



Technical Report

ISO/TR 17748-1

Intelligent transportation systems — Energy-based green ITS services for smart city mobility applications via nomadic and mobile devices —

Part 1: General information and use case definitions

*Systèmes de transport intelligents - Services STI écologiques
basés sur l'énergie pour les applications de mobilité des villes
intelligentes via des dispositifs nomades et mobiles —*

*Partie 1: Informations générales et définitions des cas
d'utilisation*

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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Foreword

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Introduction

Environmentally friendly and energy-efficient mobility services have been deployed around the world to address rising urban energy problems caused by population growth, rapid climate change and increased energy use. While attempts are being made to combine technical solutions for transportation and energy use for improved energy efficiency, there are no traffic-energy-related guidelines that meet the various needs of diverse stakeholders in the transportation industry.

A smart city uses foundation technologies to manage energy efficiency. A smart city does this by measuring, metering and forecasting demand for energy, and by providing data platforms on the transport sector. These can be presented as management technology for solving urban problems.

An energy-based green intelligent transport systems (G-ITS) service provides users with customized services to meet their energy needs. The service does this by keeping users informed about their energy use and integrating management using nomadic devices to maximize energy efficiency.

This document considers the conversion of the existing efficiency and safety-oriented transportation system into a more energy-efficient system through the distribution of urban energy, allowing for improved management and energy consumption measurements.

Specifically, this document:

- identifies the general information of the applicable framework for energy-based green intelligent transport systems(G-ITS) services;
- identifies the method to describe the general information for all subjects related to energy-based G-ITS services interfaced with smart city cloud and charging infrastructure, with vehicle stations based on nomadic devices;
- specifies the general use cases for inclusion in energy-based G-ITS as services.

