



# INTELLIGENTLY ELECTRIFYING THE PLANET | 2022 Q3 UPDATE

NUVVE.COM



# LEGAL DISCLAIMER

This presentation (this “Presentation”) is provided for information purposes only. No representations or warranties, express or implied are given in, or in respect of, this Presentation. To the fullest extent permitted by law, in no circumstances will Nuvve Holding Corp. (“Nuvve”) or any its respective subsidiaries, stockholders, affiliates, representatives, partners, directors, officers, employees, advisers or agents be responsible or liable for any direct, indirect or consequential loss or loss of profit arising from the use of this Presentation, its contents, its omissions, reliance on the information contained within it, or on opinions communicated in relation thereto or otherwise arising in connection therewith. Industry and market data used in this Presentation have been obtained from third-party industry publications and sources as well as from research reports prepared for other purposes. Nuvve has not independently verified the data obtained from these sources and cannot assure you of the data’s accuracy or completeness. This data is subject to change. In addition, this Presentation does not purport to be all-inclusive or to contain all of the information that may be required to make a full analysis of Nuvve. Viewers of this Presentation should each make their own evaluation of Nuvve and of the relevance and adequacy of the information and should make such other investigations as they deem necessary. Certain statements included in this Presentation that are not historical facts are forward-looking statements for purposes of the safe harbor provisions under the United States Private Securities Litigation Reform Act of 1995. Forward-looking statements generally are accompanied by words such as “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “intend,” “expect,” “should,” “would,” “plan,” “predict,” “potential,” “seem,” “seek,” “future,” “outlook,” “model,” “target,” “goal,” and similar expressions, and are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Forward-looking statements include statements regarding estimates and forecasts of other financial and performance metrics and projections of market opportunities, as well as any other statements that are not related to present factors or current conditions or that are not purely historical. These statements are based on various assumptions, whether or not identified in this Presentation, and on the current expectations of Nuvve’s management. These forward-looking statements are provided for illustrative purposes only and are not intended to serve as, and must not be relied on by, any investor as a guarantee, an assurance, a prediction or a definitive statement of fact or probability. Actual events and circumstances are difficult or impossible to predict and will differ from those expressed or implied by these forward-looking statements. Many actual events and circumstances are beyond the control of Nuvve. These forward-looking statements are subject to a number of risks and uncertainties, including changes in domestic and foreign business, market, financial, political and legal conditions; risks relating to the uncertainty of Nuvve’s projected financial information; risks related to the organic and inorganic growth of Nuvve’s business and the timing of expected business milestones; the effects of competition on Nuvve’s future business; the ability of Nuvve to obtain any necessary additional financing in the future; and those factors discussed in documents filed by Nuvve with the Securities and Exchange Commission (“SEC”). If any of these risks materialize or Nuvve’s management’s assumptions prove incorrect, actual results could differ materially from the results implied by these forward-looking statements. There may be additional risks that presently are unknown to Nuvve or that Nuvve currently believes are immaterial that could also cause actual results to differ from those contained in the forward-looking statements. In addition, forward-looking statements reflect Nuvve’s expectations, plans or forecasts of future events and views as of the date of this Presentation. Nuvve anticipates that subsequent events and developments will cause Nuvve’s assessments to change. However, while Nuvve may elect to update these forward-looking statements at some point in the future, Nuvve specifically disclaims any obligation to do so, except as required by law. These forward-looking statements should not be relied upon as representing Nuvve’s assessments as of any date subsequent to the date of this Presentation. Accordingly, undue reliance should not be placed upon the forward-looking statements. This Presentation contains trademarks, service marks, trade names and copyrights of Nuvve and other companies, which are the property of their respective owners.



# TABLE OF CONTENTS

1. [Company Overview](#)
2. [V2G Market Landscape](#)
3. [Key Investment Considerations](#)
4. [Business Overview](#)
5. [Q2 Updates](#)
6. [Appendix](#)



# COMPANY OVERVIEW



# NUVVE SITS AT THE INTERSECTION OF TRANSPORT & ENERGY

We are introducing a new model for electrification through our intelligent energy platform by increasing the utilization of electric vehicles (EVs) and turning them into valuable earning assets, thereby reducing their total cost of ownership (TCO). This helps the grid become more resilient while accelerating the world's transition to clean energy.



# OUR PURPOSE

To intelligently electrify the planet, beginning with transportation.

# OUR VISION

Intelligently connecting the world's batteries so everyone has an opportunity to share in the benefits of an electrified world.

# WHAT WE DO

Combining the world's most advanced vehicle-to-grid (V2G) technology and our ecosystem of partners, we dynamically manage power among EV batteries and the grid.

# THE NUVVE V2G PROMISE



Drivers always have enough energy to drive



Customers enjoy cost savings and revenue generation opportunities

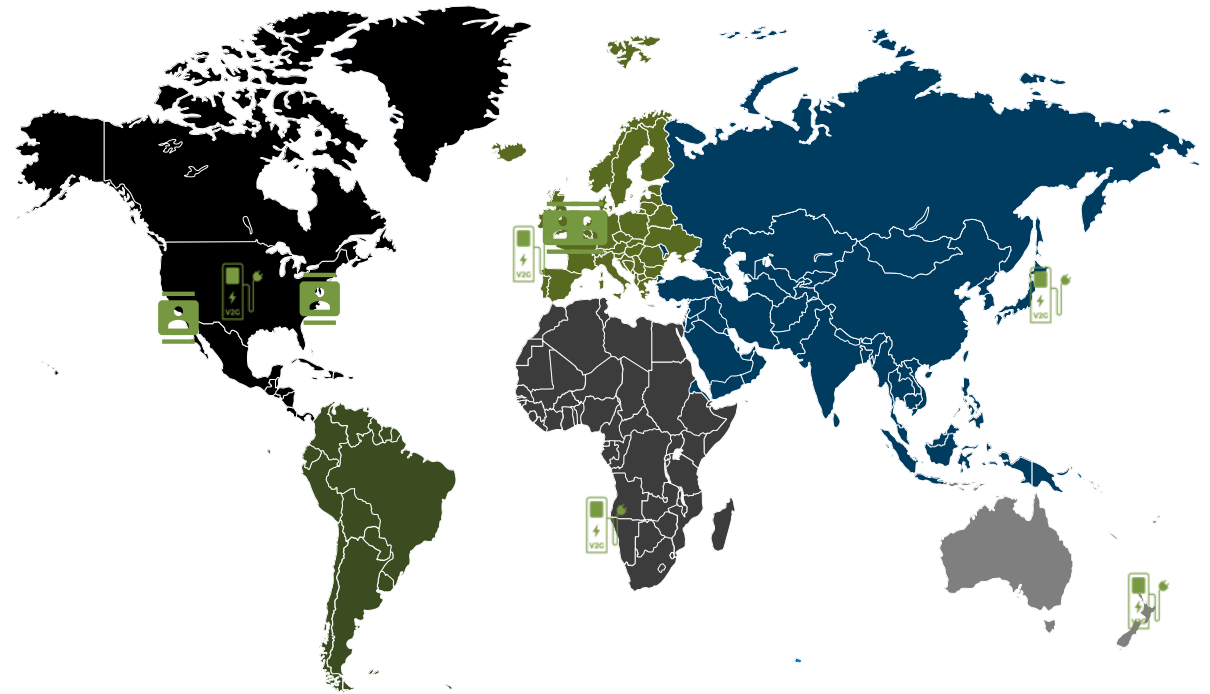


We work within OEM battery warranty limits



# OUR GLOBAL FOOTPRINT

- Headquarters in San Diego, CA
- Offices in Newark (Delaware), London, UK, and Copenhagen, Denmark
- 60+ employees and growing
- 25+ years of V2G R&D
- 16+ MW under management across the world
- 5+ years of continuous V2G commercial operations in Denmark







# LEADERSHIP TEAM



**Gregory Poilasne**

Co-Founder,  
Chairman & CEO



**Ted Smith**

Chief Operating Officer



**David Robson**

Chief Financial Officer

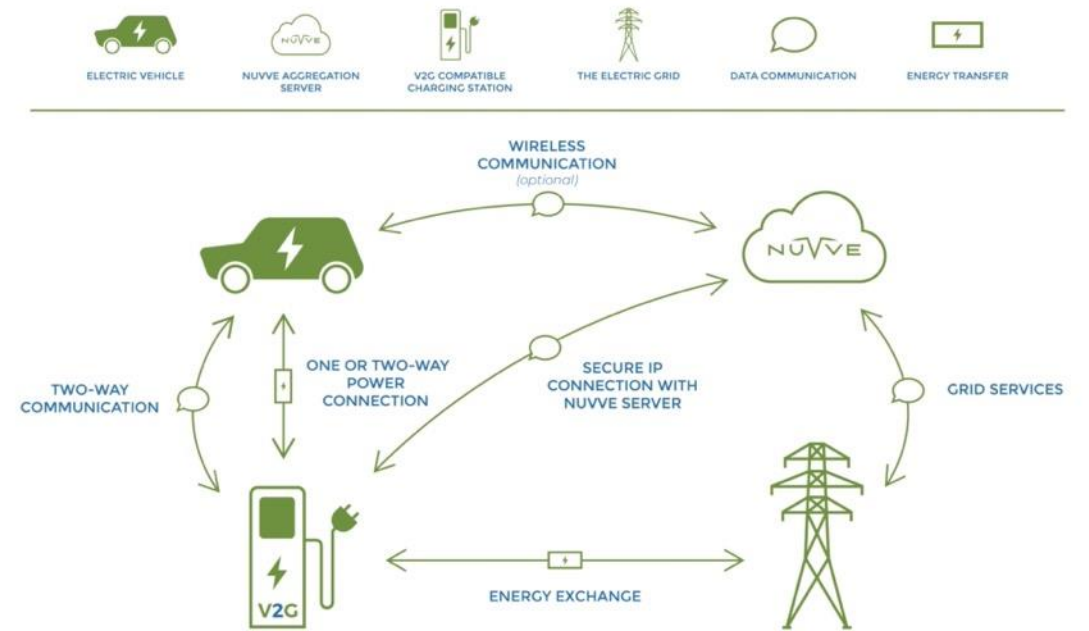


# V2G MARKET LANDSCAPE



# WHAT IS VEHICLE-TO-GRID (V2G)?

- Allows EVs to serve as distributed energy resources (DERs) by enabling EVs to charge *and* discharge energy from their batteries
- Stored energy from EV batteries is then used to add capacity to the grid and/or perform services that help stabilize the grid and prevent blackouts



\*In markets where this is allowed/applicable

# EV & POWER DEMAND FORECAST

## Explosive growth:

- By 2040, an estimated 550 million EVs will be on the road
- Globally, EVs will represent more than two-thirds of passenger vehicle sales by 2040

## Increased power demand:

- By 2040, EVs are projected to make up 10% of total electricity demand in the U.S. and Europe

Figure 3: Electric vehicle fleet forecast by vehicle type, base-case

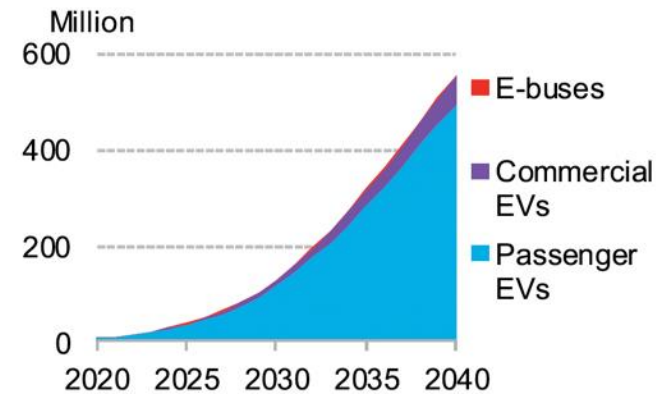
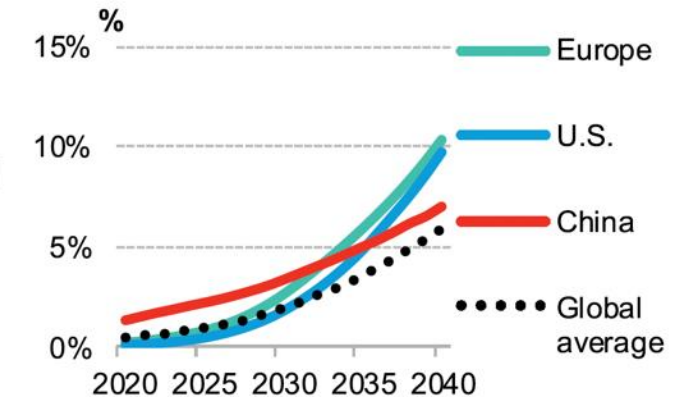


Figure 4: Electric vehicle electricity demand as a percentage of total electricity demand



Source: BloombergNEF Note: Analysis from BNEF's Electric Vehicle Outlook. The EV fleet represents 29% of all vehicles on the road in 2040. Commercial EVs includes vans and trucks.

**V2G helps solve the grid issues EV growth creates**

# NUVVE'S V2G SOLVES HIGH-LEVEL ISSUES & CREATES VALUE ACROSS THE ECOSYSTEM



REDUCES RELIANCE ON FOSSIL-FUELED POWER



INCREASES GRID STABILITY



ACCELERATES THE ADOPTION OF EVs

NUVVE

PAVES THE PATH TO A SUSTAINABLE FUTURE

CONNECTS THE ENERGY ECOSYSTEM

LOWERS THE TOTAL COST OF OWNERSHIP

# KEY INVESTMENT CONSIDERATIONS



# FIRST MOVER ADVANTAGE



**IP:** key patents and 25+ years R&D

---



**TSO Qualification:** Qualified by multiple TSOs around the world, making it easier to expand

---



**Data:** Years of data accumulation allows Nuvve to move rapidly and accurately for future developments

---



**V2G Experience:** 10+ years of energy market participation; experience with multiple auto OEMs, charging station manufacturers, and utilities

---



**Financing:** Custom, turnkey electrification solution with 100% financing options through joint venture, Levo, with \$750M in committed capital



# SCHOOL BUSES ARE THE IDEAL USE CASE FOR V2G

- Largest fleet in the U.S.
- Consistent route-based transport with known energy needs
- Parked and unused most of the time
- 95%+ are diesel today – bad for student, driver, and community health
- Reduction of ~88mm tons of carbon emissions with the electrification of the entire U.S. school bus fleet – equivalent to planting ~108 million acres of trees

Source: EPA. (1) Assumes 12-year asset life.

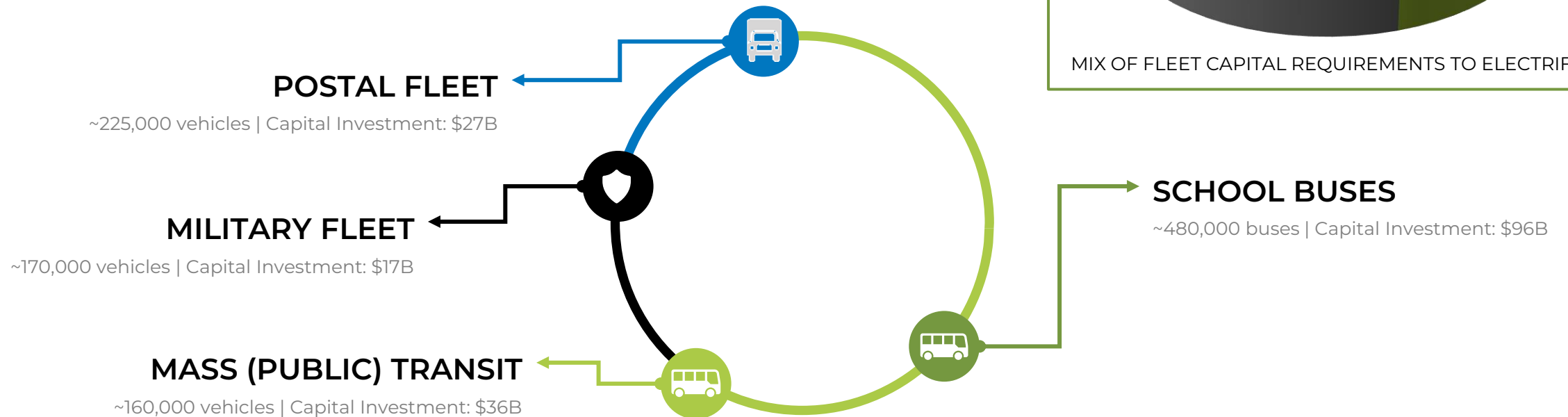
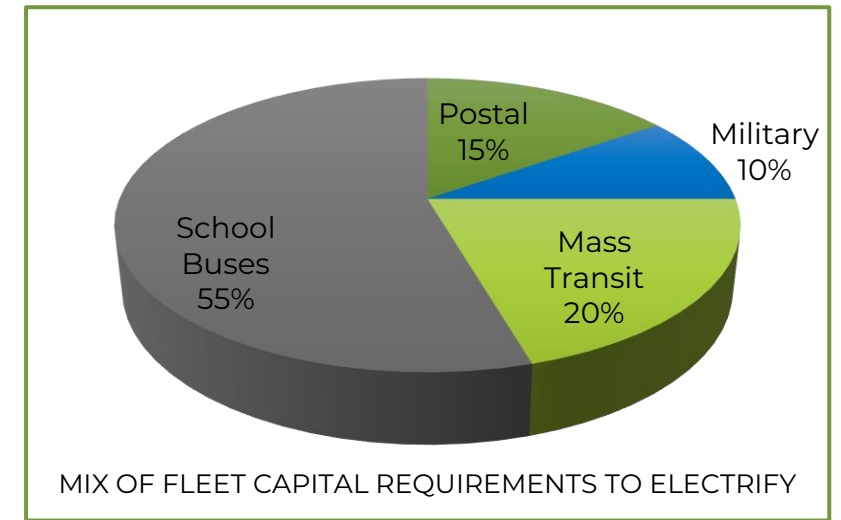
©2022 Nuve Holding Corp. All rights reserved. Confidential and proprietary.





# U.S. FLEET ELECTRIFICATION CAPITAL NEEDS


- Fleet Electrification Capital Requirements: ~\$176B+
- Passenger Vehicle Electrification Capital Requirements: ~\$6.4T



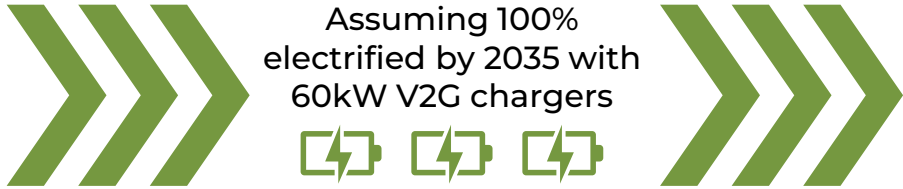
Sources: New York School Bus Contractors Association, U.S. Postal Service, American Public Transit Association, other public records. TAM figures assume an average approximate cost per electric vehicle type.

# MARKET OPPORTUNITY: U.S. SCHOOL BUSES


Yellow School Buses in the US<sup>(1)</sup>



**480,000**



Electric School Bus Power Capacity



**~29 GW**

Less than 1% are electric today

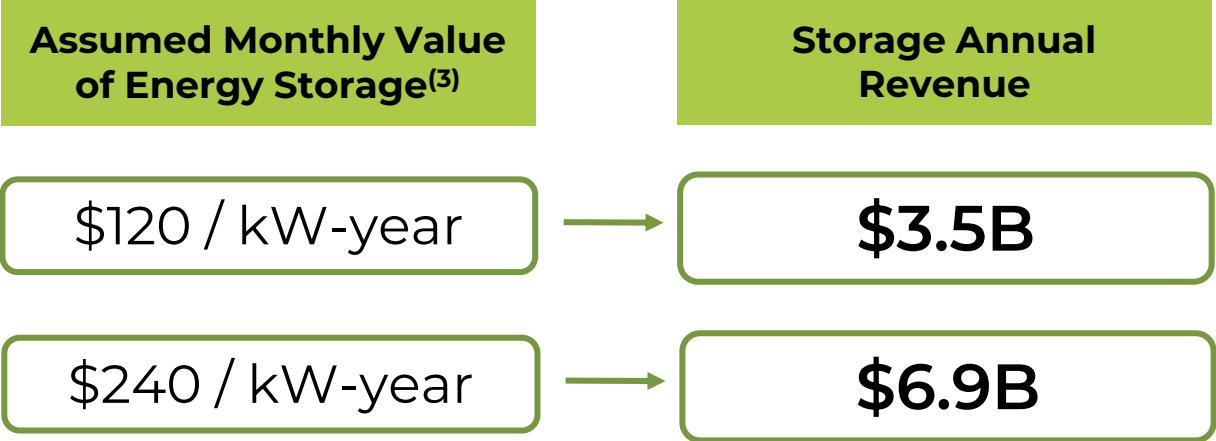
100% electrification of school buses could increase U.S. electric power generation capacity by nearly 3%<sup>(2)</sup>

*Assuming all electric buses are powered by Nuvve's proprietary V2G*



**V2G**  
POWERED BY  
NUVVE

**29 GW**




Nuvve's experience and intellectual property make us uniquely qualified to capture this massive market opportunity

(1) Source: World Resources Institute. (2) Source: EIA; US power generation capacity as of the end of 2020. (3) Assumed value based on company estimates.



# MARKET OPPORTUNITY: PASSENGER VEHICLES

Global Electric Vehicles<sup>(1)</sup> 

**500M by 2040**



Global Electric Vehicle Power Capacity

**~3500 GW**

100% electrification of school buses could increase U.S. electric power generation capacity by nearly 3%<sup>(2)</sup>  
*Assuming all electric buses are powered by Nuvve's proprietary V2G*

**V2G**  
POWERED BY  
NUVVE

**3,500 GW**

Assumed Monthly Value of Energy Storage <sup>(3)</sup>	Storage Annual Revenue
\$120 / kW-year	\$420B
\$240 / kW-year	\$840B

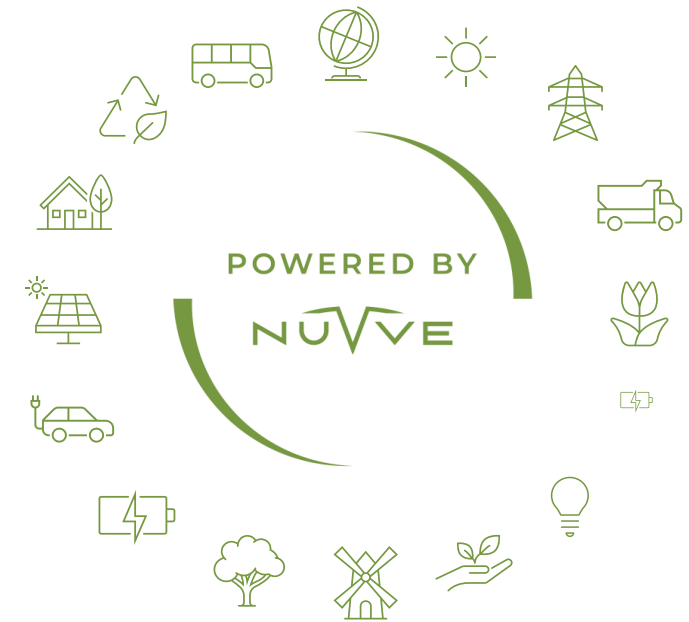
(1) Source: BloombergNEF Long Term Electric Vehicle Outlook 2020; Estimated number of electric passenger vehicles. (2) Source: EIA; US power generation capacity as of the end of 2020. (3) Assumed value based on company estimates.



# ESG: THE MULTIPLIER EFFECT

*Environmental, Social, Governance*

- Developing solutions for a scalable and sustainable green society
- Enables increased penetration of renewables
- Increases grid resiliency and reduces need for costly grid upgrades to integrate EVs
- Creates “energy equity” – increasing capacity for grid benefits for everyone
- Committed to increasing diversity and inclusion of team
- Working with schools in disadvantaged communities



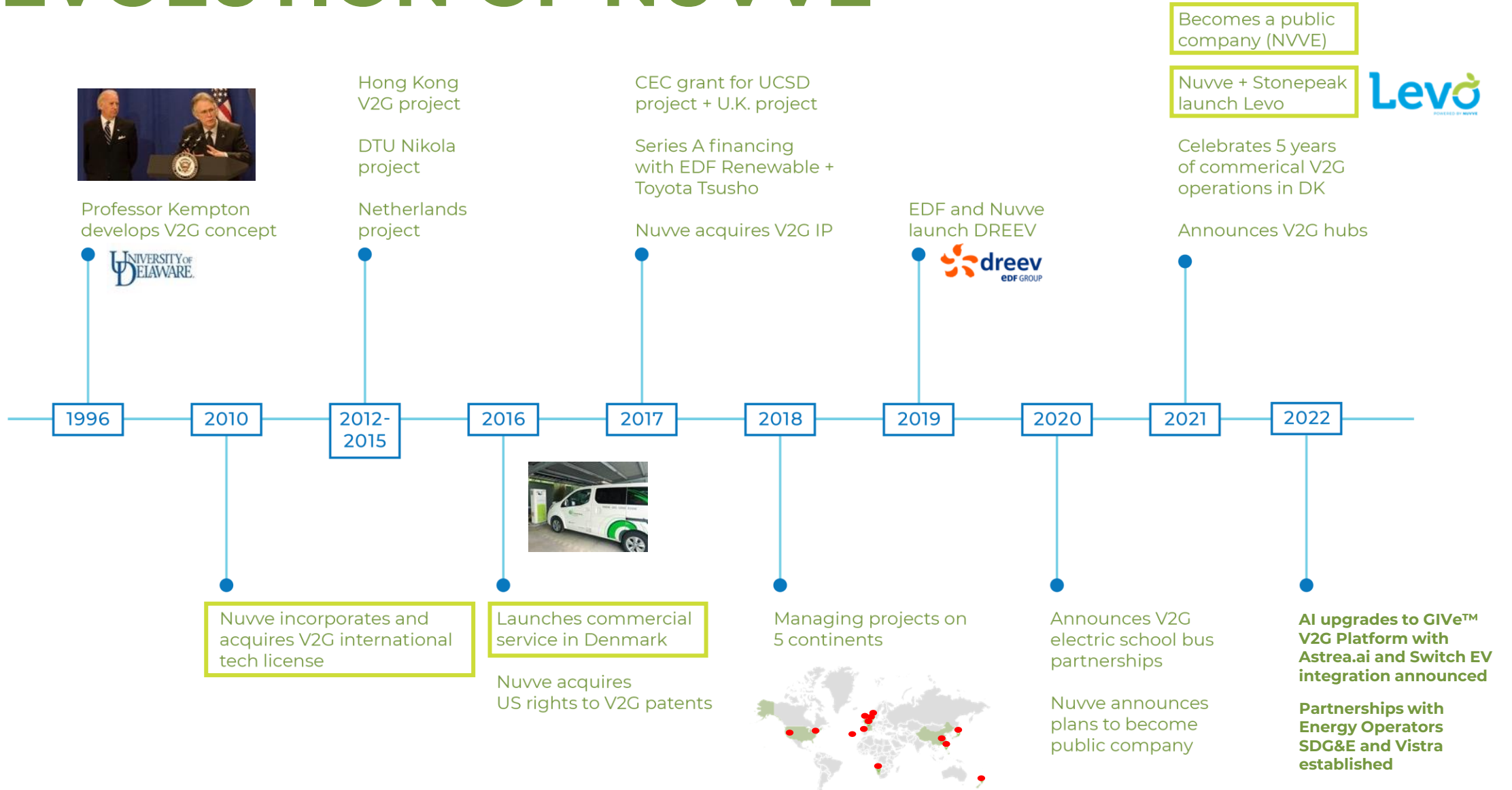
**ESG leaders have enhanced access to funds and margins**

**NUVE**

# **BUSINESS OVERVIEW**



# EVOLUTION OF NUVVE



# THE POWER OF NUVVE'S INTELLIGENT ENERGY PLATFORM



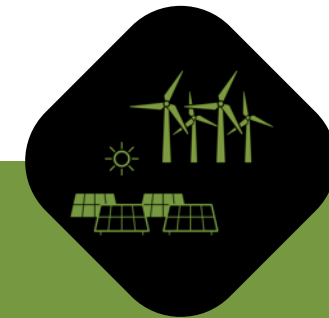
INCREASES THE UTILIZATION OF EVs



TRANSFORMS EVs INTO VALUABLE EARNING ASSETS



CONTRIBUTES TO A MORE RESILIENT GRID



INTEGRATES RENEWABLE ENERGY IN A MORE RELIABLE WAY



**REDUCES TCO**

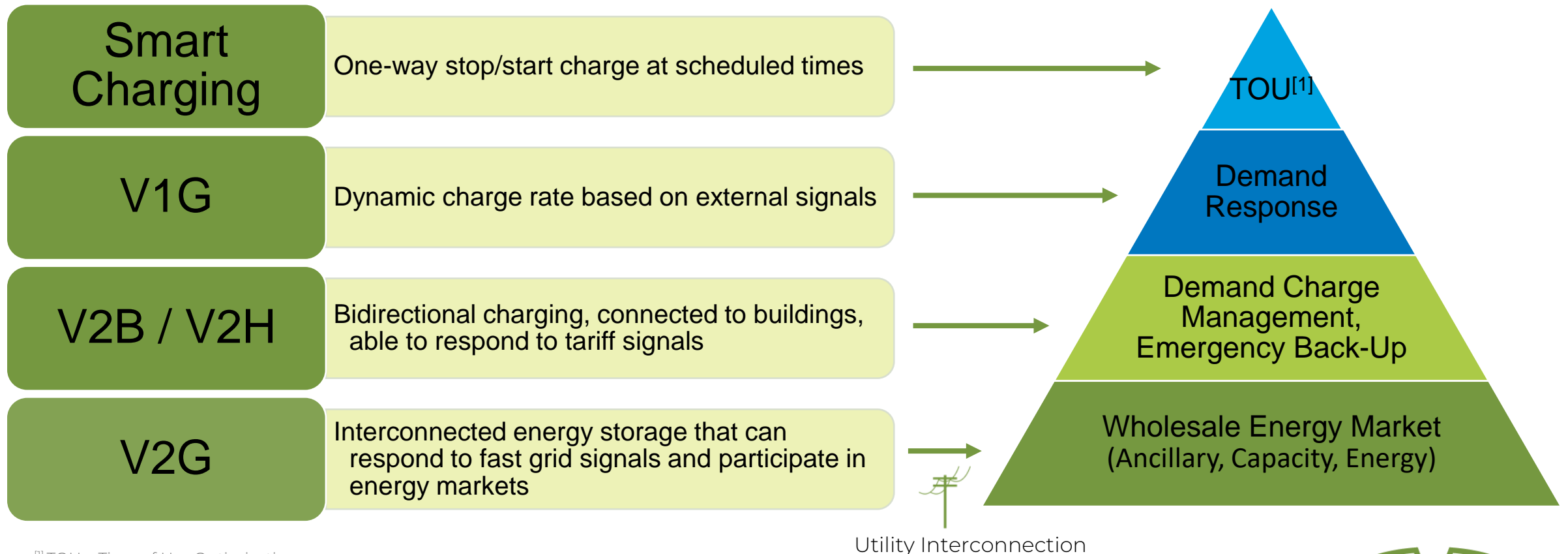


**CREATES ENERGY EQUITY**



# SAVING & REVENUE OPPORTUNITIES

Nuvve is capable of providing all levels of Vehicle Grid Integration, including V2G, providing revenues from grid services and utility bill savings behind the meter.

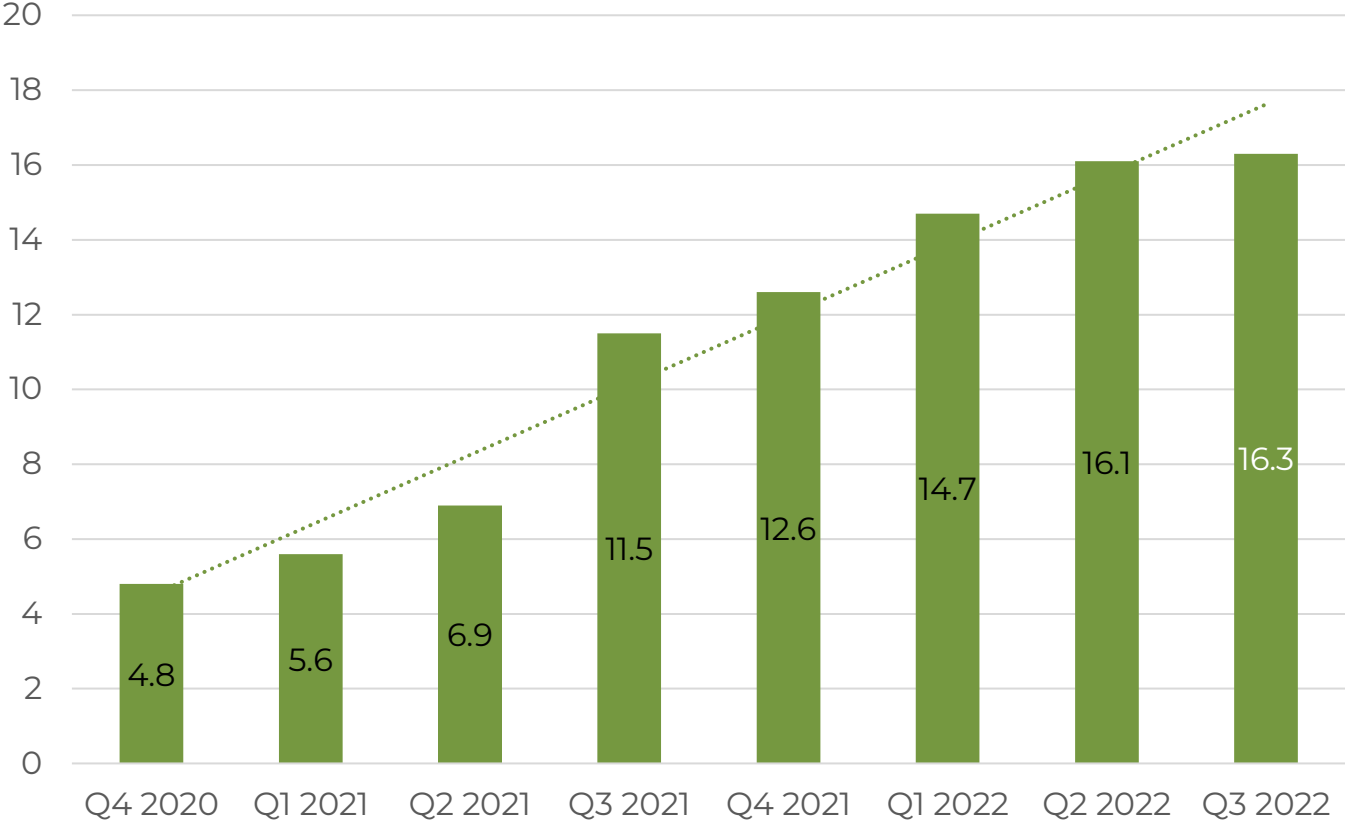


<sup>[1]</sup> TOU = Time of Use Optimization



# COMPANY GROWTH TREND

MW Under Management\*



Megawatts under management grew 1.2% in 2022 Q3 compared to 2022 Q2 and 240% from the end of 2020 through Q3 2022

\*Megawatts under management refers to the potential available charging capacity Nuvve is currently managing around the world



# COMPETITIVE LANDSCAPE



		NUVVE	-chargepoint+	THE MOBILITY HOUSE	enel x	Shell	dvc energy	FERMATA ENERGY	HIGHLAND ELECTRIC TRANSPORTATION
<b>Transportation</b>	Fleet Charge	✓	✓	✓	✓	✓		✓	✓
<b>Behind-The-Meter</b>	TOU	✓	✓	✓	✓	✓	✓	✓	
	Demand Charge	✓	✓	✓	✓	✓	✓	✓	✓
	V2H	✓							
<b>Grid Services</b>	Demand Response	✓	✓	✓	✓	✓		✓	
	Voltage Control	✓							
	Reactive Power	✓							
	Energy Arbitrage	✓		✓					
	Frequency Regulation	✓							
	Bidirectional	✓	✓	✓			✓	✓	✓

Note: Competitor services as advertised or promoted through press

©2022 Nuve Holding Corp. All rights reserved. Confidential and proprietary.

# REVENUE STREAMS



## Charging Station Hardware

- White labeled from EVSE partners integrated with Nuvve software



## Grid Services Revenue

- Agreements with customers and/or directly with utilities for % share of revenue earned through grid services



## Fleet-as-a-Service

- All-in-one electrification solution for a flat monthly fee



# EXPANDING OUR PARTNERSHIPS



- OEM integration; all Blue Bird electric buses come standard with Nuvve V2G
- Building 1<sup>st</sup> large-scale "V2G hub" at Fort Valley production facility
- OEM partner for Levo to offer as leasing option to school districts



- OEM integration underway to be used across vehicle types – transit buses and coaches, yard tractors, drayage and refuse trucks, last mile delivery vehicles, and school buses.



- Formed joint venture, "Astrea AI" to integrate AI to Nuvve's platform to broaden and optimize services offered today



- Combine battery storage, solar, and smart EV charging into a comprehensive home energy system for residential and commercial markets

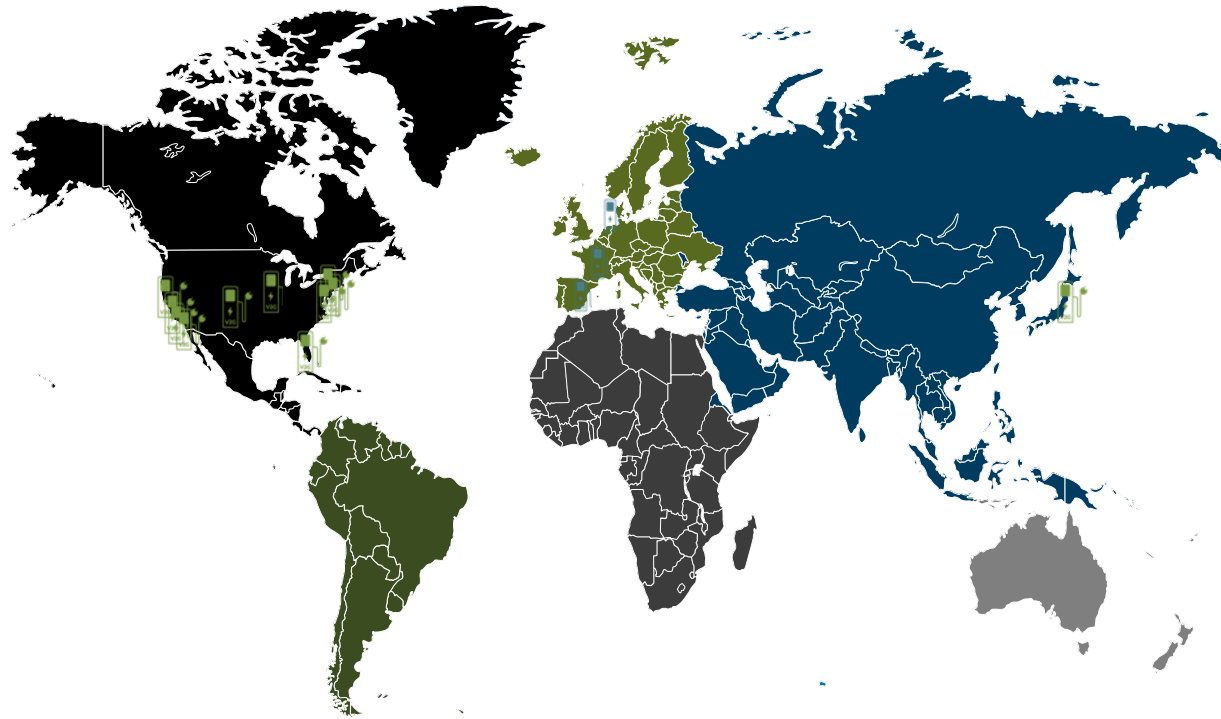


- Adds Nuvve's patented V2G platform to Switch's standardized software solution for EVSE management, operations and maintenance, improving interoperability among charging stations, EVs and the grid

# UTILITY & ENERGY PARTNERS AROUND THE WORLD

## United States:

- PGE
- PG&E
- SCE
- SDG&E
- La Plata Energy Association
- Ameren
- New Hampshire Electric Co-Op
- Con Edison
- FPL
- Vistra



## Europe:

- GALP
- EDF

## Asia:

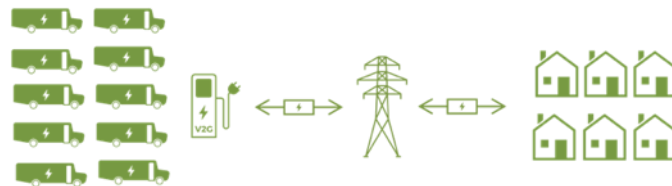
- Chubu Electric Power

# V2G HUBS: TURNING EVs INTO POWER PLANTS

- Nuvve's platform aggregates energy and power capacity from multiple EV batteries to form a virtual power plant (VPP)
- The VPP can provide services to the grid that add capacity, help stabilize it, and prevents blackouts

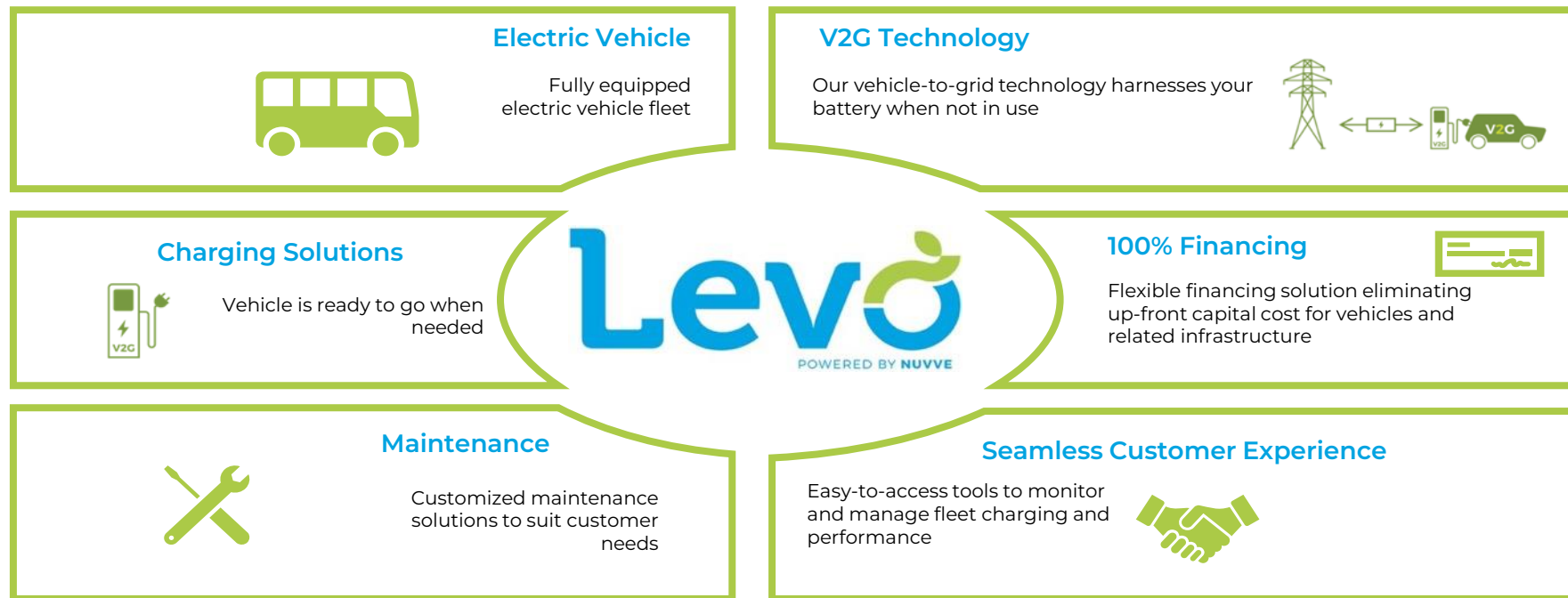
## The Power of V2G Hubs:

- If you have 200 buses connected at 125kW = 25MW of capacity
- 25MW would be capable of reducing peak consumption of 10,000 homes by 50%



# FLEET-AS-A-SERVICE FROM LEVO

- Levo combines Nuvve's V2G technology and energy management expertise with Stonepeak's capital (up to \$750M committed to Levo) and sustainable infrastructure experience
- Offers an all-in-one solution including the EVs, associated charging infrastructure plus site upgrades, and intelligent energy management
- 100% financing, no upfront costs, fixed monthly fee



# 2022 Q3 FINANICALS & UPDATES





# CONDENSED CONSOLIDATED BALANCE SHEETS

(unaudited)

	September 30, 2022	December 31, 2021
<b>Assets</b>		
<b>Current assets</b>		
Cash	\$ 21,635,356	\$ 32,360,520
Restricted cash	480,000	380,000
Accounts receivable, net	1,063,903	1,886,708
Inventories	11,767,996	11,118,188
Prepaid expenses and other current assets	2,947,014	1,036,645
<b>Total Current Assets</b>	<b>37,894,269</b>	<b>46,782,061</b>
Property and equipment, net	591,257	356,194
Intangible assets, net	1,376,499	1,481,077
Investments	1,670,951	670,951
Right-of-use operating lease assets	5,418,912	3,483,042
Deferred financing costs	—	43,562,847
Financing receivables	238,624	138,161
Security deposit, long-term	8,682	3,057
<b>Total Assets</b>	<b>\$ 47,199,194</b>	<b>\$ 96,477,390</b>
<b>Liabilities, Mezzanine Equity and Stockholders' Equity</b>		
<b>Current Liabilities</b>		
Accounts payable	\$ 1,664,685	\$ 5,738,873
Accrued expenses	3,436,815	2,874,018
Deferred revenue	1,014,152	719,771
Operating lease liabilities - current	708,441	41,513
Other liabilities	107,198	110,574
<b>Total Current Liabilities</b>	<b>6,931,291</b>	<b>9,484,749</b>
Operating lease liabilities - noncurrent	5,225,555	3,441,642
Warrants liability	12,000	866,000
Derivative liability - non-controlling redeemable preferred shares	531,257	511,948
Other long-term liabilities	13,013	18,860
<b>Total Liabilities</b>	<b>12,713,116</b>	<b>14,323,199</b>
<b>Commitments and Contingencies</b>		
<b>Mezzanine equity</b>		
Redeemable non-controlling interests, preferred shares, zero par value, 1,000,000 shares authorized, 3,138 shares issued and outstanding at September 30, 2022 and December 31, 2021; aggregate liquidation preference of \$3,396,672 and \$3,200,760 at September 30, 2022 and December 31, 2021, respectively	3,369,827	2,885,427
Class D Incentive units, zero par value, 1,000,000 units authorized, 250,000 units issued and outstanding at September 30, 2022	293,165	—
<b>Stockholders' Equity</b>		
Preferred stock, \$0.0001 par value, 1,000,000 shares authorized; zero shares issued and outstanding at September 30, 2022 and December 31, 2021, respectively	—	—
Common stock, \$0.0001 par value, 100,000,000 shares authorized; 22,897,935 and 18,861,130 shares issued and outstanding at September 30, 2022 and December 31, 2021, respectively	2,292	1,888
Additional paid-in capital	150,247,403	127,138,504
Accumulated other comprehensive income	12,149	113,446
Accumulated deficit	(115,805,023)	(47,412,470)
<b>Nuvve Stockholders' Equity</b>	<b>34,456,821</b>	<b>79,841,368</b>
Non-controlling interests	(3,633,735)	(572,604)
<b>Total Stockholders' Equity</b>	<b>30,823,086</b>	<b>79,268,764</b>
<b>Total Liabilities, Mezzanine equity and Stockholders' Equity</b>	<b>\$ 47,199,194</b>	<b>\$ 96,477,390</b>



# CONDENSED CONSOLIDATED STATEMENT OF OPERATIONS

(unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
<b>Revenue</b>				
Products and services	\$ 487,818	\$ 682,900	\$ 3,809,631	\$ 1,761,319
Grants	65,869	480,104	416,816	1,182,047
<b>Total revenue</b>	<b>553,687</b>	<b>1,163,004</b>	<b>4,226,447</b>	<b>2,943,366</b>
<b>Operating expenses</b>				
Cost of product and service revenue	276,485	387,582	3,453,393	877,468
Selling, general, and administrative	7,163,673	6,599,490	22,925,745	16,352,021
Research and development	1,715,821	1,622,608	6,021,535	4,574,803
<b>Total operating expenses</b>	<b>9,155,979</b>	<b>8,609,680</b>	<b>32,400,673</b>	<b>21,804,292</b>
<b>Operating loss</b>	<b>(8,602,292)</b>	<b>(7,446,676)</b>	<b>(28,174,226)</b>	<b>(18,860,926)</b>
<b>Other income (expense)</b>				
Interest income (expense)	39,150	3,220	47,553	(592,345)
Write-off of deferred financing costs	—	—	(43,562,847)	—
Change in fair value of warrants liability	170,000	557,000	854,000	627,228
Change in fair value of derivative liability	(40,245)	(12,179)	(19,309)	(12,179)
Other, net	89,222	(69,647)	81,455	321,914
<b>Total other income (expense), net</b>	<b>258,127</b>	<b>478,394</b>	<b>(42,599,148)</b>	<b>344,618</b>
<b>Loss before taxes</b>	<b>(8,344,165)</b>	<b>(6,968,282)</b>	<b>(70,773,374)</b>	<b>(18,516,308)</b>
<b>Income tax expense</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>1,000</b>
<b>Net loss</b>	<b>\$ (8,344,165)</b>	<b>\$ (6,968,282)</b>	<b>\$ (70,773,374)</b>	<b>\$ (18,517,308)</b>
Less: Net loss attributable to non-controlling interests	(168,985)	(130,837)	(2,380,821)	(130,837)
<b>Net loss attributable to Nuvve Holding Corp.</b>	<b>\$ (8,175,180)</b>	<b>\$ (6,837,445)</b>	<b>\$ (68,392,553)</b>	<b>\$ (18,386,471)</b>
Less: Preferred dividends on redeemable non-controlling interests	66,601	39,096	195,912	39,096
Less: Accretion on redeemable non-controlling interests preferred shares	161,466	100,039	484,398	100,039
<b>Net loss attributable to Nuvve common stockholders</b>	<b>\$ (8,403,247)</b>	<b>\$ (6,976,580)</b>	<b>\$ (69,072,863)</b>	<b>\$ (18,525,606)</b>
<b>Net loss per share attributable to Nuvve common stockholders, basic and diluted</b>	<b>\$ (0.38)</b>	<b>\$ (0.37)</b>	<b>\$ (3.46)</b>	<b>\$ (1.16)</b>
<b>Weighted-average shares used in computing net loss per share attributable to Nuvve common stockholders, basic and diluted</b>	<b>21,952,882</b>	<b>18,627,978</b>	<b>19,972,016</b>	<b>15,931,466</b>



# CONDENSED CONSOLIDATED STATEMENT OF CASH FLOWS

(unaudited)

	Nine Months Ended September 30,	
	2022	2021
<b>Operating activities</b>		
Net loss	\$ (70,773,374)	\$ (18,517,308)
Adjustments to reconcile to net loss to net cash used in operating activities		
Depreciation and amortization	211,220	122,352
Stock-based compensation	4,487,003	2,690,081
Write-off of deferred financing costs	43,562,847	—
Beneficial conversion feature on convertible debenture	—	427,796
Accretion of discount on convertible debenture	—	116,147
Change in fair value of warrants liability	(854,000)	(627,228)
Change in fair value of derivative liability	19,309	—
Loss on disposal of asset	—	1,349
Gain on extinguishment of PPP Loan	—	(492,100)
Noncash lease expense	336,903	2,141
Change in operating assets and liabilities		
Accounts receivable	818,758	(99,963)
Inventory	(649,809)	(5,126,698)
Prepaid expenses and other assets	(2,040,485)	(4,062,202)
Accounts payable	(4,070,611)	(240,200)
Accrued expenses	443,491	2,260,833
Deferred revenue	324,660	66,493
Net cash used in operating activities	(28,184,088)	(23,478,507)
<b>Investing activities</b>		
Proceeds from sale of property and equipment	—	7,784
Purchase of property and equipment	(349,182)	—
Investments	(1,000,000)	—
Net cash (used) provided in investing activities	(1,349,182)	7,784
<b>Financing activities</b>		
Deposit with Newborn	—	—
Proceeds from Newborn Escrow Account	—	58,184,461
Redemption of Newborn shares	—	(18,629)
Issuance costs related to reverse recapitalization and PIPE offering	—	(3,970,657)
Proceeds from PIPE offering	—	14,250,000
Repayment of Newborn sponsor loans	—	(487,500)
Repurchase of common stock from EDF	—	(6,000,000)
Newborn cash acquired	—	50,206
Purchase of stock from investor	—	(2,000,000)
Payment of financing costs	—	(1,000,000)
Proceeds from forward option put exercise	1,994,073	—
Proceeds from exercise of pre-funded warrants related to Direct Offering	58	—
Proceeds from Direct Offering of common stock, net of offering costs	13,069,815	—
Proceeds from common stock offering, net of offering costs	3,763,494	—
Payment of finance lease obligations	(7,396)	(4,613)
Proceeds from exercise of stock options	209,280	18,325
Issuance of Preferred Stock	—	3,138,000
Net cash provided in financing activities	19,029,324	62,159,593
Effect of exchange rate on cash	(121,218)	150,547
<b>Net (decrease) increase in cash and restricted cash</b>	<b>(10,625,164)</b>	<b>38,839,417</b>
<b>Cash and restricted cash at beginning of year</b>	<b>32,740,520</b>	<b>2,275,895</b>
<b>Cash and restricted cash at end of period</b>	<b>\$ 22,115,356</b>	<b>\$ 41,115,312</b>



# 2022 Q3 + RECENT HIGHLIGHTS

## Nuvve Partners With SDG&E on Emergency Load Reduction Program (ELRP)

Nuvve's V2G aggregation software enables school district customers in two San Diego districts to get paid by participating in the ELRP

## Nuvve Partners with Vistra to Help School Districts Electrify Bus Fleets

Partnership will help school districts access available grant funding from both federal and state agencies

## Nuvve Enters into MOU with Maine Maritime Academy

Parties agree to establish a Center for Maritime V2G to advance programs and capabilities such as interoperability qualification, data science, cybersecurity and AI

## Nuvve and V2G Featured as Newsom Signs Aggressive, World-Leading Climate Action Legislation

California Governor, Gavin Newsom, calls V2G technology a "game changer" and showcases Nuvve's V2G electric vehicle charges as press event

## Nuvve Helps 10 School Districts Receive 61 EPA Clean School Bus Rebates Totaling \$24.2M

Nuvve and its school district customers will now begin activating their site design and development plans, procurement of Nuvve V2G-capable DC fast chargers and partner electric school buses (ESBs)



# APPENDIX



# \$1.2T BIPARTISAN INFRASTRUCTURE BILL

## Nuvve Opportunities

\$7.5B



Electric Vehicle Chargers

\$2.5B



Electric Buses

\$3B



Tech to Enhance Grid Flexibility

## Specific V2G Mentions in Bill

- **Sec. 11109:** adds the installation of electric vehicle and vehicle-to-grid (V2G) infrastructure as eligible grant funding categories.
- **Sec. 40107:** “smart grid functions” that qualify include those that facilitates the integration of V2G technologies, renewables, and EV charging infrastructure



# \$965M – EPA Clean School Bus Rebates

EPA announcement that Biden-Harris Administration will double clean school bus rebates Awards from \$500M to nearly \$1B

## Nuvve Opportunities

- Nuvve Helps **10** School Districts Receive **61** EPA Clean School Bus Rebates Totaling \$24.2M
- The total amount of clean school bus rebates equate to:
  - \$1.2M for EVSE
- School District States:
  - California - 6
  - Texas - 2
  - Arizona - 2



# Inflation Reduction Act (IRA) – August

**The Inflation Reduction Act is the most significant legislation in U.S. history to tackle the climate crisis and strengthen American energy security. \$369 billion investment in clean energy over 10 years.**

## Nuvve Opportunities

- Commercial EV credits
- Charging infrastructure tax credits
- Clarifies that bidirectional chargers are eligible for the alternative refueling tax credit
- Funding for transportation electrification programs through federal agencies



# LEVO CONTRACT WITH TROY 30-C

## Preliminary Project Timeline

### Phase 1 – 2022 Fall

- Installed 10 staff chargers
- BTM upgrades and line extension

### Phase 2a – 2023+

- Install up to 64 additional chargers
- Chargers can be deployed any time over next 10 years at school's election

### Phase 2b – 2023+

- ROFR on any EV bus deployments at the district for the next 10 years
- Fleet consists of 43 Type C + 21 Type A

Represents up to \$16M of qualified pipeline\*



\*"Qualified pipeline" includes potential customers where we have a memorandum of understanding in place, or we are working toward a definitive agreement; there are no guarantees of conversion to a final agreement and ultimate conversion to revenues for Nuve, and ultimately products and services could be either sold outright to our customers or through a multi-year agreement which would affect timing of revenue recognition

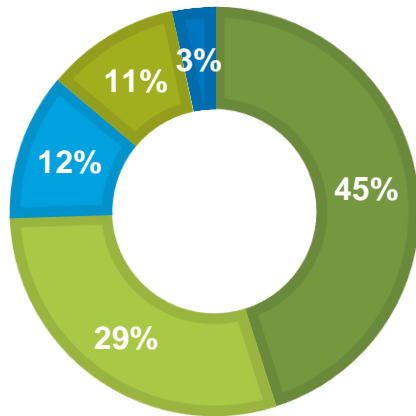


# VEHICLE ELECTRIFICATION

## POSITIVE IMPACT



ICE vehicles account for ~45% of global CO<sub>2</sub> emissions



■ Road (Passenger) ■ Road (Freight) ■ Aviation

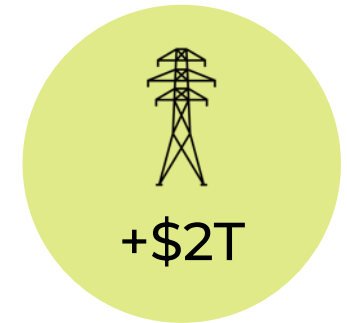
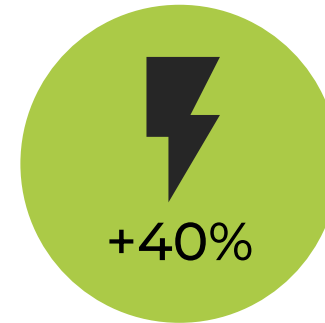
Transport accounts for 24% of CO<sub>2</sub> emissions from energy

## NEGATIVE IMPACT



EVs are projected to create a 40% increase in power demand<sup>[1]</sup> requiring a \$2T investment in grid upgrades<sup>[2]</sup>

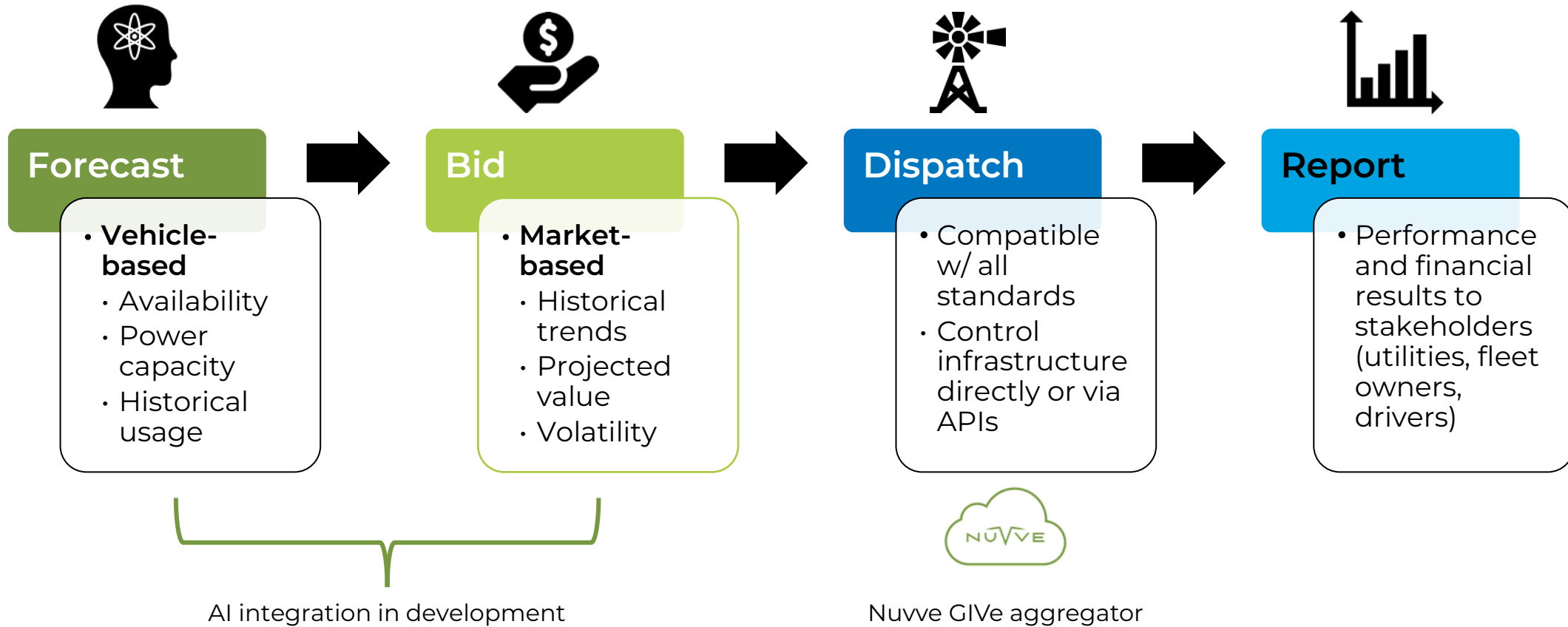
AND



Sources: 2018 global CO<sub>2</sub> stats by sector from [ourworldindata.org](http://ourworldindata.org). (1) US Department of Energy, forecast through 2050. (2) Global grid investment requirement implied based upon grid upgrade costs per EV added to the California vehicle fleet implied by SCE "Reimagining the Grid" Dec. 2020 whitepaper



# NUVVE PLATFORM: HOW IT WORKS



**Nuve's platform simultaneously meets the needs of drivers, batteries, and the grid on a second-by-second basis**



# BATTERY HEALTH PAPER

- Learn about the factors that affect EV battery health and how intelligent energy management can help improve it
- Download the paper at [nuve.com/battery-health](https://nuve.com/battery-health)



## Battery Health and V2G

PREPARED BY

NUVE

# V2G & BATTERY HEALTH

## V2G has minimal impact on the battery

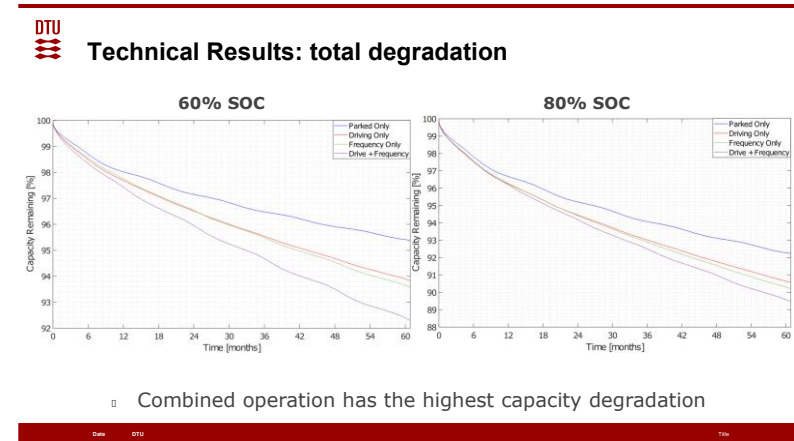
- Main factors that impact capacity are driving and age (calendar life)
- Studies show small percentage impact from V2G

2% impact over 8 years



“Deployment of Vehicle-to-Grid Technology and Related Issues” 2016  
 SAE Research Paper: Satoru Shinzaki, Hakaru Sadano, and Yutaka Maruyama, Honda R&D Co., Ltd

1-2% impact over 5 years



Combined operation has the highest capacity degradation

“Techno-economic characterization of EV battery considering degradation” 2019 Lisa Calearo, PhD Student, Center for Electric Power and Energy DTU Risø Campus

**THANK YOU**



**NUVVE.COM**