

# Charts and tables list

---

## Charts

- Chart 1: Gross world product and emissions ..... 4
- Chart 2: GNI per person and emissions ..... 6
- Chart 3: Sources of emission reductions under the core policy scenario ..... 7
- Chart 4: CPI impact from carbon price compared with history ..... 9
- Chart 5: Electricity generation mix, core policy scenario ..... 10
- Chart 2.1: Integrating the suite of models ..... 23
- Chart 2.2: Real GNI per person scenarios ..... 26
- Chart 3.1: Regional contribution to mitigation action ..... 34
- Chart 3.2: Global emission allocations ..... 35
- Chart 3.3: Global mitigation by gas ..... 36
- Chart 3.4: Global carbon prices ..... 37
- Chart 3.5: International carbon prices ..... 38
- Chart 3.6: Global emissions and gross world product ..... 39
- Chart 3.7: Global emission intensity of gross world product ..... 42
- Chart 3.8: Costs of delayed global action ..... 43
- Chart 3.9: Sectoral Output ..... 47
- Chart 3.10: Global emission mitigation by sector ..... 49
- Chart 3.11: Global emission mitigation by sector ..... 49
- Chart 3.12: Global emission intensity of electricity generation ..... 50
- Chart 3.13: Global electricity sector technology shares ..... 51
- Chart 3.14: Renewable electricity generation shares ..... 51
- Chart 3.15: Global transport technology shares ..... 52
- Chart 4.1: Australian real GNI per person ..... 57
- Chart 4.2: Real GNI growth by source, 1970 to 2010 and 2010 to 2050 ..... 57
- Chart 4.3: Terms of trade ..... 59
- Chart 4.4: Australia’s emissions ..... 60
- Chart 4.5: Share of cumulative emissions – 2009-10 to 2050 ..... 61
- Chart 4.6: Consumption, investment and export shares of nominal GDP ..... 62
- Chart 4.7: Energy commodity prices ..... 64
- Chart 4.8: Nominal value added shares ..... 66
- Chart 4.9: Goods processing industries ..... 67
- Chart 4.10: Cumulative shares of emissions and employment, by industry – 2009-10 ..... 68
- Chart 4.11: Electricity generation (sent out) ..... 69

Chart 4.12:	Average annual growth in generation.....	70
Chart 4.13:	Generation fuel mix .....	71
Chart 4.14:	Renewable technology generation .....	71
Chart 4.15:	Emissions by energy source.....	72
Chart 4.16:	Wholesale electricity prices.....	73
Chart 4.17:	Growth in real household electricity prices .....	74
Chart 4.18:	Household electricity prices .....	74
Chart 4.19:	Transport activity and emissions .....	75
Chart 4.20:	Road transport fuel mix.....	76
Chart 4.21:	Road transport technology mix .....	77
Chart 4.22:	Cumulative abatement from the CFI.....	80
Chart 4.23:	Aggregate household spending, 2012-13 .....	81
Chart 4.24:	Median spending on energy as a percentage of all spending.....	82
Chart 4.25:	Median spending on energy as a percentage of all spending.....	82
Chart 5.1:	Australian carbon price .....	90
Chart 5.2:	Australian emissions in the core policy scenario.....	91
Chart 5.3:	Australian emissions in the high price scenario .....	92
Chart 5.4:	Emission intensity of Australian GDP .....	92
Chart 5.5:	Australian emissions to 2030 with a lower starting price.....	93
Chart 5.6:	Emission intensity.....	94
Chart 5.7:	Emission reductions by sector .....	94
Chart 5.8:	Share of cumulative emission reductions by sector .....	95
Chart 5.9:	Sector emissions.....	96
Chart 5.10:	GNI per person .....	99
Chart 5.11:	Capital stock .....	100
Chart 5.12:	Real wages .....	101
Chart 5.13:	Gross domestic product .....	102
Chart 5.14:	Output growth by broad sector, 1990 to 2050 Annual average growth rates Medium global action scenario and effect of carbon pricing .....	104
Chart 5.15:	Output in seven emission-intensive industries .....	111
Chart 5.16:	The effect of carbon capture and storage on coal production .....	113
Chart 5.17:	Electricity demand.....	115
Chart 5.18:	Emission intensity of electricity generation .....	115
Chart 5.19:	Sources of electricity generation.....	116
Chart 5.20:	Renewables by technology – share of total generation .....	117
Chart 5.21:	Renewable generation .....	118
Chart 5.22:	Renewable generation .....	118
Chart 5.23:	Gas-fired electricity generation .....	119
Chart 5.24:	Electricity sector emissions .....	121
Chart 5.25:	Electricity sector abatement.....	121

---

Chart 5.26:	Electricity sector emissions – sensitivity analysis .....	122
Chart 5.27:	Average wholesale electricity prices .....	123
Chart 5.28:	Household electricity prices .....	124
Chart 5.29:	Impact of a carbon price on profits of existing generators .....	125
Chart 5.30:	Carbon price pass-through – stylised example.....	126
Chart 5.31:	Changes in generation capacity by fuel type .....	127
Chart 5.32:	Generation capacity in the Latrobe Valley/Gippsland region .....	128
Chart 5.33:	Transport activity and emissions .....	130
Chart 5.34:	Emissions and activity, core policy scenario.....	131
Chart 5.35:	Road transport fuel mix.....	132
Chart 5.36:	Emission intensity by state .....	133
Chart 5.37:	Gross state product.....	134
Chart 5.38:	Private per person consumption.....	135
Chart 5.39:	CPI impact from carbon pricing compared with history .....	136
Chart A1:	How the suite of models fit together .....	146
Chart B1:	Allocations and emissions.....	150
Chart B2:	Real gross world product growth .....	154
Chart B3:	Fuel combustion emissions .....	163
Chart B4:	Global greenhouse gas emissions .....	165
Chart B5:	Australia’s terms of trade .....	166
Chart B6:	Domestic Australian gas prices.....	167
Chart B7:	Australia’s population growth.....	169
Chart B8:	Industry labour-augmenting technical change .....	170
Chart B9:	Agriculture, forestry and fishing labour-augmenting technical change .....	170

## Tables

Table 1:	Headline Australian indicators .....	11
Table 3.1:	Summary of international global action scenario assumptions .....	32
Table 3.2:	Regional emission allocations .....	32
Table 3.3:	Regional shares of global mitigation, population and GWP in 2050.....	33
Table 3.4:	Global emission allocations (Gt CO <sub>2</sub> -e) .....	35
Table 3.5:	Global headline indicators.....	40
Table 3.6:	Comparison of modelling reports.....	41
Table 3.7:	Regional GDP and GNI per person costs .....	44
Table 3.8:	Net transfer of abatement .....	45
Table 3.9:	Regional emissions .....	45
Table 3.10:	Global emissions by sector .....	48
Table 4.1:	Emissions by source.....	61
Table 4.2:	Emissions from land and legacy waste.....	78
Table 4.3:	Abatement from the CFI .....	79
Table 4.4:	Gross state product .....	80
Table 4.5:	Median spending on energy as a percentage of all spending.....	83
Table 5.1:	Headline national indicators .....	86
Table 5.2:	Policy scenario assumptions.....	89
Table 5.3:	GNI per person .....	98
Table 5.4:	Decomposition of the effect on the level of GNI .....	99
Table 5.5:	Mitigation cost estimates: reductions in real GDP and GNI .....	103
Table 5.6:	Gross output, by industry, 2020 .....	106
Table 5.7:	Gross output, by industry, 2050 .....	107
Table 5.8:	Employment share, by industry, 2020 .....	108
Table 5.9:	Employment share, by industry, 2050 .....	109
Table 5.10:	Gross output, by sector, 2020.....	112
Table 5.11:	Gross output, by sector, 2050.....	112
Table 5.12:	Carbon capture and storage, estimated deployment year and carbon price.....	120
Table 5.13:	Cumulative investment in new generation capacity .....	120
Table 5.14:	Average wholesale electricity price increases .....	123
Table 5.15:	Average household electricity price increases .....	124
Table 5.16:	Implications of sensitivity analysis .....	129
Table 5.17:	Emissions and abatement by carbon price scenario .....	131
Table 5.18:	Output by industry and state .....	134
Table 5.19:	Effects on weekly expenditure and the consumer price.....	137
Table 5.20:	Estimated price impacts by household type .....	138
Table A1:	Regions and sectors of GTEM.....	140
Table A2:	Sectoral aggregation in MMRF .....	141

---

Table A3:	Concordance of GTEM and MMRF .....	147
Table A4:	Inputs and outputs of the Energy Sector Model (ESM) .....	148
Table B1:	Global allocations, emissions and banked permits .....	150
Table B2:	Key carbon price design features.....	151
Table B3:	Implementation of policy scenario assumptions .....	151
Table B4:	World real GDP growth.....	154
Table B5:	World population levels and growth .....	155
Table B6:	Productivity level relative to the United States by GTEM region .....	156
Table B7:	Relative sectoral labour productivity growth rates .....	157
Table B8:	Improvement in intermediate input efficiency in GTEM.....	158
Table B9:	Improvement in energy efficiency: transport .....	158
Table B10:	Improvement in energy efficiency: non-ferrous metals .....	159
Table B11:	Improvement in energy efficiency: chemical, rubber and plastics .....	159
Table B12:	Improvement in energy efficiency: blast furnace production .....	160
Table B13:	Improvement in energy efficiency: electric arc production .....	160
Table B14:	Thermal efficiency of new power plants in GTEM .....	161
Table B15:	GTEM fugitive/industrial process emission MAC curve parameters .....	162
Table B16:	Change in non-combustion emission intensity in GTEM.....	163
Table B17:	Baseline global emissions .....	164
Table B18:	Baseline emissions by region .....	165
Table B19:	Australia's employment, productivity and GDP .....	168
Table B20:	Gross state product .....	168
Table B21:	State population growth .....	168
Table B22:	Intermediate input usage in MMRF .....	171
Table B23:	Household taste shocks in MMRF.....	172
Table B24:	SKM MMA technology cost and performance assumptions .....	174
Table B25:	ROAM technology cost and performance assumptions .....	175
Table B26:	CSIRO fuel efficiency improvements from 2010 to 2050.....	176
Table B27:	MMRF fugitive/industrial process emission MAC curve parameters .....	178
Table B28:	Change in non-combustion emission intensity in MMRF.....	178

