



Parliamentary Budget Office - Election Policy Costing

NSW Parliament • Parliament House, Macquarie Street Sydney NSW 2000

Referred By: Australian Labor Party
Date Referred: 30/11/2018

Proposal No: A153
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Proposal Title: Supporting Australian steel

Cluster: Whole of Government

General Government Sector Impacts

	2018-19 \$'000	2019-20 \$'000	2020-21 \$'000	2021-22 \$'000	4 year Total \$'000
Expenses (ex. depreciation)	-	-	-	-	-
Depreciation	-	-	-	-	-
Less: Offsets	-	-	-	-	-
Revenue	-	-	-	-	-
Net Operating Balance:	-	-	-	-	-

Capital Expenditure	-	6,935	13,009	18,529	38,473
Capital Offsets	-	-	-	-	-
Net Capital Expenditure:	-	6,935	13,009	18,529	38,473

Net Lending/(Borrowing):	-	(6,935)	(13,009)	(18,529)	(38,473)
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Total State Sector Impacts

Net Lending/(Borrowing):	-	(9,015)	(16,505)	(24,530)	(50,051)
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Notes and costing assumptions

The policy proposes all NSW Government public infrastructure projects will be required to use a minimum 90% Australian made steel that meets Australian standards and certification for the total state sector from 1 July 2019. The policy is estimated to cost \$50.1 million over the forward estimates. The costing is subject to large uncertainty, including how much steel is used in NSW Government projects and the extent and timing of potential price increases.

The cost of the policy is reduced to \$38.5 million if it is only applied to the General Government sector.

The table below shows our calculation of the cost of the policy.

Cost of 90% Australian made steel policy				
Financial year	2019-20	2020-21	2021-22	Total
Base case steel tonnes used in NSW Gov projects	338726	310069	276502	
Additional Australian tonnes displacing imports	15243	27906	41475	
Price increase per tonne \$ (40%)	296	296	296	
Current Australian tonnes subject to price increase	30485	55812	82951	
Price increase per tonne \$ (20%)	148	148	148	
Total cost \$ million	9.0	16.5	24.5	\$ 50.1

Notes and costing assumptions continued:

NSW Government steel use in infrastructure projects

The NSW 2018-19 Budget proposes a capital spend for the total state sector of \$87.2 billion over the period 2018-19 to 2021-22, \$24.4 billion in 2018-19, \$22.5 billion in 2019-20 decreasing to \$19 billion in 2021-22.

We have estimated, based on this spend, the NSW Government's steel use for infrastructure projects would be approximately 339,000 tonnes in 2019-20 based on previous research (E&Y 2017, BIS Shrapnel 2015), and advice from government agencies involved in the management of these projects. Steel use is forecast to decrease over the forward estimates in line with the decreasing capital spend.

The policy would apply to new contracts and current contracts where there is flexibility in determining where steel is sourced.

We have estimated the policy would apply to 15% of total NSW government steel use in 2019-20, 30% in 2020-21, rising to 50% in 2021-22 as new contracts are signed or current contracts are able to be varied.

Percentage of steel manufactured in Australia used in NSW Government projects

The percentage of steel manufactured in Australia used in Government projects has been previously estimated at 50% (BIS Shrapnel 2015). Other estimates suggest Australian manufactured steel accounts for 59% of all Australian consumption (E&Y 2017). The NSW Government steel dashboard indicates, from a sample of projects, 76% of the steel is sourced from Australia. NSW government agencies have suggested using estimates ranging between 50% and 70% for Australian manufactured steel in NSW government projects.

Based on this data, we have assumed 60% Australian made steel is used in NSW government projects over the forward estimates under our base case.

Price increases under 90% Australia made policy

Estimates of potential price increases from a minimum 90% Australia made policy are uncertain. Some research suggests price increases of 10%. (BIS Shrapnel 2015 at page iv)

However, the Australian market is highly concentrated, with two major producers. Bluescope produces flat steel products and Liberty Steel (the former Onesteel), produces long products. Flat and long products account for 90% of total steel consumption in Australia.

Evidence provided to a 2017 Australian Senate Committee suggested prices could rise significantly with a mandated local content requirement because Bluescope and Onesteel would effectively become monopolies for flat and long products for locally sourced steel (Australian Senate, 2017 at 5.41).

Other empirical research has found the costs of a monopoly can be high, with prices up to 100% higher compared to competitive conditions. (Schmitz 2012, page 4).

Given the concentrated market structure in steel, our modelling has assumed 40% price increases for the **extra** steel sourced from Australia (i.e. NSW moving from 60% to 90% Australian made), and a 20% increase in prices for **current** steel sourced from Australia for new contracts and current contracts subject to variations.

The price rises are likely to be significant because barriers to entry for new firms interested in producing steel in Australia are large, and for many construction applications there are not effective product substitutes for steel.

Nevertheless the possibility of substitutes at higher prices (including aluminium, carbon fibre, polymers) and associated engineering adaptations provide a constraint on the extent to which steel producers could exploit a monopoly position.

We have assumed an average steel price per tonne of \$740 based on world prices.

Notes and costing assumptions continued:

The cost of the policy could be significant over 10 years

The cost of this policy over 10 years could be significant as current contracts expire. Assuming all current contracts could be renegotiated, under our modelling assumptions the total costs of the policy are estimated to be between \$50 million and \$70 million per annum.

Our long term cost estimates are higher than, though comparable with, a 2015 BIS Shrapnel report that estimated the cost of a 90% Australia made policy applied across all Australian government projects was between \$61 million and \$80 million per annum (Page 16). The main source of difference is we have estimated higher price increases from the policy due to the likelihood of Bluescope and Liberty Steel exploiting their dominant position in the flat and long steel product markets in Australia.

Costing is subject to large uncertainty

This costing is subject to large uncertainty. The uncertainty includes estimates of the amount of steel used in NSW government projects, the number of new contracts entered into and current contracts that can be changed to meet the 90% requirement over 2019-20 to 2021-22, and the extent and timing of potential price increases.

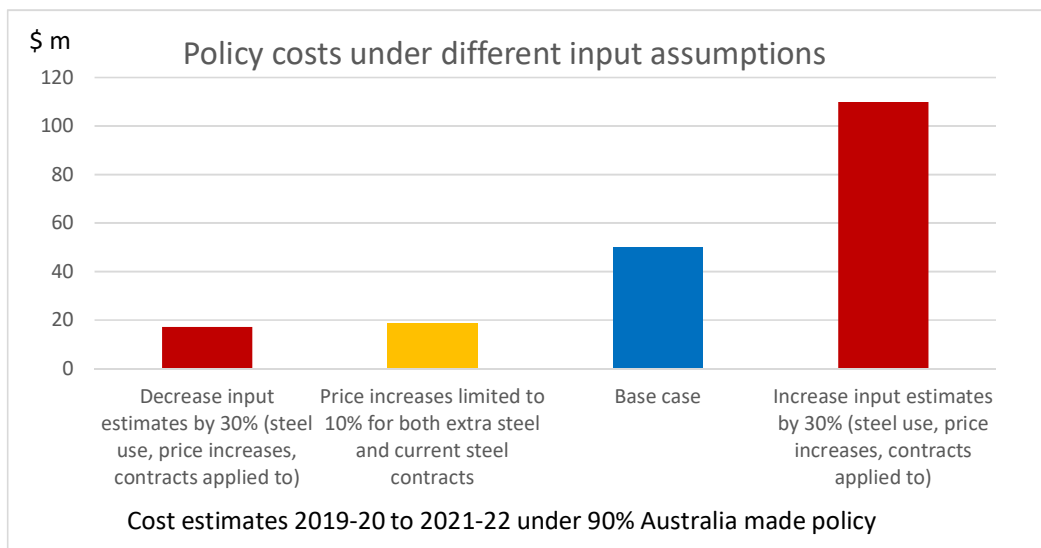
For example, if our estimates for NSW Government steel use, the price increases, and the proportion of contracts where the increases are applied are **all decreased** by 30%, the costs over the forward estimates of the policy would **decrease by 66%** in total to \$17.2 million (from \$50 million).

Under these assumptions, NSW Government steel use would be 237,000 tonnes in 2019-20, the price increases would be 28% for the extra Australian steel, and 14% for current Australian steel, and the price increases would apply to 11% of contracts in 2019-20, rising to 35% of contracts by 2021-22.

By contrast, if our estimates for NSW Government steel use, the price increases and the proportion of contracts where the increases are applied are **all increased** by 30%, the costs over the forward estimates of the policy would increase by 120% to \$110 m (from \$50m).

Under these assumptions, NSW Government steel use would be 440,000 tonnes in 2019-20, the price increases would be 52% for the extra Australian steel, and 28% for current Australian steel, and the price increases would apply to 19.5% of contracts in 2019-20, rising to 65% of contracts by 2021-22.

If the price increases are limited to 10% for both the extra steel and current steel, the policy cost reduces to \$18.8 million over the forward estimates. The sensitivity of the costs of the policy to key input assumptions are shown in the following figure:



Notes and costing assumptions continued:

The costing is also sensitive to other variables such as the value of the Australian dollar, world prices for steel, and Chinese steel production and usage.

References:

NSW Government, Budget Statement (2018-19), Budget Papers 1 and 2

Ernst & Young, July 2017, *NSW Procurement, Australian steel industry overview*, Final Report

NSW Government Steel usage dashboard:

<https://app.powerbi.com/view?r=eyJrIjoizmVjMmI2OTItNGYwYy00YzZlLThkYmEtNzA1OGJmY2EwOTU0IiwidCI6IjFIZjk3YTY4LWU4YWItNDRIZC1hMTZkLWI1NzlmZTJkN2NkOCJ9>

Australian Senate, December 2017, Economics References Committee, *Australia's steel industry forging ahead*

BIS Shrapnel, September 2015, *The Benefits of a Local Procurement Policy for Local Steel in Government Construction*,

Schmitz, James (2012), *New and Larger Costs of Monopoly and Tariffs*, Federal Reserve Bank of Minneapolis