Ferry Commissioner approves building three new vessels

Patrick Brown

Three new Intermediate Class Ferries are scheduled to be in service by 2017, replacing the 50-year-old Queen of Nanaimo on the Tsawwassen to Gulf Islands run (Route 9) and the Queen of Burnaby on the Comox to Powell River run (Route 17).

The Ferry Commissioner, who must approve all major capital expenditures by BC Ferries, has approved its application to construct three new 'intermediate class' ferries to handle the traffic, one for Route 17 year-round and two for Route 9 (one in the wintertime and two for the high demand weekend and summer periods). One of these ferries will be available to both routes to substitute in refit season.

BC Ferries has now issued a Request for Pre-Qualification, to identify interested shipyards in Canada and worldwide. The Company expects to issue a contract for the design and construction of the three ferries by the start of 2014. Two 145 vehicle ferries are expected to be in service in 2016, and a backup 125 vehicle version in 2017.

The ferries are expected to be the first of a planned double-ended intermediate sized ferry (ICF) fleet, with 600 passenger capacity, open decks, and substantial structures on each end to reduce spray in rough weather.

Matters unresolved but approved in the application are the length of the vessels, the type of fuel, the fuel consumption and the ancillary services provided.

One of these major design questions that remains unresolved is the possible use of Liquefied Natural Gas (LNG) as fuel, which will affect design and in turn will be affected by the capital cost involved. Preliminary calculations by BC Ferries indicate that the Net Present Value of the lifetime cost (40 years) for the construction and operation of the ferries favours LNG over diesel fuel. The assumed LNG price is not shown.

The Future Of Ferries

The BC Ferries proposal makes reference to provincial ferry policy: ‘… the proposed Project expenditure supports acquisitions that embrace design objectives, including standardization of fleet and berth interface, and scalability of vessel capacity, that position the Company well to respond to any refinements to service levels that may arise from a future provincial government approved long term vision for coastal ferry services.’

The company plans to match ferry capacity more closely to demand, avoiding overcapacity in the winter and on weekdays, as presently experienced on these routes. BC Ferries’ application also says, ‘It will also reduce ongoing operating costs, which will contribute to fares lower than they otherwise would be.’

Demand projections forecast only minimal increases in traffic in the future: ‘A demographics study conducted for BC Ferries by Urban Futures suggests that traffic growth on the SGI routes will range from a decline of 0.89% per annum to an increase of 1.66% per annum over the next 15 years.’ Further uncertainty may result from the Company’s Automated Customer Experience project, which is said to include ‘consideration of new demand management systems which could, once implemented, further reduce the overall AEQ (automobile equivalent) capacity required. However, these systems are not at a sufficient stage of development to determine if and/or how they might impact the future required capacity.’

Fuelling with LNG

The Company’s application to the Commissioner indicates that, besides the reaction of potential shipyards, there are some major logistical questions remaining with regard to LNG:

‘Further analyses will also be required, and are underway, with respect to how the Company will bunker LNG. The capital and operating costs assume that the ICF vessels will be fuelled from LNG tanker trucks parked on the vessel car deck. This is how the company now bunkers diesel fuel. This assumption was supported by the feedback received from industry partners in BC Ferries’ fiscal 2012 study of the possible conversion of the Queen of Capilano to LNG. However, further review is being undertaken by BC Ferries to determine if this approach would meet the company’s and industry safety standards, as informed by emerging standards from the International Maritime Organization, Classification Societies, and from the Canadian Standards Association.

‘While there is considerable experience with LNG-fuelled ferries in northern Europe, the European ferries are fuelled from LNG tanker trucks parked at the quayside (i.e., alongside the ferry), fuelling jetties with LNG bunkering facilities or from LNG
barges. The LNG ferries currently under construction for STQ, the Quebec ferry operator, will also be fuelled in that manner. The current configurations of BC Ferries’ berths do not enable a quayside fuelling option.

**Fuelling the Ferry Riders**

Another unresolved design feature is the level of ancillary service to be offered on the new vessels. The level provided on the existing ferries is Level IV (cafeteria services with retail) on both routes.

The level that is planned to make most contribution to fares (read, most profitable) is Level IV for Route 9 but a reduction of service to Level II (enhanced snack bar with limited retail) for Route 17.