ENERGY RESILENCE FOR TOMORROW BUILDS SUSTAINABILITY TODAY

A resilient energy supply for critical municipal services can help your community improve sustainability and lower energy costs

Honeywell City Suite Power Manager



HONEYWELL CITY SUITE POWER MANAGER

Don't wait for extreme weather to dictate your energy strategy. When your community proactively prepares for outages, you're better able to mitigate risk and keep critical services operating – such as emergency response, community shelters, water, and wastewater.

The benefits go deeper: the Power Manager module of Honeywell City Suite can also help you reduce utility and operational costs, meet sustainability goals, and give you a single view of municipal operations.

ENERGY SECURITY IS A CHALLENGE

Rising energy costs, complicated utility billing, and expanding sustainability requirements are already challenging city decision makers.

More concerning is that experts in numerous fields – scientists, market analysts, investors, insurers, legislators – predict bigger changes ahead.

Energy shortages, heat waves, and extreme weather lead the news, and climate effects that were modeled for 25–50 years in the future are also emerging now.¹ In short: the frequency and cost of volatile weather and unstable grids are creating an urgent need to be better prepared.

Fortunately, the megatrend toward electrification is a promising response,^{2,3} with government agencies promoting the transition to "grid-interactive" buildings and cities that can adjust usage and power sources.⁴ Resilience funding is also being provided to help communities prepare for extreme weather.⁵

RESILIENCE IS A PLAN TO SUCCEED

The Power Manager module of Honeywell City Suite is your operating system for energy resilience: Monitor grid status, utility rates, and weather to optimize the use of your local power-storage (BESS) and power-generation assets (solar PV, gensets etc).

The core software also integrates your municipal systems into a unified platform that helps bridge departmental silos to coordinate operations with greater clarity, day to day, and in emergencies.

First, we help you assess and prioritize needs. Then we prepare your infrastructure for three core capabilities – to monitor, control, and optimize power use.



MONITOR Power beyond the grid

Power Manager delivers a complete microgrid with solar PV, energy storage, and traditional generators. Cleaner sources⁶ of alternate power keep city services operational using technologies such as a microgrid with a Honeywell Experion[™] control system and Honeywell battery energy storage.



CONTROL Adapt in real time

Severe-weather warnings identify infrastructure and areas likely to be impacted so you can prepare. IoT integration lets you modify usage as needed, including distributed energy resources and automated demand response.



OPTIMIZE Analytics and automation

Power Manager uses intelligent algorithms to optimize on-site microgrid operations by evaluating utility costs and carbon emissions when the utility is experiencing high usage, frequency changes, and/or power disruptions.

READINESS DRIVES RESULTS

From a foundation of monitoring, control, and optimization, Power Manager gives you access to diverse capabilities across your community.

Keep critical services operational

- Build energy resilience with off-grid generation and storage, and the option to incorporate renewable sources
- Keep critical systems operating and recover more quickly from outages
- Dynamically manage loads to extend supply during storms, heat waves, or other prolonged extremes (coming soon)
- Plan for possible outages using severe weather alerts and analysis

Streamline municipal operations

- Get a unified view of operations across departments and services
- Improve response times without proportionate staffing increases
- Monitor energy use by system, and availability of backup energy
- Receive alerts when configurable usage thresholds are reached

Support sustainability goals

- Track energy, scope 1 $\&\,2$ emissions, 7 and key performance indicators (KPIs)
- On-site generation, solar/PV and storage can reduce and offset emissions from diesel and natural gas generation
- Leverage growing incentives for electrification of buildings, assets, and vehicles
- Document energy use and emissions for compliance and taxation

Help improve operational savings

- Store surplus power and discharge it when needed
- Avoid peak-demand charges by automatically drawing from alternate sources based on customizable policies and settings
- Intelligent algorithms can optimize energy use based on utility pricing and weather (coming soon)

Provide analytics across departments

- Gain visual analysis of all departments and facilities, down to single assets
- Filter and benchmark KPIs such as microgrid metrics, carbon avoidance, energy consumption and microgrid savings
- Visualize KPIs in real time, as trends, and forecasts



SOURCES

- 1 "We haven't built for this climate," Axios, Freedman, Andrew, 2 August 2022. Accessed 12 October 2022.
- 2 "Building Electrification Could Recharge Our Economy And Save The Climate," Forbes, Baldwin, Sara, 20 September 2021. Accessed 12 October 2022.
- 3 "Electrifying the future: Current trends, future pathways, and potential challenges," American Public Power Association, Zummo, Paul, 14 July 2022. Accessed 12 October 2022.
- 4 U.S. Department of Energy. "Grid-Interactive Efficient Buildings Fact Sheet," Energy.gov, 24 April 2019. Accessed 12 October 2022.
- 5 The White House. "<u>FACT SHEET: Biden Administration Announces Nearly \$5 Billion in Resilience Funding to Help Communities</u> <u>Prepare for Extreme Weather and Climate-Related Disasters</u>," Briefing Room, 9 August 2021. Accessed 17 October 2022.
- 6 U.S. Department of Energy, <u>Clean Energy</u> [Accessed Nov. 11, 2023]
- 7 Scope 1 and 2 greenhouse gas emissions are measured using the latest standards from the Intergovernmental Panel on Climate Change's Fifth Assessment Report (IPCC AR5).

Transform energy resilience into community strength

Honeywell City Suite Power Manager

https://buildings.honeywell.com/us/ en/industries/smart-cities

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