

Executive Summary Energy Storage, Smart Grid, and Efficiency Funding and M&A 2022 Annual Report

Funding and merger & acquisition activity for the energy storage, smart grid, and efficiency sectors

http://www.mercomcapital.com



ENERGY STORAGE, SMART GRID, and ENERGY EFFICIENCY KEY FINDINGS

- Venture capital (VC) investments into the Energy Storage, Smart Grid, and Energy Efficiency sectors came to \$9.6 billion in 2022 compared to \$10.1 billion raised in 2021.
- Total corporate funding into these sectors, including debt and public market financing, increased in 2022 to \$31.7 billion compared to \$19.5 billion in 2021.
- Corporate funding into Energy Storage companies reached \$26 billion in 124 deals in 2022 compared to \$17 billion in 101 deals in 2021.
- VC funding for Energy storage companies in Q4 2022 totaled \$1.8 billion in 22 deals compared to \$1 billion in 26 deals in Q3 2022.
- Twenty-eight (28) Energy Storage M&A transactions were executed in 2022 compared to 24 transactions in 2021.

Energy Storage Top 5 VC Funded Deals in 2022

| Company | Country | Funding Type | Amount (\$M) | Investors |
|----------------------|---------|-----------------|-----------------|--|
| eolian | USA | Undisclosed | 925 | Banco Santander, Natixis, MUFG, Mizuho |
| Form | USA | Series E | 450 | TPG Rise, GIC and Canada Pension Plan Investment Board, ArcelorMittal, Breakthrough Energy Ventures, Capricorn Investment Group, Coatue, Energy Impact Partners (EIP), MIT's The Engine, NGP ETP, Temasek, Prelude Ventures, Vamos Ventures |
| Group14 TECHNOLOGIES | USA | Series C | 400 | Porsche, OMERS Capital Markets, Decarbonization Partners, Riverstone Holdings, Vsquared Ventures, Moore Strategic Ventures |
| ASCEND ELEMENTS | USA | Series C | 300 | Fifth Wall Climate, SK ecoplant, Oman Investment Authority, Lithium Americas Corporation, GLy Capital Management's New Mobility Fund, Mirae Asset Capital & LS, Shinhan GIB, Hitachi Ventures, Jaguar Land Rover's InMotion Ventures, TDK Ventures, Orbia Ventures, At One Ventures, TRUMPF Venture, Doral Energy-Tech Ventures. |
| HYDROSTOR | Canada | Undisclosed | 250 | Goldman Sachs Asset Management |
| | _ | Source: Me | room Conita | · |

Source: Mercom Capital Group

- Corporate funding into Smart Grid companies came to \$4.7 billion in 58 deals in 2022 compared to \$2 billion in 38 deals in 2021.
- Smart Grid VC funding in 2022 came to \$3.3 billion in 46 deals compared to \$1.2 million in 35 deals in 2021.
- Twenty Smart Grid M&A transactions were announced in 2022 compared to 19 transactions in 2021.



Smart Grid Top 5 VC Funded Deals in 2022

| Company | Country | Funding Type | Amount (\$M) | Investors |
|-------------------------|---------|-----------------|-----------------|---|
| Tull TeraWatt | USA | Undisclosed | 1,000 | Vision Ridge Partners, Keyframe Capital, Cyrus Capital |
| GRIDSERVE* | UK | Undisclosed | 243 | Infracapital |
| Arcadia | USA | Undisclosed | 200 | J.P. Morgan Asset Management's Sustainable Growth Equity Team, Keyframe Capital, Broadscale Group, Triangle Peak Partners, Camber Creek, Tiger Global Management, Wellington Management, Salesforce Ventures, Drawdown Fund, MCJ Collective |
| sense | USA | Series C | 128 | Volery Capital Partners, Blue Earth Capital, TELUS Ventures, MCJ Collective, Schneider Electric, Energy Impact Partners, Prelude Ventures, iRobot |
| Be. | UK | Undisclosed | 127 | Octopus Energy Generation |
| | | Source: Mei | com Capital | l Group |

- The Energy Efficiency sector's corporate funding increased by \$540 million in ten deals in 2022 compared to \$465 million in eight (8) deals in 2021.
- VC funding raised by Energy Efficiency companies in 2022 amounted to \$490 million in nine deals compared to \$122 million in seven deals in 2021.
- Two Energy Efficiency M&A transactions were announced each in 2022 compared to three in 2021.



TABLE of CONTENTS

| Introduction | 5 |
|---|-----|
| Energy Storage | 8 |
| Energy Storage Key Findings | 9 |
| Energy Storage Funding and M&A Activity By Quarter | 10 |
| Energy Storage Corporate Funding | 11 |
| Energy Storage Corporate Funding By Category | 12 |
| Energy Storage VC Funding (By Quarter) | 13 |
| Energy Storage VC Funding | 14 |
| Energy Storage VC Funding By Category | 15 |
| Energy Storage VC Funding Breakdown | 17 |
| Energy Storage Top VC Funded Categories | 18 |
| Q4 2022 - Energy Storage VC Funding By Category | 19 |
| Energy Storage VC Investments By Stage | 22 |
| Energy Storage VC Investments By Average Deal Size | 23 |
| Q4 2022 - Energy Storage VC Investments By Stage | 24 |
| Energy Storage Top 5 VC Funded Deals | 25 |
| Energy Storage Top VC Investors | 27 |
| Q4 2022 - Energy Storage Top VC Funded Deals | 28 |
| Energy Storage VC Activity By Country | 30 |
| 2014-2022 Energy Storage VC Activity By Country | 32 |
| Q4 2022 - Energy Storage VC Investors | 33 |
| Q4 2022 - Energy Storage VC Funding Deals | 39 |
| 2022 - Energy Storage Companies Funded by Oil/Gas/Utility Majors | .43 |
| Q4 2022 - Energy Storage Market Projections | 45 |
| Energy Storage Industry Updates | 46 |
| Energy Storage Debt and Public Market Financing (By Quarter) | 48 |
| Energy Storage Debt and Public Market Financing | 49 |
| Energy Storage Top 5 Debt and Public Market Financing Deals | 50 |
| Q4 2022 - Energy Storage Top Debt and Public Market Financing Deals | 53 |
| Energy Storage Debt and Public Market Financing Investors | .55 |
| Energy Storage Debt and Public Market Financing Activity | .56 |
| Energy Storage Initial Public Offering Activity | 59 |
| Select Energy Storage Companies Stock Performance | 65 |
| Announced Energy Storage Project Funding (By Quarter) | .66 |
| Announced Energy Storage Project Funding | .67 |
| Q4 2022 - Energy Storage Project Funding Investors | 68 |
| Energy Storage Project Funding Activity | 70 |
| Q4 2022 - Energy Storage Project Announcements | 72 |
| Energy Storage M&A (By Quarter) | 77 |
| Energy Storage M&A | 78 |
| Energy Storage M&A (By Category) | 79 |



| Energy Storage Disclosed M&A Transactions | 80 |
|--|------|
| Energy Storage Multiple Acquirers | 82 |
| Energy Storage M&A Activity | 84 |
| Energy Storage Project M&A (By Quarter) | 86 |
| Energy Storage Project M&A | 87 |
| Q4 2022 - Energy Storage Project M&A Activity | 89 |
| 2022 - Energy Storage Companies Acquired By Oil/Gas/Utility Majors | 93 |
| SMART GRID | 94 |
| Smart Grid Key Findings | 95 |
| Smart Grid Funding and M&A Activity By Quarter | 96 |
| Smart Grid VC Funding (By Quarter) | 97 |
| Smart Grid VC Funding | 98 |
| Smart Grid VC Funding Breakdown | 99 |
| Smart Grid VC Funding By Category | 102 |
| Smart Grid VC Investments By Category | 104 |
| Q4 2022 - Smart Grid VC Investments By Category | 106 |
| Smart Grid VC Investments By Stage | 109 |
| Smart Grid VC Investments By Average Deal Size | 110 |
| Q4 2022 - Smart Grid VC Investments By Stage | .111 |
| Smart Grid Top 5 VC Funded Deals | 112 |
| Smart Grid Top VC Investors | .114 |
| Q4 2022 - Smart Grid Top 5 VC Funded Deals | 115 |
| 2022 - Smart Grid Companies Funded By Oil/Gas/Utility Majors | 117 |
| Smart Grid VC Activity by Country | 118 |
| 2010-2022 - Smart Grid VC Activity by Country | 119 |
| Q4 2022 - Smart Grid Top VC Investors | .120 |
| Q4 2022 - Smart Grid VC Funding Deals | 123 |
| Smart Grid Industry Updates | 126 |
| Smart Grid Debt and Public Market Financing (By Quarter) | 127 |
| Smart Grid Debt and Public Market Financing | 128 |
| Select Smart Grid Companies Stock Performance | 129 |
| Smart Grid M&A (By Quarter) | 130 |
| Smart Grid M&A | .131 |
| Smart Grid M&A By Category | 132 |
| Smart Grid Multiple Acquirers | 133 |
| Q4 2022 - Smart Grid M&A Activity | 135 |
| EFFICIENCY | 136 |
| Efficiency Key Findings | 137 |
| Efficiency Funding and M&A Activity By Quarter | 138 |
| Efficiency VC Funding (By Quarter) | 139 |
| Efficiency VC Funding | 140 |
| Efficiency VC Funding By Category | 141 |



| Q4 2022 - Efficiency VC Funding By Category |
|--|
| Efficiency VC Investments By Stage143 |
| Efficiency VC Investments By Average Deal Size |
| Q4 2022 - Efficiency VC Investments By Stage145 |
| Efficiency Top 5 VC Funded Deals146 |
| 2022 - Efficiency Companies Funded By Oil/Gas/Utility Majors149 |
| 2014-2022 Efficiency VC Activity By Country150 |
| Q4 2022 - Efficiency VC Investors |
| Q4 2022 - Efficiency VC Funding Deals |
| Efficiency Debt and Public Market Financing (By Quarter) |
| Efficiency Debt and Public Market Financing154 |
| Efficiency M&A (By Quarter) |
| Efficiency M&A |
| Efficiency Multiple Acquirers157 |
| Q4 2022 - New Cleantech, Energy Storage, Smart Grid, and Energy Efficiency |
| Funds |

A total of **304** companies and investors are covered in Mercom's Energy Storage, Smart Grid, and Efficiency Funding and M&A Annual and Q4 2022 Report. The report is **161** pages in length and contains **130** charts, graphs, and tables.

Our Reports

Click here

to purchase
Mercom's Annual and Q4
Energy Storage, Smart
Grid, and Efficiency
Funding and M&A Report

Subscribe to

Mercom's weekly market intelligence reports: Energy Storage, Smart Grid & Efficiency, and Solar Visit:
MercomCapital.com
to
purchase
past reports

DISCLAIMER: © 2023 by Mercom Capital Group, Ilc. All rights reserved. Mercom hereby grants user a personal, non-exclusive, non-refundable, non-transferable license to use the Report for research purposes only. Mercom retains exclusive and sole ownership of all its Reports. When quoting from this report, please cite "Mercom Capital Group". Information contained in this publication is derived from carefully selected sources we believe to be reliable. Mercom its employees, affiliates, agents, and licensors do not warrant the accuracy, completeness, currentness, non-infringement, merchantability, or fitness for a particular purpose of this report. Nothing in this report constitutes or should be taken as investment advice. For information about this document, please contact us at 512-215-4452 or via email at: energy@mercomcapital.com.