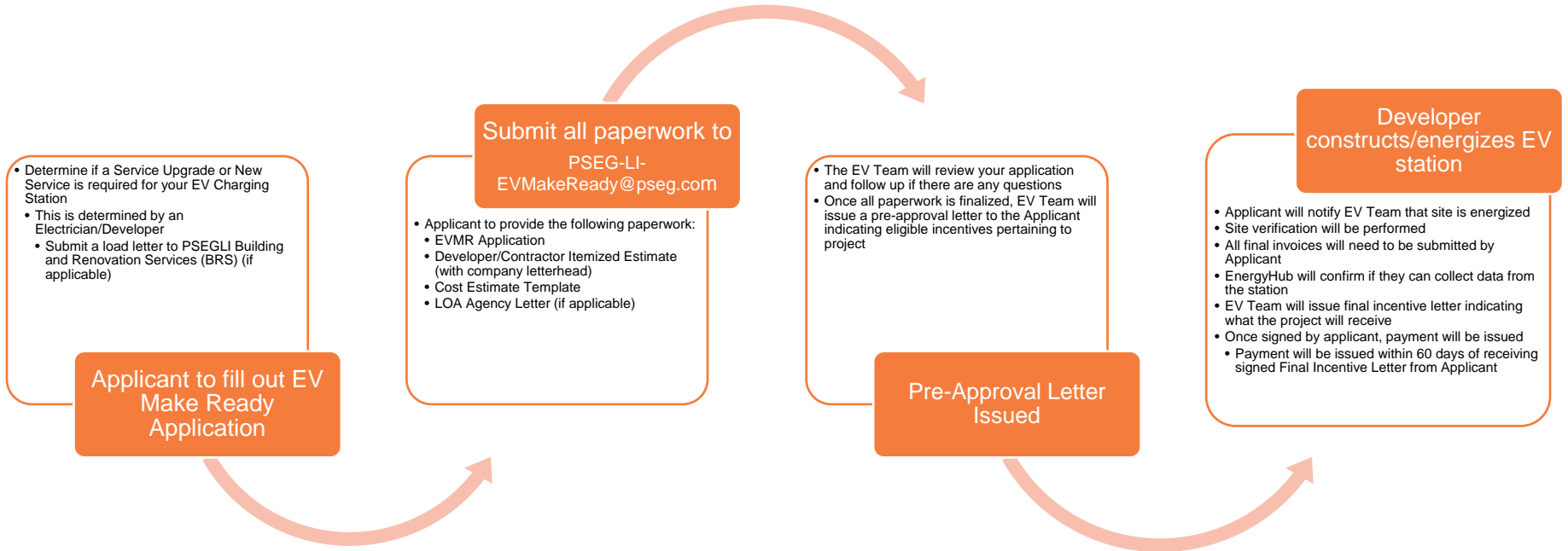
- **Public sites accepting payment must accept a universal form of payment**

- Example: Cash, credit card readers, call toll-free number, or QR codes that connect directly to a payment site
- A mobile app cannot be the only way to pay
 - If you go to a gas station, you do not need a mobile app to pay for gas and you shouldn't either to charge your EV
- Public stations that can't comply with this may be deemed a private station which may yield a 50% incentive tier



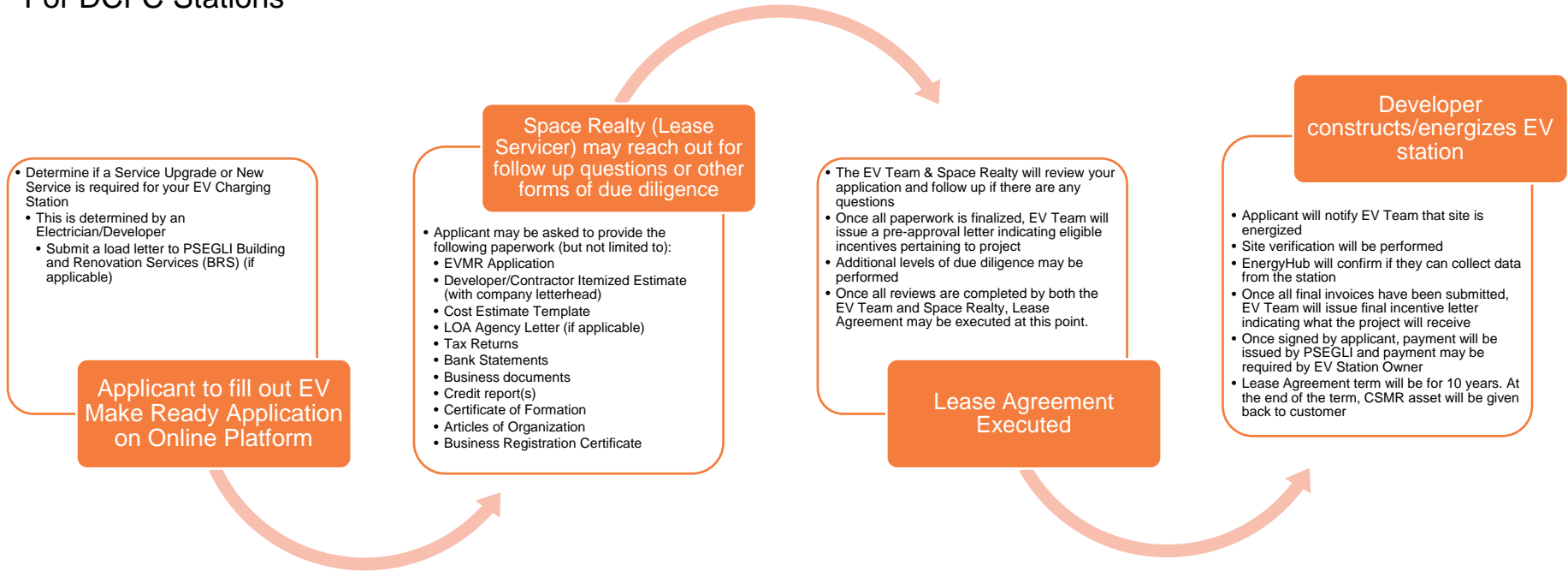
Process Flow

For Level 2 Stations



Process Flow

For DCFC Stations



Note: This process flow is still being developed between PSEGLI and Space Realty for the DCFC Lease Model and this may result in changes at any point

Other Programs and Available Tax Credits

- **DCFC Incentive Program**

- Offered to Public DCFC stations that output 50kW+ as an Off-bill rebate to help offset demand charges

Eligibility Year	Max Incentive	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Total
2019	\$7,000	\$7,000	\$6,000	\$5,000	\$4,000	\$3,000	\$2,000	\$1,000	\$28,000
2020	\$7,000		\$7,000	\$6,000	\$5,000	\$4,000	\$3,000	\$2,000	\$27,000
2021	\$7,000			\$7,000	\$6,000	\$5,000	\$4,000	\$3,000	\$25,000
2022	\$6,000				\$6,000	\$5,000	\$4,000	\$3,000	\$18,000
2023	\$5,000					\$5,000	\$4,000	\$3,000	\$12,000
2024	\$4,000						\$4,000	\$3,000	\$7,000
2025	\$3,000							\$3,000	\$3,000

- For stations that energize in 2023, each plug is eligible for a maximum of \$5,000 (must output 75 kW+)
 - o Each year-after, the incentive decreases by \$1000/plug
 - Program runs until the end of 2025, meaning that stations energized in 2023 would have 3 years of available incentives

- **Alternative fuels and electric vehicle recharging property credit (NYS Tax Credit)**

- The credit for each installation of property is equal to the lesser of \$5,000 or 50% of the cost of property less any cost paid from the proceeds of grants that:
 - o is located in New York State;
 - o is used 50% or more during the tax year in a trade or business carried on in New York State;
 - o constitutes alternative fuels vehicle refueling property or electric vehicle refueling property; and
 - o has not been paid for from the proceeds of grants awarded before January 1, 2015, including grants from the New York State Energy Research and Development Authority or the New York Power Authority.

- **Inflation Reduction Act**

- For commercial uses, the tax credit is 6% with a maximum credit of \$100,000 per unit (up from \$30,000 per property). The equipment must be placed in a low-income community or non-urban area.

Questions?

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