

# ACCELERATE THE ENERGY TRANSITION

## Orchestrate renewables for a sustainable energy grid of the future with GridOS® Orchestration Software

The energy transition is driving radical change across the ecosystem, bringing vast complexities, unpredictability and volatility to the grid. Utilities need a new way to manage the many systems and assets that form their networks, putting a safe, reliable, affordable and green grid at the center of decision-making.

The solution is grid orchestration.

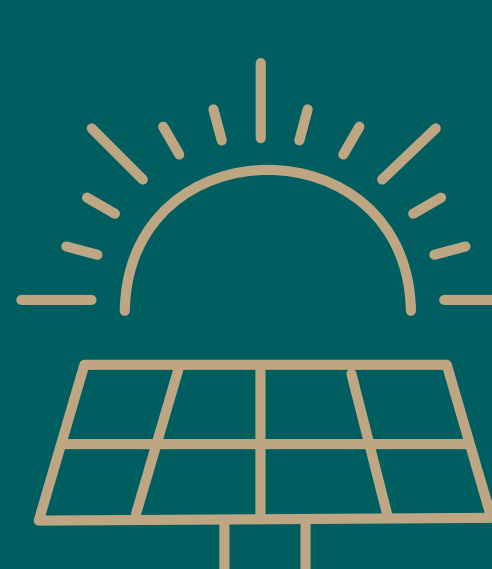
### GridOS® Orchestration Software

#### GridOS IS HERE TO HELP.

GridOS combines large scale renewables management, distributed energy generation management, and EV planning and management on a single platform.

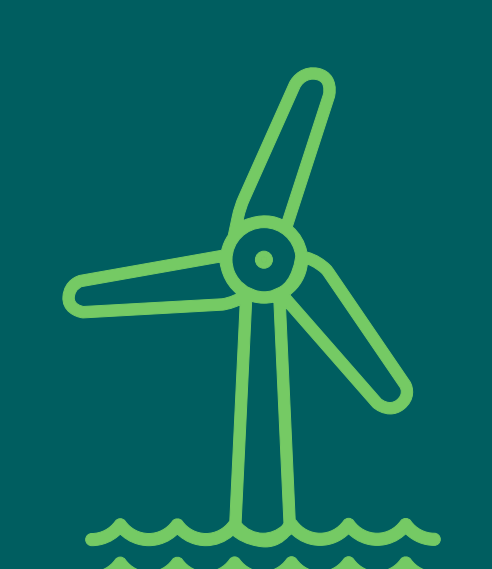
The GridOS portfolio enables utilities to orchestrate the complexity of a sustainable energy grid while delivering a reliable and resilient network.

## RENEWABLES ARE THE FUTURE OF ENERGY



Solar PV claims the most installed power capacity in forecasts worldwide by

**2027** Source: IEA



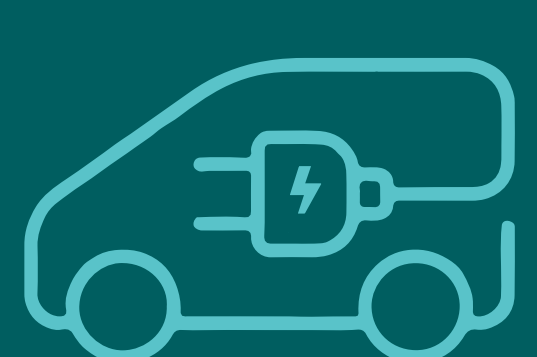
Global annual offshore wind by installations are expected to increase by

**50%** Source: IEA



Annual clean energy investment worldwide will need to **more than TRIPLE BY 2030** to reach Net Zero emissions by 2050

Source: McKinsey

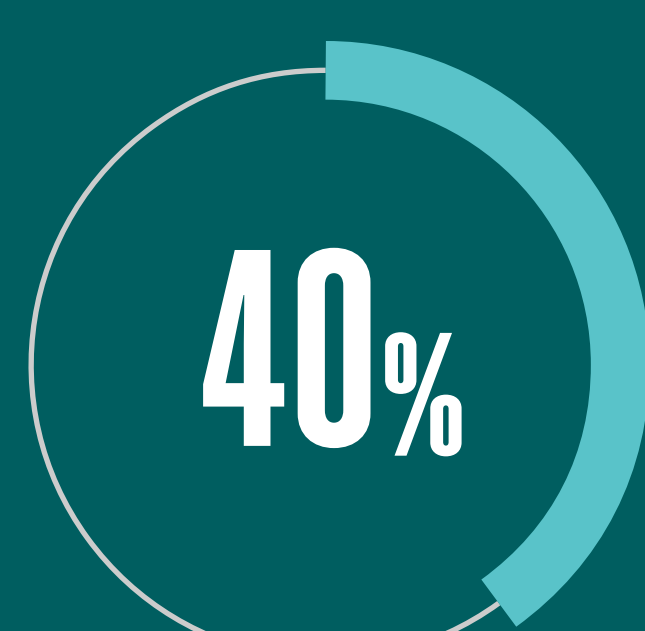


By 2030, **60%** of global car sales need to be electric in order to meet 2050 Net Zero goals Source: IEA

## CUT COMPLEXITY, REDUCE COSTS, AND MORE



GE Vernova Grid Software customers have managed clean energy grids with up to 70% renewables penetration



Avoid up to 40% in inertia management costs for large grids with high renewables penetration

Data based on a single demonstration project - NG ESO in UK. Results may vary based on utility's generation mix.

**AEMS PLATFORM** can make an auto-restoration plan in less than **10 seconds** for an area covering 3.5 million people

Data based on a single demonstration project - PG&E in US.



## THE POWER OF GE VERNOVA

**~30%** of the world's electricity is generated with the help of GE Vernova technology

**130+ YEARS** of grid innovation

**90%** of the world's power transmission utilities are equipped with GE Vernova technology

**1,000** scientists and engineers, including more than 500 Ph.D.s

Source: 2022 GE Sustainability Report

## PRODUCTS THAT ACCELERATE THE JOURNEY TO NET ZERO

### Advanced Energy Management System (AEMS)

- Manage large scale renewables
- Regulate wind power by calculating the precise amount required for the grid
- Create power restoration plans for faster recovery from disruptions
- Digitally estimate and increase line rating
- Calculate the right amount of inertia needed to restore the grid to a safe point

### Distributed Energy Resource Management System (DERMS)

- Monitor, integrate and manage Distributed Energy Resources (DERs)
- Automate connection acceptance workflow for maximum efficiency
- Simulate EV growth to determine impact on the grid
- Anticipate and avoid grid violations
- Enable Non-Wire Alternatives to optimize expenditures

### Advanced Distribution Management System (ADMS)

- Orchestrate the distribution grid beyond the functions of simply Supervisory Control and Data Acquisition (SCADA), Distribution Management System (DMS) and Outage Management System (OMS)
- Draw on DERs and controllable loads to balance the grid for maximum reliability
- Prepare for and recover from disruptive events quickly and safely
- Increase workforce access beyond the control room

