



CONSTITUENT OVERVIEW

The Nasdaq OMX Clean Edge Smart Grid Infrastructure Index (QGRD) is designed to act as a transparent and liquid benchmark for the smart grid and electric infrastructure sector. The Index includes companies that are primarily engaged and involved in electric grid; electric meters, devices, and networks; energy storage and management; connected mobility; and enabling software used by the smart grid and electric infrastructure sector (including both pure play companies focused on the smart grid sector and diversified multinationals with smart grid sector exposure).

| COMPANY | STOCK TICKER | PP / NPP* | AT A GLANCE |
|----------------------------------|-------------------|-----------|---|
| ABB Ltd. | ABBN (Swiss) | PP | Transmission and distribution (T&D), automation, connected mobility, and digitization |
| Advanced Energy Industries, Inc. | AEIS | PP | Power conversion, measurement, and control solutions |
| Advantech Co., Ltd. | 2395 (Taiwan) | NPP | Industrial Internet-of-Things (IoT) and embedded boards for network edges in communication and electrical systems |
| AES Corp. | AES | NPP | Energy management, energy storage, and conversion. Activities include Fluence (energy storage joint venture with Siemens) and stake in Uplight (cloud energy management for utility sector) |
| Alfen N.V. | ALFEN (Amsterdam) | PP | Netherlands-based provider of energy storage, electric vehicle (EV) charging stations, and grid-edge technologies |
| American Superconductor Corp. | AMSC | PP | Electronic control systems and superconductive wires for grid management/optimization, wind turbines, and control systems |
| Analog Devices, Inc. | ADI | NPP | Integrated circuits for wireless infrastructure equipment, networking equipment, connected mobility, and energy management systems for industry |
| Aptiv Plc | APTV | PP | Provider of components for automotive electrical architecture, systems integration in connectivity and security, and autonomous driving technologies |
| Arcosa, Inc. | ACA | NPP | Energy equipment including wind turbine towers and structures for T&D |

*Denotes pure play vs. non pure play or diversified

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| AZZ Inc. | AZZ | NPP | T&D equipment |
| Belden, Inc. | BDC | NPP | Networking, connectivity, and cabling equipment |
| BYD Co. Ltd. | 1211 (Hong Kong) | NPP | Electric buses, EVs, and connected mobility systems and advanced batteries for energy storage |
| Cisco Systems, Inc. | CSCO | NPP | Global leader in networking systems and infrastructure with energy management offerings for utilities |
| Digi International, Inc. | DGII | NPP | IoT hardware, software, and services |
| E.ON SE | EOAN (Xetra) | NPP | Large Germany-based energy provider with a focus on intelligent networks and grid integration of renewable energy (RE) |
| Eaton Corp. Plc | ETN | PP | Intelligent power management (including energy management and building controls), vehicle electrification and connected mobility systems |
| Elia Group S.A. | ELI (Brussels) | PP | Grid operator in Belgium and in Germany; transmission management and grid load-balancing |
| Emerson Electric Co. | EMR | NPP | Building, power, and grid efficiency management systems and solutions |
| Enel S.p.A. | ENEL (Milan) | NPP | Italian state-owned utility with large base of T&D assets; Enel Green Power subsidiary owns and operates RE assets around the world; and Enel X, a provider of demand response solutions worldwide |
| EnerSys | ENS | NPP | Manufacturer and marketer of batteries for industrial applications, reserve power, and transportation |
| ENGIE S.A. | ENGI (Paris) | NPP | France-based utility shifting to zero-carbon energy deployment, grid integration of RE, and connected mobility and vehicle electrification |
| Enphase Energy, Inc. | ENPH | PP | Solar inverters and controls to condition solar power for use and transmission on the grid |
| ESCO Technologies, Inc. | ESE | NPP | Smart meters and other diagnostic measurement and monitoring systems |
| Fortis, Inc. | FTS (Toronto) | NPP | Canada-based electric utility holding company with investments in T&D networks |
| Generac Holdings, Inc. | GNRC | NPP | Backup power generators for residential and commercial markets with a growing focus on lithium battery systems |
| General Electric Co. | GE | NPP | Smart meters, transformers, and other power conversion products |

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| GS Yuasa Corp. | 6674 (Tokyo) | NPP | Stationary battery storage and automotive batteries |
| Hitachi Ltd. | 6501 (Tokyo) | NPP | Diversified global manufacturer active in smart meters, building controls, smart devices, energy management, and grid operations |
| Honeywell International, Inc. | HON | NPP | Energy control technologies including sensing and energy efficiency products for transportation, industry and buildings |
| Hubbell, Inc. | HUBB | NPP | Components for T&D |
| International Business Machines Corp. | IBM | NPP | Energy management hardware, software, and networks; automated metering infrastructure (AMI) |
| Itron, Inc. | ITRI | PP | Leading smart meter manufacturer; AMI solutions for electricity, gas, and water |
| Johnson Controls International Plc | JCI | PP | Intelligent energy management, smart buildings, storage, and connected mobility |
| Landis+Gyr Group AG | LAND (Swiss) | PP | Switzerland-based maker of smart and traditional meters |
| MasTec, Inc. | MTZ | NPP | Construction of transmission, power generation, and industrial infrastructure |
| Meidensha Corp. | 6508 (Tokyo) | PP | Infrastructure products for power generation, T&D, and EV connectivity and drivetrains |
| MYR Group, Inc. | MYRG | PP | Builder of T&D, substations, and RE projects |
| National Grid Plc | NG. (London) | NPP | T&D in U.K. and U.S. |
| NEC Corp. | 6701 (Tokyo) | NPP | Electronic components for power generation, energy storage, and conversion |
| Nexans S.A. | NEX (Paris) | NPP | Cable manufacturer for high-voltage projects such as smart grids, transmission, buildings and industrial operations |
| NGK Insulators, Ltd. | 5333 (Tokyo) | NPP | Ceramics technologies for insulation in transmission, mobile applications, and electronics; also active in utility-scale energy storage |
| Nissin Electric Co., Ltd. | 6641 (Tokyo) | PP | Transformers, smart power supply systems, and other power system components |
| NKT A/S | NKT (Copenhagen) | PP | Power cable manufacturer and installer across low-, medium-, and high-voltage applications |

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| nVent Electric Plc | NVT | PP | Electrical connection and protection solutions; focus on electric infrastructure |
| NVIDIA Corp. | NVDA | NPP | Graphics processing leader with applications in smart cities, grid edge, and connected mobility |
| NXP Semiconductors N.V. | NXPI | NPP | Smart connectivity/signal processing with applications for smart cities management and advanced mobility including autonomous vehicles |
| Oracle Corp. | ORCL | NPP | Utility and power management software |
| Osaki Electric Co., Ltd. | 6644 (Tokyo) | PP | Smart and traditional meters, distribution boards, wiring panels, and circuit breakers |
| Panasonic Corp. | 6752 (Tokyo) | NPP | Automotive and stationary battery storage |
| Prysmian S.p.A. | PRY (Milan) | PP | Maker of high voltage and undersea cables |
| PSI Software AG | PSAN (Xetra) | NPP | Energy management software for utilities, manufacturers, and infrastructure providers |
| Quanta Services, Inc. | PWR | PP | Designer/builder of generating stations, substations, and transmission lines |
| Red Eléctrica de España Corp. S.A. | REE (Madrid) | PP | Operator of the Spanish electrical grid |
| Redes Energéticas Nacionais, SGPS, S.A. | RENE (Lisbon) | PP | Operator of the Portuguese electrical grid |
| Samsung SDI Co., Ltd. | 006400 (Korea) | PP | Lithium-ion batteries for connected devices, EVs, and stationary storage |
| Schneider Electric SE | SU (Paris) | PP | Wide range of energy management systems, industrial controls, and interconnection components |
| Siemens AG | SIE (Xetra) | NPP | Diversified German company active in T&D, smart infrastructure, and connected mobility |
| SMA Solar Technology AG | S92 (Xetra) | PP | Inverters and other components for residential and utility-scale solar photovoltaic (PV) systems |
| SolarEdge Technologies, Inc. | SEDG | PP | Solar PV inverters; moving into EV infrastructure |
| SSE Plc | SSE (London) | NPP | T&D in Scotland and Northern England. Offers substation, distribution and monitoring and control systems and EV charging equipment and controls for RE systems |

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| Stella-Jones, Inc. | SJ (Toronto) | NPP | Canada-based producer of wooden utility poles |
| STMicroelectronics N.V. | STM | NPP | Electronic components for smart meters, smart grid, and connected mobility |
| Takaoka Toko Co., Ltd. | 6617 (Tokyo) | PP | Transformers, AMI, and EV charging systems |
| TERNA S.p.A. | TRN (Milan) | PP | Owner/operator of Italian national grid |
| Tesla, Inc. | TSLA | NPP | EVs, residential and commercial battery storage, solar panels & inverters |
| Toshiba Corp. | 6502 (Tokyo) | NPP | T&D products and services |
| Trimble, Inc. | TRMB | NPP | Utility software services including GPS-based grid management and outage control; vehicle fleet and autonomous vehicle management |
| Valmont Industries, Inc. | VMI | NPP | Steel and cement pole structures for T&D |
| Wasion Holdings Ltd. | 3393 (Hong Kong) | PP | Provider of AMI and energy efficiency management in China |
| WESCO International, Inc. | WCC | NPP | Cable and conduit products, electrical distribution, controls, and automation |
| Willdan Group, Inc. | WLDN | PP | Energy efficiency and energy management technologies and consulting services |

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