



# **WA 2020 Renewable Energy Target**

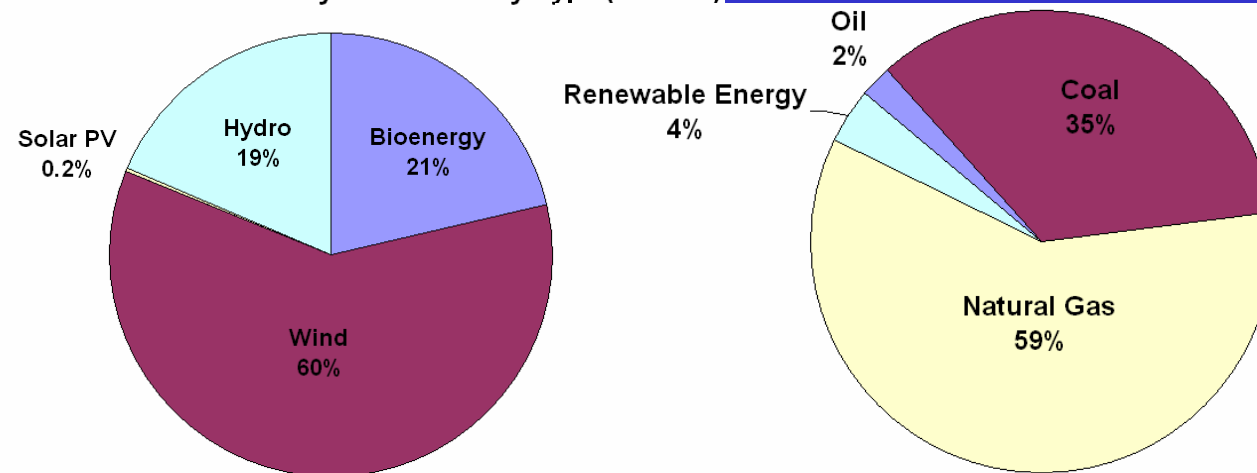
## **Consultation on scheme design**

**Sustainable Energy Development Office  
Office of Energy**

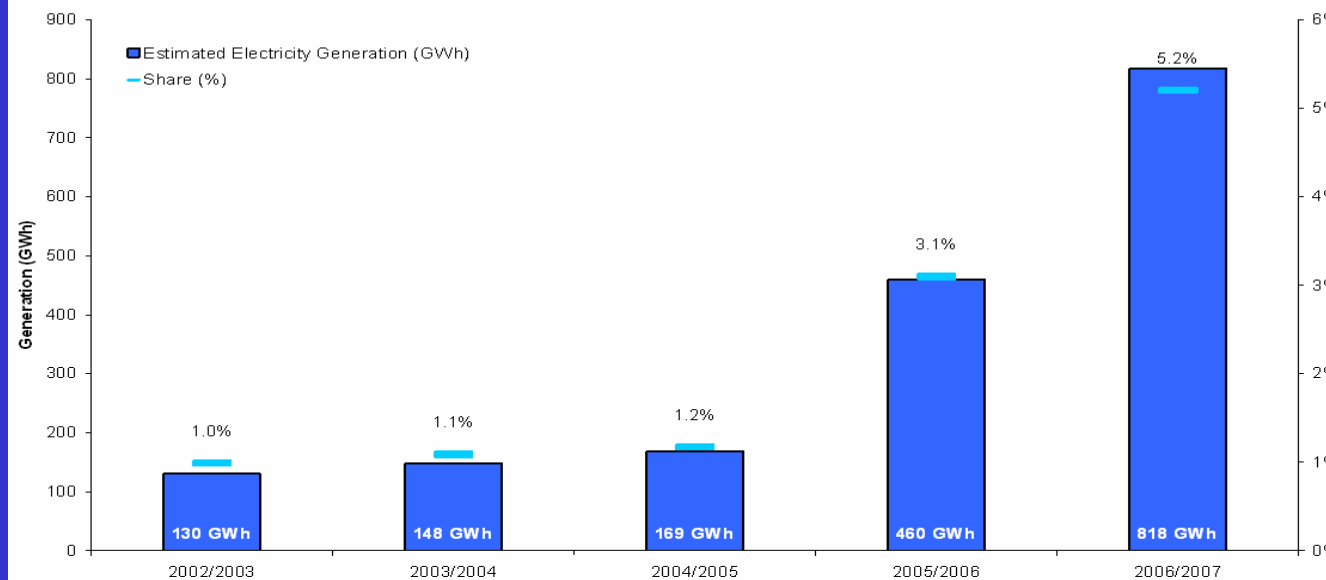
**October 2007**

# Renewable energy in WA

Western Australian Electricity Generation by Type (2006/07)



Estimated Renewable Electricity Generation for the South West Interconnected System





## *Targets across Australia*

<b>Victoria</b>	<b>10% by 2016</b>	<b>Renewable (legislated)</b>
<b>NSW</b>	<b>10% by 2010 15% by 2020</b>	<b>Renewable (in parliament)</b>
<b>SA</b>	<b>20% by 2014</b>	<b>Renewable</b>
<b>Queensland</b>	<b>10% by 2020</b>	<b>Renewable &amp; low emission</b>
<b>ACT</b>	<b>10% by 2010 15% by 2020</b>	<b>Renewable</b>
<b>WA</b>	<b>15% by 2020 20% by 2025</b>	<b>Renewable (scheme consultation)</b>
<b>Commonwealth</b>	<b>9500 GWh by 2010</b>	<b>Renewable (legislated)</b>
	<b>30 000 GWh (15%) by 2020</b>	<b>Renewable &amp; low emission</b>

## **Commonwealth Government's Clean Energy Target**

- **30 000 GWh by 2020**
- **Replace MRET and state schemes**
- **Consultation with states and territories**
- **For implementation in 2011**
- **Federal election, 24 November 2007.**



*WA targets*

## **Labor's Plan for Renewable Energy (2005)**

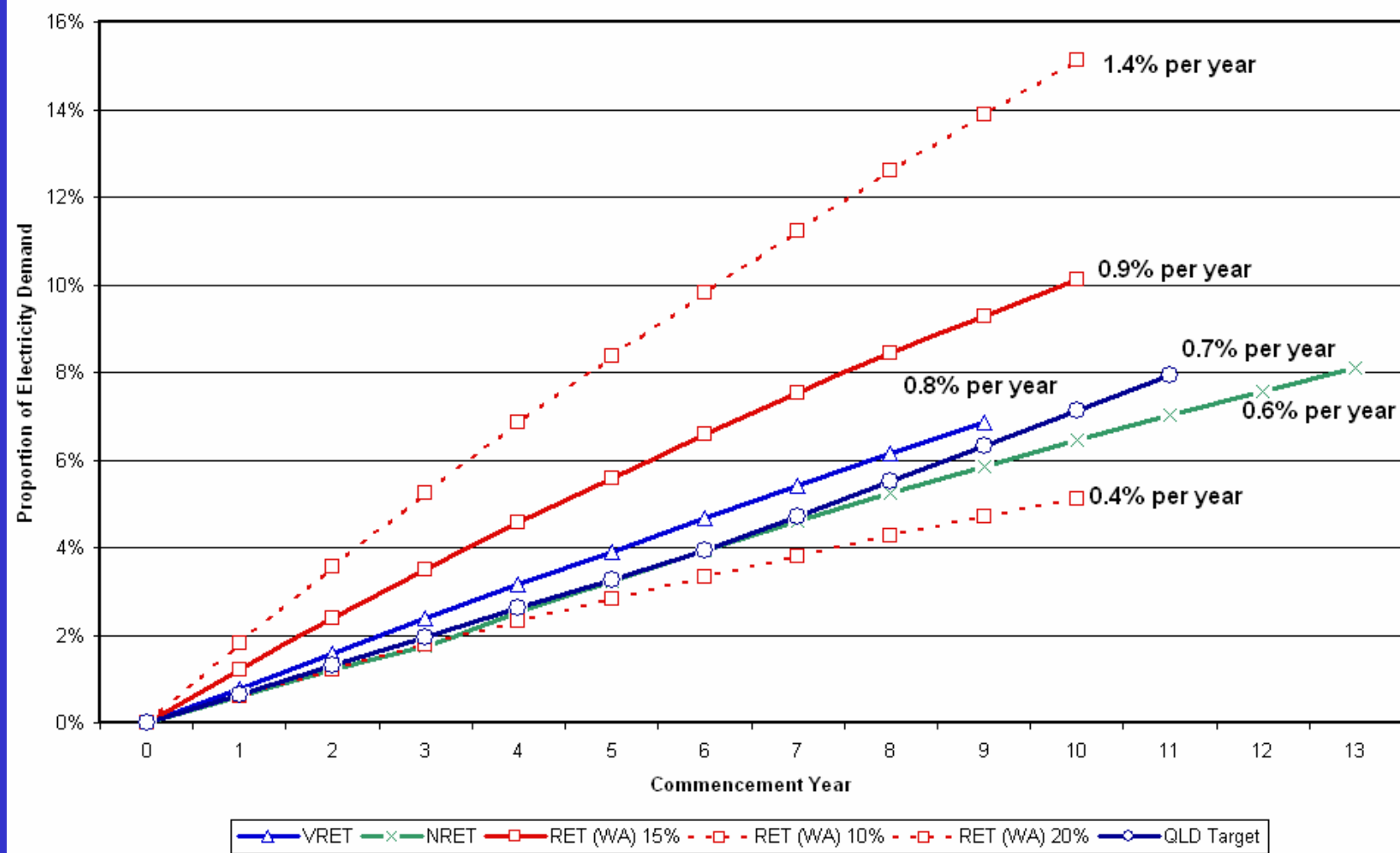
- **6% on the South West grid by 2010**

## **Premier's Climate Change Action Statement (2007)**

- **15% on the South West grid by 2020, increasing to 20% by 2025**

## Targets across Australia

- Target scheme ramp rates





*WA targets*

- **Modelling analysis**

- **\$1.1 billion investment in renewable energy projects.**
- **27 million tonnes greenhouse emission reductions.**
- **Modest impact on electricity prices and the economy.**
- **Appropriate balance between costs and benefits.**



*WA targets*

## Objectives of mandatory scheme

- Low cost, greenhouse emissions-free sources of energy
- Diversity in electricity supply
- Ongoing, reliable and secure energy
- Driving deployment of renewable energy technologies.

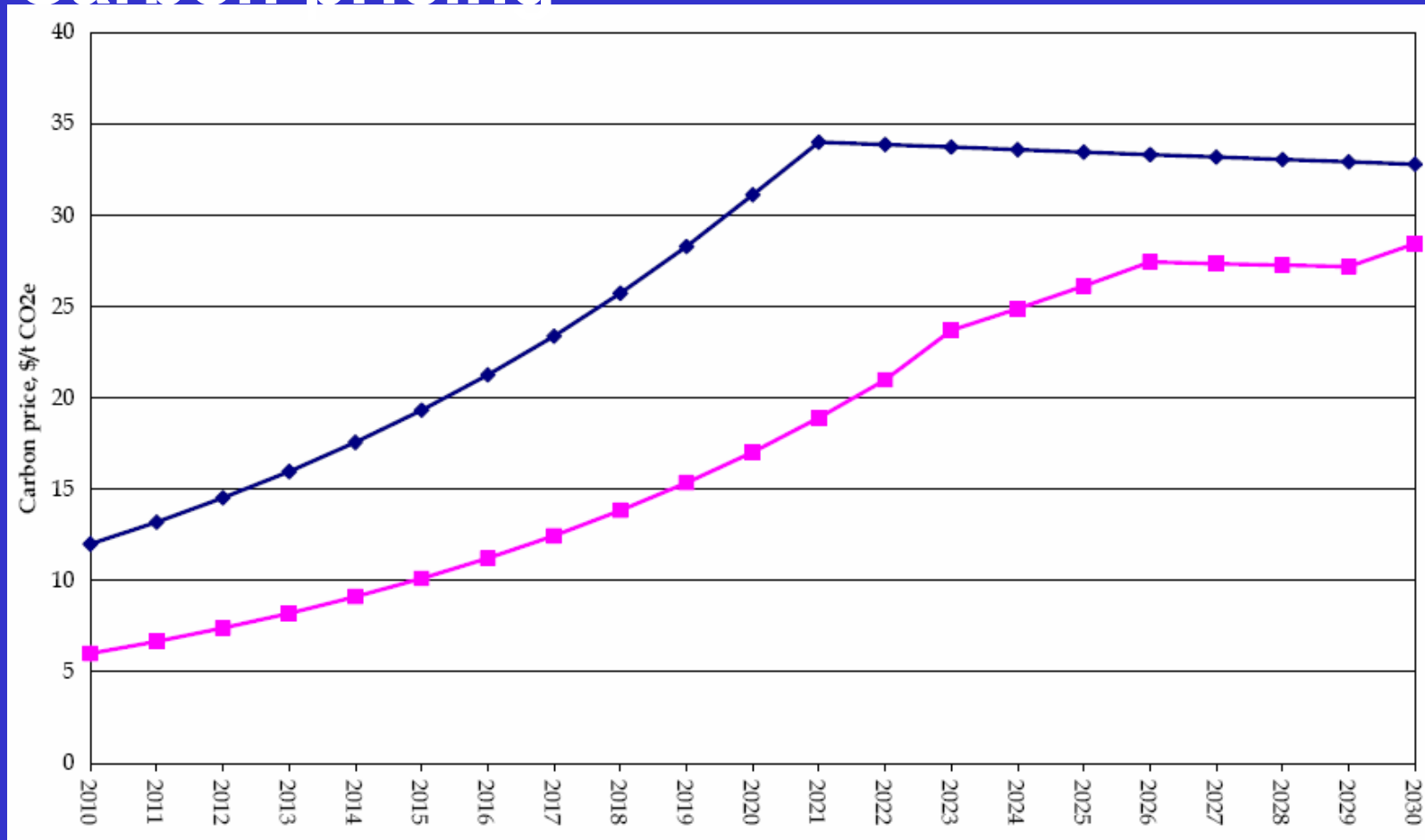




## *Emissions Trading*

- **60% of 2000 levels by 2050**
- **National Emissions Trading Taskforce.**
  - Modelling
  - Measures to manage impacts

- **Carbon pricing**





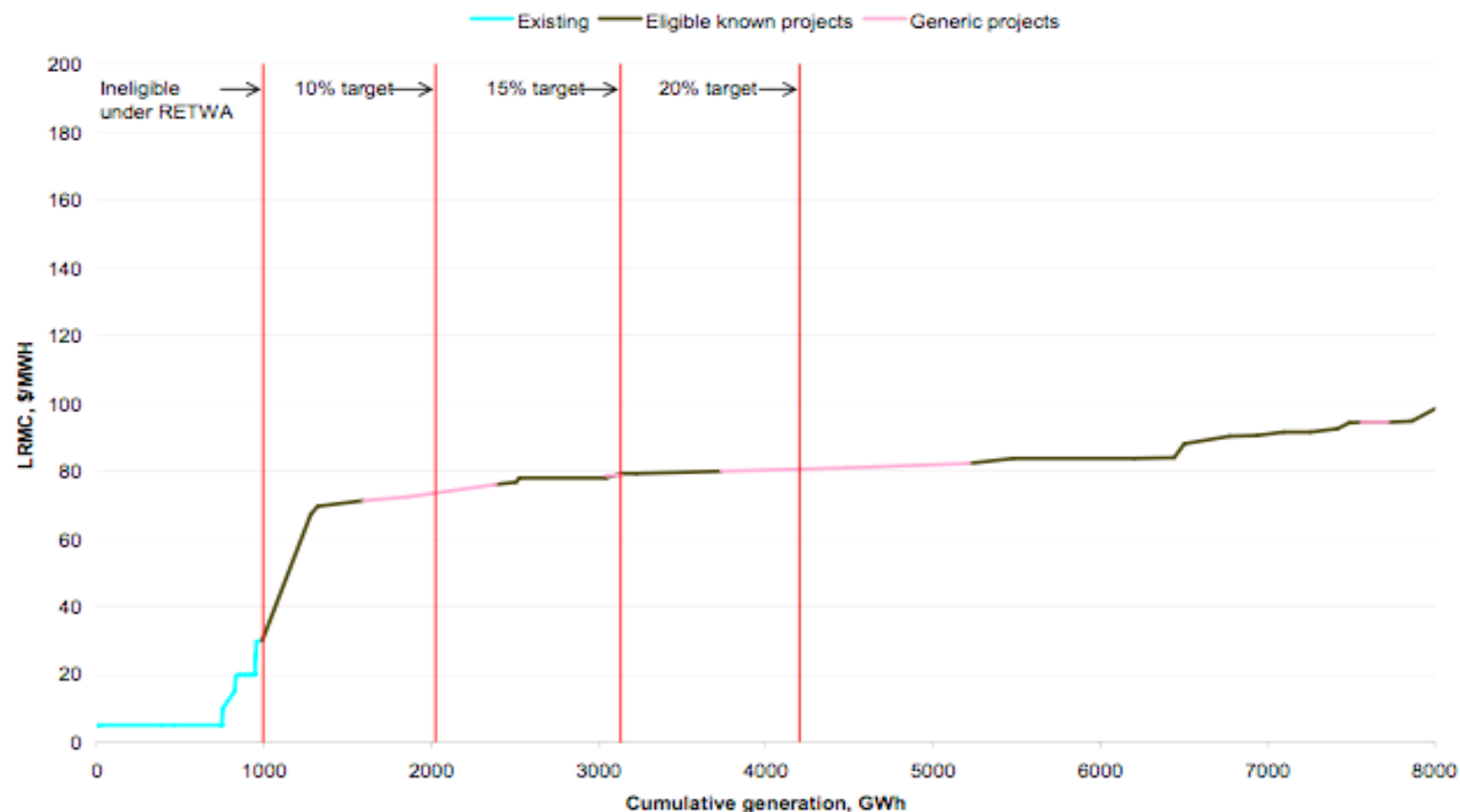
## *Target scheme overview*

- **Mandatory, market-based scheme.**
- **Similar to other jurisdictions.**
  - **Generators**
  - **Liable parties**
  - **Consumers**
  - **Economic and other interests**

## Target scheme overview

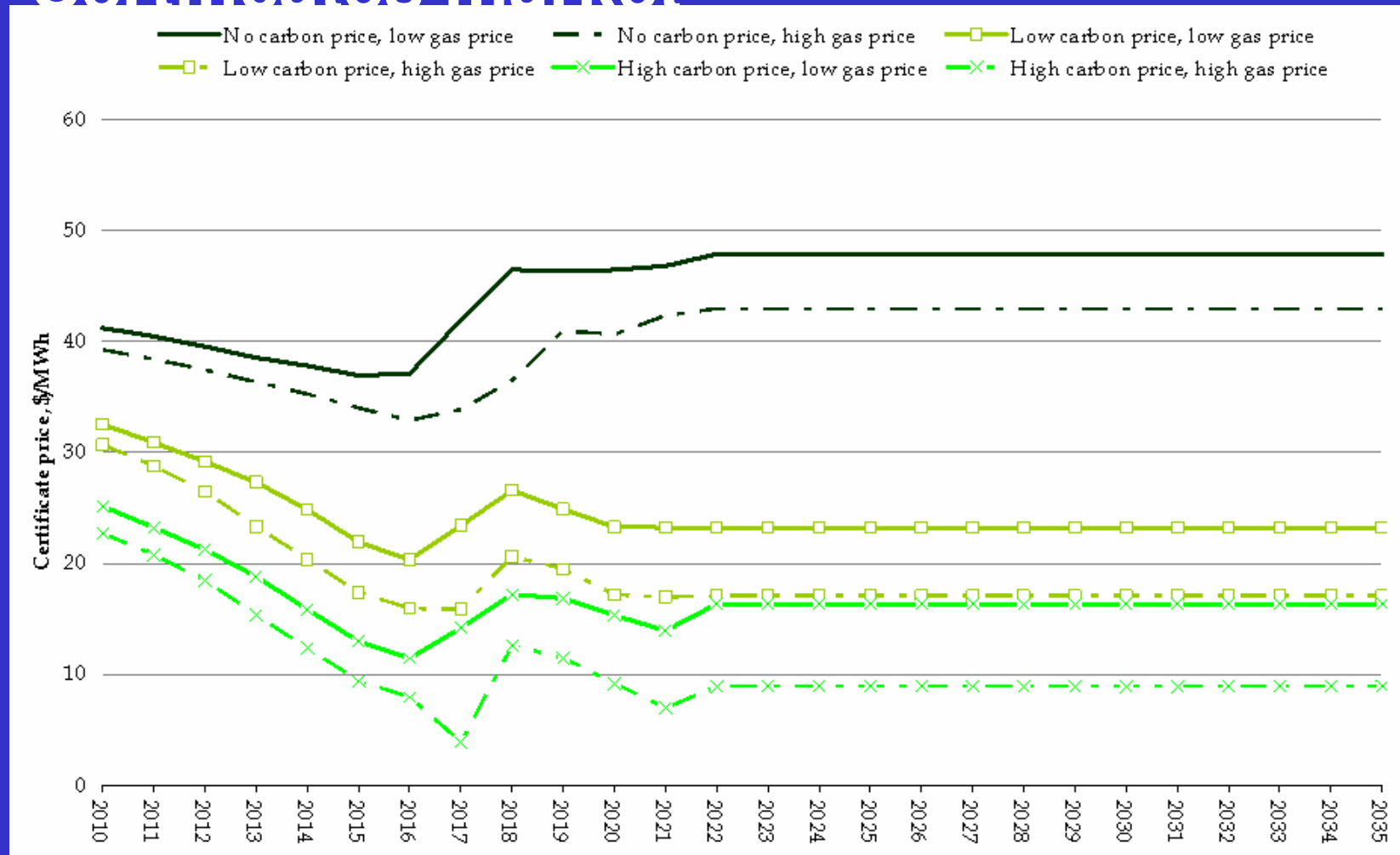
- Renewable energy supply

**Figure 2-2: Indicative long run marginal cost curve for renewable energy generation in Western Australia in 2020**



## Target scheme overview

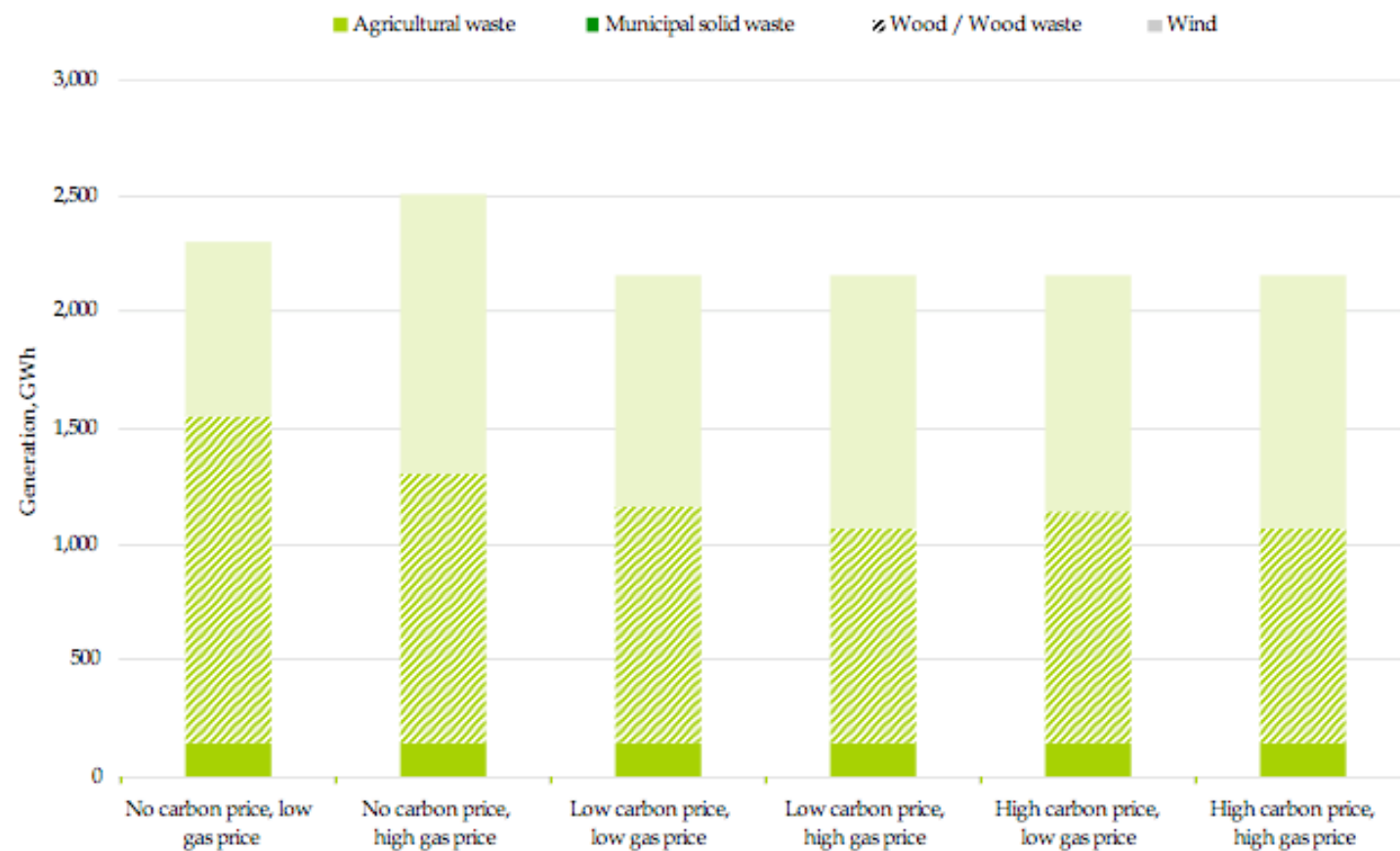
- Certificates market



## Target scheme overview

- Renewable technology neutral

Figure 3-2: Renewable energy generation in 2020 by technology type



## Target scheme overview

- Retail prices

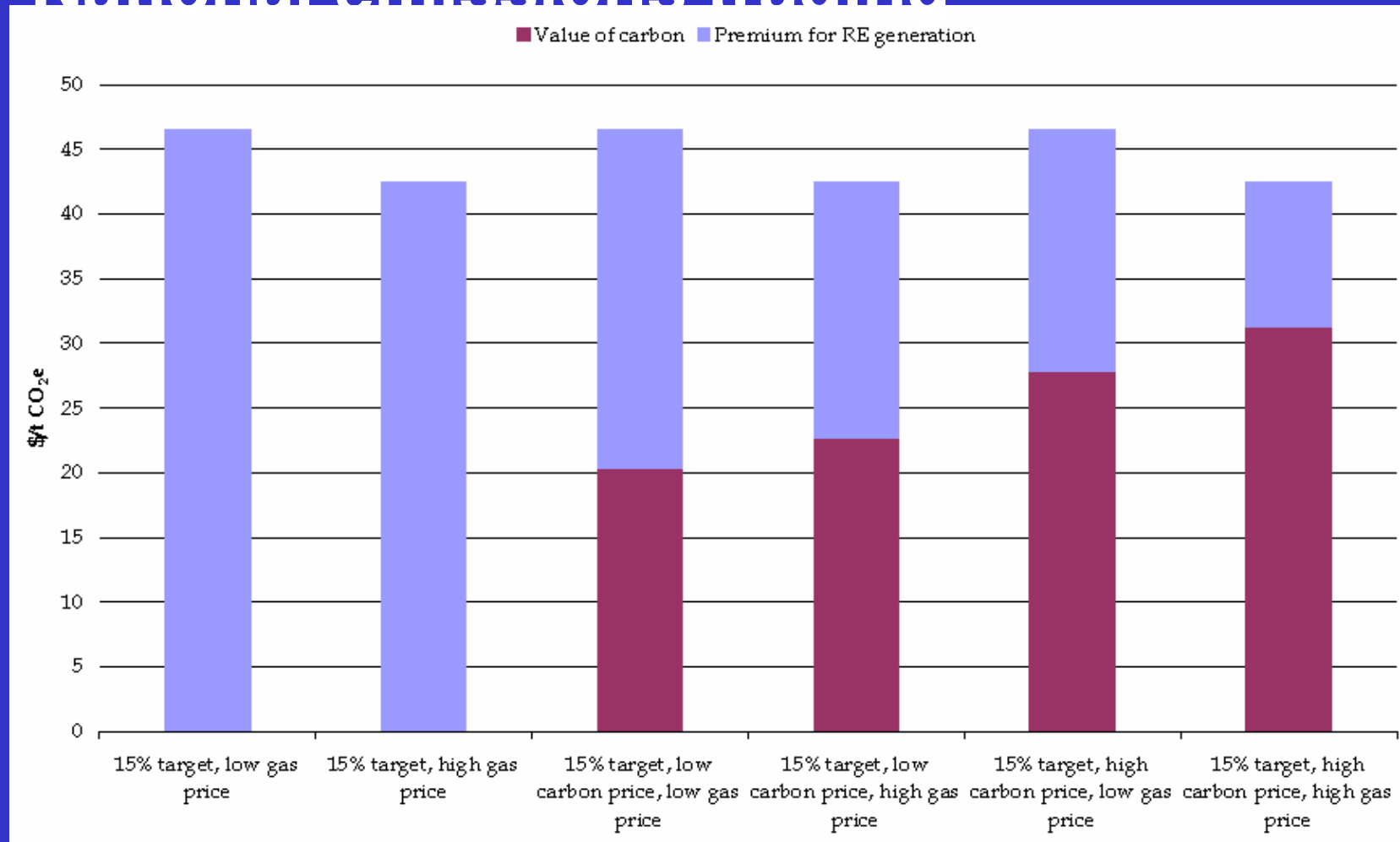
**Retail price increases by customer class, increase on business-as-usual levels**

	2009- 2020, % increase	2021-2035, % increase	2009- 2035, % increase	Average, \$/MWh
<b>Industrial</b>				
RET 15%, original gas price no carbon price	2.24%	4.71%	3.61%	2.38
RET 15%, high carbon price, high gas price	1.78%	0.04%	0.81%	0.85
<b>Commercial</b>				
RET 15%, original gas price no carbon price	1.55%	3.39%	2.57%	2.45
RET 15%, high carbon price, high gas price	1.33%	0.03%	0.61%	0.87
<b>Residential</b>				
RET 15%, original gas price no carbon price	1.35%	2.98%	2.26%	2.53
RET 15%, high carbon price, high gas price	1.18%	0.02%	0.54%	0.89
<b>Energy Intensive and Trade Exposed</b>				
RET 15%, original gas price no carbon price	-1.76%	0.74%	-0.37%	-0.40
RET 15%, high carbon price, high gas price	1.05%	-1.11%	-0.15%	-0.06



## Target scheme overview

- National emissions trading







## *Scheme design issues*

### **Scheme start**

- **Liabilities accrue from 1 January 2011**

### **Target specification**

- **GWh**
- **Linear increase**



*Scheme design issues*

## **Renewable technology neutral**

### **Scheme duration**

- **15 years eligibility**

## **Liable parties**

- **Wholesale electricity purchasers**
- **SWIS**

## **Exemptions**

- **MRET**
- **VRET & NRET**
- **Emissions trading**

## **Eligible generation**

- **New renewable from 2008**
- **Baselines for existing**
- **Off SWIS**
- **No Solar Hot Water**

## Shortfall charges

- Strict compliance
- Indexed

## Banking

- No borrowing

## **Administration**

- **Office of Energy**
- **ORER or VRET**

## **Review**

- **5 years**
- **Sooner if required**

## **Consultation on scheme design to achieve 2020 15% renewable energy target.**

- **Consultation process announced 29 August.**
  - **Scheme design paper released.**
- **Comments sought from industry and public.**
  - **Meetings with key stakeholders.**
  - **Written submissions by 11 December 2007.**
- **Timing allows consideration of national climate change policy developments.**



*Consultation*

**Further information:**

**[www.sedo.wa.gov.au](http://www.sedo.wa.gov.au)**

**Tony Stewart    9420 5645**  
**[tony.stewart@energy.wa.gov.au](mailto:tony.stewart@energy.wa.gov.au)**

**Taron Brearley    9420 5626**  
**[taron.brearley@energy.wa.gov.au](mailto:taron.brearley@energy.wa.gov.au)**