



Public Private Partnership: Second Severn Crossing Bridge, England

Background

The Severn River and estuary presented a geographic barrier between England and Wales. To overcome the barrier, the first Severn Crossing Bridge (constructed by extending the M4 radial highway into the M25 orbital highway around London by way of the M48 extension of M4 into Wales) was opened to traffic in 1966.

By the mid 1980s, traffic along the M48 highway had grown to the point where a second Severn Crossing Bridge was needed to relieve congestion.

In 1984 planning for the second crossing bridge began and in 1986 it was decided to investigate the best location for the new bridge.

PPP Structure of the Project

The Second Severn Crossing provides enhancement to traffic capacity across the Severn River and estuary between England and Wales. Due to lack of adequate internal funds to build and operate the bridge, the Government decided to enter into a PPP arrangement to provide private funding and accelerate the completion of the project to ease the congestion.

In 1989 four concession teams proposed on the project. In October 1990, National Road Authority (Highways Agency) on behalf of the Government entered into design-build-finance-operate (DBFO) PPP concession contract with Severn River Crossing PLC¹ (SRC). The Concession period is limited to a maximum of 30 years, although the actual end date will be achieved when SRC has collected a fixed sum of Severn Crossing Bridge. The concessionaire performs both

regular maintenance and makes any repairs needed to keep the facilities operating efficiently.

Project Description

The Second Severn Crossing Bridge is a cable-stayed steel girder and truss bridge with a total bridge length of 3,081 feet (948 meters), and a height of 120 feet (37 meters) above the river. The Second Crossing took 4 years to build and was opened to public on 5 June 1996. The construction cost of the new bridge was £330 million (excluding VAT). The financing arranged by SRC was made through Bank of America and Barclays de Zoete Wedd and it covers the following costs:

- Designing and construction cost of the Second Severn Crossing Bridge;
- To pay the outstanding debt on the present original bridge;
- Operation and maintenance cost for 30-year term of the concession.

Toll levels were set for three categories of vehicles at the time of the contract bid. The toll levels set in 1989 terms were written into the concession contract and are embodied in the Severn Bridges Act 1992. Toll levels are amended each year to account for inflation based upon the increase in the Retail Price Index since 1989. To meet its financial obligations, the concessionaire's only source of income is the toll revenues. In addition to this, a consensus has been achieved between SRC and the Government representatives that card payment on the bridges is desirable.

In June 2012, the Highways Agency signed an extension to the agreement with the concessionaire, SRC. This was needed to reflect recent tax changes and the additional costs of introducing card payments at the Severn tolls. This change has increased the amount SRC can collect in tolls during the concession by

¹ Severn River Crossing PLC is a joint venture team in which each member: John Laing Ltd. and GTM Enterprise (a division of VINCI Concessions) holds a 50 percent interest in the project.

£33.1m at 1989 prices, amounting to approximately a £69m increase in March 2012 prices.²

The extension does not have any immediate cash implications for Government, as the costs will be recovered by SRC through the tolls. But it will delay the forecast end of concession by about 11 months to 2018. The actual date is dependent on a number of factors including traffic levels but is limited to a maximum of 30 years as set out in the Severn Bridges Act 1992.

Key Issues and Observations

The case study provides several insights and benefits of PPP projects that need to be highlighted so that lessons can be drawn and applied wherever required.

Benefits to society: Development of new bridge increased market demand by improving access to customers, suppliers and distributors. Additionally, it also provided cost advantages in terms of reduced journey times and costs compared with alternative routes; and increased the labour pool and increasing staff reliability.

Environmental Risks: The construction of the Second Severn Crossing Bridge posed significant traffic, noise, and air quality impacts on the neighbouring communities along the approach road corridors to the site of the new bridge. These problems are needed to be addressed early in the planning stages of the project to prevent long delays in the project due to environmental protests and lawsuits. To alleviate these potential local impacts during the construction period, by-pass construction roads were created to enable trucks to deliver materials to the site without passing through the local communities on both sides of the Severn River and estuary.

Impact of tolling: Frequent arguments are made against levels of the Severn crossings tolls. It is that tolls charged are very high and they have a detrimental impact on the local economy. In addition it was suggested that reducing tolls on the bridge could boost

the economy of south wales by £107m, as it would allow extra 11,000 vehicles driving every day³.

Conclusions

Second Severn Crossing Bridge was one of the largest PPP projects in England, and special efforts were made by all parties to ensure that the project would identify and address major technical, environmental, and local issues. With the due diligence performed by the sponsoring agency and supporting consultants there was minimal public opposition to the development of the Second Severn Crossing Bridge. By having the public agency taking responsibility for the approach roads and the private concession team taking responsibility for the Severn River and estuary, this created a true public-private partnership involving both groups leveraging the scarce public resources to get the project opened in a timely manner.

The partnership between Highways Agency and SRC enabled the second Severn crossing bridge to be delivered on time to public. The key factor for the success of this project is the commitment and support of the government throughout the project process and belief that this project will deliver meaningful results for the country. SRC is in a better position to manage traffic in this vital corridor between England and Wales, and coordination for diversion of traffic.

Further Readings:

- Robin Wilkinson, National Assembly for Wales, 'Severn Crossing Tolls', June 2010; paper number: 10/059. Available at: <http://www.assemblywales.org/10-059.pdf>, last accessed 24.01.2014
- Severn River Crossing PLC website: www.severnbridge.co.uk/about, last accessed: 24.01.2014

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² BBC News (April, 14 2012), 'Severn Bridges: Longer deal allows a company to collect extra £33m'. Available at: <http://www.bbc.co.uk/news/uk-wales-south-east-wales-17713641>, last accessed 24.01.2014

³ BBC News (November, 5 2012), 'Scrapping Severn crossing tolls 'would boost the economy''. Available at: <http://www.bbc.co.uk/news/uk-wales-politics-20204666>, last accessed 24.01.2014