

By focusing on the unique needs of each customer, Central Railway Manufacturing has worked with leaders in the freight transportation industry to turn their energy management visions into a reality.

## Throttle Assist Gateway

Central Railway Manufacturing's equipment portfolio includes TAG, an electronic physical interface to locomotive throttles, dynamic braking, and high horsepower control of a locomotive. Specifically designed for retrofit energy-management applications, TAG is a cost-effective approach to saving fuel and reducing emissions as part of a flexible yet cohesive energy-management strategy.

### Insight into TAG technology...

The Throttle Assist Gateway provides a stand-alone communications-based physical control stand interface to allow a host computer to access and control locomotive throttles. Throttle signals from the control stand and train-line are intercepted by TAG, and are either passed through to the local governor or blocked while the throttle commands set by the host computer via Ethernet are asserted onto the governor valves. This allows individual throttle control of each locomotive in a TAG-equipped multiple unit consist. For dynamic braking, TAG drives the dynamic brake excitation from the lead locomotive in a single or multiple unit configuration, where dynamic brake control signals are wired in parallel with the locomotive control stand.

TAG, available with LSI rack or wall mounting options, has been field-proven with New York Air Brake's LEADER™ freight train energy management system. The TAG also supports the M-9155 protocol, making it an ideal LCCM-compliant throttle interface.



### Fuel savings at your fingertips...

TAG can accept commands from any Ethernet-based host that can implement industry-standard AAR Class D EMP messaging, ensuring flexibility and ease of integration into existing on-board networks. With this messaging interface, TAG empowers the deployment of energy management applications such as geo-fenced (GPS-based) remote idle constraints.

For applications without an on-board network, TAG can be deployed with Central Railway Manufacturing's Engineer Assist Screen. EAS is designed specifically to enable TAG applications, instantly enabling visibility and control of all TAGs connected within an MU consist. From EAS in the lead locomotive, the engineer can command one or any TAG-enabled trailing locomotives into idle or other throttle setting utilizing TAGs integrated train-line communications, while also monitoring real-time train-line signals such as the throttles and dynamic brake with an intuitive display.