

INITIATION OF COVERAGE

Equity | Transport/ Electric Vehicle Charging

Nuvve Holding Corp.
(NASDAQ:NVVE; Target Price: \$2.50)

Nuvve Holding Corp shines as a small-cap steering the green revolution with its groundbreaking approach to electrifying transportation. As a visionary in the industry, Nuvve is setting new standards with its cutting-edge energy platform, which is redefining the electric vehicle (EV) market. The company's pioneering vehicle-to-grid (V2G) technology is not just a part of the industry; it's leading the charge, propelling EVs to new heights of efficiency and cost-effectiveness. With a keen eye on innovation and sustainability, Nuvve's business model and technology offerings present a compelling case for investors seeking to tap into the potential of environmentally conscious and technologically advanced small-cap stocks. Let's gear up to explore the dynamics of Nuvve's operations and the promising journey ahead for this small-cap contender.

INVESTMENT THESIS

This is our first report on Nuvve and we look to provide a detailed account of the various drivers that will be responsible for the company's growth in the coming years. In the wake of Nuvve's stock price experiencing a significant correction, savvy investors now have the unique opportunity to engage with the company at what could be considered bargain valuations, with shares trading under the \$1 threshold. This isn't a fledgling startup; Nuvve boasts a decade-plus history and a global presence that underscores its substantial role in steering the green revolution. As a seasoned player in clean energy, Nuvve's commitment to accelerating the transition to electric vehicles is evidenced by their advanced Vehicle-to-Grid (V2G) technology and comprehensive fleet management solutions, which aim to minimize EV ownership costs and maximize energy efficiency. With a robust portfolio of intellectual property and a strategic foothold across continents, Nuvve stands tall among giants, offering a promising investment avenue within the sustainable technology space. For those poised to back a proven innovator, Nuvve presents a not-to-be-missed chance to invest in a company that's not only growing with the clean energy sector but is actively laying the groundwork for its future. Baptista Research looks to evaluate the different factors that could influence Nuvve' price in the near future and attempts to carry out an independent valuation of the company using a Discounted Cash Flow (DCF) methodology to determine a suitable price for the company's stock.

COMPANY OVERVIEW

Nuvve Holding Corp. has distinguished itself through the development and marketing of its pioneering vehicle-to-grid (V2G) technology across strategic global markets including the United States, the United Kingdom, and Denmark. Renowned for delivering advanced charging solutions tailored for fleets and electric buses, Nuvve's proprietary Grid Integrated Vehicle (GIVe) platform epitomizes the convergence of innovation and utility. It empowers electric vehicle (EV) batteries to not only serve as dynamic storage units, replete with the capacity to return surplus energy to the grid, but also to operate as components of a virtual power plant. This virtual establishment plays a dual role, contributing to the energy market by selling excess power back to utilities and optimizing energy consumption during peak periods for buildings. The smart network of batteries democratizes the advantages of a fully electrified society, extending economic and environmental benefits across the community.

Key Report Highlights

Industry View:	Attractive
Stock Rating:	Buy
Price Target:	\$2.50
Current Price:	\$0.19
52-Week-Range:	\$0.13 - \$2.64

Annual Income Statement	2021	2022E	2023E
Revenues	5.37	6.30	10.90
Cost of Goods Sold	-4.20	-4.80	-8.08
Gross Income (excl. D&A)	1.17	1.50	2.82
EBITDA	-36.48	-23.50	-20.18
EBIT (incl. extraordinary exp)	-36.77	-23.79	-20.47
Net Income	-24.02	-27.49	-24.17
Cash from Operations	-34.08	-18.64	-15.97
Free Cash Flows	-34.52	-19.06	-16.36

Growth & Margins	2021	2022E	2023E
Sales Growth	28.2%	17.3%	73.0%
EBITDA Margin	-679.3%	-373.1%	-185.1%
EBIT Margin	-684.7%	-377.7%	-187.8%
Net Profit Margin	-447.3%	-436.4%	-221.7%

Valuation Ratios	Current	2023E	2024E
EV/ Sales	15.4	32.1	17.5
EV/ EBITDA	NA	NA	NA
EV/ EBIT	NA	NA	NA
Price/Earnings	NA	NA	NA

KEY FACTORS DRIVING THE COMPANY'S PERFORMANCE

- 1. PIONEERING V2G TECHNOLOGY: POWERING THE GRID**
- 2. STRONG MARKET OPPORTUNITY**
- 3. ELECTRIFYING FLEETS AND FORGING STRATEGIC ALLIANCES**
- 4. SOLID R&D AND ROBUST IP ARSENAL**
- 5. STANDING TALL IN ITS COMPETITIVE LANDSCAPE**
- 6. EXPERIENCED MANAGEMENT TEAM**

Pioneering V2G Technology: Powering the Grid & Revolutionizing EV Management

1 PLUG IN YOUR CAR
to any charger



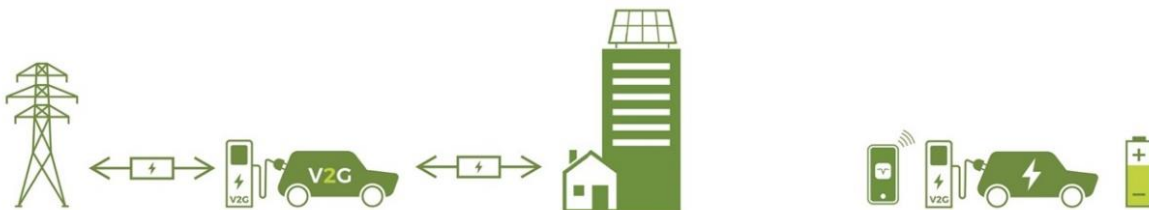
2 CHARGE BATTERY
safely and efficiently in V2G Mode



3 MAKE MONEY
by providing power capacity
and sending energy back
and forth to regulate the Grid

OR SAVE COSTS
by using stored energy from
EV batteries to reduce building
energy peak consumption

4 YOU'RE READY TO DRIVE
with the charge you set for the day
with advance trip planning using a
mobile fleet management app

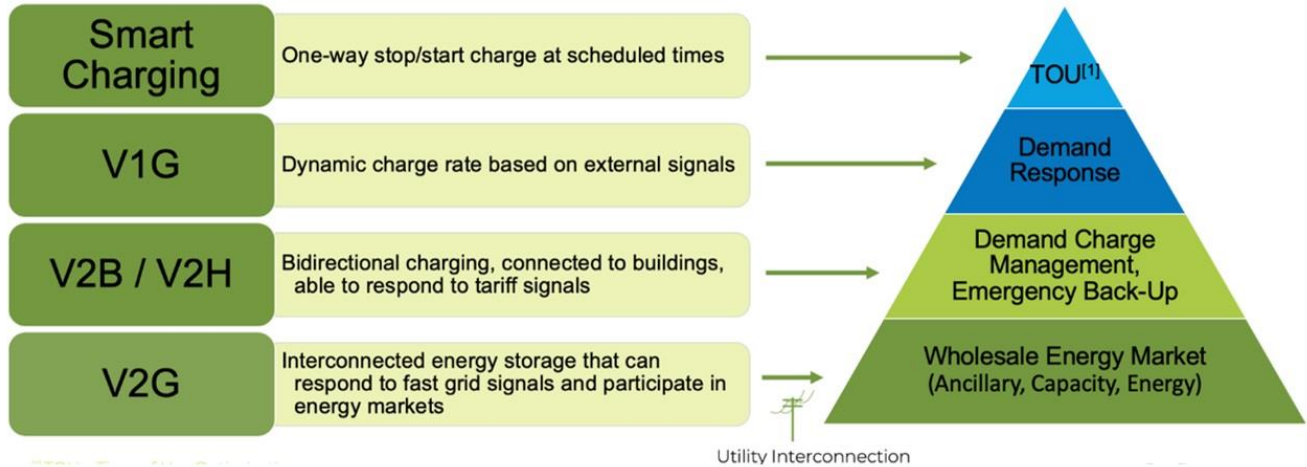


Source: SEC Filings

- Nuvve's platform stands as a beacon of innovation in the electric vehicle (EV) and energy management sectors, championing a revolutionary vehicle-to-grid (V2G) technology that cultivates a mutually beneficial relationship between EVs and the electrical grid.
- By leveraging this advanced technology, vehicle owners are not only empowered to meet the energy demands of individual cars but also to manage extensive fleets, enhancing the power grid with an expansive network of mobile battery storage.
- At the heart of Nuvve's suite of services lies the Grid Integrated Vehicle (GIVe) software platform, which unites multiple EV batteries into a virtual power plant (VPP), capable of offering bi-directional support to the electricity grid with precision and security.
- These VPPs are adept at strategically releasing excess electricity back to utilities, harnessing stored energy for grid services, or reducing peak consumption charges for facilities.
- Nuvve's diverse V2G services include optimizing time of use, managing demand response, administering demand charges, and facilitating participation in energy markets—each generating economic benefits from grid services while also diminishing utility expenses.
- In Denmark, Nuvve's trailblazing commercial venture has been instrumental in providing primary frequency containment reserve (FCR) to the local grid operators, a critical function for maintaining grid frequency stability, and it has been at the forefront of this for over half a decade.
- This long-standing Danish operation has yielded valuable expertise in managing fleets and navigating the intricacies of energy markets.
- Considering that fleet vehicles are predominantly operational in daylight and stationary at night, they are available for approximately 17 hours each day for market operations, accruing an impressive annual revenue of around US\$2,000 per vehicle.
- This economic perk effectively curtails the total cost of EV ownership for Nuvve's clientele by mitigating charger-related outlays, securing low-cost or complimentary energy for driving, and providing essential fleet management services alongside maintenance.
- The Danish initiative showcases Nuvve's proficiency in customizing its software for active market participation and seamless grid integration, utilizing 10kW bidirectional chargers for independent vehicle charging management.
- Nuvve's software is adept at consolidating multiple EVs into a VPP, offering their collective capacity in the reserve market, and features robust aggregation capabilities for vehicles and charging stations.
- It maintains constant grid communication to evaluate energy requirements and executes real-time optimization to align with grid demand, all the while ensuring EVs are primed for their principal function—transportation.
- Nuvve's ingenuity in transforming the inherently erratic nature of EVs into reliable, dispatchable grid resources not only bolsters the grid and fosters the use of renewable energy but also accelerates EV adoption.
- By mitigating ownership costs and certifying that vehicles satisfy their core transportation purposes, Nuvve's platform makes V2G operations imperceptible to the end-user, thereby advancing a future where energy and transport sectors converge seamlessly.

SAVING & REVENUE OPPORTUNITIES

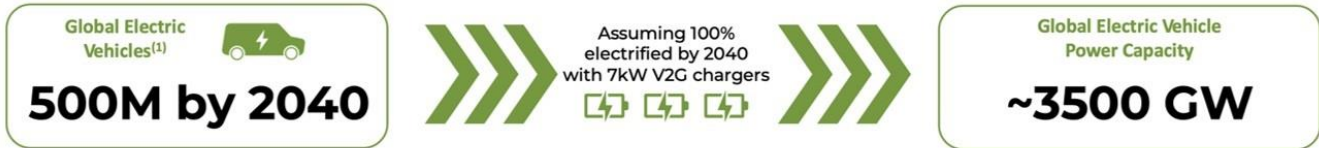
Nuveve is capable of providing all levels of Vehicle Grid Integration, including V2G, providing revenues from grid services and utility bill savings behind the meter.



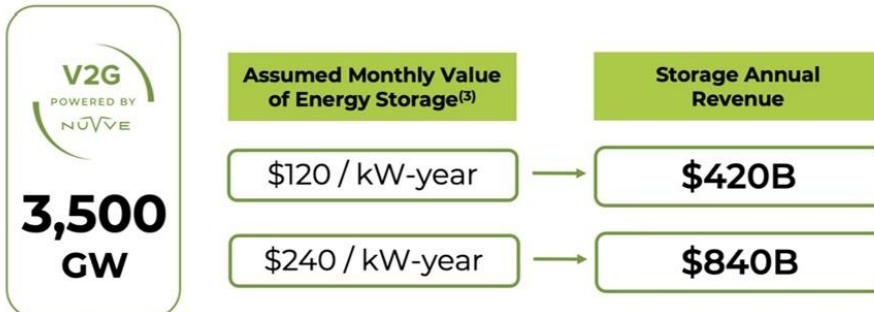
Source: SEC Filings

Strong Market Opportunity

MARKET OPPORTUNITY: PASSENGER VEHICLES



100% V2G electrification of global EVs by 2040 would represent over 3 times the total U.S. power generation capacity today(2)
 Assuming all electric buses are powered by Nuveve's proprietary V2G



(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.

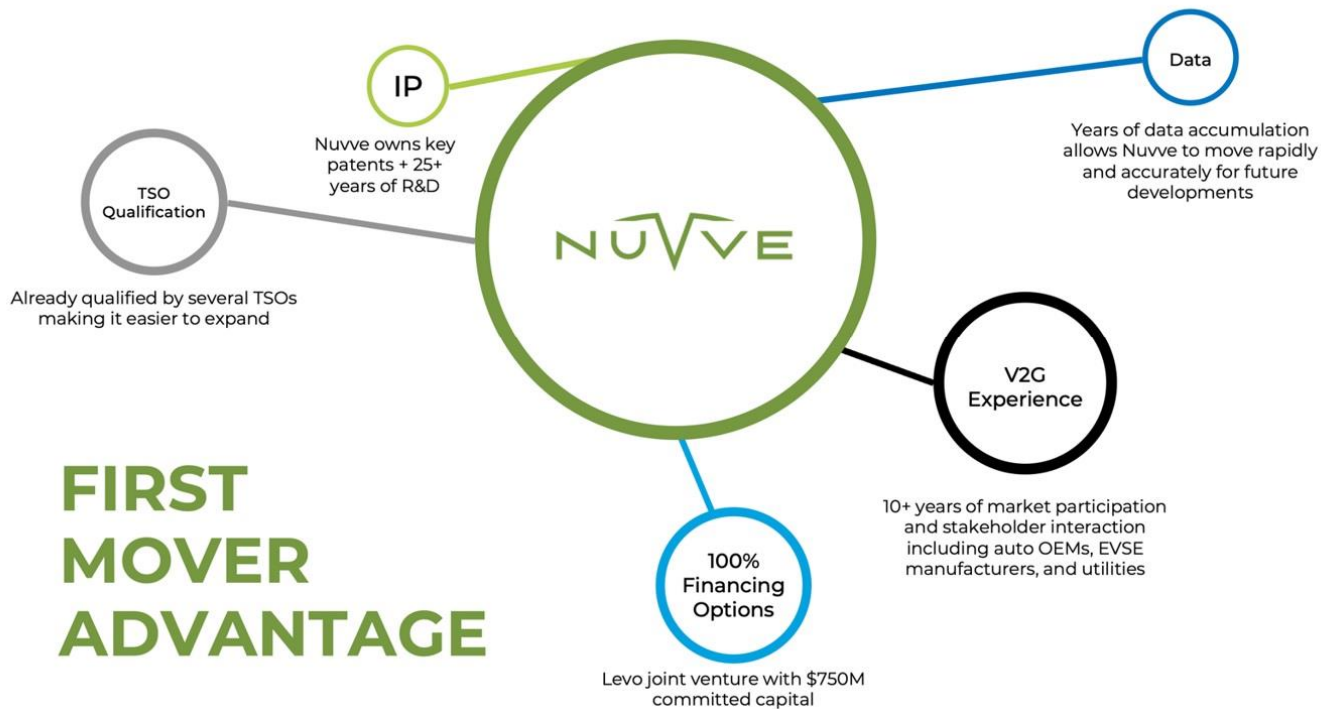


Source: Company Presentation

- Since Nuvve embarked on its journey in 2010, the electric vehicle (EV) landscape has undergone a transformative upswing, securing a pivotal role in the automotive sector and the broader sustainability crusade.
- With Bloomberg New Energy Finance (BNEF) forecasting a dramatic increase to 500 million EVs on the road by 2040, the ambition aligns with international climate objectives aimed at slashing the substantial 45% share of global CO2 emissions originating from internal combustion engines.
- The growth in EVs has been mirrored by an expansion of the charging infrastructure, as Schroders' analysis reveals a doubling in public charging points from 600,000 at the end of 2018 to more than 1.3 million by 2020, with predictions of \$80 billion in annual investments over the next twenty years.
- Accelerating this electric shift are prospective bans on fossil fuel vehicles, electrification directives for public transport, enticing utility incentives, and the plummeting costs of batteries.
- Nevertheless, the swift uptick in EVs poses fresh challenges, such as potential grid congestion and overstrain, calling for substantial enhancements to the current grid frameworks.
- The integration of renewable energy introduces a layer of unpredictability, highlighting the critical need for advanced vehicle-grid integration (VGI) and V2G technologies that adeptly manage grid voltage and frequency fluctuations in real-time.
- Nuvve leverages these innovations through V2G services that exploit available grid value streams like frequency regulation and peak-shaving, offering fleet operators not only additional income but also aiding in grid stabilization.
- These services act as a counterbalance to the inconsistency of renewable sources, buttressing the grid by modulating energy distributions to sustain frequency and manage capacity ramping requirements.
- EVs stand out as ideal distributed energy resources, particularly when renewable generation peaks mid-day, by absorbing surplus output. With a keen eye on the burgeoning potential within the commercial fleet niche, Nuvve envisions EVs as vehicles that are not merely more cost-effective and greener than their internal combustion counterparts but also as pivotal components in next-gen energy frameworks.
- By clustering EVs into virtual power plants, Nuvve's GIVE platform delves into the multi-billion-dollar energy and capacity markets, traditionally the domain of fossil-fuel power stations.
- Charting its path from perfecting a SaaS model to adapting to the evolving energy market dynamics and regulations, Nuvve's narrative is one of orchestrating a balance between the needs of motorists, the grid's stability, and the longevity of batteries, cementing its commitment to a future where energy utilization and transport seamlessly coalesce.

Electrifying Fleets and Forging Strategic Alliances

- Nuvve casts a wide net, tapping into diverse markets and forging strategic partnerships to spearhead the electrification of electric vehicles (EVs) and the expansion of energy services.
- The company's strategy encompasses both light and heavy-duty fleets, ranging from logistics providers to school buses, driving organizations towards electrification with enticing economic incentives and the allure of lower total ownership costs.
- At the heart of their approach is the GIVe platform, Nuvve's proprietary solution offering networked charging, infrastructure services, and professional support, all sweetened with warranties and the potential for slashed energy costs. Nuvve employs a direct sales force complemented by global channel partners to penetrate the market effectively.
- They are making inroads with automotive OEMs by integrating their technology into electric vehicles, thus enhancing vehicle appeal through operational cost savings and environmental stewardship. Charge point operators, too, are enticed by the competitive advantage conferred by the GIVe platform's smooth integration.
- Nuvve solidifies its European technological footprint through strategic alliances like Dreev with EDF. In North America, they see the shift from diesel to electric school buses as a ripe opportunity, prompted by increased OEM production and heightened interest from school districts.
- To leverage this, Nuvve launched Levo alongside Stonepeak and Evolve, delivering a comprehensive Fleet-as-a-Service model that bundles financing, maintenance, and V2G services into a single monthly fee, eliminating upfront costs and targeting school bus electrification.
- Nuvve's operational strategy includes running company-owned charging stations subsidized by government grants, a segment expected to contract as private sector activities burgeon.
- The company's revenue streams are anchored in grid service provisions, V2G charging station sales, and potential mobility fees levied on fleet operators.
- Committed to a capital-efficient approach, Nuvve channels investments into research and development, marketing, sales, and policy advocacy, aiming to fortify their GIVe platform and expand market presence through continuous policy dialogue, promoting EVs as integral to the energy market.
- As a trailblazer in V2G technology, Nuvve leverages its extensive patent portfolio and deep deployment acumen, outlining strategies for scale that include intensifying service and product rollouts, amplifying marketing and sales initiatives, and exploring strategic acquisitions, all designed to entrench its position as a leader and innovator in the V2G sector.



Source: SEC Filings

Solid R&D And Robust IP Arsenal

- Nuvve has established itself as a leader in vehicle-to-grid (V2G) technology, driven by a culture of innovation and a strong commitment to research and development, particularly in its proprietary GIVe software platform and its suite of services.
- The company's dedication to pushing the boundaries of what's possible in V2G solutions is embodied by their San Diego-based engineering team, a group of 17 full-time employees and 3 contractors who, as of the close of 2021, have been instrumental in the design, development, manufacturing, and exhaustive testing of their state-of-the-art V2G products.
- This significant investment in human capital underscores Nuvve's strategic focus on advancing their V2G capabilities. Importantly, Nuvve's dominance in the field is further solidified by a comprehensive intellectual property framework, adeptly combining patents, trademarks, copyrights, and trade secrets, complemented by confidentiality agreements and contractual protections, to shield its technological advancements.
- By the end of 2021, Nuvve had built an impressive intellectual property portfolio that included four issued U.S. patents, along with international patents across several key jurisdictions, and a number of pending patent applications.
- These patents cover a wide array of functionalities for both bi-directional and uni-directional EV charging, as well as the aggregation of grid services.

- This powerful portfolio is rooted in a strategic patent acquisition from the University of Delaware, providing Nuvve with a substantial competitive edge.
- The company's patent collection is more than a business asset; it represents the embodiment of Nuvve's overarching vision—to propel its V2G technology beyond mere commerce, shaping it as a driving force in the international progression towards more sustainable energy and transport ecosystems.

Standing Tall In Its Competitive Landscape

- In the rapidly developing electric vehicle (EV) market, Nuvve has established itself as a unique entity with its acclaimed GIVe platform, setting the gold standard in commercial vehicle-to-grid (V2G) technology.
- This platform enhances the utility of EV batteries by integrating them into the energy grid, thus solidifying Nuvve's unique position within a fiercely competitive arena.
- This distinct edge stems from its V2G capabilities, which, unlike conventional EV management systems like those from ChargePoint or Mobility House, have been rigorously tested and endorsed by various global grid operators for providing essential grid services.
- Amidst a backdrop of formidable players like General Electric and emerging contenders such as Fermata and Greenlots, Nuvve asserts its distinction through product efficacy, cost efficiency, sales robustness, brand dependability, and the breadth of its installation base.
- Nuvve's offerings go beyond industry standards by significantly lowering the total cost of EV ownership. It achieves this through reduced charging equipment costs, negligible or even non-existent energy costs for driving, exhaustive fleet management tools, and reliable maintenance services.
- While competitors grapple with the complexities of a functional V2G software platform, Nuvve's proven system emerges as an industry forerunner, seamlessly grouping EVs into a virtual power plant (VPP) and expertly handling bidirectional grid services—a feat unrivaled by its peers.
- Although giants like Tesla provide EV charging solutions, they have yet to enter the V2G arena, accentuating Nuvve's unparalleled market niche.
- Nuvve's competitive edge is fortified by a substantial intellectual property portfolio, endorsements from transmission system operators, more than a decade of market engagement, and a vast repository of data that fuels ongoing innovation.
- In a landscape populated by competitors with larger financial reserves and more expansive resource pools, Nuvve's innovative technology and deep market acumen highlight its capability not just to compete, but to lead in the vanguard of sustainable transportation and energy solutions.

Experienced Management Team

EXECUTIVE TEAM



GREGORY POILASNE
CO-FOUNDER & CEO



TED SMITH
PRESIDENT & COO



DAVID ROBSON
CHIEF FINANCIAL OFFICER

Source: Company Website

- At the helm of Nuvve's trailblazing journey into the world of energy transformation is a leadership team marked by extensive expertise and a history of success.
- Gregory Poilasne, Co-Founder and CEO, brings over two decades of experience in telecommunications to the company, offering a wealth of knowledge from his tenure in technology development and operations at innovative companies like DockOn and Ethertronics.
- His vision for Nuvve's strategic direction is complemented by the seasoned proficiency of Ted Smith, President and COO, whose financial acumen and regulatory compliance know-how stem from more than 20 years in finance, ensuring the effective development and global commercialization of Nuvve's technologies.
- Financial stewardship is further strengthened under David Robson, CFO, whose quarter-century of financial leadership spans roles in esteemed firms, skillfully guiding Nuvve's financial strategies and investor communications.
- Adding to this formidable team is Xavier Moreau, an adept strategist and business development leader whose ESCP Europe education and consulting background fuel his successful navigation of the energy sector.
- With his rich experience from Areva T&D and Schneider Electric, Moreau's understanding of the nuanced facets of decentralized energies, vehicle-to-grid systems, and the broader electricity market is invaluable.
- Together, this highly capable team is geared to steer Nuvve on a progressive path, leveraging their collective experience to innovate and lead in the dynamic nexus of renewable energy and transportation decarbonization.

HISTORICAL FINANCIAL STATEMENTS & PROJECTIONS (USD MILLIONS)

Particulars	9/30/22	12/31/22	3/31/23	6/30/23
Revenues	0.6	1.2	1.9	2.1
<i>% growth</i>		109.1%	60.9%	14.6%
Cost of Goods Sold	-0.3	-0.7	-1.5	-2.0
<i>% of revenue</i>	-50.9%	-64.3%	-78.9%	-92.0%
Gross Income (excl. D&A)	0.3	0.4	0.4	0.2
<i>% of revenue</i>	49.1%	35.7%	21.1%	8.0%
EBITDA	-8.5	-8.7	-7.7	-8.1
<i>% of revenue</i>	-1550.9%	-753.0%	-414.6%	-383.5%
Depreciation & Amortization	0.1	0.1	0.1	0.1
Extraordinary Expenses	0.0	0.0	0.0	0.0
EBIT	-8.6	-8.7	-7.8	-8.2
<i>% of revenue</i>	-1563.6%	-760.0%	-418.9%	-387.3%
Pretax Income	-6.7	-7.7	-7.7	-8.0
<i>% of revenue</i>	-1210.9%	-670.4%	-414.1%	-376.4%
Income Tax	-0.2	-0.1	0.0	0.0
<i>% rate</i>	2.6%	1.0%	-0.1%	-0.1%
Net Income	-6.5	-7.6	-7.7	-8.0
<i>% of revenue</i>	-1180.0%	-663.5%	-414.6%	-376.9%

Quarterly Cash Flow Summary (USD Million)

Particulars	9/30/22	12/31/22	3/31/23	6/30/23
Cash from Operations	-8.2	-5.9	-5.8	-3.2
<i>% of revenue</i>	<i>-1483.6%</i>	<i>-513.0%</i>	<i>-315.1%</i>	<i>-151.9%</i>
Cash from Investing	0.0	0.1	-1.3	0.1
Free Cash Flows	-8.2	-6.0	-4.5	-3.3
<i>% of revenue</i>	<i>-1489.1%</i>	<i>-520.9%</i>	<i>-244.3%</i>	<i>-156.1%</i>

- Let us start off with analyzing the most recent and historical quarterly data reported by the company.
- Nuvve Holding Corp has reported a top-line of \$2.12 million in its recent quarterly result which is a 14.59% appreciation over the previous quarter.
- The company reported a positive gross margin of 8.02% for the quarter ended 6/30/23.
- Its EBITDA for the quarter was \$-8.13 million and the EBITDA margin was -383.49%.
- This was a 31.10% margin expansion at the EBITDA level which is definitely a positive outcome.
- Nuvve Holding Corp's operating income (EBIT) was reported at \$-8.21 million and a margin of -387.26%. This EBIT margin grew by 31.65% in this quarter.
- The company's pre-tax margin for the quarter was -376.42%. The company's net margin was -376.89%.
- Now let us move on to the cash flow generation in the recent quarter.
- Nuvve Holding Corp burnt \$-3.22 million in terms of operating cash flows for the quarter ended 6/30/23.
- The company was able to convert about -151.89% of its revenues into operating cash flows in the recent quarter.
- This quarter's EBITDA-to-operating cash flow conversion ratio is 39.61%
- Overall, Nuvve Holding Corp delivered a negative free cash flow of \$3.31 million for the past quarter.

Balance Sheet	9/30/22	12/31/22	3/31/23	6/30/23
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Assets

Net Intangible Fixed Assets	0.0	0.0	0.0	0.0
Net Tangible Fixed Assets	6.0	5.9	5.8	5.7
Total Fixed Assets	6.0	5.9	5.8	5.7
<i>% of revenue</i>	<i>1092.7%</i>	<i>516.5%</i>	<i>313.5%</i>	<i>270.3%</i>
LT Investments	1.7	1.8	0.7	0.7
Inventories	11.8	11.6	10.0	8.9
<i>% of revenue</i>	<i>2140.0%</i>	<i>1004.3%</i>	<i>542.2%</i>	<i>421.7%</i>
Accounts Receivable	0.0	0.0	0.0	0.0
<i>% of revenue</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>
Cash and ST Investments	21.6	15.8	11.9	11.1
<i>% of revenue</i>	<i>3934.5%</i>	<i>1369.6%</i>	<i>640.5%</i>	<i>521.7%</i>
Other Current Assets	4.5	4.6	6.3	5.2
Total Current Assets	37.9	31.9	28.2	25.2
Other Assets	1.6	1.6	1.7	1.7
Total Assets	47.2	41.2	36.4	33.3

Liabilities & Shareholder's Equity

Equity & Minorities	33.7	27.2	21.5	17.4
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<i>% of capital employed</i>	83.8%	81.5%	78.2%	74.8%
LT Debt	0.0	0.0	0.0	0.0
Other LT Liabilities	6.5	6.2	6.0	5.9
Total LT Liabilities	6.5	6.2	6.0	5.9
<i>% of capital employed</i>	16.2%		21.8%	25.2%
ST Debt	0.0	0.0	0.0	0.0
<i>% of capital employed</i>	0.0%	0.0%	0.0%	0.0%
Accounts Payable	0.0	0.0	0.0	0.0
<i>% of COGS</i>	0.0%	0.0%	0.0%	0.0%
Other ST Liabilities	6.9	7.9	8.8	10.1
<i>% of revenue</i>	1260.0%	687.0%	477.3%	474.5%
Total Current Liabilities	6.9	7.9	8.8	10.1
Total Liabilities	13.5	14.1	14.8	15.9
Total Liabilities & Shareholder's Equity	47.2	41.2	36.4	33.3

- When we look at the quarterly Balance Sheet of the company, we see that the Fixed Asset base has evolved from \$5.8 million to \$5.73 million over the last 2 quarters.
- The current level of fixed assets, including tangibles & intangibles, is around 270.28% of the company's quarterly turnover.
- The company's receivables were around 0.00% of the quarterly top-line.
- As a result of the negative free cash flows, the company had a final cash and short-term investment balance of \$11.06 million.
- When we analyze the capital structure of Nuvve Holding Corp, we realize that the company relies more on equity to finance its operations.
- The company's equity accounts for 74.82% of its total capital employed whereas debt (both long-term and short-term) accounts for about 25.18% of the total capital.

Particulars	2020	2021	2022
Revenues	4.2	4.2	5.4
<i>% growth</i>			28.2%
Cost of Goods Sold	-0.5	-2.0	-4.2
<i>% of revenue</i>		-47.7%	-78.2%
Gross Income (excl. D&A)	3.7	2.2	1.2
<i>% of revenue</i>		52.3%	21.8%
EBITDA	-4.5	-27.1	-36.5
<i>% of revenue</i>		-645.8%	-679.3%
Depreciation & Amortization	0.2	0.2	0.3
<i>% of Fixed Assets</i>	160.0%	4.4%	4.9%
Extraordinary Expenses	0.0	0.0	0.0
EBIT	-4.7	-27.2	-36.8
<i>% of revenue</i>		-649.9%	-684.7%

Pretax Income	-4.9	-74.6	-24.6
<i>% of revenue</i>		-1780.9%	-457.4%
Income Tax	0.0	-2.1	-0.5
<i>% rate</i>	-0.2%	2.9%	2.2%
Net Income	-4.9	-72.5	-24.0
<i>% of revenue</i>		-1729.8%	-447.3%

- When we analyze the company's annualized historical income statement, we see that the top-line was \$5.37 million for the previous financial year ending in 2022.
- Nuvve Holding Corp's cost of goods sold has decreased from -47.73% to -78.21% as a percentage of the top-line resulting in a rise in the gross margins.
- The company's overall annual EBITDA margin of -679.33% is lower than the reported quarterly EBITDA margin for the most recent quarter.
- Non-cash expenses in the form of depreciation and amortization have gone up as compared to the result in 2021.
- In terms of the bottom-line, Nuvve Holding Corp reported an operating income (EBIT) of \$-36.77 million and a net income of \$-24.02 million resulting in an EPS of \$-1.19.
- The good news for investors holding the stock is that its net margin had increased from -1729.83% in 2021 to -447.30% in 2022.

Particulars	2020	2021	2022
Assets			
Net Intangible Fixed Assets	0	0	0
Net Tangible Fixed Assets	0	4	6
Total Fixed Assets	0	4	6

LT Investments	1	1	2
Inventories	1	11	12
<i>% of revenue</i>		265.4%	215.1%
Accounts Receivable	0	0	0
<i>% of revenue</i>		0.0%	0.0%
Cash and ST Investments	2	32	16
<i>% of revenue</i>		772.3%	293.3%
Other Current Assets	1	3	5
Total Current Assets	5	47	32
Other Assets	2	2	2
Total Assets	7	53	41
Liabilities & Shareholder's Equity			
Equity & Minorities	-1	30	27
LT Debt	0	0	0
Other LT Liabilities	0	13	6
Total LT Liabilities	0	13	6
ST Debt	4	0	0

Accounts Payable	0	0	0
% of COGS		0.0%	0.0%
Other ST Liabilities	4	9	8
Total Current Liabilities	8	9	8
Total Liabilities	8	22	14
Total Liabilities & Shareholder's Equity	7	53	41

- Nuvve Holding Corp has close to \$15.75 million in terms of liquidity i.e. cash and short term investments.
- The company's long term debt is around 0.2x times its equity.

Forecasted Income Statement - Annual (USD Million)

Particulars	2021	2022	2023E	2024E	2025E
Revenues	4.2	5.4	6.3	10.9	19.0
% growth		28.2%	17.3%	73.0%	74.3%
Cost of Goods Sold	-2.0	-4.2	-4.8	-8.1	-13.6
% of revenue	-47.7%	-78.2%	-76.3%	-74.1%	-71.8%
Gross Income (excl. D&A)	2.2	1.2	1.5	2.8	5.4

% of revenue	52.3%	21.8%	23.7%	25.9%	28.2%
EBITDA	-27.1	-36.5	-23.5	-20.2	-15.6
% of revenue	-645.8%	679.3%	-373.1%	-185.1%	-82.3%
Depreciation & Amortization	0.2	0.3	0.3	0.3	0.3
EBIT	-27.2	-36.8	-23.8	-20.5	-15.9
% of revenue	-649.9%	684.7%	-377.7%	-187.8%	-83.8%
EBT (GAAP)	-74.6	-24.6	-27.5	-24.2	-19.6
% of revenue	-1780.9%	457.4%	-436.4%	-221.7%	-103.3%
Net Income (GAAP)	-72.5	-24.0	-27.5	-24.2	-19.6
% of revenue	-1729.8%	447.3%	-436.4%	-221.7%	-103.3%
Earnings Per Share (GAAP)	-4.37	-1.19	-1.36	-1.20	-0.97

Forecasted Cash Flow Statement (USD Million)

Particulars	2021	2022	2023E	2024E	2025E
Net Income (GAAP)	-72.5	-24.0	-27.5	-24.2	-19.6
+ Depreciation & Amortization	0.2	0.3	0.3	0.3	0.3
+/- Working Capital, Deferred Taxes & Other Adjustments	43.1	-10.4	8.6	7.9	7.0
Cash Flow from Operations	-29.2	-34.1	-18.6	-16.0	-12.3
% of EBITDA	107.9%	93.4%	79.3%	79.1%	78.7%

Capital Expenditure	-0.3	-0.4	-0.4	-0.4	-0.4
% of revenues	6.4%	8.2%	6.6%	3.6%	2.0%
Other Investment Cash Flow items	0	-1	0	0	0
Cash Flow after Investments	-0.3	-1.4	-0.4	-0.4	-0.4
Free Cash Flow	-29.5	-34.5	-19.1	-16.4	-12.7

Key Ratios

Growth & Margins	2021	2022	2023E	2024E	2025E
Sales Growth	0.0%	28.2%	17.3%	73.0%	74.3%
EBITDA Margin	-645.8%	-	-373.1%	-185.1%	-82.3%
EBIT Margin	-649.9%	-	-377.7%	-187.8%	-83.8%
Net Profit Margin	-1729.8%	-	-436.4%	-221.7%	-103.3%

Leverage Ratios	2021	2022	2023E	2024E	2025E
Net Debt	-32	-16	3	20	32
Net Debt/ Equity	-1.1	-0.6			
Net Debt/ EBITDA	NA	NA	-0.1	-1.0	-2.1

- Now let us move on to Baptista Research's forecasts for Nuvve Holding Corp's income statement and cash flows.
- We forecast a top-line growth of 17.3% for 2023, around 73.0% for 2024, and about 73.0% for 2025.
- This growth is expected to translate into an EBITDA of \$-23.50 million in 2023 with a margin of -373.08%
- Nuvve Holding Corp's EBIT margin is expected to be -377.68% in 2023, about -187.78% in 2024, and -187.78% in 2025.
- Our estimate for the company's Net Income (GAAP) is \$-27.493 million implying a net margin of -436.41% and resulting in an earnings per share of \$-1.36.
- We expect the growth to follow a similar trend in 2024 and 2025.
- In terms of the cash flows, we expect Nuvve Holding Corp to generate around \$-18.6436126089386 million in operating cash flows in 2023.
- This implies an EBITDA-to-Operating-Cash-Flow conversion ratio of 79.32%
- Nuvve Holding Corp is expected to invest a lower amount in capex and other investing activities in 2023.
- Overall, the company is expected to generate free cash flows to the tune of \$-19.0616126089385 million in 2023.

DISCOUNTED CASH FLOW (DCF) VALUATION

Key DCF Assumptions

WACC	22.8%
CoD	0.0%
CoE	22.8%
Market Rate	6.0%
Risk Free Rate	4.8%
Beta	3
Perpetual Growth Rate (g)	32.6%
Terminal Value	129
Tax Rate	2.2%

- For the purpose of carrying out the discounted cash flow valuation of Nuvve Holding Corp, we have used the standard capital asset pricing model (CAPM).
- We have used a 6.0% equity market risk premium based on the S&P 500 returns for the past 5 years.
- The risk-free rate has been assumed as the 10-year Treasury Constant Maturity Rate of the U.S. at 4.80%.
- The company's stock is more volatile than the market as a whole and has a beta of 3.0 which we shall use without leveraging the same as we are going for the enterprise value approach."
- This is used in order to arrive at the cost of equity (CoE) of 22.8% which appears reasonable for a company like Nuvve Holding Corp.
- After incorporating the CoE and the CoD and average tax rate of 2.2%, we arrive at a Weighted Average Cost of Capital (WACC) of 22.8%.
- The terminal value is a key component of any DCF valuation as it accounts for the largest chunk of the total projected value of the company. There are a number of methodologies used to determine the same such as the perpetual growth rate method or the multiples method.
- In this case, we have gone ahead and determined the terminal value by applying the current EV/Sales ratio of 32.7 to our forecasted revenues of 2025.

EV and Market Cap	Current	2023E	2024E	2025E
Price (\$)	0.2	2.5	8.3	18.3
Outstanding Number of shares (million)	32.21	32.21	32.21	32.21
Total Market Cap (billion)	0.01	0.08	0.27	0.59
Net Debt	-16	3	20	32
Enterprise Value (billion)	-0.01	0.08	0.29	0.62

- After applying the discount rate (WACC) of 22.8%, we arrive at a price target of \$2.5 for 2023.
- Our target price at the end of 2024 is \$8.3 and for 2025 is \$18.3 which implies a total appreciation of nearly 9525.4% in the coming 3 years in the stock price.

Valuation Ratios	Current	2023E	2024E	2025E
EV/ Sales	-1.8	13.3	26.2	32.7
EV/ EBITDA	0.3	NA	NA	NA
Price/Earnings	NA	NA	NA	NA

KEY RISKS

- It is important to highlight the key risks associated with an investment in Nuvve Holdings as well as the inherent risks associated with the financial projections and price forecasts presented in this report.
- The success of Nuvve hinges on the broader acceptance and installation of electric vehicles and charging infrastructure, a dynamic influenced by consumer behavior, environmental policies, the presence of government incentives, the efficacy and cost of alternative technologies, and the progress of infrastructure development.
- Presently, Nuvve generates the majority of its income from the sale of charging stations, a market that can experience variability based on consumer demand, competitive forces, technological advancements, and the changing landscape of regulations.
- Nuvve could see an impact on its order backlog, revenues, and profit margins if there is a shift in how clean energy credits are claimed by customers, potentially removing these incentives from Nuvve's grasp.
- While Nuvve's market edge is heavily reliant on its intellectual property and specialized technology, safeguarding its patents, trademarks, and proprietary secrets from unauthorized use, challenges, or theft by others remains a persistent challenge.
- Nuvve's involvement in the joint venture with Levo Mobility LLC introduces a degree of risk and uncertainty that is beyond its direct control, including the potential for internal conflicts, disagreements, equity dilution, and liabilities.
- Operating in a competitive and quickly changing sector, Nuvve is up against formidable competition from established and emerging players, including utility companies, car manufacturers, tech firms, and other V2G service providers, many of whom enjoy more substantial resources, brand recognition, and market presence.
- Nuvve faces challenges in upholding robust financial reporting controls, particularly in addressing significant weaknesses previously identified in its financial record-keeping system related to duties segregation and access controls, as well as ensuring adequate accounting personnel levels.
- Changes in laws and regulations could pose additional challenges for Nuvve, impacting its operations across various domains, including environmental compliance, energy standards, data privacy, consumer rights, and financial regulations.
- Nuvve's operational landscape could be affected by broader economic, business, and competitive challenges, rising inflation and interest rates, geopolitical tensions, and the aftermath of natural disasters.
- The potential advantages for Nuvve from the U.S. House of Representatives' \$1.2 trillion infrastructure bill, which allots \$7.5 billion for EV charging infrastructure, are clouded by uncertainties related to the distribution, timing, and eligibility of funds, as well as industry competition and regulatory conditions.
- With respect to our price projection, we would like to clarify that the valuation of Nuvve Holdings in this report is specific to the date of the analysis i.e.09-11-2023.

- Another one of the biggest risks to Nuvve Holdings' model is the fact that the company's top-line growth is assumed to be consistently growing by a certain rate in the model. There is a possibility that this assumption might not hold true if the COVID-19 situation persists for too long. With respect to our price projection, we would like to clarify that the valuation of Nuvve Holdings in this report is specific to the date of the analysis i.e. 09th November 2023.
- We must emphasize that the projected valuation and the share price of Nuvve Holdings are dependent on the realization of the revenue growth, free cash flows and the other assumptions taken into account. Our analysis cannot be directed to providing any assurance about the achievability of these financial forecasts. There is a possibility that the actual results of the company are different from the projected results as a result of unexpected events and circumstances such as the realization of the threats mentioned in the paragraph above. Lastly, we would like to clarify that we had no interaction with the management of the company and they did not comment on the achievability or the reasonableness of the assumptions underlying the financial forecasts. Please check out our detailed disclosures at the end for further details.

ANALYST RATINGS

- Buy: Expected to outperform market over next 6 to 12 months. Minimal risk to fundamentals and valuation. Good long-term investment.
- Outperform: Expected to outperform the market over next 6 to 12 months but there is a moderate risk to fundamentals and valuation.
- Sell: Expected to significantly underperform the market over next 6 to 12 months. There is a strong likelihood of the security delivering negative returns and a very high risk to fundamentals and valuation.
- Underperform: Expected to underperform the market over next 6 to 12. There is a moderate to high risk to fundamentals and valuation.
- Hold: Expected to perform in line with the market over next 6 to 12 months. However, there is a moderate to high risk to fundamentals and valuation.

ANALYST INDUSTRY VIEWS

- Attractive: The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.
- In-Line: The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below.
- Cautious: The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below.
- Benchmarks for each region are as follows: North America - S&P 500; Latin America – MSCI EM Latin America Index; Europe – MSCI Europe; Japan - TOPIX; Asia - relevant country index or sub-regional index. Please contact us to know the relevant index in case it is not specified in the report.

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