



National Volunteer Marine Search & Rescue Committee Funding Proposal

Fuel Excise Tax Model

Version 1.2 October 2014

Contents

Snapshot	4
Introduction	5
Value of Volunteer Marine Rescue Organisations to the Community	6
Value of VMRO Member Contributions.....	8
Value of Lives Saved.....	9
Fuel Excise Tax Rationale	10
Methodology.....	12
Commercial Vessel Fuel Consumption.....	12
Recreational Vessel Fuel Consumption.....	15
Total Marine Vessel Fuel Consumption	16
Excise Calculation & Distribution	17
Fuel Excise Distribution – Commercial.....	17
Fuel Excise Distribution – Recreational.....	17
Total Fuel Excise Distribution.....	18
Funding Proposal	19
References	20

CONFIDENTIAL

Version Control

Version	Date
0.1	22 January 2014
0.2	7 February 2014
1.0	15 July 2014
1.1	24 July 2014
1.2	10 October 2014

Acknowledgements

Marine Rescue NSW has authored this proposal in consultation with the National Volunteer Marine Search And Rescue Committee (NVMSARC). Organisations and their representatives are:

Name	Position	Organisation
Darryl Wright (Chair)	Manager – VMR	SA State Emergency Service
Stacey Tannos	Commissioner	Marine Rescue NSW
Keith Williams	President	Volunteer Marine Rescue Queensland
Peter Smith	National Administration Commodore	Australian Volunteer Coast Guard (Qld)
Mike Vosti	Chairman	Australian Volunteer Coast Guard (Qld)
Doug Kent	National Training Captain, Development	Australian Volunteer Coast Guard (Vic)
Graham Swift	Assistant Commissioner - Operations Capability	Volunteer Marine Rescue WA (DFES)
Paul Hawkins	Project Manager- Off Shore Rescue	Surf Life Saving Tasmania - Marine Rescue Tas.
Lee Symons	Regional Manager North	NT Emergency Services

List of Tables

Table 1: Number of VMRO Members by State	8
Table 2: Number of Incidents and Notifiable Emergencies (incl. Value of Lives Saved) by State	9
Table 3: Australian Net Use of Energy*, 2011-12	12
Table 4: Proportion of State Consumption of Commercial Vessel Fuels using 'Total Primary Energy Supply by State'	14
Table 5: Estimated Recreational Vessel Size By State (Less than 6m & Greater than 6m)	15
Table 6: Estimated Recreational Vessel Fuel Consumption (Less than 6m & Greater than 6m).....	16
Table 7: Estimated Total Marine Vessel Fuel Consumption	16
Table 8: Estimated Distribution of Commercial Fuel Excise by State	17
Table 9: Estimated Distribution of Recreational Fuel Excise by State	17
Table 10: Estimated Distribution of Total Fuel Excise Tax Attributable to Marine Vessels by State ...	18
Table 11: Estimated Distribution of Funding Proposal by State	19

Snapshot

- National Volunteer Marine Rescue Organisation (VMROs) membership has reached 9,700 volunteers who contribute over 3.2 million hours per year with an equivalent wage value of nearly \$94 million per annum.
- Each year the value of lives saved by these organisations is close to \$6.77 billion through responding to nearly 15,000 incidents, including more than 4,515 notifiable emergencies.
- The total operating costs of VMROs annually is approximately \$32 million, which does not reflect the optimum running costs for VMRO's who are under intensified pressure from increasing marine vessel use and new national domestic marine vessel requirements.
- Fuel consumption by the marine sector in Australia is estimated to be up to 7.3 billion litres of petroleum products and derive almost \$2.8 billion in Fuel Excise Tax (FET) Revenue per year.
- **VMROs are seeking a redirection of \$20 million in FET revenue (0.11%) to assist with the provision of marine safety services.**

CONFIDENTIAL

Introduction

The marine sector in Australia forms a significant part of the economy and the Australian lifestyle, spanning across the areas of tourism, offshore oil and gas, fisheries and seafood, transport and recreation. With such a large amount of activity in waters that fall within Australia's Search and Rescue (SAR) responsibility, an area of 52.8 million square kilometres¹, it is no surprise that thousands of incidents occur each year. The response to these incidents requires the collaborative efforts of several organisations including the Australian Maritime Safety Authority (AMSA), state based SAR authorities and Volunteer Marine Rescue Organisations (VMROs).

With marine vessel activity forecast to increase and the resources of organisations such as those above already being stretched beyond capacity, this proposal presents a case for making an extremely modest allocation of Fuel Excise Tax (FET) revenue attributable to fuel consumption within the marine sector. This will enable the marine rescue organisations included in the submission to better meet the needs of the marine sector and further enhance marine safety in Australian waters.

The proposal includes the following sections:

1. Value of Volunteer Marine Rescue Organisations to the community including a valuation of member contributions and lives saved,
2. The rationale for targeting the FET for this proposal,
3. The methodology used for estimating the fuel consumed by the marine sector each year,
4. An estimate of the FET attributable to the marine sector each year down to a state level, and,
5. The funding proposal distributed based upon the FET attributable to each state.

¹Australian Maritime Safety Authority, Annual Report 2012-13.

Value of Volunteer Marine Rescue Organisations to the Community

Not-For-Profit organisations have and continue to make a significant contribution to the Australian community through the tireless work of their volunteers. Volunteerism forms part of the fabric of Australian culture and serves a critical role in Public Safety around the country. Marine Safety and SAR is undertaken by a blend of paid and volunteer organisations with a responsibility area of 52.8 million square kilometres². In 2012-13, the AMSA coordinated the rescue of 8,978 people and assisted with the rescue of 6,961 others³. Whilst many of the SAR authorities, including AMSA, Australian Defence Force (ADF) and State, Territory and Federal Police, oversee SAR safety arrangements, a significant workload is undertaken by VMROs. This includes providing assistance with SAR responses, distress call handling and conducting more routine safety services such as marine radio safety services, on water assists and public education. Around the country, these VMROs include:

- **Volunteer Marine Rescue Association Queensland**

Volunteer Marine Rescue Association Queensland has 25 affiliated Squadrons located throughout the State of Queensland, Australia and these Squadrons provide marine search and rescue services to the boating public on a volunteer basis⁴. It comprises of 1,493 members and 48 rescue vessels⁵

- **Australian Volunteer Coast Guard Queensland**

The Australian Volunteer Coast Guard Queensland is an organisation composed entirely of 1,300 volunteers⁶. Its aim is to promote safety in the operation of small craft and guards the coast in the most effective way: by education and search and rescue. There are a total of 21 Flotillas in Queensland⁷.

- **Marine Rescue New South Wales**

Marine Rescue NSW is committed to saving lives and safety on the water is its highest priority – for both our volunteers and the boating public. Approximately 3,300 members in 45 strategically-located Marine Rescue units provide a number of vital safety services to the NSW boating community, including swift and coordinated marine emergency response, boating safety education and marine licence course for local boaters, and, continuous radio coverage along the coastline. In the 2013 financial year, more than 84,000 local and offshore boaters logged on with our units, who also managed 370,000 radio calls. Crews responded to more than 3,200 incidents during the same period, ranging from life-threatening emergencies to vessel towing⁸.

² Australian Maritime Safety Annual Report 2012-13.

³ Meeting Report, 34th Meeting of the ANSARC, October 2010.

⁴ Volunteer Marine Rescue Queensland 'Locations', viewed at <http://marinerescueqld.org.au>.

⁵ Per Keith Williams, President, Volunteer Marine Rescue Queensland, 18th July 2014.

⁶ Per Peter Smith, National Administration Commodore, AVCGA, 10th October 2014.

⁷ Australian Volunteer Coast Guard Association 'About Us', viewed at <http://www.coastguard.com.au/aboutus>.

⁸ Marine Rescue New South Wales Annual Report 2013.

- Australian Volunteer Coast Guard Association (AVCGA) Victoria**

With 700 active operational members⁹ within 19 Flotillas, AVCGA Victoria provides essential state wide support to the Victoria Police (Water Police) and the commercial and recreational boating community. AVCGA Victoria's state wide capacity is strategically positioned to maximise coverage and capability. The majority of the Flotillas are located in coastal centres but two are located inland at Lake Eppalock (which also services Lake Eildon) and Lake Hume¹⁰.
- Surf Life Saving Tasmania**

Surf Life Saving in Tasmania is a volunteer based not-for-profit community service association and through a new exciting merger, SLST supports the Tasmanian Police with inland, inshore and offshore search and rescue services state wide¹¹. SLST comprises of 790 active patrolling members and 10 support operations¹², and provides an essential educational and emergency rescue service to all users of Tasmanian waterways.
- Volunteer Marine Rescue Services Western Australia**

37 Volunteer Marine Rescue Groups working with Volunteer Marine Rescue Western Australia (VMRWA) have been formally approved under the Department of Fire and Emergency Services (DFES) in Western Australia. They comprise of more than 1,600 registered volunteers and 65 vessels (incl. Personal Water Craft). VMR groups work closely with the Western Australia Police Service (WAPOL) performing search and rescue missions at sea¹³.
- Volunteer Marine Rescue Services South Australia**

In South Australia, six independently incorporated Volunteer Marine Rescue (VMR) associations (representing 14 flotillas) and 14 units of SASES with a marine capability, are strategically located throughout coastal and inland waters, providing the primary response to marine incidents and emergencies, under the coordination of the South Australia Police. During 2011-12, these agencies responded to a total of 530 recorded marine incidents (VMR associations 468 and SASES units 62)¹⁴.
- Australian Volunteer Coast Guard Northern Territory**

The Australian Volunteer Coast Guard Northern Territory is an organisation composed entirely of volunteers. Its aim is to promote safety in the operation of small craft and guards the coast in the most effective way: by education and search and rescue. There is one unit located in Fannie Bay, Darwin¹⁵.

⁹ Per Peter Smith, National Administration Commodore, AVCGA, 10th October 2014.

¹⁰ AVCGA Submission to the Economic Development, Infrastructure and Outer Suburban/Interface Services Committee Inquiry into Marine Rescue Services in Victoria, March 2014.

¹¹ Surf Life Saving Tasmania 'About Us', viewed at <http://slst.asn.au/surf-life-saving/about-us/>.

¹² Surf Life Saving Australia Annual Report 2012-13.

¹³ Department of Fire and Emergency Services Western Australia 'Volunteer Marine Rescue Services', viewed at <http://www.dfes.wa.gov.au/aboutus/operationalinformation/Pages/volunteermarinerescueservices.aspx>.

¹⁴ State Emergency Service South Australia Annual Report 2011-12.

¹⁵ Australian Volunteer Coast Guard Association 'About Us', viewed at <http://www.coastguard.com.au/aboutus>.

Value of VMRO Member Contributions

The membership of VMRO organisations Australia-wide is approximately 9,700 volunteers. Each year the average weekly volunteer contribution is 6.4 hours¹⁶, which is approximately 333 hours per year and 3.2 million hours across all VMRO members per annum. The equivalent wage value of volunteer time to the community presents a cost saving to government of nearly **\$94 million**. It is important to note, that this estimate does not consider wages foregone to the individual volunteer and out of pocket expenses not reimbursed.

Table 1: Number of VMRO Members by State

State	No. Members	Avg. Hours P.A.	Equivalent \$ Value (\$28.97 ¹⁷ per hour)
Queensland	2,793	930,069	26,944,099
New South Wales	3,301	1,099,233	31,844,780
Victoria	700	233,100	6,752,907
Tasmania	790	263,070	7,621,138
South Australia	458	152,432	4,415,956
Western Australia	1,630	542,790	15,724,626
Northern Territory	37	12,268	355,416
Total	9,709	3,232,962	\$93,658,922

¹⁶ Australian Bureau of Statistics, ABS 4102.0 - Australian Social Trends, 2008.

¹⁷ New South Wales Fire and Rescue 'Retained Fire Fighters', viewed at <http://www.fire.nsw.gov.au/page.php?id=64>.

Value of Lives Saved

Each year VMROs are involved in multiple incidents ranging from routine tasks (such as tows and assists), to notifiable incidents, where if an intervention had not been made, lives would have been lost. The value of lives saved based on the above valuations for AMSA coordinated SARs alone is \$1.5 billion dollars per year¹⁸. Based on the total number of notifiable emergencies attended to by VMROs, the value to lives saved is close to **\$6.77 billion**. This figure does not include costs of injuries prevented, which would significantly inflate economic cost savings.

Table 2: Number of Incidents and Notifiable Emergencies (incl. Value of Lives Saved) by State

State	Incidents*	Notifiable Emergencies^	Value of Lives Saved (\$1.5 million ¹⁹ per life)
Queensland	7,236	1,987	2,980,500,000
New South Wales	3,226	1,062	1,593,000,000
Victoria	2,115	656	984,000,000
Tasmania	90	45	67,500,000
South Australia	530	113	169,500,000
Western Australia	1,517	623	934,500,000
Northern Territory	58	29	43,500,000
Total	14,772	4,515	\$ 6,772,500,000

* **Incident:** An adverse safety-related event involving one or more vessels on navigable waters where there is a **potential** threat to life or property or involves collateral damage (including injury), which has been sustained, or is likely to be sustained to a vessel, facility or the environment.²⁰

^ **Notifiable emergencies:** is one where there is an **immediate** threat to life or property or the notification was received via other emergency services.

¹⁸ Australian National Search and Rescue Committee, Meeting Report, 34th Meeting of the ANSARC, October 2010.

¹⁹ The Australian Boating Injury database: Non-fatal injury (ABID:NFI) November 2005 "National Assessment of Boating Fatalities in Australia 1992 – 1998".

²⁰ Modified from Office of Boating Safety and Maritime Affairs (NSW) 2012 "Boating Incidents in NSW" Report & The NSW State Rescue Board Marine Standard Operating Procedures 2014.

Fuel Excise Tax Rationale

The Fuel Excise Tax (FET) presents a significant revenue stream to the Federal Government budget each year. In 2013/14, forecast Fuel Excise Revenue is \$18.7 Billion²¹ across all industries. This proposal has determined that up to \$2.8 Billion of this is attributable to marine vessel use across the commercial and recreational sectors. Commercial vessels are broadly considered as those vessels used in connection with a business or commercial activity²². In the marine context, this includes (but is not limited to) transport of goods and people domestically and internationally, commercial fishing and boats for hire. Recreational vessels comprise of all vessels other than commercial vessels.

Through their operation by commercial operators and recreational users, all marine vessels are subject to varying levels of adverse risk depending on a number of factors. These factors include the weather and sea conditions during the vessel voyage, the condition of the vessel and equipment carried on board and the level of experience and skills of the vessel operators and crew. It is inevitable that incidents will occur and the services of marine safety organisations will be required.

On average there are about 80 deaths and nearly 1000 people admitted to hospital each year as a result of boating incidents in Australia²³. Using values outlined in the National Maritime Safety Committee (NMSC) national assessment of boating fatalities 1992-1998, which estimates the average cost of a boating fatality at \$1.5m and cumulative non-fatal injuries costs equivalent to \$300m per annum²⁴, the annual cost of deaths and injuries attributable to boating is \$420 million.

As outlined in the previous section, there is a tremendous value provided by VMROs and statutory SAR authorities in preventing injury and deaths through proactive and reactive action. Without such action, the rates of injury, fatalities and cost to society would be significantly higher. VMROs rely on charitable donations, corporate partnerships and grant opportunities to carry out their operations. The annual total operating costs of VMROs is approximately **\$32 million**, which does not reflect the optimum running costs for VMRO's who are under intensified as projected marine vessel ownership and use continues to climb²⁵ and requirements placed on VMROs become ever more demanding.

More needs to be done to provide stability to VMRO revenue streams to ensure they can continue to provide marine safety services to the public and the FET presents a logical revenue stream to utilise for the purposes of funding marine safety.

²¹ Australian Government, Department of Finance, Mid Year Economic and Fiscal Outlook 2013-14, p. 220.

²² Australian Maritime Safety Authority 'National System for Domestic Commercial Vessels Q&A', viewed at <https://www.amsa.gov.au/forms-and-publications/Fact-Sheets/Q&A.pdf>.

²³ Flinders University of South Australia, Assessment of Fatal and Non-Fatal Injury due to Boating in Australia, , 2001.

²⁴ The Australian Boating Injury database: Non-fatal injury (ABID:NFI) November 2005 "National Assessment of Boating Fatalities in Australia 1992 – 1998".

²⁵ New South Wales Maritime, NSW Boat Ownership and Storage Report, July 2010.

As a comparative case study, the Federal Government currently provides a significant contribution to road safety to meet its obligations for regulating safety standards for new vehicles, and for allocating infrastructure resources, including for safety, across the national highway and local road networks²⁶. The total budget estimate for road construction maintenance currently stands at **\$2.1 billion**²⁷. Specific road safety initiatives captured within this represent approximately 3% of the funding and include:

- Federal Black Spot Program, solely dedicated to improving the safety of roads and roadsides budgeted for \$59.5 million in 2010-11, and,
- Federal Heavy Vehicle Safety and Productivity Program, estimated \$20 million to the Heavy Vehicle Safety and Productivity Program.

Using this as the basis, the proposal asks for a modest contribution of **0.72% of FET** attributable to marine vessels (**0.11% of total FET**) to be redirected for the purposes of marine safety.

²⁶ Australian Government, Department of Infrastructure and Regional Development 'Road Safety', viewed at <https://www.infrastructure.gov.au/roads/safety/>.

²⁷ Parliament of Victoria, Inquiry into Federal-State Road Funding Arrangements, 2010.

Methodology

A comprehensive literature review was conducted of available electronic information and datasets that provided an account of the FET and fuel consumption of the commercial and recreational marine sectors. The review found an abundance of data relating to the recreational boating sector, but limited data relating to commercial vessels.

To calculate the FET attributable to marine use in Australia, the estimated marine vessel fuel consumption across the commercial and recreational sectors was analysed. Due to the variation in available data for each sector, separate methods were used to develop the estimate for commercial and recreational vessels.

Commercial Vessel Fuel Consumption

Each year the Australian Bureau of Statistics (ABS) provides an analysis of energy use in Australian Industries to monitor the growth and decline of Australian energy consumption. As is reflected in the 2011-12 'Energy Account', Water Transport was responsible for the majority of net energy use across all transport sectors. As reflected in the table, only a national energy consumption figure was available and a state breakdown was not available.

Table 3: Australian Net Use of Energy*, 2011-12²⁸

Description	Petrol	Diesel	Other refined fuels and products [^]	Total
Transport	<i>PJ</i>	<i>PJ</i>	<i>PJ</i>	<i>PJ</i>
Road	5	202	-	207
Rail	-	20	-	20
Air	-	2	38	40
Water	1	-	245	246
Other transport, storage and services	12	16	-	28
Total Transport	18	240	283	541

* **Net energy use:** consists of intermediate consumption by industry, final consumption by households, exports, inventory changes, conversions and losses. In the context above, 'net' refers to energy consumed for final purposes.

[^] **Refined products:** Includes products derived from crude oil and other refinery feedstock, e.g. automotive gasoline and diesel, aviation gasoline and turbine fuel, kerosene and heating oil, industrial diesel and fuel oil, naphtha and petroleum coke used as fuel.

²⁸ Australian Bureau of Statistics, ABS 46040DO002_201112 Energy Account, Australia, 2011-12, Table 1: Australian Net Use* of Energy, 11-12.

As the FET is based on physical units of fuels (i.e. Litres), a process was used to convert energy units (Peta Joules [PJ]) into the equivalent amount of diesel litres. The process was as follows:

1. Energy Units (Peta Joules) were converted into the Million Tonnes of Oil Equivalent (mtoe) using prescribed rates from the Bureau of Resources and Energy Economics (BREE).

Conversion rate used ²⁹	1 mtoe = 41.868 PJ
Water transport Net Energy Use	246 PJ
Conversion mtoe amount	5.88 mtoe

2. The Million Tonnes of Oil Equivalent (mtoe) was converted to the actual number of tonnes for conversion to kilograms.

Mtoe to tonnes	1 mtoe = 1,000,000 tonnes
Conversion tonnes amount	5,875,609.06 tonnes
Tonnes to kilograms	1 tonne = 1000 kg
Conversion kg amount	5,875,609,057.04 kg

3. A publicly available rate of conversion to calculate the equivalent amount of diesel fuel in litres from kilograms was used.

Conversion rate used ³⁰ <i>* The density of diesel varies according to its grade. Average above has been selected as a nominal value.</i>	1 Litre Diesel = 0.8375 kg*
Kilograms to Litres using rate above	1 kg = 1.194 Litres of Diesel
Conversion litres amount	7,015,652,605.42 Litres

The total estimated fuel consumption for Commercial Vessels operating in Australian waters for 2011-2012 was **7 Billion Litres** of petroleum fuel. This figure will be used for the FET calculation.

²⁹ Australian Government, Department of Resources, Energy and Tourism, Bureau of Resources and Energy Economics, Energy in Australia, May 2013, p. 122.

³⁰ DieselNet 'Fuel Regulations, European Union, Reference Diesel Fuel', viewed at http://www.dieselnet.com/standards/eu/fuel_reference.php

Since the breakdown of 'Water Transport' energy use by state is not available, the Total Primary Energy Supply for 2011-12 has been used to provide an estimate of the commercial vessel fuel consumption by state.

Table 4: Proportion of State Consumption of Commercial Vessel Fuels using 'Total Primary Energy Supply by State'

State	PJ³¹	%	Est. Fuel Consumption (L)
New South Wales	613	29.80%	2,090,712,225
Victoria	422	20.52%	1,439,283,131
Queensland	477	23.19%	1,626,867,425
Western Australia	327	15.90%	1,115,273,895
South Australia	112	5.44%	381,989,836
Tasmania	38	1.85%	129,603,694
Northern Territory	68	3.31%	231,922,400
Total	2,057	100.00%	7,015,652,605 L

³¹ Australian Government, Department of Resources, Energy and Tourism, Bureau of Resources and Energy Economics, Energy in Australia, Total primary energy supply (petroleum products), February 2013.

Recreational Vessel Fuel Consumption

There are a number of datasets available that summarise the number and types of recreational vessels being used in Australia. Based on 2007 figures provided by State and Territory Maritime Agencies, there were over 731,378 registered vessels in Australia³². To estimate fuel consumption for recreational vessel fuel consumption a series of assumptions were made:

1. Based on Gall (2009)³³, it is assumed that a vessel of less than 6 metres in length will carry smaller motors with a fuel consumption estimated at 6 litres per hour, while larger vessels over 6 metres will have larger motors with a fuel consumption of 15 litres per hour.
2. An analysis of Boating Industry Alliance New South Wales (BIA NSW) statistics (2010)³⁴ was undertaken to develop a reasonable estimate of the percentage split of small boats (<6m) and large boats (>6m). These percentages were determined to be 95% and 5% respectively and this proportion was applied across all states.
3. Using the NMSC National Boating Usage Study Trip Analysis (2010)³⁵, the average boat operator uses their boat for up to 5 hours per trip and takes one trip per month. Based on this, a conservative figure of 60 hours per year of actual on water time per registered vessel.

The calculations using the above assumptions translate into the following tables.

Table 5: Estimated Recreational Vessel Size By State (Less than 6m & Greater than 6m)

State	Total Registered Vessels	No. Vessels under 6m (95%)	No. Vessels over 6m (5%)
New South Wales	203,258	193,095	10,163
Victoria	199,000	189,050	9,950
Queensland	158,587	150,658	7,929
Western Australia	72,000	68,400	3,600
South Australia	51,844	49,252	2,592
Tasmania	24,689	23,455	1,234
Northern Territory	22,000	20,900	1,100
Total	731,378	694,809	36,569

³² National Marine Safety Council, National Boating Usage Study Preliminary Survey Report, 2010.

³³ Gall, C. 2009, Recreational boating activity Review of fuel excise revenue estimate, Draft report to Ministry of Transport, New Zealand Institute of Economic Research, Thorndon, New Zealand.

³⁴ Boat Industry Association New South Wales, BIANSW DATA 44 - Vessel Registration Statistics for NSW year ending 30 June 10, viewed at <http://www.bia.org.au/data-pdf/BIANSW-DATA44.pdf>, 2011.

³⁵ National Marine Safety Council, National Boating Usage Study Trip Analysis, 2010.

Table 6: Estimated Recreational Vessel Fuel Consumption (Less than 6m & Greater than 6m)

State	Fuel consumed by vessels <6m (L)	Fuel consumed by vessels >6m (L)	Total Litres
New South Wales	69,514,236	9,146,610	78,660,846
Victoria	68,058,000	8,955,000	77,013,000
Queensland	54,236,754	7,136,415	61,373,169
Western Australia	24,624,000	3,240,000	27,864,000
South Australia	17,730,648	2,332,980	20,063,628
Tasmania	8,443,638	1,111,005	9,554,643
Northern Territory	7,524,000	990,000	8,514,000
Total	250,131,276	32,912,010	283,043,286 L

Total Marine Vessel Fuel Consumption

The cumulative estimated total of both commercial and recreational marine vessel fuel consumption equates to **7.3 Billion Litres** of petroleum fuel.

Table 7: Estimated Total Marine Vessel Fuel Consumption

NSW Marine Vessel Fuel Consumption	Litres (L)
Commercial Vessels	7,015,652,605
Recreational Vessels	283,043,286
Total	7,298,695,891 L

Excise Calculation & Distribution

To calculate the estimated FET attributable to marine vessel use, the ATO FET rate for liquid fuels (e.g. petrol, diesel) has been applied at a rate of \$0.3814³⁶.

Fuel Excise Distribution – Commercial

For commercial vessel fuel excise, the nominated fuel excise rate has been applied against the fuel consumption estimate for each state. The total fuel excise estimated attributable to commercial vessel use is **\$2.7 Billion**.

Table 8: Estimated Distribution of Commercial Fuel Excise by State

State	Total Litres	Est. Excise (\$)
New South Wales	2,090,712,225	797,460,364
Victoria	1,439,283,131	548,985,764
Queensland	1,626,867,425	620,536,042
Western Australia	1,115,273,895	425,398,922
South Australia	381,989,836	145,702,383
Tasmania	129,603,694	49,434,737
Northern Territory	231,922,400	88,462,161
Total	7,015,652,605	\$2,675,980,373

Fuel Excise Distribution – Recreational

For recreational vessel fuel excise, the nominated fuel excise rate has been applied against the fuel consumption estimate for each state. The total fuel excise estimated attributable to recreational vessel use is **\$108 million**.

Table 9: Estimated Distribution of Recreational Fuel Excise by State

State	Total Litres	Est. Excise (\$)
New South Wales	78,660,846	30,003,606
Victoria	77,013,000	29,375,069
Queensland	61,373,169	23,409,568
Western Australia	27,864,000	10,628,166
South Australia	20,063,628	7,652,870
Tasmania	9,554,643	3,644,427
Northern Territory	8,514,000	3,247,495
Total	283,043,286	\$107,961,201

³⁶ Australian Government, Australian Taxation Office, Excise Tariff Working Pages 30th January 2014.

Total Fuel Excise Distribution

The combined total for all Fuel Excise Tax attributable to Marine Vessels is **\$2.8 billion**. This conservative estimate equates to 15% of 2013/14 Forecast Fuel Excise Revenue (\$18.7 Billion)³⁷. A logic test has been applied to ensure that the total estimated fuel excise based on total net use of petroleum energy is equal to or less than the annual forecast of fuel excise revenue (refer to appendix 2).

Table 10: Estimated Distribution of Total Fuel Excise Tax Attributable to Marine Vessels by State

State	Recreational Excise	Commercial Excise	Total Est. Excise
New South Wales	\$30,003,606	\$797,460,364	\$ 827,463,971
Victoria	\$29,375,069	\$ 548,985,764	\$ 578,360,833
Queensland	\$23,409,568	\$620,536,042	\$ 643,945,610
Western Australia	\$10,628,166	\$425,398,922	\$ 436,027,087
South Australia	\$7,652,870	\$145,702,383	\$ 153,355,253
Tasmania	\$3,644,427	\$49,434,737	\$ 53,079,165
Northern Territory	\$3,247,495	\$88,462,161	\$ 91,709,656
Total	\$107,961,201	\$2,675,980,373	\$ 2,783,941,574

³⁷ Australian Government, Department of Finance, Mid Year Economic and Fiscal Outlook 2013-14, p. 220.

Funding Proposal

The total funding ask of this submission is \$20 million, which is 0.72% of Fuel Excise Tax attributable to Marine Vessels (or 0.11% of total FET revenue). The proportion by which the funding is an average of the following percentages:

- The FET attributable to each state,
- The number of units in each state,
- The number of VMRO members in each state, and,
- The state population (potential client base).

Table 11: Estimated Distribution of Funding Proposal by State

State	Average %	Funding Allocation
New South Wales	30.08%	6,016,915
Victoria	15.85%	3,169,929
Queensland	24.41%	4,881,087
Western Australia	15.84%	3,168,356
South Australia	8.14%	1,628,011
Tasmania	4.42%	883,849
Northern Territory	1.26%	251,854
Total	100%	\$ 20,000,000

The funding will be used for:

- Increased operating costs due to increased activity caused by rise in marine vessel activity and population growth,
- The costs imposed by increased marine rescue vessel standards and capability requirements,
- The costs imposed by increased training and currency requirements for marine rescue vessels,
- Reducing the increasing burden on members of Volunteer Marine Rescue Organisations.

References

- Australian Bureau of Statistics, ABS 4102.0 - Australian Social Trends, 2008.
- Australian Bureau of Statistics, ABS 46040DO002_201112 Energy Account, Australia, 2011-12, Table 1: Australian Net Use of Energy, 2011-2012.
- Australian Government, Australian Taxation Office, Excise Tariff Working Pages 30th January 2014.
- Australian Government, Department of Finance, Mid Year Economic and Fiscal Outlook 2013-14, p. 220.
- Australian Government, Department of Infrastructure and Regional Development 'Road Safety', viewed at <https://www.infrastructure.gov.au/roads/safety/>.
- Australian Government, Department of Resources, Energy and Tourism, Bureau of Resources and Energy Economics, Energy in Australia, Total primary energy supply (petroleum products), February 2013.
- Australian Government, Department of Resources, Energy and Tourism, Bureau of Resources and Energy Economics, Energy in Australia, May 2013, p. 122.
- Australian Maritime Safety Authority 'National System for Domestic Commercial Vessels Q&A', viewed at <https://www.amsa.gov.au/forms-and-publications/Fact-Sheets/Q&A.pdf>.
- Australian Maritime Safety Authority, Annual Report 2012-13.
- Australian National Search and Rescue Committee, Meeting Report, 34th Meeting of the ANSARC, October 2010.
- Australian Volunteer Coast Guard Association 'About Us', viewed at <http://www.coastguard.com.au/aboutus>.
- Australian Volunteer Coast Guard Submission to the Economic Development, Infrastructure and Outer Suburban/Interface Services Committee Inquiry into Marine Rescue Services in Victoria, March 2014.
- Boat Industry Association New South Wales, BIANSW DATA 44 - Vessel Registration Statistics for NSW year ending 30 June 10, viewed at <http://www.bia.org.au/data-pdf/BIANSW-DATA44.pdf>, 2011.
- Department of Fire and Emergency Services Western Australia 'Volunteer Marine Rescue Services', viewed at <http://www.dfes.wa.gov.au/aboutus/operationalinformation/Pages/volunteermarinerescueservices.aspx>.
- DieselNet 'Fuel Regulations, European Union, Reference Diesel Fuel', viewed at http://www.dieselnet.com/standards/eu/fuel_reference.php.
- Flinders University of South Australia, Assessment of Fatal and Non-Fatal Injury due to Boating in Australia, 2001.
- Gall, C. 2009, Recreational boating activity Review of fuel excise revenue estimate, Draft report to Ministry of Transport, New Zealand Institute of Economic Research, Thorndon, New Zealand.
- Marine Rescue New South Wales Annual Report 2013.
- National Marine Safety Council, National Boating Usage Study Preliminary Survey Report, 2010.
- National Marine Safety Council, National Boating Usage Study Trip Analysis, 2010.
- New South Wales Fire and Rescue 'Retained Fire Fighters', viewed at <http://www.fire.nsw.gov.au/page.php?id=64>.
- New South Wales Maritime, NSW Boat Ownership and Storage Report, July 2010
- Office of Boating Safety and Maritime Affairs (NSW) 2012 "Boating Incidents in NSW" Report & The NSW State Rescue Board Marine Standard Operating Procedures 2014.
- Parliament of Victoria, Inquiry into Federal-State Road Funding Arrangements, 2010.
- Smith, P, National Administration Commodore, AVCGA, 17th July 2014.
- State Emergency Service South Australia Annual Report 2011-12.
- Surf Life Saving Australia Annual Report 2012-13.
- Surf Life Saving Tasmania 'About Us', viewed at <http://slst.asn.au/surf-life-saving/about-us/>.
- The Australian Boating Injury database: Non-fatal injury (ABID:NFI) November 2005 "National Assessment of Boating Fatalities in Australia 1992 – 1998".
- Volunteer Marine Rescue Queensland 'Locations', viewed at <http://marinerescueqld.org.au/>.
- Williams, K, President, Volunteer Marine Rescue Queensland, 18th July 2014.