

Solar feed-in tariffs

Setting a fair and reasonable value for electricity generated by small-scale solar PV units

Public Forum

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Session 1 – Setting a fair and reasonable feed-in tariff for non-SBS customers

- ▼ There are 3 main elements to setting the fair and reasonable feed-in tariff:
 1. Considering the fair and reasonable value of the energy exported to the grid by solar PV
 2. Determining how best to implement a feed-in tariff
 3. Establishing a benchmark range for the fair and reasonable feed-in tariff

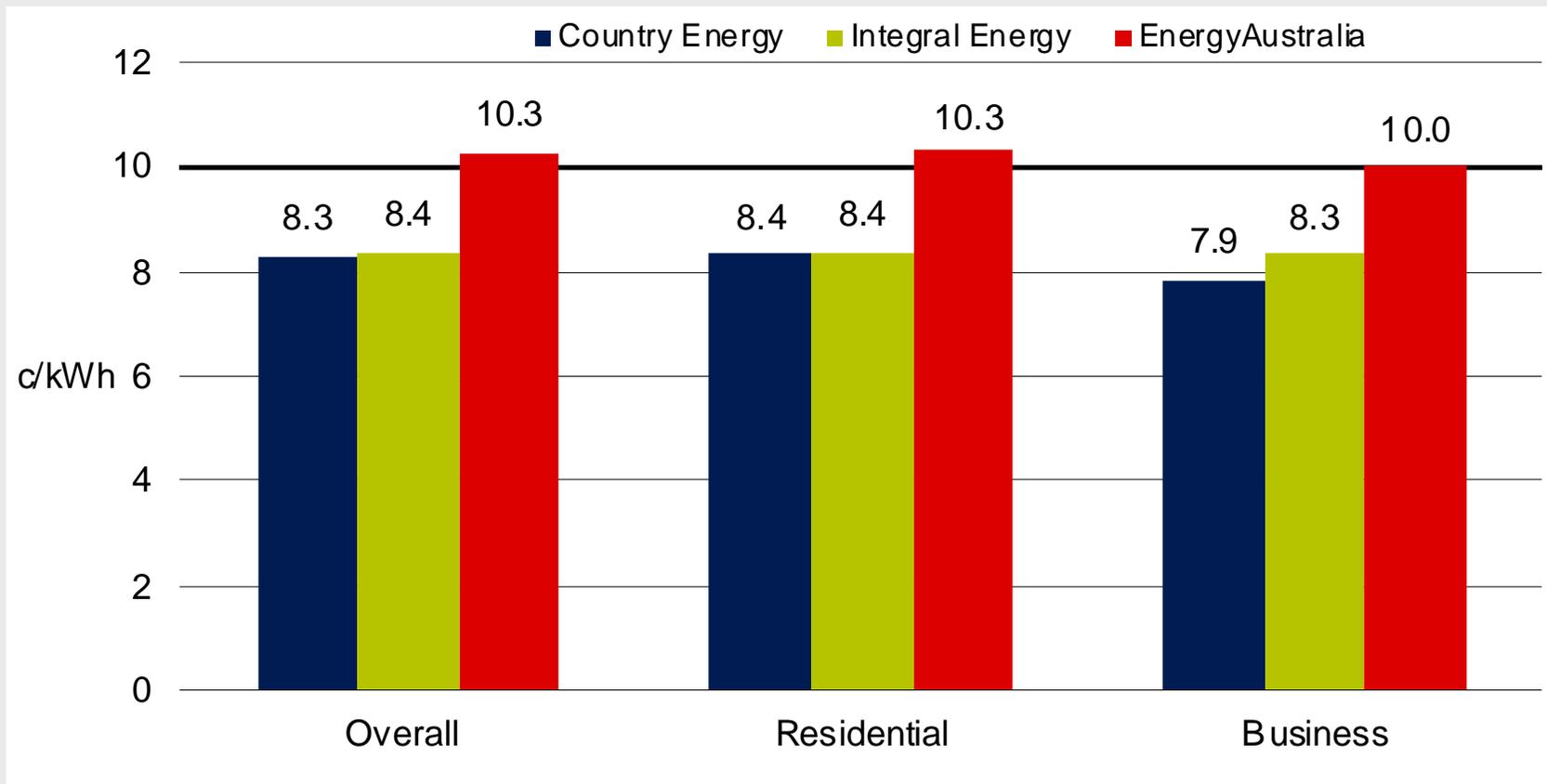
Step 1: Considering the fair and reasonable value of the energy exported to the grid by solar PV

- ▼ We used 2 approaches to consider the direct benefits to retailers:
 1. Financial gains to retailers
 2. Market value of energy exported
- ▼ We also considered whether there were other potential 'indirect' benefits to retailers, network operators and the wider community

Approach 1: Estimating financial gains to retailers

Revenue / kWh	-	Unavoidable costs / kWh	=	Financial gain / kWh
Regulated retail price paid by customer		Retail costs		Avoided electricity purchases
		Retail margin		Avoided NEM fees
		Network costs		Avoided losses
		Green scheme costs		

Estimated financial gains for Standard Retailers (\$2011/12 c/kWh)



Approach 2: Wholesale market value of PV exports

- ▼ The electricity PV customers export to the grid has a value in the NEM **at the time** it is exported
- ▼ To estimate this value, we considered:
 - ▼ the profile of the electricity PV customers export
 - ▼ the likely spot prices in the NEM **at these times**
- ▼ We engaged Frontier Economics to assist with the modelling

Results: wholesale market value of PV exports (\$2011/12 c/kWh)

Approach	2011/12	2012/13
Wholesale market value	5.2 – 7.0	7.0 – 9.8
Financial gains to retailers	8.3 – 10.3	TBC

Note: results for 2012/13 include impacts of Carbon Pricing Mechanism

Other potential benefits from solar PV

- ▼ We considered a range of other potential benefits (and costs):
 - ▼ Potential for avoided network expenditure
 - ▼ A change in wholesale prices through ‘the merit order effect’
 - ▼ Reduced energy losses for all customers
 - ▼ A change in the retailer’s load shape
- ▼ Environmental benefits
 - ▼ Value of avoided carbon emissions will be captured in the feed-in tariff from 1 July 2012 with introduction of carbon price
 - ▼ Solar PV customers can still access subsidies under the Renewable Energy Target (RET)

Step 2: Determining how best to implement a feed-in tariff

- ▼ Setting a benchmark range best balances the relevant risks:
 - ▼ Reduces the risk of regulatory error (“getting it wrong”) and resulting impact on competitive market and attractiveness of PV customers
 - ▼ Reduces the need for complex mechanisms to manage regulatory risk
- ▼ It is important that there are supporting actions to improve information available to customers and competitive rivalry
- ▼ We are still considering whether Standard Retailers should be required to offer feed-in tariffs

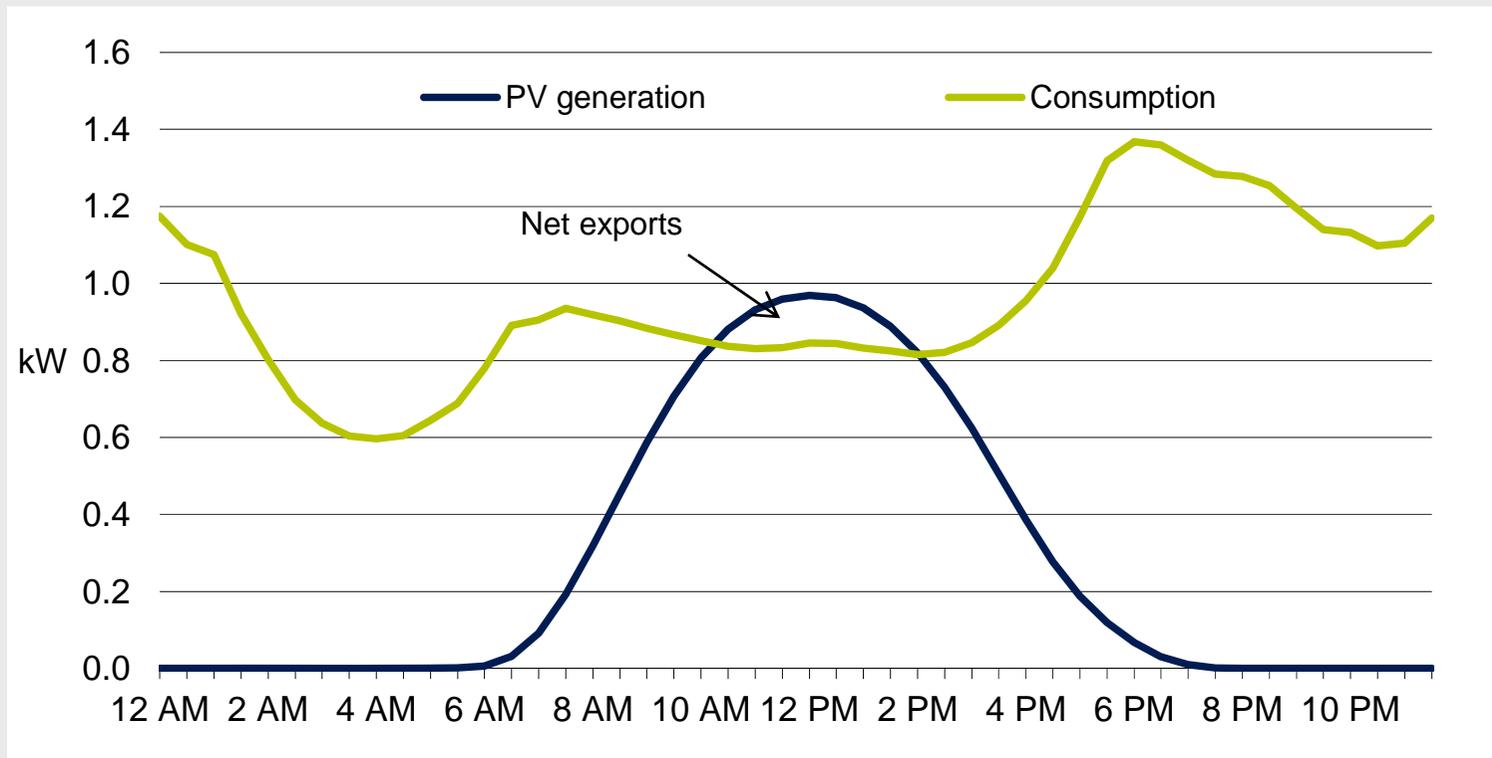
Step 3: Establishing the benchmark range

- ▼ We are recommending the range be based on the financial gains approach
 - Rounded down to reflect discounting in competitive market
- ▼ We are recommending a range of 8-10 c/kWh in 2011/12:
 - to be updated annually
 - rate will increase with the introduction of the carbon pricing mechanism

Session 2 - Network expenditure

- ▼ Some stakeholders submitted that PV generation played a significant role in deferring network expenditure
- ▼ Distributors submitted that the contribution of PV to peak demand is minimal, particularly system-wide.
- ▼ There could be greater location or time-specific benefits
- ▼ Installing PV imposes costs on networks and the export of electricity can also lead to increased expenditure on voltage stability
- ▼ We are recommending a review of the NER and guidelines for small scale embedded generation

A typical residential customer



There tends to be a better match between production and consumption for business customers

Session 3 - Contribution from retailers to the costs of the Solar Bonus Scheme

- ▼ All appropriate measures should be taken to reduce electricity price increases

- ▼ We are recommending a contribution of 7.5 c/kWh, which should increase with the introduction of the carbon price
 - It will save around 15% of future scheme costs, which could lead to lower electricity price increases
 - Customers will still receive statutory subsidised FITs
 - Without this contribution, retailers who are not offering voluntary FITs are making a financial gain.
 - Retailers can change their offerings with notice to customers