

Research Report

## **Executive Summary**

# **Guidehouse Research Leaderboard: Renewables and Energy Storage Systems Monitoring & Control**

Assessment of Strategy and Execution for 15 Renewables and Energy Storage Systems M&C Vendors

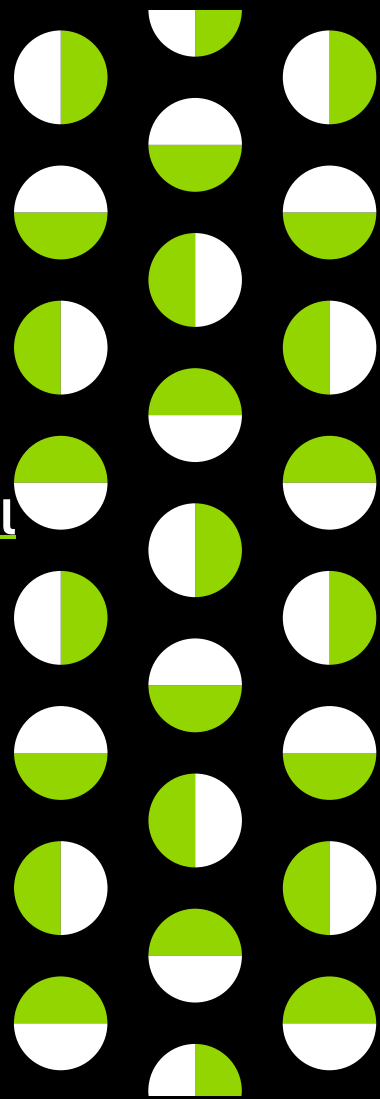
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## Section 1

# Executive Summary

### 1.1 Market Introduction

The monitoring and control (M&C) market for renewable energy and energy storage is entering a phase of accelerated growth, driven by rising renewable penetration, grid modernization, and the need for advanced digital solutions. Guidehouse Research expects that over the next decade, global revenue from renewables and energy storage M&C and asset management will grow from an estimated US\$11.3 billion in 2025 to US\$34.4 billion in 2034 at a CAGR of 13.10%. Increasing complexity in asset portfolios and the emergence of hybrid systems are pushing operators to adopt platforms that deliver real-time intelligence and predictive capabilities. Key trends shaping this market include the integration of AI and machine learning for performance optimization, growing emphasis on cybersecurity, and interoperability across renewable and energy storage technologies. Additionally, regulatory pressures and participation in flexibility markets are creating new opportunities for vendors that can deliver scalable, secure, and future-ready solutions.

This *Guidehouse Research Leaderboard* examines 15 M&C providers that offer M&C solutions for renewable energy assets and energy storage systems.

The *Guidehouse Research Leaderboard* criteria include:

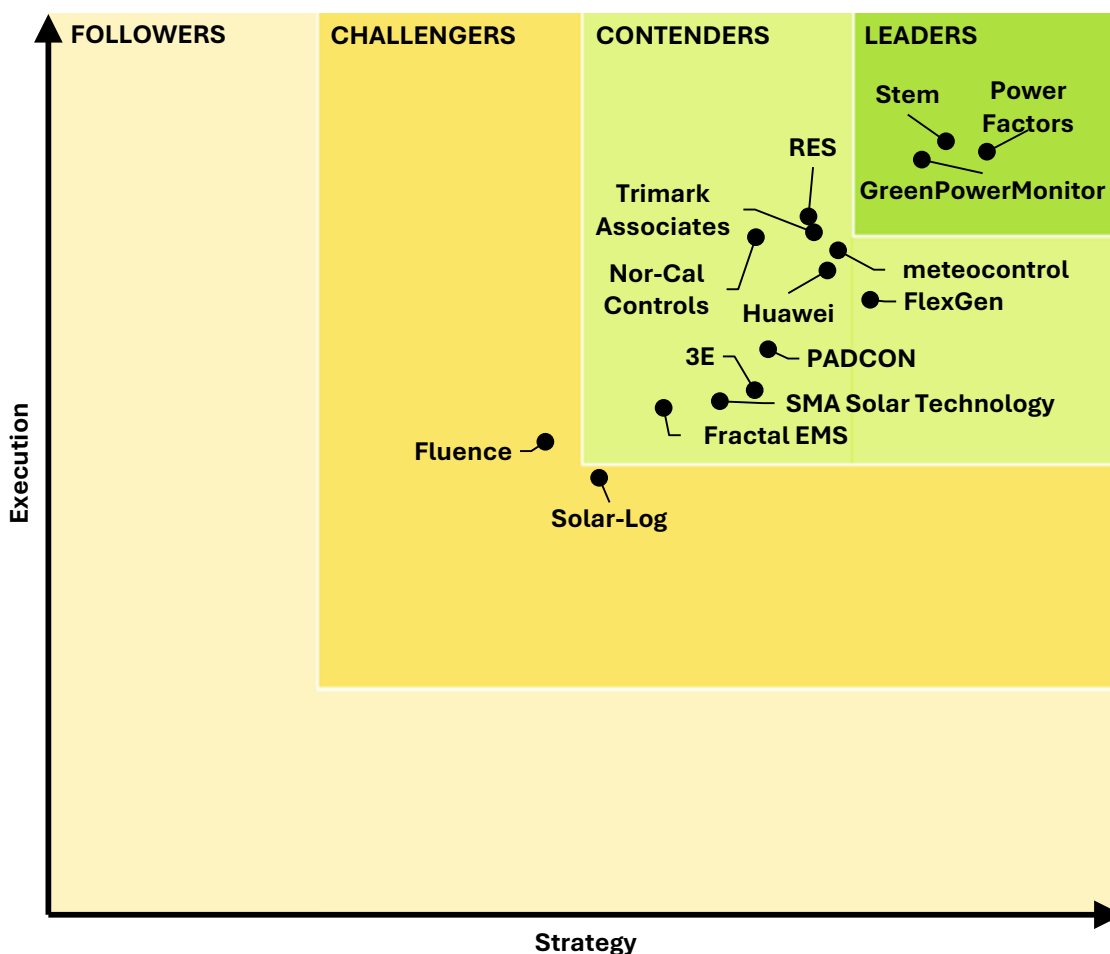
- Vision
- Go-to-Market Strategy
- Partners
- Technology
- Geographic Reach
- Sales and Marketing
- Product Performance
- Pricing
- Product Portfolio and Integration
- Staying Power

Detailed descriptions of each criterion are provided in the Criteria Definitions section of this report.

## 1.2 The Guidehouse Research Leaderboard Grid

Three companies achieved Leader status in this analysis: Power Factors, Stem, and GreenPowerMonitor. These companies are distinguished by their leading-edge technologies, comprehensive sets of M&C features, robust end-user bases, and proven integration and scalability. Ten companies ranked as Contenders: RES, meteocontrol, Trimark Associates, FlexGen, Huawei, Nor-Cal Controls, PADCON, 3E, SMA Solar Technology AG, and Fractal energy management systems (EMS). Solar-Log and Fluence are the only companies ranked as Challengers, largely due to unaddressed gaps in market strategy, sales, and a more limited product offering. For this Guidehouse Research Leaderboard, no companies ranked as Followers. The renewables M&C market is relatively mature, so the active players are in strong positions.

**Chart 1-1. The Guidehouse Research Leaderboard Grid**



(Source: Guidehouse Research)

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### 8.1 Scope of Study

Guidehouse Research prepared this *Leaderboard* to provide a timely overview of leading companies in the M&C market for renewables and energy storage. Company rankings reflect current positions based on Strategy and Execution in delivering M&C solutions at scale. These ratings may shift as vendors advance technologies, form strategic partnerships, expand sales channels, grow their user base, and demonstrate their ability to deliver the full benefits of monitoring and control of renewable energy and energy storage assets.

### 8.2 Sources and Methodology

Guidehouse Research's industry analysts use a variety of research sources in preparing research reports. The key component of Guidehouse Research's analysis is primary research gained from phone and in-person interviews with industry leaders including executives, engineers, and marketing professionals. Analysts are diligent in ensuring that they speak with representatives from every part of the value chain, including but not limited to technology companies, utilities and other service providers, industry associations, government agencies, and the investment community.

Additional analysis includes secondary research conducted by Guidehouse Research's analysts. Where applicable, all secondary research sources are appropriately cited in this report.

These primary and secondary research sources, combined with the analyst's industry expertise, are synthesized into the qualitative and quantitative analysis presented in Guidehouse Research's reports. Great care is taken to ensure that all analysis is well-supported by facts, but where the facts are unknown and assumptions must be made, analysts document their assumptions and are prepared to explain their methodology, both in the body of a report and in direct conversations with clients.

Guidehouse Research is a market research group whose goal is to present an objective, unbiased view of market opportunities in its coverage areas. Guidehouse Research is not beholden to any special interests and can thus offer clear, actionable advice to help clients succeed in the industry, unfettered by technology hype, political agendas, or emotional factors that are inherent in cleantech markets.

#### 8.2.1 Vendor Selection

The companies evaluated in this *Leaderboard* are providers in M&C solutions for renewable energy and energy storage assets. While many M&C providers exist today, this *Leaderboard* selected vendors that have mature M&C offerings with

robust features and a sizable end-user base. Most of the vendors included have been evaluated in previous *Guidehouse Research Leaderboards*.

## 8.2.2 Ratings Scale

Companies are rated relative to each other using the following point system. The ratings are a snapshot in time, showing the current state of the company. These scores are likely to be fluid as new competitors enter the market and customer requirements evolve.

- Very Strong 91 – 100
- Strong 76 – 90
- Strong Moderate 56 – 75
- Moderate 36 – 55
- Weak Moderate 21 – 35
- Weak 11 – 20
- Very Weak 1 – 10

### 8.2.2.1 Score Calculations

The scores for Strategy and Execution are weighted averages based on the subcategories. The overall score is calculated based on the root mean square of the Strategy and Execution scores.

## 8.2.3 Criteria Definitions

### 8.2.3.1 Strategy

- **Vision:** Measures the company's stated goals in designing market solutions against the actual needs of customers based on the entire environment in which it will operate. Clear and compelling visions that are effectively communicated to the industry result in higher scores.
- **Go-to-Market Strategy:** Evaluates the company's strategy for reaching the target market, including the sales and marketing channels to be used, as well as the processes established for informing the target market about brand differentiation and unique product value.
- **Partners:** Measures the company's established partnerships with key entities that will provide an advantage in expanding its technological and financial capabilities and open the company to new sales channels.
- **Technology:** Evaluates each company's M&C offerings based on key technological attributes like cloud and edge capabilities, advanced analytics, cybersecurity, user interface and visualization, and platform flexibility. These technological attributes are critical to delivering advanced M&C features at a



meaningful scale. Higher scores are given if the company's technology is already proven to be a market success.

- **Geographic Reach:** An evaluation of company's ability to reach national and international customers through networks of distributors and resellers. Higher scores are given to companies that operate in multiple global regions.

#### 8.2.3.2 *Execution*

- **Sales and Marketing:** Evaluates the company's marketing and sales performance and current distribution channel. Higher scores are given to companies with large end-user bases that have seen strong and consistent growth in the last few years.
- **Product Performance:** Evaluates vendors on the reliability, accuracy, and responsiveness of their M&C solutions. Key factors include system uptime, data quality, real-time performance, and the ability to maintain optimal operation of renewable energy assets and ESS under varying conditions.
- **Pricing:** Determines the suitability of product pricing based on its feature set, including whether products are available at multiple price points and how pricing compares to that of competitor products. Price transparency is also a factor that is evaluated.
- **Product Portfolio and Integration:** Assesses the breadth and depth of each vendor's product portfolio, including support for multiple renewable energy technologies and energy storage systems. Evaluation also covers integration capabilities with third-party platforms, grid systems, and other energy management solutions to ensure seamless interoperability.
- **Staying Power:** Evaluates whether the company has the financial resources to withstand weak or variable markets. Also measures the company's likelihood to continue to pursue products in the event of market softening. Higher scores are given to companies with better financial performance and more capability to survive market downturns.

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## Guidehouse Research Leaderboard: Renewables and Energy Storage Systems Monitoring & Control

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