

# Simplifying Actuation to Improve Reliability

As renewable energy production expands across biomass, waste-to-energy and alternative fuel facilities, material handling system reliability has become a critical priority. These plants operate in demanding conditions where uninterrupted flow control directly affects efficiency, safety and production continuity.

Renewable processing environments introduce challenges that place stress on mechanical systems. Facilities regularly handle materials with inconsistent density, high moisture levels, and abrasive ash or particulate matter. Operations also occur in dust-sensitive environments where safety and containment are essential. Combined with continuous production schedules, these factors make downtime especially costly. Within these systems, reliability at each control point—particularly valve actuation—plays a significant role in overall plant performance.

Traditional pneumatic actuation has long served as a standard approach in bulk material handling. While effective in many industrial applications, pneumatic systems introduce additional infrastructure and operational dependencies. Compressed air systems require consistent pressure, clean air lines and routine maintenance. In renewable environments where moisture, dust and particulate buildup are common, these variables contribute to performance variability and increased maintenance demands. As facilities focus on improving uptime and simplifying system architecture, they need actuation strategies that reduce dependencies and stabilize performance.

Electric Valve Actuation represents one such approach. Rather than focusing solely on the power source, the greater value lies in sim-

plifying how actuation systems function within complex processing environments. By reducing infrastructure requirements and failure points, simplified actuation designs help maintain more consistent valve performance.

Applications such as biomass feed systems, ash handling, dust collection discharge and alternative fuel processing require equipment operating reliably under high-cycle conditions while managing abrasive materials, temperature variation and moisture exposure. In these settings, reducing mechanical complexity can play a meaningful role in improving operational consistency.

To address these challenges, Plattco Corporation has introduced a patented Electric Valve Actuation solution developed specifically for harsh bulk material handling environments common in renewable processing. The design focuses on simplifying actuation architecture while maintaining the durability required for industrial conditions. This development builds on decades of engineering focused on durability and efficiency in valve technology. Earlier innovations such as the double flap valve—originally created to replace disposable valve solutions—demonstrated how more robust designs could reduce waste while improving long-term reliability.

As renewable infrastructure continues to scale, the need for dependable, low-maintenance systems will increase. Solutions that simplify actuation while supporting consistent valve performance offer facilities a practical path toward improved uptime, operational stability and long-term efficiency.

## SIMPLIFY RELIABILITY IN RENEWABLE PROCESSING

**Electric Valve Actuation**  
Designed for Complex  
Renewable Environments

Meet EVA – the patented breakthrough from Plattco engineered to stabilize your most demanding applications.

In biomass, waste-to-energy, and alternative fuel, EVA brings **reliability** where it matters most.

### KEY ADVANTAGES

- ✓ Simplified actuation architecture
- ✓ Reduced maintenance requirements
- ✓ Consistent valve performance in harsh conditions
- ✓ Engineered for renewable processing systems



Electric precision. Industrial strength.

**PLATTCO CORPORATION**

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