Election Costing Request Form

Details of request	
Party:	Liberals & Nationals Government
Name of Policy:	Electric Buses and Bus Depot for Randwick
Date of request:	13 March 2019

Description of policy	

Summary of policy (please attach copies of relevant policy documents and include information on what the policy aims to achieve):	In our Electric and Hybrid Vehicle Plan announced earlier this year, we committed to testing the feasibility of transitioning one or more bus depots to partial or full electric operations.
	
	The NSW Liberals & Nationals Government will:
	
	• Commit that the Randwick Bus Depot be subject to this feasibility with the goal of being transitioned to zero emissions buses
	• Commit $10 million for:
	  ○ An initial 10 electric buses
	  ○ Associated infrastructure upgrades, such as power supply/charging
	• Introduce an initial 10 buses, along with undertaking infrastructure upgrades which will help input data as part of a larger feasibility study committed to.
	
	This is part of our larger vision to achieve the sustainability goals included in Future Transport 2056 and our aspirational target to achieve net-zero emissions by 2050.

Has the policy been publicly released yet?	No

	2018/19 $'000	2019/20 $'000	2020/21 $'000	2021/22 $'000	Total $'000
Impact on GGS expenses	-	-	-	-	-
Impact on GGS revenue	-	-	-	-	-
Impact on General Government Sector (GGS) net operating result[1]	-	-	-	-	-
Impact on GGS capital expenditure[2]	-	-	-	-	-
Impact on GGS net lending/borrowing	-	-	-	-	-

Note: Has the policy been costed by a third party?
If yes, can you provide a copy of this costing and its assumptions?

Key assumptions made in the policy	
Does the policy relate to a previous announcement? If yes, which announcement?	It delivers on a commitment in the Electric and Hybrid Vehicle Plan released earlier this year.
What assumptions have been made in deriving the financial impacts in your estimated costing? *(See checklist)*	It is estimated that the cost will be around $10 million for 10 buses based on a cost of $750,000 per bus plus associated infrastructure costs, maintenance and electricity. Analysis on potential savings in the Sydney market is demonstrated below by comparing the net present value (NPV) of a diesel bus to an electric bus, firstly based on current bus costs and then if electric buses reduce to the same as diesel buses and mass production drives down costs. Relative fuel and maintenance costs are as outlined above.

	Current Bus Costs		Equal Bus Costs	
	Diesel Bus	Electric Bus	Diesel Bus	Electric Bus
Bus Purchase Price	$433,018	$750,000	$433,018	$433,018
Bus Lease Payment	$43,748	$75,773	$43,748	$43,748
Fuel/electricity Cost	$23,257	$10,950	$23,257	$10,950
Maintenance Cost	$31,927	$27,138	$31,927	$27,138
NPV Over 25 years	**$1,639,515**	**$1,617,303**	**$1,931,499**	**$1,597,725**

The potential savings over the 25 year life of a bus are an NPV of $333k. This creates a potential NPV savings for a fleet of 4,000 metropolitan buses of $1.3billion over 25 years

[1] Negative for a saving that reduces expenditure
[2] Negative for a reduction in capital expenditure.

Is there a range for the costing or any sensitivity analysis that you have undertaken?	No
Are there associated savings, offsets or, in the case of a revenue proposal, offsetting expenses? If yes, please provide details.	No
Are there significant costs or savings **outside** the forward estimates period which should be considered in costing this policy?[3]	There will be cost savings over time. Although electric buses have a higher purchase price than standard diesel buses (around $250,000 more), they are cheaper to operate and, if they can be proven to meet operational needs and have a similar operational life to diesel buses, they already may be competitive on a whole of life asset basis. Indications are that fuel costs are considerably cheaper for electric buses. Current diesel and gas buses cost around $64 per day to fuel. There is some evidence that the cost to fully charge an electric bus operating in Sydney would cost around $30 per day or less. The financial impact of reduced maintenance will be assessed through trials, but savings of the order of 40% have been reported from some initial trials. Savings in maintenance costs of 15% would result in a positive net present value compared with the purchase, fuelling and maintenance of the current fleet in around 22 years of the asset life of 25 years.

Administration of policy	
Intended date of implementation:	Procure buses progressively from 2019/20: 2019/20 – 5 buses 2020/21 – 5 buses
Intended duration of policy[4]:	Funding through to 2020/21
Who will administer the policy (e.g. Government entity, non-government organisation, etc.)?	Transport for NSW
Are there any specific administrative arrangements for the policy that need to be taken into account	Buses would need to be procured

[3] Particularly important for large projects with long lead times, policies with a delayed timetable for implementation, or policies where up-front investment is required to achieve long term savings.
[4] Where a policy is intended to be ongoing, please indicate "ongoing" in the space to the right

(e.g. agreements between different levels of government)?	
Are there transitional arrangements associated with policy implementation?	No.

If the policy is mainly an expenditure[5] commitment	
Demand driven or a capped amount:	Capped.
Eligibility criteria or thresholds:	N/A

If the policy is mainly a revenue commitment	
Transaction based or capped:	N/A
Thresholds and/or exemptions:	N/A
Collection method:	N/A
Additional expenditure associated with collection:	N/A
If the policy is mainly a capital costs[6] commitment	
Nature of Capital Spending	
Type of work, size and capacity:	-
Proposed start and completion date of work:	N/A
Intended construction schedule/cashflow:	See above.
Associated asset sell off (if any):	No.
Recurrent Impacts	
Offsetting expenditure savings:	N/A
On-going maintenance, depreciation and operational expenses:	N/A
Third party funding involvement:	N/A
Delivery model[7]	-

Checklist for key assumptions (please be comprehensive and include all relevant assumptions). Assumptions could include, but are not limited to, questions such as:

- What is the expected community impact?

[5] Expenditure is operating expenses, e.g. salaries, interest cost and grants. Expenditures are fully included in the impact on operating balance.

[6] Capital costs differ from expenditure in that only depreciation will be included in the impact on operating balance.

[7] There is a range of possible delivery models, e.g. built, owned and operated by a NSW government agency; built and transferred to a private operator; privately built for public operation; privately built and operated with government assuming risk or providing a guarantee in relation to future income (often applicable to public/private partnership arrangements), and so on. The policy should provide assumptions about the proposed delivery model.

- How many people will be affected by the policy?
- What is the likely take up or other behavioural response you expect?
- Is there a cap on total spending proposed, a funding formula, resource agreement or other mechanism of this nature associated with the policy?
- Will third parties have a role in funding or delivering the policy (e.g. Commonwealth Government)?
- Will funding/program cost require indexation?
    - If yes, do you have any assumptions about the index that should be applied?
- What assumptions have you made about costs of administering the policy?
- Will additional staff be needed in the agency responsible for the policy?
    - How many and at what approximate levels?
- Are there other resources required?
- Are you assuming administrative costs will be absorbed within the agency?

Please note that:

- The costing will be on the basis of information provided in this costing request.
- The PBO is not bound to accept the assumptions provided by the requester. If there is a material difference in the assumptions used by the PBO, the PBO will consult with the requester in advance of the costing being completed.
- Where the details of the policy costing request differ from the announced policy, the costing will be on the basis of the information provided in the costing request.
- These guidelines are intended to facilitate requests for costing election policies. Persons preparing such requests who wish further assistance are invited to contact the staff of the Parliamentary Budget Office.