

Tasmanian Government
2012 Submission to Nation Building 2 Program

Tasmanian Freight Model

September 2012

<p>Priority assigned by jurisdiction for NB2 funding consideration</p>	<p>Priority seven under Innovation</p>
<p>Details of full scope of project, including objectives, service requirements, project status and project phase(s) seeking funding.</p> <p>Note: It is expected that this will be largely addressed through the main IA submission. However, the Department requires cost estimates to be provided using the Best Practice Cost Estimation Standard and at both P50 and P90. Also to use both 4% and 7% for BCRs.</p>	<p>Information on project objectives, strategic context and options analysis is discussed in the Stage 1-6 template.</p>
<p>Alignment with objectives of NB2</p> <p>Note: This should include how a project aligns with the overarching objective of NB2, as well as how it aligns with the objective of each relevant NB2 subprogram.</p>	<p>The Tasmanian Freight Model is submitted under the <i>Innovation</i> theme of Nation Building 2, and also aligns with <i>Moving Freight</i>.</p> <p>Understanding future freight movement is essential to inform strategic policy and planning. Tasmania currently has limited freight modeling capabilities. The development of a statewide, multi-modal freight transport model will support robust, long-term freight planning.</p> <p>Further details are contained under Goal Definition (Stage1-6 template).</p>
<p>Alignment with broader Commonwealth and state/territory policies and plans</p> <p>Note: Specific plans/policies to be addressed (at a minimum) include the Commonwealth's Infrastructure Investment Framework; the National Urban Policy; the National Ports and Land Freight Strategies; and the Australian Government commitment on the incorporation of ITS for major urban roads (as appropriate).</p>	<p>The project aligns with a number of Infrastructure Australia's strategic priorities, including:</p> <ul style="list-style-type: none"> • Increase Australia's productivity • Developing Australia's cities and regions • Improve social equity, and quality of life, in our cities and our regions <p>This project aligns with the National Land Freight Network Strategy strategic priorities of identifying a national land freight network, planning for relevant corridors and places; and freight infrastructure improvement and access by understanding future freight movement to support robust freight network planning and policy making.</p> <p>This project aligns with the National Ports Strategy's strategic priorities of planning for relevant ports and improving landside efficiency.</p> <p>Further details are contained under Goal Definition (Stage1-6 template).</p>
<p>Overall financial exposure including</p>	<p>The project is low-cost and considered a low-</p>

<p>identification of other partner funding</p> <p>Note: It is expected that this will be addressed in the main IA submission.</p>	<p>risk project.</p>
<p>Identification of key strategic risks to the project</p> <p>Note: It is expected that this will be addressed in the main IA submission</p>	<p>Key strategic risks will be identified in the project planning phase, but the project is considered low-risk.</p>
<p>Quantification of the expected benefits from the proposal</p> <p>Note: It is expected that this will be addressed in the main IA submission.</p>	<p>The benefits associated with this project are ongoing and relate to improved strategic planning, strategy development and investment decision-making.</p>
<p>Information regarding the extent to which the potential for private sector involvement or investment has been evaluated</p> <p>Note: It is expected that this will be addressed in the main IA submission.</p>	<p>This is a low cost initiative that is unlikely to attract or require any private sector investment. Outputs from the Model will be shared with industry as required.</p>
<p>Likely impacts from the project proposal on citizens and the market</p> <p>Note: Detail is needed on how each proposal will impact citizens and the market (as two distinct groups) – positively or negatively, and the extent of the impact</p>	<p>Further details on the impacts are outlined in Problem Identification, Assessment and Analysis (Stage 1-6 template).</p>
<p>Identification of key stakeholders in the project and the complexity of stakeholder relationships</p>	<p>Key stakeholders will be further identified in the project planning phase.</p>
<p>Extent of multijurisdictional and/or private sector involvement in the proposal</p>	<p>No other jurisdictions or private sector entities are involved in developing this proposal.</p>
<p>Details of the level of innovation and information technology involved in the proposal, including in relation to information technology requirements to successfully manage/implement the proposal</p> <p>Note: Detail is to include identification of any new/untried methodologies or technologies to be used in the project, as well as IT requirements for the proponent agency to successfully manage or implement the proposal.</p>	<p>Appropriate technologies to develop the Model will be investigated in the project planning phase.</p>

<p>Details of the proposed procurement methods for the proposal</p> <p>Note: It is expected that this will be addressed in the main IA submission.</p>	<p>Procurement in accordance with the Tasmanian Government's procurement guidelines.</p>
<p>Level of complexity in construction, and any known issues in relation to the construction of the project, including environmental and heritage considerations</p> <p>Note: It is expected that this will be largely addressed through the main IA submission. However, the Department requires sufficient detail to fulfil its probity and accountability requirements, so any additional information not explicitly addressed in the main IA submission should be provided here.</p>	<p>N/A</p>
<p>Any known issues in relation to contractual or service delivery obligations stemming from the proposal</p> <p>Note: This is to include any issues that are not currently present but could reasonably be foreseen.</p>	<p>No contractual or service delivery issues are expected.</p>
<p>Details of the proposed governance arrangements for the proposal</p> <p>Note: This should be largely addressed in the main IA submission. However, the Department requires an explicit statement about the experience of the management team in delivering similar proposals and whether there are any expected knowledge gaps or training needs to successfully implement the proposal.</p>	<p>To be determined in the project planning phase.</p>
<p>Details of the proposed delivery timetables and whether there are any known challenges to achieving those timeframes</p> <p>Note: It is expected that this will be addressed in the main IA submission.</p>	<p>To be determined in the project planning phase.</p>
<p>Details of any significant interdependencies for the project</p> <p>Note: It is expected that this will be addressed in the main IA submission.</p>	<p>There are no significant interdependencies for this project.</p>

Proposal Summary

Initiative Name:	Tasmanian Freight Model
Location (State/Region(or City)/ Locality):	Tasmania – statewide
Name of Proponent Entity:	Tasmanian Department of Infrastructure, Energy and Resources
Contact (Name, Position, phone/e-mail):	David Spence, General Manager Infrastructure Strategy Department of Infrastructure, Energy and Resources Tel: (03) 6233 2089 Email: david.spence@dier.tas.gov.au
Executive summary	<p>Tasmania has an export-oriented economy and is geographically isolated, making transport a relatively high component of production costs for many industries. This is a particular issue for high volume, undifferentiated commodities and manufactured products where competition is predominantly determined on price. Tasmania's freight volumes are projected to grow by nearly 150% from 2009 levels by 2050.</p> <p>Tasmania's intrastate task is highly dispersed across all three regions and is subject to significant fluctuation. New developments can have a major impact on the land transport network and intermodal hubs, and there is a need to understand capacity and infrastructure constraints to support early planning, to inform investment decision-making and provide industry with certainty on transport options.</p> <p>The Tasmanian Government undertakes a triennial Tasmanian Freight Survey (TFS) to inform planning of Tasmania's freight system. The Survey has been undertaken since 2002, with a fourth iteration to start late in 2012. The Survey provides a summary of large freight movements across Tasmania's land transport network, including freight type and volume, transport mode, and origin and destination information. It is a powerful dataset supporting freight planning at a range of spatial scales, and represents some of the best data available on freight movement of all Australian jurisdictions.</p> <p>Tasmania currently has limited freight modeling capabilities. The Tasmanian Government has identified the development of a statewide, multi-modal freight transport model as a key analytical input to support robust, long-term freight planning. A four-step model, allowing the detailed interrogation of freight scenarios over time, is critical to understanding changes in the freight task and impacts on the freight system, informing the development of effective policy interventions. The TFS is identified as a key input, providing detailed, accurate information to support modelling.</p>
Is this a new submission?	Yes
Estimated cost of problems?	N/A
Estimated Capital Cost of Initiative by Proponent (\$M, nominal, undiscounted):	\$350,000
Commonwealth contribution sought by Proponent (\$M, nominal, undiscounted):	\$350,000
Other funding (source/amount/cash flow) (\$M, nominal, undiscounted):	The Tasmanian Government undertakes a triennial Tasmanian Freight Survey, at an estimated cost of \$300 000. Data from this Survey would be a key input to a statewide freight model, and represents a significant in-kind contribution.
BCR by Proponent excluding Wider Economic Benefits	N/A
Estimated program	2014/15

Goal Definition

The objective of the project is to improve Tasmania's freight modelling capabilities to inform effective, evidence-based planning of Tasmania's freight system over the long-term.

A statewide, multi-modal freight transport model is a key analytical input to support robust, long-term freight planning in Tasmania. A four-step model, allowing the detailed interrogation of freight scenarios over time, is critical to understanding changes in the freight task and impacts on the freight system, informing the development of effective policy interventions.

Positive contribution to Infrastructure Australia and Nation Building 2 strategic priorities

The project aligns well with Infrastructure Australia's strategic objectives, including:

- **Improved strategic planning:** the Project supports improved strategic planning of the freight system, allowing the impact of changes in freight volumes, mode or major new developments, to be more accurately understood and managed.
- **Maintaining productivity:** in modelling the impact of different interventions and scenarios on the freight system, a statewide freight model will inform the identification of effective strategies that support increased productivity for industry.

The project is submitted under the Moving Freight theme of Nation Building 2, and furthers the objectives of this program area:

- **Moving Freight** – with an export-oriented economy, the effective planning, management and delivery of freight networks and infrastructure is critical to supporting business competitiveness. A statewide, freight transport model is a key input to support long-term freight planning, allowing the detailed interrogation of freight scenarios over time, and an improved understanding of changes in the freight task and impacts on the freight system.

Alignment with State Government policy and planning frameworks

Tasmanian Infrastructure Strategy (www.infrastructure.tas.gov.au)

The *Tasmanian Infrastructure Strategy* (TIS), released in 2010, is the State's integrated long-term strategy to guide future infrastructure projects and decision making. The TIS identifies the importance of an evidence-based approach to infrastructure planning. It also recognises Tasmania's economic reliance on the ability of its transport system to move freight from producers to processors and on to markets – within Tasmania, nationally and internationally. The project aligns with the TIS streams for effective governance and decision-making, as this relates to improved infrastructure planning, data and analysis, and for the integrated, efficient and safe movement of freight.

Draft Tasmanian Freight Strategy

The Tasmanian Government is currently developing a Tasmanian Freight Strategy. A statewide freight model is consistent with the objectives identified in the draft Strategy, including to:

- Support efficient, reliable supply chains and a competitive freight and logistics sector;
- Develop the freight network to cater for Tasmania's future freight task;
- Efficient, cost-effective Government investment in the freight network;

- Minimise the impact of freight movement on communities and the environment; and
- Integrated, evidence-based planning for the freight system.

Problem identification, assessment and analysis

Tasmania has an export-oriented economy and is geographically isolated, making transport a relatively high component of production costs for many industries. This is a particular issue for high volume, undifferentiated commodities and manufactured products where competition is predominantly determined on price. For these businesses to remain competitive on the national and international stage, improvements in freight efficiency and productivity gains are critical.

Tasmania's freight task is highly dispersed across all three major regions and is subject to significant fluctuation. Changes in industry structures and new developments can have a major impact on the land transport network and intermodal hubs, and there is a need to understand capacity and infrastructure constraints to support early planning, to inform investment decision-making and provide industry with certainty on transport options.

The majority of Tasmania's freight network is funded by the Commonwealth and Tasmanian Governments, with councils largely responsible for the 'last mile' of the network, connecting to origins and destinations. The freight network is used by third party logistic providers, servicing business needs in moving products to local, national, and international markets. There is a need for the public and private sectors to work more closely together to develop an effective, responsive and sustainable freight network that supports industry and community needs.

A range of complex issues affect demand for freight, how and where it is moved and therefore planned and regulated. These issues include weight limits, technological advances, regulatory frameworks and network access, environmental and land use policies, and taxes and charges. The ability to model these factors, together with potential solutions, provides critical strategic direction to inform effective policy and planning.

Freight volumes and network

Tasmania's heavy freight task is forecast to undergo significant growth over the long-term. As freight volumes continue to grow, the need to strategically plan for this task is critical.

Tasmania's major freight corridors include the Midland, Bass and East Tamar Highways, and the Frankford/Birrallee/Batman and West Coast corridors; together with key links, such as Illawarra Main Road and major local government roads; and the rail network. These corridors connect all major ports and intermodal points, major population centres at Hobart, Launceston, Devonport and Burnie, together with their industrial and commercial precincts.

Tasmania has a significant, dispersed heavy freight task. A major part of this task comes from the primary industry sectors, including forestry, agriculture and mining.

- Agriculture is an important industry in Tasmania, generating over 4.7 million tonnes of freight in 2009. Forecast future growth is high at around 4.7% per annum over the medium term. Expansion is focused in the north and north west regions, placing pressure on the Bass Highway, East Tamar Highway, Frankford/Birrallee/Batman freight corridor, and associated feeder roads.

- The West Coast corridor (road and rail) connects Tasmania's major mining region to the key commodity export port at Burnie. Over 2 million of tonnes per annum are transported along the corridor. The freight task associated with some proposed new mines is significant – over one million tonnes for a single mine alone.
- Forestry is moved across all major freight corridors in Tasmania, with the Bass Highway, Midland Highway and the Frankford/Birralee/Batman corridors carrying the highest volumes. The forest industry also uses an extensive network of feeder and local government roads. Forestry in Tasmania is currently undergoing a major change to its business model, which has impacted on volumes over the short term. However, over the long-term, the industry will continue to generate significant volumes of freight, including from plantation estates.

Changes to these sectors, and proposals for major new developments, can result in significant and/or immediate changes to key freight corridors. The ability to model and understand the impact of these changes on the freight system ahead of time is critical.

Tasmanian Freight Survey

The Tasmanian Government conducts the Tasmanian Freight Survey (TFS) every three years, and has been undertaking the Survey since 2002/03. The Survey involves interviews with one hundred of Tasmania's largest freight demanding companies, providing a summary of all major freight movements across Tasmania's land transport network. The Survey provides information on:

- The location of freight trips, including:
 - Movements between and through major sea and airports;
 - Between industrial areas and across network segments (road and rail)
- Freight tonnage;
- Freight value;
- Commodity type; and
- Mode and vehicle type.

The TFS collects valuable, accurate industry data on how business and logistic providers move freight across the state. Data from the TFS would be a key input to a statewide freight model, enhancing the analytical rigour of the model.

Option identification

Freight transport models are classified by their geographic scope and the degree to which they can consider the drivers of demand. The Tasmanian Government's current ability to forecast future freight scenarios is limited. An All Commodities Freight Model (ACFM) has been developed from data gathered by the Tasmanian Freight Survey (2009). The model applies a simplistic straight line annual growth rate to freight movements, and is non-dynamic in that the trip origin/destination matrices, modal choice, and assignment are pre-determined and fixed. The model has no capability to run specific, dynamic scenarios.

The Tasmanian Government is seeking to enhance its existing freight modelling capabilities through the development of a dynamic, 4-step freight model capable of modelling different scenarios over time. The proposal represents a low-cost solution that will significantly improve the Tasmanian Government's freight planning capabilities.