Proposed Research Outline

Operation of Toll Roads, Bridges and Tunnels in Selected Places

1. Background

1.1 The Panel on Transport, at its meeting on 27 May 2005, requested the Research and Library Services Division (RLSD) to conduct a research on the operation of toll roads, bridges and tunnels in selected places. Being concerned about the impacts of the recent toll increase of the Eastern Harbour Crossing and other toll tunnels, the Panel suggested that the research should, in particular, examine the toll adjustment mechanism and related matters in respect of projects involving private sector funding. The Panel hoped that the overseas experiences could serve as a reference for any possible change in the mode of operation of the current toll tunnels and for the establishment of a better toll strategy for future toll roads, bridges and tunnels, so as to bring about public benefits and optimize the utilization of transport infrastructure.

2. Proposed places to be studied

2.1 RLSD proposes to study the following transport infrastructure to illustrate the special features of their operation, particularly the toll adjustment mechanisms:

(a) The new and old Severn Bridges of the United Kingdom;

(b) The 91 Express Lanes of the State of California of the United States;

(c) The Dulles Road of the State of Virginia of the United States; and

(d) The Eastern Distributor of the State of New South Wales of Australia.

2.2 With the exception of the old Severn Bridge, the selected toll roads, bridges and tunnels are either at present or initially BOT (Build, Operate and Transfer) projects. Some of the projects, for instance, the 91 Express Lanes and the Eastern Distributor, involve the issuing of bonds in financing.

2.3 In the United Kingdom, the Severn Bridges (connecting England and Wales) comprise two bridges built in different periods. The private consortium responsible for building and operating the new bridge has taken over the maintenance and operation of the old toll bridge from the public authority. The duration of the concession ends once the concessionaire has received the amount of revenue specified in the agreement. With this flexibility of the length of the concession, lower-than-expected traffic levels do not necessarily lead to higher tolls. In such cases, the duration of the concession is extended automatically to give the operator more time to make up for the loss of income. The toll levels for both bridges are adjusted each year based upon the increase in the Retail Price Index.

2.4 The case relating to the 91 Express Lanes in California involves a change in the mode of operation from private to public. The purpose of the purchase by the Orange County Transportation Authority (OCTA) is to eliminate a "non-compete" agreement with the prior franchised private consortium that prevented improvements to the nearby freeway. OCTA plans and provides funding for the improvements of both the freeway and the toll road, and has been directing excess toll road revenue into improvements of the freeway. Toll adjustment is triggered if the hourly traffic volumes are "consistently too heavy" for a specified period of time and there is the potential for traffic congestion.

2.5 While the Dulles Greenway in Virginia, connecting Dulles Airport and Leesburg, is operated by a private company, the adjustment of its tolls requires prior approval of a state authority. The Eastern Distributor is an expressway between Sydney's Central Business District and Sydney Airport. Tolls are adjusted quarterly according to a rate based on the changes in the consumer price index and the average weekly earnings, or a growth rate of 1%, whichever is the greater.

3. Proposed Outline

Part 1 — Introduction

(a) Background

(b) Scope of research

Part 2 — A conceptual overview of toll regulation and related matters

(a) Academics/commentators' views on the issues to be considered in the determination and regulation of tolls

Part 3 — Operation of toll roads, bridges and tunnels in selected places

(a) Background

(b) Cost and financing

(c) Determination of initial toll level

(d) Toll policy, toll adjustment and regulation

(e) Rate of return and other financial indicators

(f) Financial performance and financial reporting requirements

(g) Dispute-resolving mechanism and re-negotiation framework (if any)

(h) Change in mode of operation (if any) and its impact

Part 4 — Comparison of the various attributes of the operation of the selected toll roads, bridges and tunnels

Part 5 — Analysis

4. Completion Date

4.1 RLSD proposes to complete the research project in October/November 2005.