

**KPI: Escalator System Availability (January - March)**

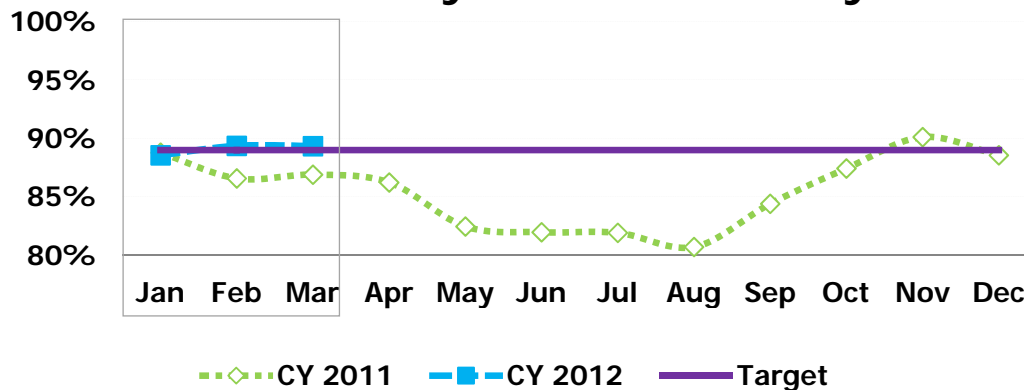
**Objective 2.1 Improve Service Reliability**

**Reason to Track:** Customers access Metrorail stations via escalators to the train platform. An out-of-service escalator requires walking up or down a stopped escalator, which can add to total travel time and may make stations inaccessible to some customers. Escalator availability is a key component of customer satisfaction with Metrorail service. This measure communicates system-wide escalator performance (at all stations over the course of the day) and will vary from an individual customer's experience. For this measure higher is better.

**Why Did Performance Change?**

- Escalator availability was on target in Q1/2012 giving evidence to prove that actions taken last year are improving performance.
- Availability in Q1/2012 improved 2% compared to the same three months in 2011 showing the positive impact of Metro's preventive maintenance practices, better work planning and more modernization work.
- Escalator preventive maintenance (PM) compliance improved 49% compared with Q1/2011. By proactively identifying and fixing problems, unexpected repairs are less time intensive reflecting an improved baseline condition of Metro's escalators. Mean Time to Repair (MTTR) was 29% better than the same three months in 2011.
- Schedules were revised so that minor repairs (e.g., new handrail, step replacement) were completed at the same time as PM inspections (typically conducted when the system is closed) to minimize the impact on customers and further increase availability.
- In Q1/2012, maintenance work shifted away from addressing unscheduled issues (unscheduled work hours down 26% from Q1/2011) towards scheduled work (hours up 14%).
- Hours to modernize/replace escalators increased significantly from 2011 as Metro worked to improve long-term reliability. In January-March 2012, 34% of out-of-service hours were due to modernization/replacement compared to 23% in 2011. This critical work took 36 units out of service at 14 stations.

### Escalator System Availability



**Actions to Improve Performance**

- Continue to improve work planning and scheduling, focusing on reducing the time escalators are out of service for major repairs (e.g., reducers, chains, rack and axle).
- Enhance information sharing among inspection and maintenance technicians in order to further reduce the time necessary to make repairs identified in inspections (Mean Time to Repair).
- Continue work at Dupont Circle station south entrance through October 2012 to replace three escalators with new, industrial-strength units. These escalators were among the least reliable and most difficult to maintain of Metro's 588 escalators. Provide on-site maintenance support to quickly resolve any unexpected escalator and elevator outages at the North Entrance.
- Begin escalator modernizations at Pentagon City and L'Enfant Plaza stations.

**Conclusion:** Escalator availability improved 2% compared to last year, exceeding Metro's performance target (89%) for two months of Q1/2012. Maintenance work shifted from reactive to proactive as a result of increased emphasis on preventive maintenance and improved work planning.