

**Senate Finance and Public Administration Legislation Committee**  
**ANSWER TO QUESTION ON NOTICE**  
**Prime Minister and Cabinet Portfolio**  
**Department of Climate Change**  
**Budget Estimates Hearing—May 2009**

**Written question reference:** CC9

**Outcome/Output:** Outcome 1, Output Group 1.1 – Response to climate change

**Topic:** Comparison of assistance measures in Waxman-Markey and the CPRS

**Hansard Page:** F&PA 22

**Question:** (Senator Cameron)

**Senator CAMERON**—Thanks, Mr Comley. Could you provide the committee with a comparison [of support for EITEI under the CPRS vs Waxman-Markey bill] like you have just gone through so we can understand it in more detail.

**Mr Comley**—Certainly.

**Answer:**

**Comparison of assistance measures provided for emissions-intensive trade-exposed (EITE) industries under the Carbon Pollution Reduction Scheme (CPRS) and the Waxman-Markey Bill (WMB)**

The EITE assistance measures proposed under the WMB share a number of similarities with the CPRS. The WMB approach and the Australian Government have sought to balance a range of considerations in their respective national interests in designing their schemes. At the same time, there are a number of key differences between the two proposals, in large part reflecting differences in the two nations' economies.

**Basis for assistance**

Under the CPRS, assistance will be provided on the basis of an 'activity', reflecting the Government's objective to target assistance to those parts of the economy that are relatively more emissions intensive and for which a carbon cost may be relatively more material. Assistance will be provided per unit of output of the activity.

Under the WMB, assistance is targeted to industries. The determination of an industry is according to certain six digit classification codes for particular manufacturing sectors under the North American Industrial Classification System (NAICS), specifically codes 31, 32, and 33. In practice, the level of disaggregation implied by a six-digit code system suggests that 'industries' in the United States for the purposes of the WMB are likely to be similar to the 'activities' in the Australian context. Assistance will be provided per unit of output of the industry.

## Eligibility for assistance

Under the CPRS, an activity will need to satisfy both an emissions intensity test and a trade exposure test to be eligible for EITE assistance.

To qualify as highly emissions-intensive, an activity must have produced 2,000t CO<sub>2</sub>-e for every million dollars of revenue, or 6,000t CO<sub>2</sub>-e for every million dollars of value added in the assessment period. To qualify as moderately emissions-intensive, an activity must have produced 1,000-1,999t CO<sub>2</sub>-e for every million dollars of revenue or 3,000-5,999 CO<sub>2</sub>-e for every million dollars of value added in the assessment period.

Trade exposure is assessed according to the trade share of an activity, calculated as the ratio of the value of imports and exports to total domestic production. If this ratio is above 10 per cent, the activity will be considered trade-exposed. If an activity does not meet this threshold, qualitative evidence can be taken into account to demonstrate that the activity is constrained due to international competition from passing through the carbon cost.

Under the WMB, industries can qualify for assistance through three different ways:

### *1) Energy or emissions intensity and trade test*

To satisfy the requirements of this test, industries (as defined at the six digit NAICS code) must meet a five per cent energy-intensity threshold, calculated by dividing the costs of purchased electricity and fuel by the value of shipments (effectively revenue).

Alternatively, industries can meet a five per cent emissions-intensity threshold, calculated by dividing direct emissions from production and indirect electricity emissions by the value of shipments (effectively revenue) and multiplying the result by 20. Assuming a carbon price of \$20, this percentage equates to approximately 2,500t CO<sub>2</sub>-e for every million US dollars of revenue, a broadly equivalent threshold to the CPRS, that is 2,000t CO<sub>2</sub>-e for every million Australian dollars of revenue.

In conjunction with the energy or emissions intensity tests, an industry must demonstrate its trade exposure. Like the CPRS, the WMB uses a trade share ratio to calculate trade exposure. The trade share is calculated by dividing the value of imports and exports by domestic consumption (that is, domestic production less imports). If this ratio is above 15 per cent, an industry will be considered trade-exposed. Unlike the CPRS, there is no provision for entities to use qualitative evidence to demonstrate trade-exposure.

### *2) Very high energy or emissions intensity test*

This test uses the same formulations as above, requiring industries to meet a 20 per cent threshold for either energy or emissions intensity. No trade exposure test is necessary.

### 3) *Petition*

An owner or operator of an industrial entity that is a subsector of the NAICS code may petition the Administrator that it meets either 1) or 2). These subsectors are to be classified according to products, however the Administrator has discretion to treat separately the same product made from virgin material and recycled material.

#### Effective rates of assistance

Under the CPRS, assistance is provided to highly and moderately emissions-intensive and trade-exposed activities at two different rates, and is based on the average historic emissions intensity of production of that activity in Australia. The activities categorised as highly emissions-intensive will receive initial assistance at a 94.5 per cent rate of assistance, while those categorised as moderately emissions-intensive will receive initial assistance at a 66 per cent rate of assistance.

Over time, under the CPRS, the Government will reduce rates of assistance provided to each EITE activity at a pre-announced rate, the carbon productivity contribution, of 1.3 per cent a year. This ensures that EITE activities contribute to the national improvement in carbon productivity. The percentage of total permits allocated to firms conducting EITE activities is not capped and may expand or contract, in line with the growth or contraction of the EITE sector. The Government estimated in the CPRS White Paper that at the beginning of the CPRS, EITE industries will be allocated around 25 per cent of total emissions units.

Under the CPRS, the effective rate of assistance provided to entities conducting EITE activities – i.e. the number of free emissions units they will receive for each unit of output produced – will thus be known up front as it will be clearly detailed in the EITE regulations.

Under the WMB, industries that qualify for assistance will also receive assistance per unit of production, based on the industry-average emissions intensity of entities in the industry.

However, the actual assistance that will be provided to qualifying industries at any point in time is less clear. On the one hand, the WMB specifies that assistance **could be up to** 100 per cent of the industry-average emissions intensity in the relevant industry. On the other hand, the WMB is clear that there is a **hard cap** on the total number of permits that can be allocated as EITE assistance and that assistance rates to each industry will be reduced on a pro-rata basis to ensure that allocations are contained within this cap.

The cap on allocations to eligible industries is set at 15 per cent of the national cap on emissions in 2014, and remains broadly around that level until 2025. This implies that the **number** of permits that are available to be provided to EITE industries must reduce in line with the reduction in the national cap on emissions – i.e. by around two per cent per year in the period to 2020 and by around 3¼ per cent per year between 2020 and 2025. Therefore, in 2025, the number of permits available to be allocated to EITE industries will be around 25 per cent less than the number available in 2014.

The effective rate of assistance – i.e. the assistance per unit of output as a proportion of emissions – that will be provided to qualifying industries under the WMB cannot be precisely determined. It depends on a number of factors. Most importantly, it depends on the initial level of emissions from qualifying industries and whether they are, in aggregate, above or below the initial 15 per cent cap. Over time, it depends on how quickly these industries grow and the extent to which they achieve emissions reductions.

The chart below demonstrates the difference between known and possible effective CPRS rates of assistance and what could be the effective rates of assistance to an average industry player under the WMB under two plausible scenarios, assuming different rates of production growth in United States’ EITE industries and different assumptions about improvements in emissions efficiency. The testimony provided by Mr John McMackin to the US House of Representatives Committee on Energy and Commerce on 18 March 2009, has been used as the basis of the emissions estimates underlying these calculations.

By way of comparison, the solid green lines show the published assistance rates provided under the CPRS, and the dashed green lines show the effective assistance rates that would be faced by EITE industries if these industries achieve emissions efficiency improvements (i.e. reductions in emissions per unit of output) of around 1 per cent per annum. While historical average energy efficiency improvements in Australia have been around 0.5 per cent per annum, these achievements have been in the absence of a clear incentive – such as emissions trading – to achieve greater efficiency improvements. It would not be unreasonable to expect that average annual emissions efficiency improvements (incorporating both energy efficiency and emissions efficiency) under the CPRS would be greater than the historical rate.

*Indicative rates of EITE assistance: Waxman-Markey effective rates of assistance vs. CPRS effective rates of assistance*

