

# Keep your rolling stock on the move.

Technical Support & Spares Supply Agreements for Rolling Stock

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# Improve Reliability, Stabilize Costs, Eliminate Uncertainty

Transit providers are under continuous pressure to maintain safe, reliable service and stay within budget. Key objectives for transit providers include:

- Optimize fleet reliability
- Maximize fleet availability
- Stabilize maintenance costs

Equipment issues, unplanned maintenance and obsolete or out-of-stock parts can take vehicles out of revenue service for days or weeks at a time. These situations cause headaches for management and strain tight budgets. Given the many challenges of providing reliable transit service, how can you effectively prepare for what you don't know in terms of supplies and maintenance? How can your agency better control costs and plan budgets? How can you truly optimize the long-term performance and availability of your rolling stock?

Siemens developed its Technical Support & Spares Supply Agreements (TSSSA) to meet these challenges and support the goals and objectives of transit providers. TSSSAs are designed to improve maintenance operations and fleet performance while stabilizing maintenance costs.

#### We Assume the Risk

With a TSSSA, you have a predictable cost structure that is determined by the services and support provided. If the cost of parts increases, we cover the increase. If a part goes out of production, we secure a replacement for you. A TSSSA eliminates the fluctuating costs that can make budgeting and maintenance so difficult.

**Based on Performance Measurements** Your goals for reliability and availability set the benchmark against which we track and measure our performance. The TSSSA is designed to meet these targets and support your program objectives. We work to continuously improve our performance and the performance of your fleet.



Benefit from the increased reliability of your rolling stock and the stable cost structure of a TSSSA. With Siemens as your partner, more of your vehicles are available for revenue service.

A TSSSA is tailored to support your specific goals and meet the needs of your agency. The agreement is designed to work with and build on your strengths. Our technicians and services integrate well with an organized workforce and do not impact labor agreements.

### **Key Components**

The levels of technical service, support and parts that are detailed in the agreement are all covered by the fixed rate of the contract which covers planned and unplanned maintenance costs. You no longer have the risk associated with maintenance planning and parts availability.

#### **Features:**

- Technical Service onsite experts, partnering directly with your staff, who manage and support fleet maintenance operations
- Support engineering and diagnostic support to help optimize your operations
- Supply supply chain management that provides the parts you need, when and where you need them



### **On-Site Technical Services**

Through on-site technical services, you have a go-to resource for analysis, engineering support, visual inspections of equipment, training and software upgrades.

You'll benefit from an engineered approach to maintenance with experts that assess processes and performance and work with you to plan future maintenance. This approach works to to drive down labor and material costs while continuously improving the performance of your fleet and your operations.

#### **Condition-based Maintenance**

When you work with Siemens, you're working with a team that knows your equipment inside and out. We have the expertise, the tools and the diagnostics to identify problems and implement solutions before the situation results in a vehicle being taken out of service. Failures can be anticipated based on current performance and preventive action taken to avoid interruption in service. Your agency will benefit from condition-based rather than routine maintenance that maintains your vehicles with a state of good repair rating. Siemens technicians can evaluate the condition of a part and determine if maintenance or replacement is needed or if the part can stay in service.

On-site technical support includes:

- Fault identification, fault correction, troubleshooting and root cause analysis
- Logging of operational, planned and corrective maintenance data
- Management of vehicle maintenance cycles
- Change management execution and operational support
- Facilitated delivery of inventory parts needed for planned and corrective maintenance activities



# **Centralized Support**

With a TSSSA, your operations are fully backed by Siemens central support and our global network of expertise. Central support includes:

- Data mining
- · Fleet monitoring
- Quality management
- Engineering support
- Obsolete parts support
- · Performance benchmarking
- Warranty support

#### Deeper Insight via Remote Resources

Every Siemens vehicle covered by a TSSSA reports vehicle conditions including mileage and faults back to our Siemens Rail Remote Service Desk. The Service Desk performs data monitoring and analysis to flag and analyze faults and system interrupts and then sends the results and diagnostics back to our on-site technicians. If you encounter an issue that our on-site team cannot resolve, we have visibility into a wider pool of vehicles and a direct line to the engineers that designed the vehicles. You'll benefit from access to our global Siemens resource network to analyze and solve problems. Central support can benchmark and compare your fleet's performance to other providers with similar vehicles.

### **Quality Management**

Central support ensures that our vendors deliver what is promised and parts perform as specified. If there is a problem with a part, central support works with the vendor to resolve the issue. If a part becomes obsolete, our engineers become involved in the process of finding a solution.



# Complete Supply Chain Management

Through your TSSSA, you have direct support from the builder of your vehicles and the original engineers who know your vehicles the best. You'll benefit from a complete supply chain solution that includes arrangements with every parts vendor for your vehicles. Parts are ordered and stocked to make sure you have the right materials, at the right time, for preventive and corrective maintenance activities.

### **Optimized Materials Management**

You no longer need to carry and manage an expensive inventory of parts. Leveraging the global Siemens logistics network the procurement process is accelerated. With Siemens TSSSA supply chain delivery solutions you don't need to have a warehouse full of additional inventory. Your shop floor efficiency improves when parts and materials are kitted and prepared for any preventive and corrective actions scheduled to take place that day.

Supply chain management includes:

- · Logistics services
- Providing spare parts
- Improved parts availability for maintenance and replacement activities
- Introduction of new materials driven by obsolescence, improvements or technical upgrades
- Kitting of parts into maintenance or assembly packages
- Repair and testing services

# **Rely on Siemens**

With a TSSSA from Siemens, you benefit from working with the people who built your vehicles and have the resources needed to maintain them for less. You'll be assured of having the right parts and people in place to support you in achieving your main goals.

Leveraging visibility into the performance and condition of thousands of vehicles worldwide, our experts have the knowledge to improve the maintenance and reliability of your fleet. You gain peace of mind by working with a team that understands what is required to keep your fleet in service and performing optimally.

Siemens is a trusted service partner for major transit providers throughout the United States, including long-term service agreements with Amtrak and All Aboard Florida. Your Siemens TSSSA provides you:

- Materials management expertise
- Guaranteed parts availability
- Contract with fixed pricing and performance guarantees
- Obsolescence coverage throughout the life of the contract
- Siemens assumes all risk related to parts pricing changes
- Siemens assumes all risk of parts availability

2,250 vehicles are under Siemens service contracts and operating with 98.0% reliability each and every day.



#### Benefits

- On-site technical services
- Access to the original train design engineers
- Centralized support and resources
- Parts and equipment obsolescence protection
- Maintenance parts, spare parts and logistics
- Management data covering the status and performance of your vehicles
- Eliminates the need to invest in and manage spare parts inventory

**Siemens Industry, Inc.** 7464 French Road Sacramento, CA 95828

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The information in this document contains general descriptions of the technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.