

Update on the Renewable Energy Target

Amar Singh
Deputy Regulator Market Operations
22 September 2011



Australian Government
Office of the Renewable Energy Regulator

Office of the Renewable Energy Regulator

- Statutory authority established to oversee the implementation of the Large-scale Renewable Energy Target (LRET) and the Small-scale Renewable Energy Scheme (SRES).



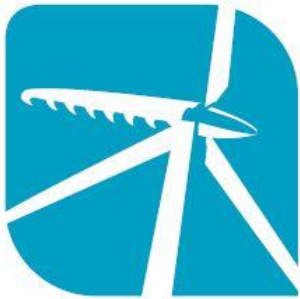
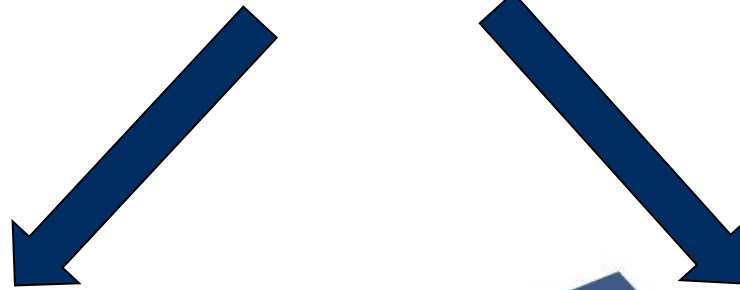
ORER Statutory agency overseeing and implementing both the Large-scale Renewable Energy Target (LRET) and the Small-scale Renewable Energy Scheme (SRES).

DCCEE Govt. Department responsible for policy and legislation.

- April 2001 **Mandatory Renewable Energy Target (MRET)**, 9,500 GWh additional renewable energy by 2010.
- Sep 2009 **Renewable Energy Target (RET)**: Target expanded to 20% by 2020 (45,000 GWh) and extended to 2030.
- June 2010 RET split into LRET 41 TWh & SRES ~4 TWh, Partial Exemptions, Clearing House, enforcement powers.



RET



Large-scale Renewable Energy Target



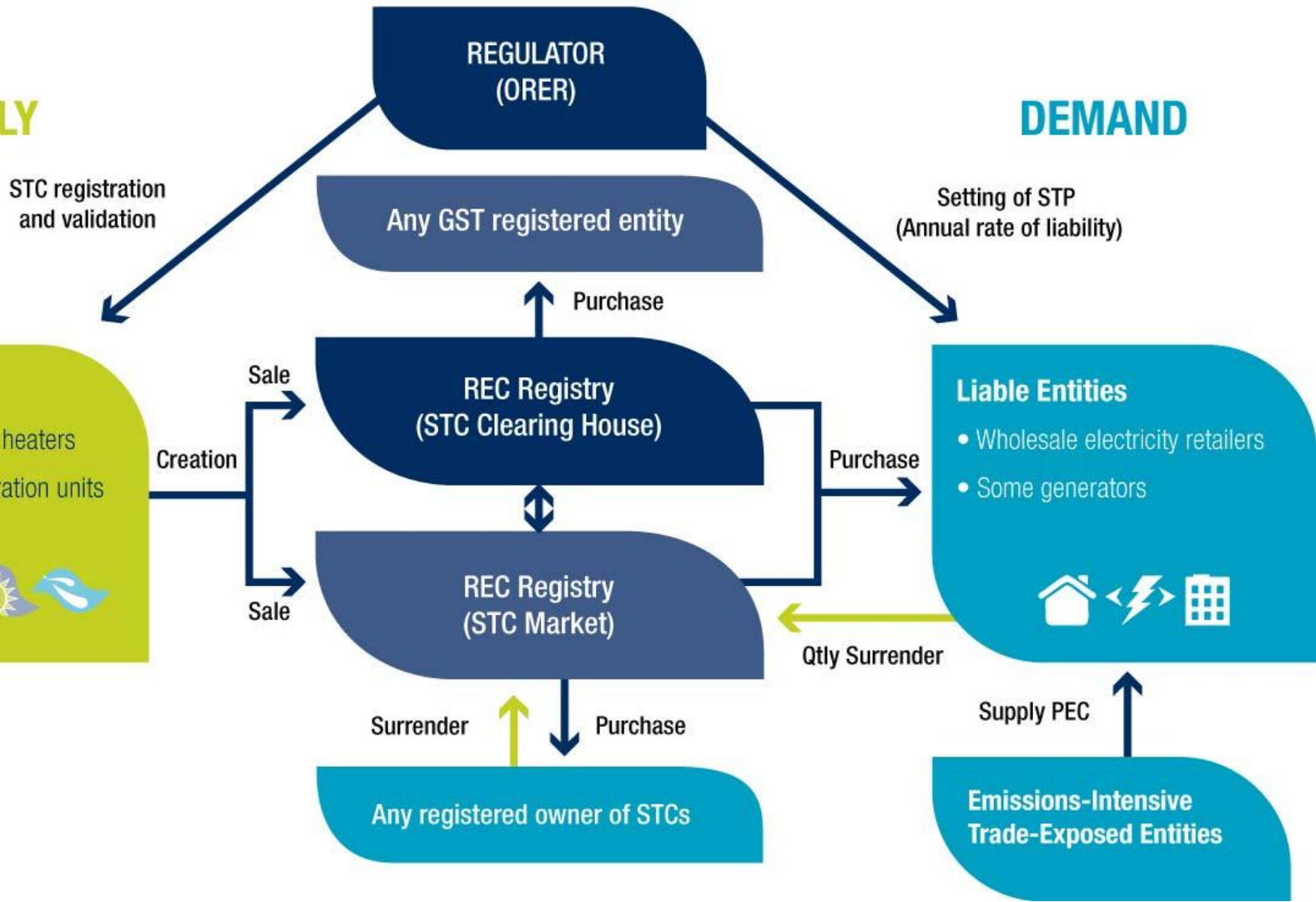
Small-scale Renewable Energy Scheme



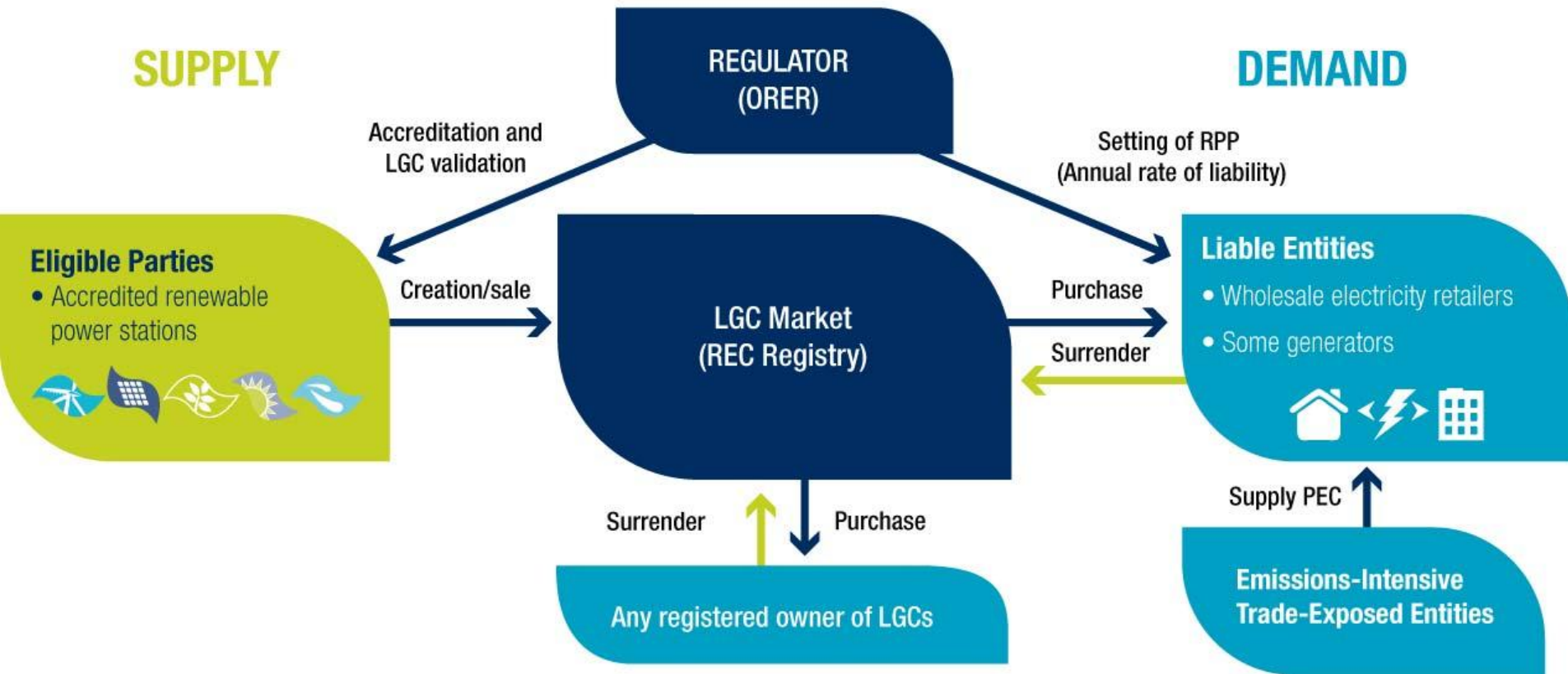
Small-scale technology certificate (STC) Market

SUPPLY

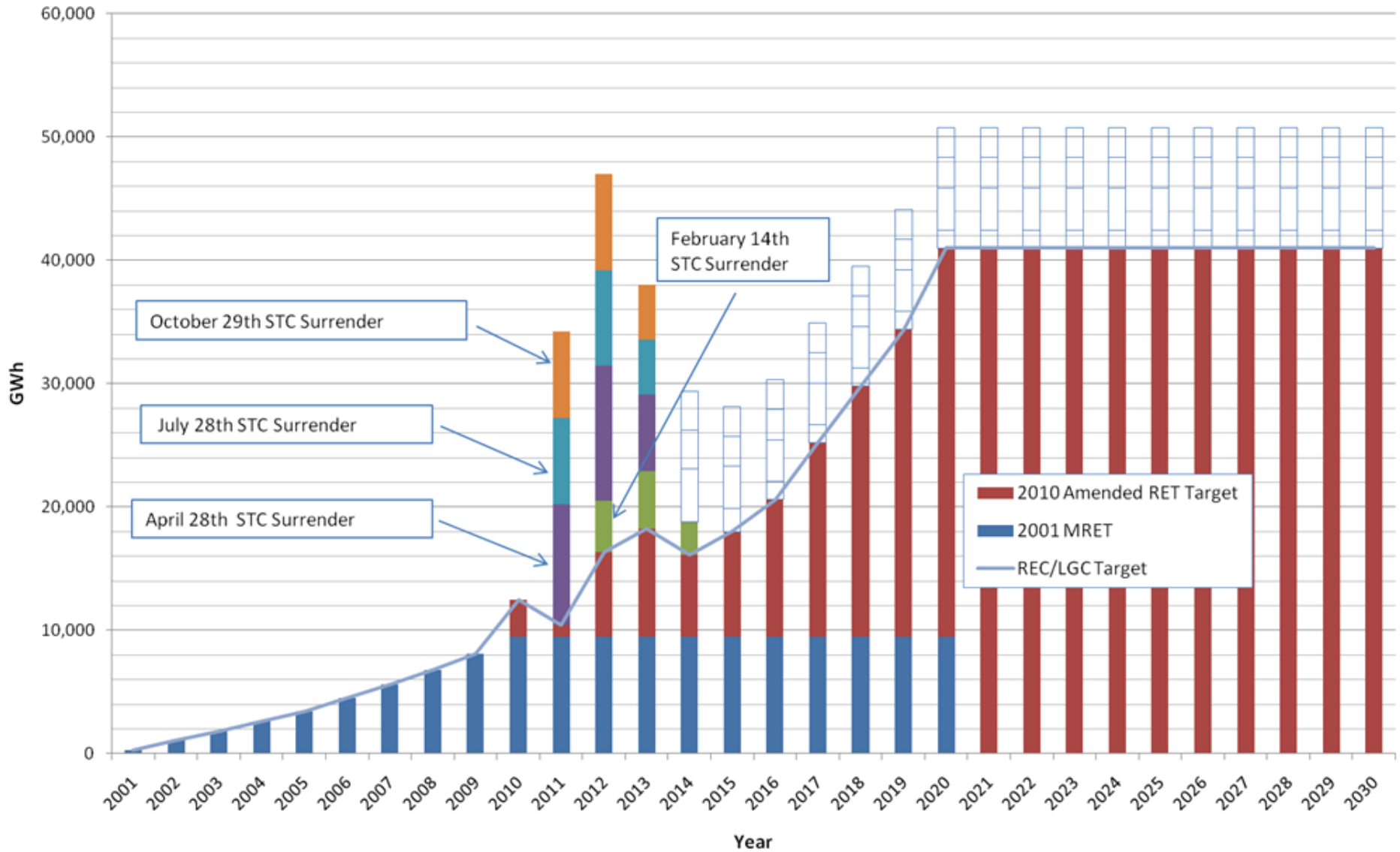
DEMAND



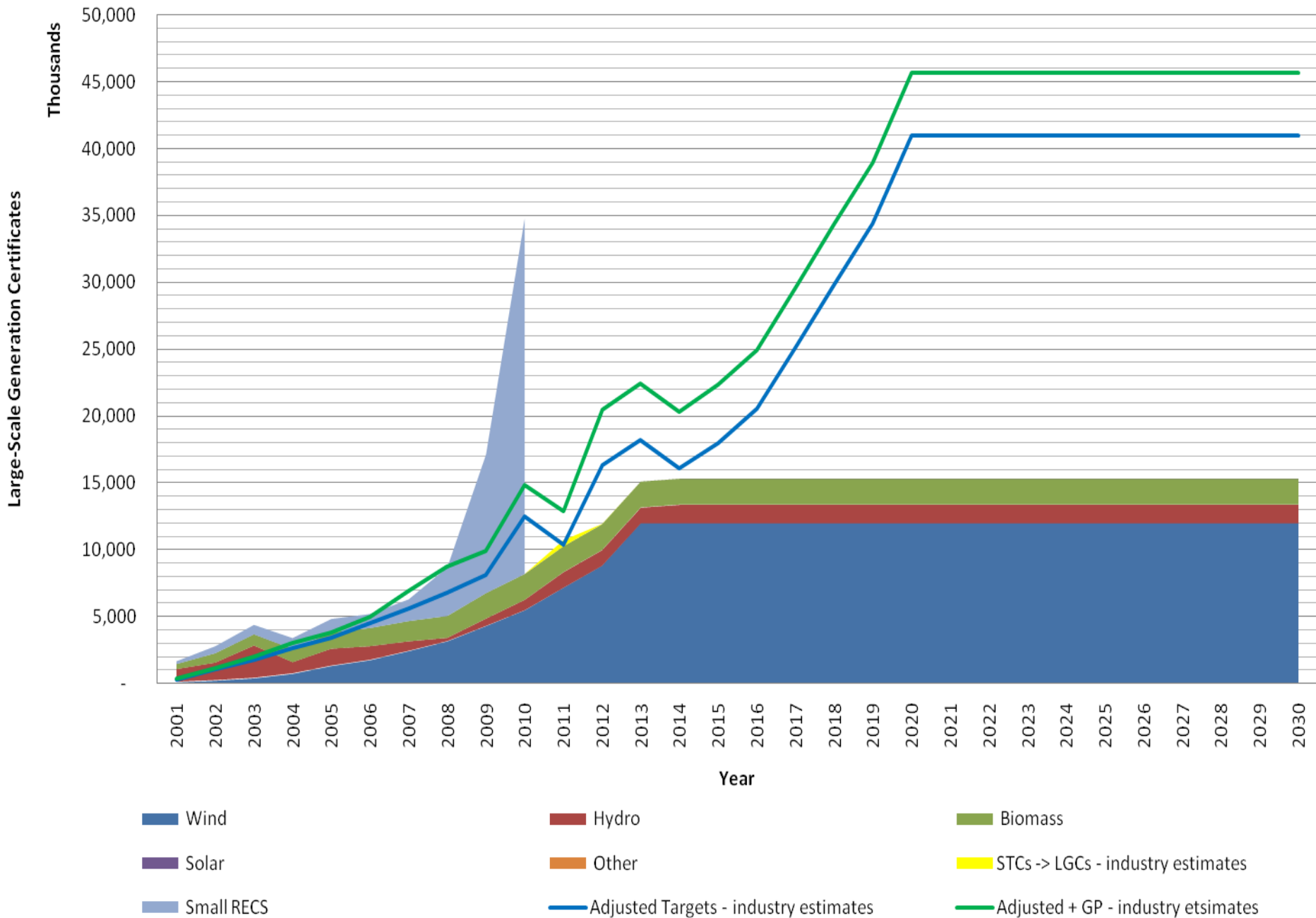
Large-scale generation certificate (LGC) Market



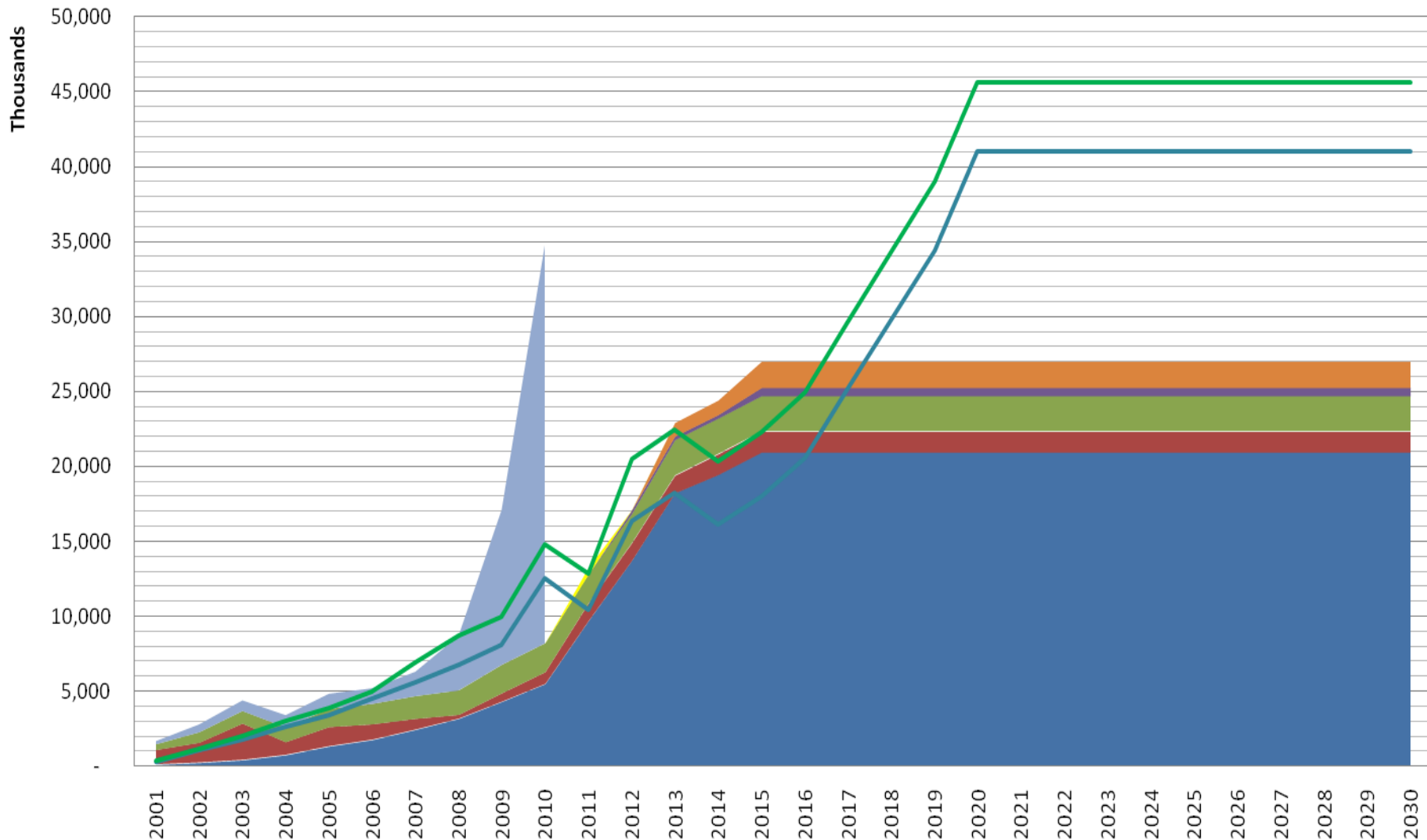
Legislated LGC Annual and Estimated STC Quarterly Targets



LGC Creation Projections - Existing and Firm Power Stations (ABARES)



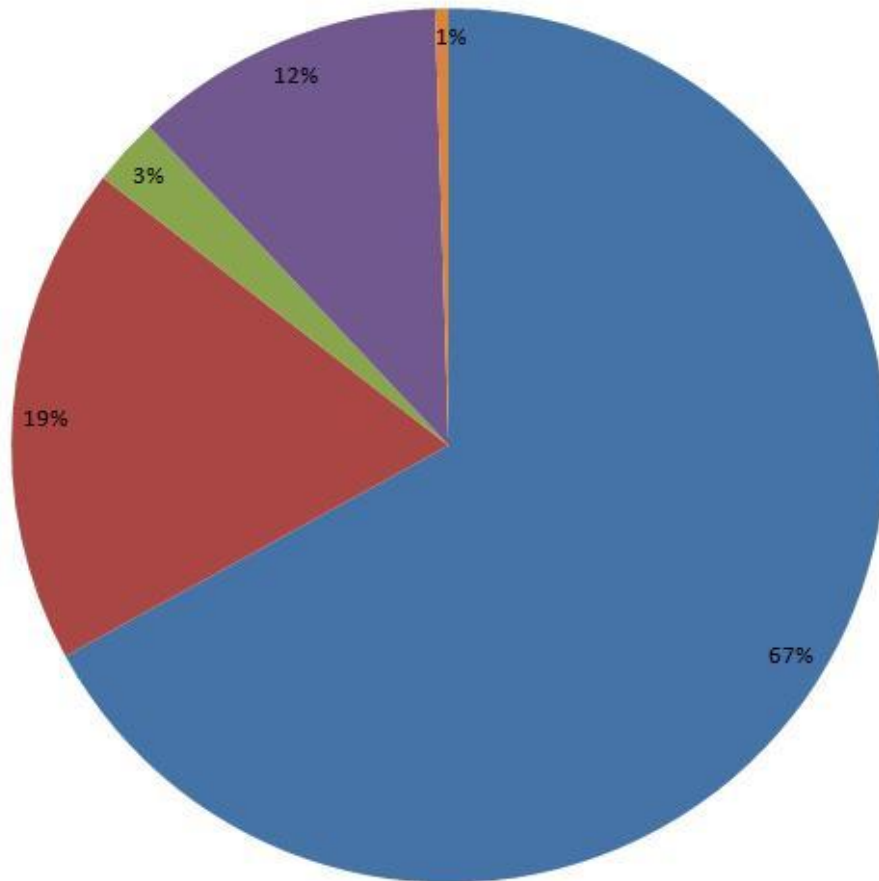
LGC Creation Projections - Existing and Likely Power Stations (ABARES)



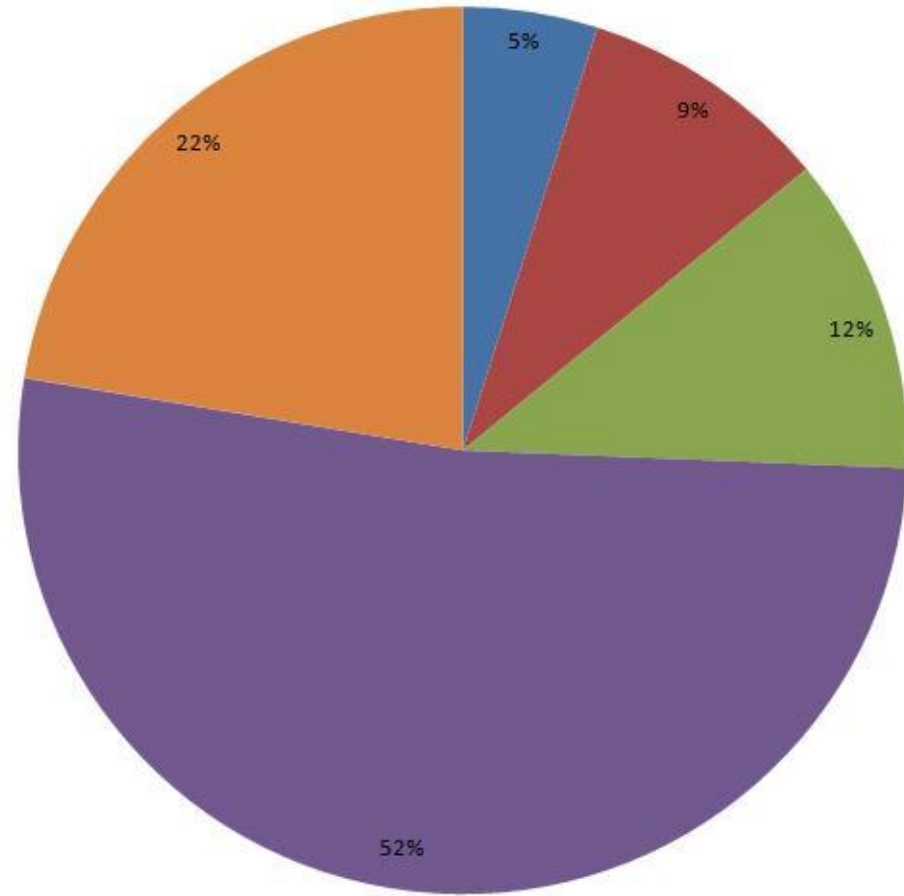
- Wind
- Hydro
- Biomass
- Solar
- Other
- STCs -> LGCs - industry estimates
- Small RECS
- Adjusted Targets - industry estimates
- Adjusted + GP - industry estimates

Renewable Energy Growth 2000 - 2010

2000 Projection



2010 Created



■ Bagasse ■ Biomass (excl Bagasse) ■ Hydro ■ Small scale ■ Large Scale solar ■ Wind

Power station generation



	End 2009	Mid 2011
Total investment in renewable energy power stations	\$8 billion	\$9.8 billion
Number of accredited power stations	291	328
Generating capability of power stations under the scheme	11,000 GWh per year	13,400 GWh per year
Equivalent supply of electricity	1.7 million households	2.0 million households

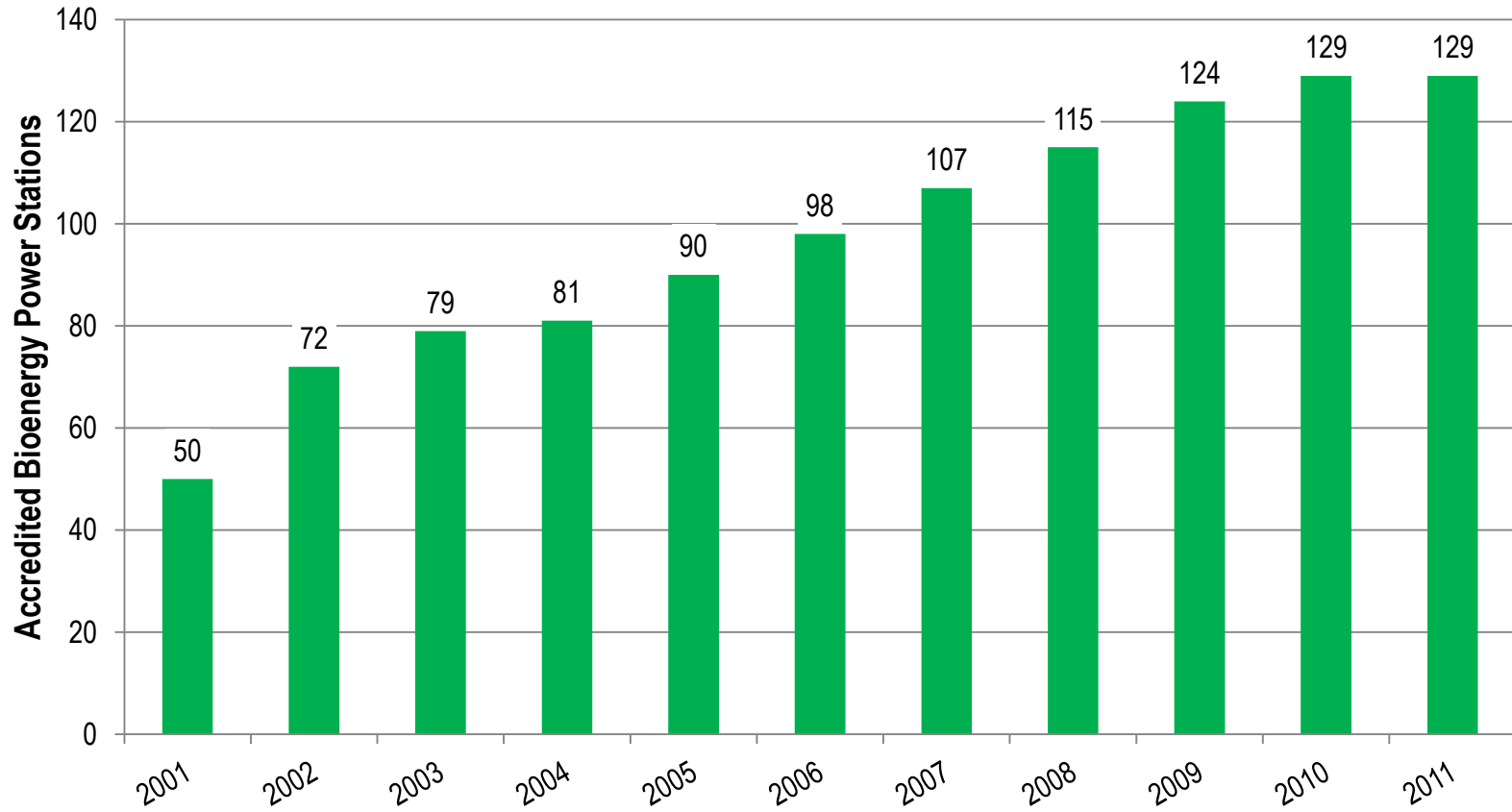
Eligible renewable energy sources

Section 17 of the *Renewable Energy (Electricity) Act 2000* states the following are eligible renewable Bioenergy sources:

- Agricultural Waste
- Bagasse
- Biomass based components MSW
- Black Liquor
- Energy Crops
- Food Waste
- Food processing waste
- Landfill Gas
- Biomass based components of sewage gas
- Waste from processing of agricultural products
- Wood Waste



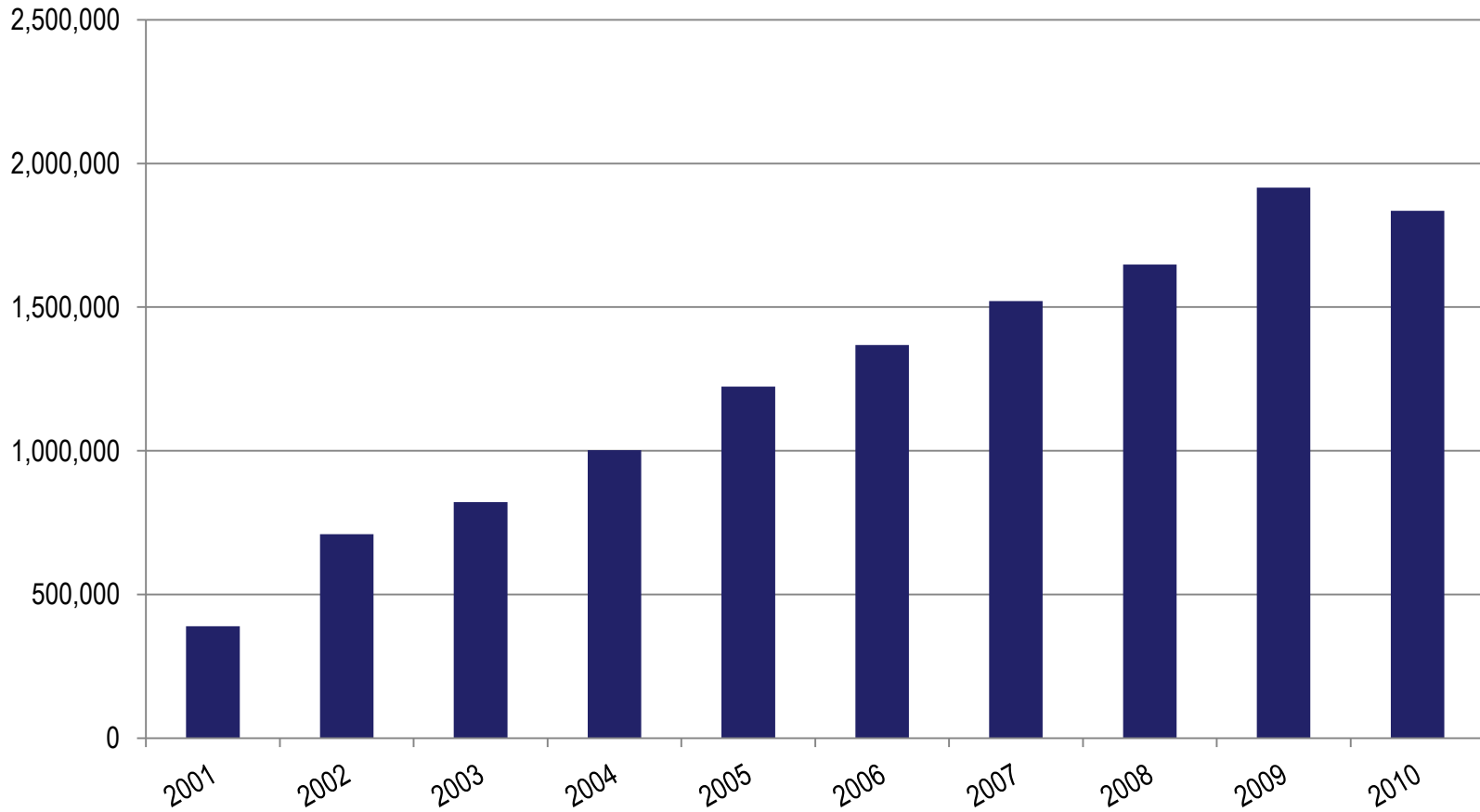
Accredited Bioenergy Power Stations under RET



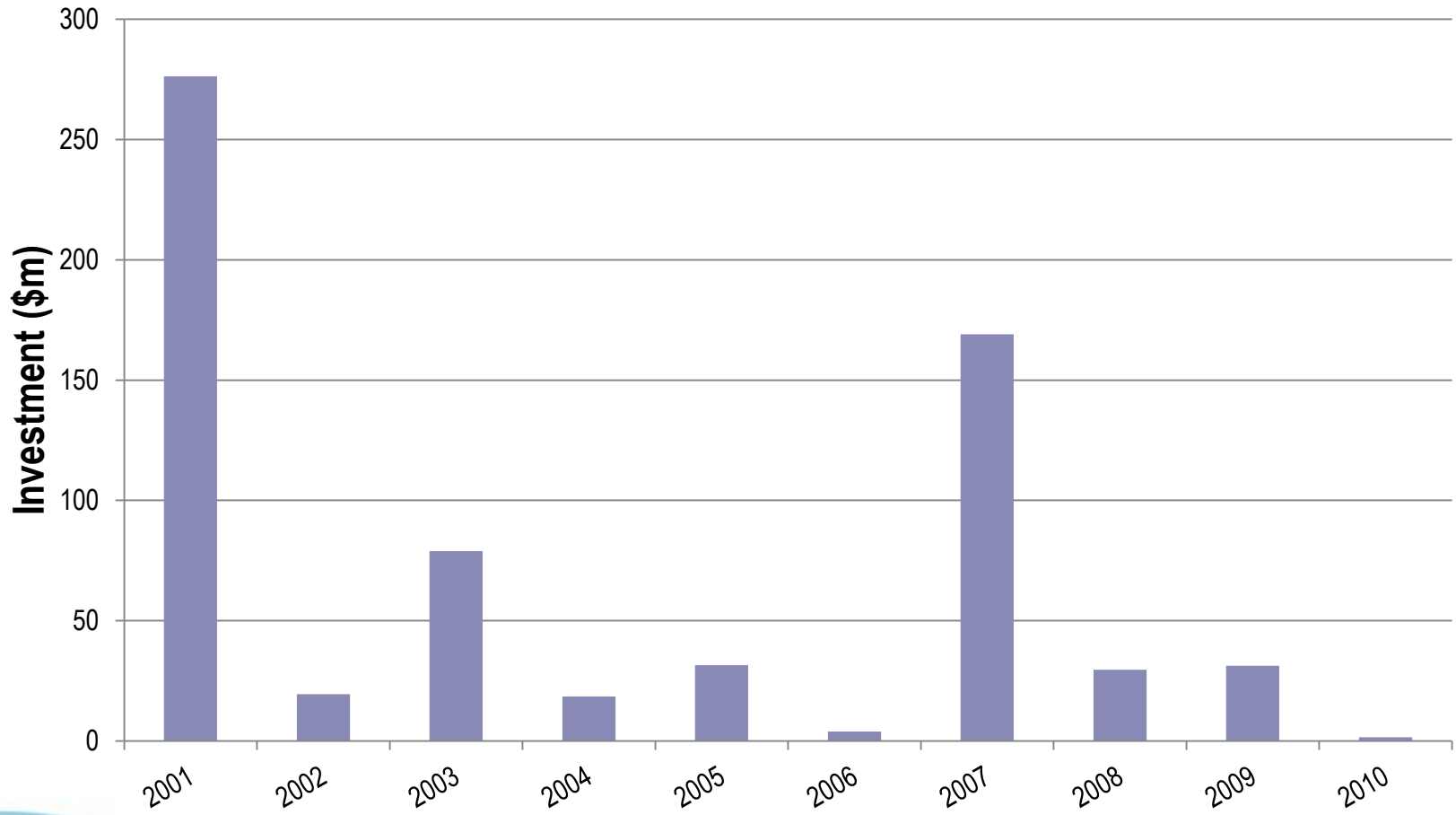
A total of 330 Power Stations are accredited under the LRET as of 15 Sept 2011



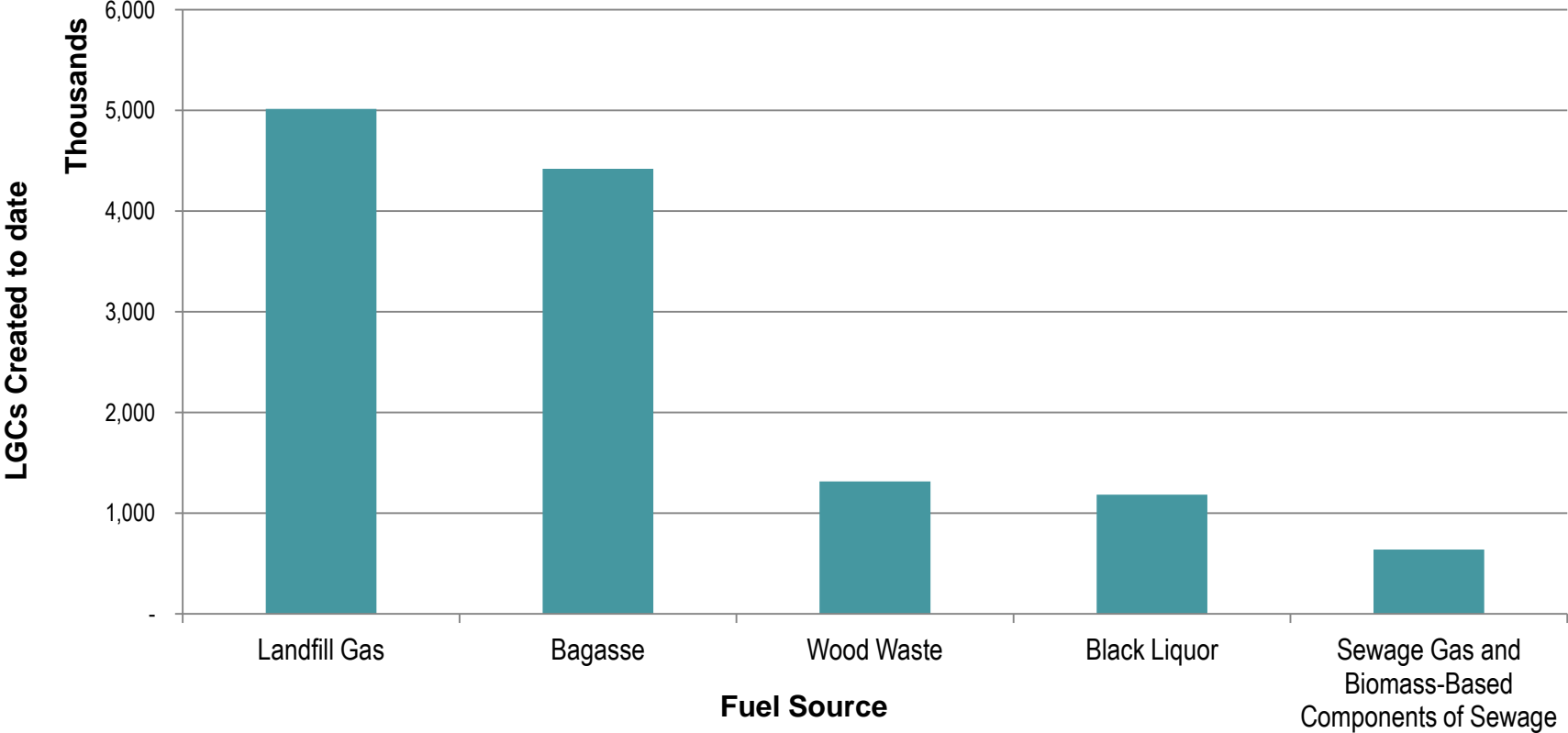
LGCs generated using Bioenergy sources



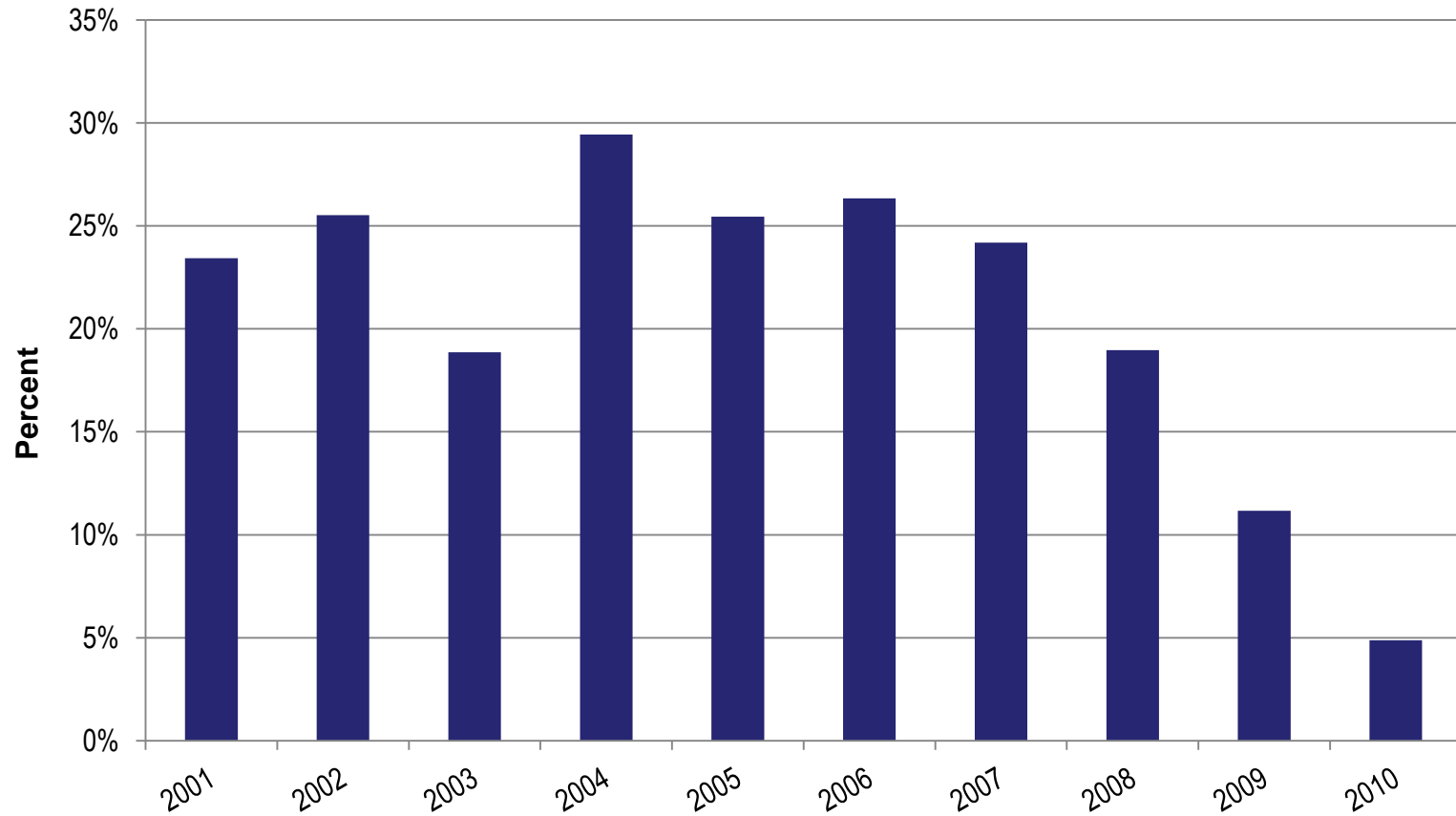
Annual Investment in Bioenergy Production (\$m)



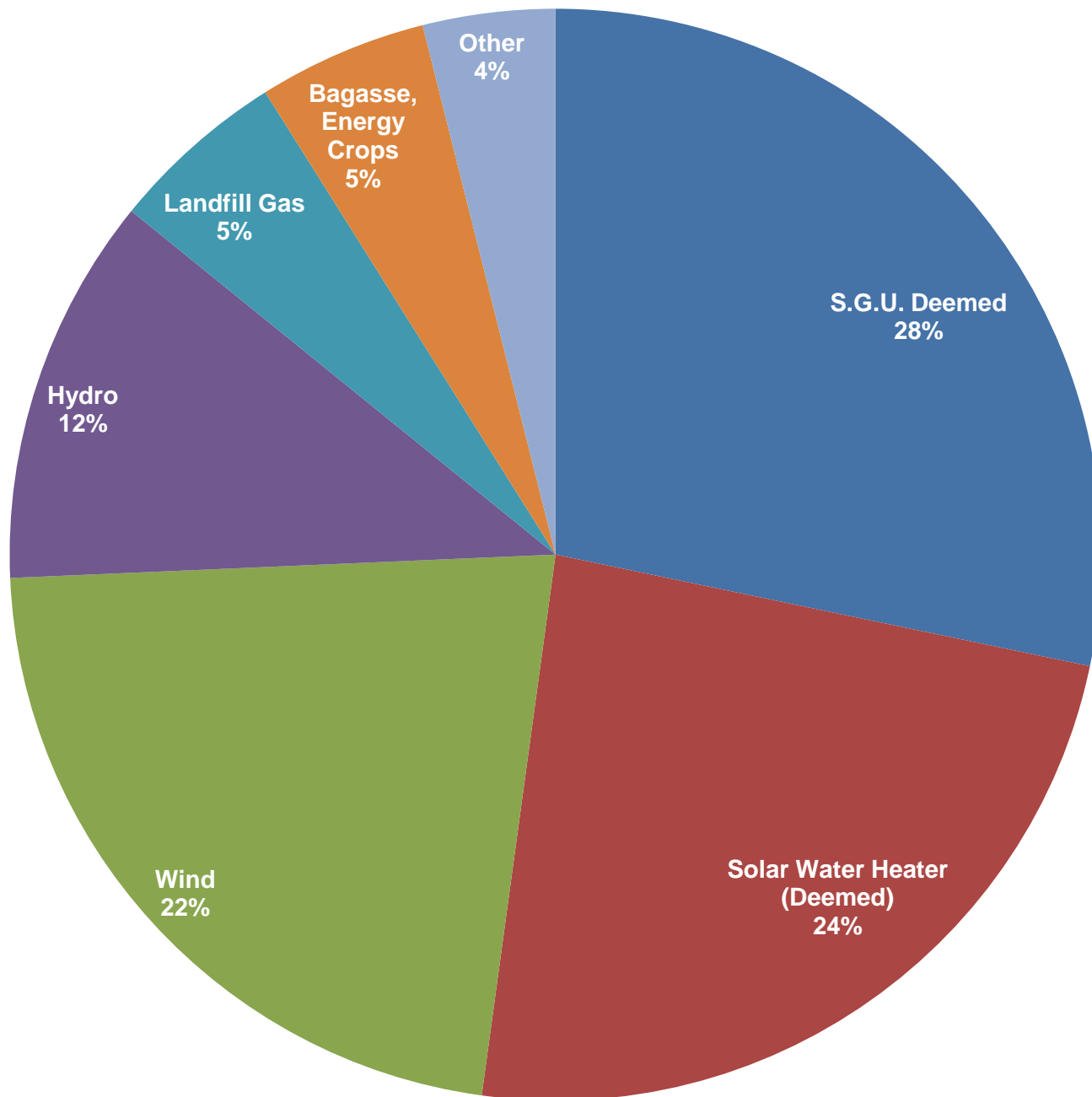
Top 5 Bioenergy Fuel Sources by LGC creation



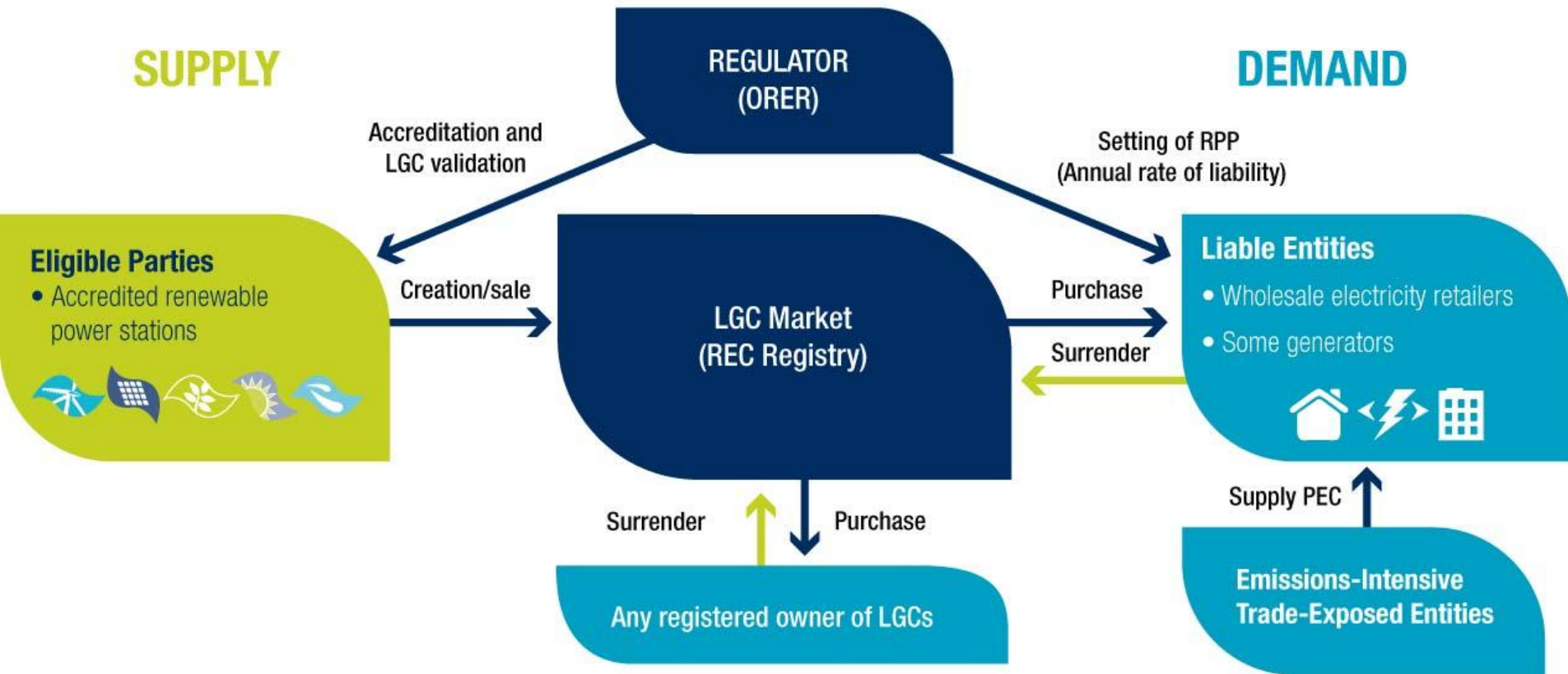
LGCs from Bioenergy as a percent of all renewable energy sources



Registrable certificates as at 1 January 2011



Large-scale generation certificate (LGC) Market



Liabile Entities (Electricity Retailers)

	Liability Percentage	Purchase	Surrender
LRET	Renewable Power Percentage (RPP) - Set annually 5.62% (10.6 million LGCs)	LGC Market (price negotiable)	Annually in January-February
SRES	Small-scale Technology Percentage (STP) -Set annually 14.8% (28 million STCs)	STC Market (price negotiable) STC Clearing House (set price of \$44 including GST)	Quarterly in April, July, October and February

Renewable Power Percentage (RPP)

- The Regulator will continue to determine the RPP in the same manner that has been implemented since the beginning of RET for LRET
- The Regulator will apply section 39 and 40 of the Act together with the Regulations and the support of the Minister to publish the RPP under regulation 23 of the Regulations
- 2011 RPP is set at 5.62% (10.6 million LGCs)



Influence of PECs

- Companies conducting emissions intensive trade exposed (EITE) activities may apply for a Partial Exemption Certificate (PEC).
- If application approved the amount of MWh can be used by the liable entity named in the PEC to reduce their liability.
- Examples of eligible EITE activities
 - Aluminium smelting, Zinc Smelting, Production of copper
 - Manufacture of newsprint, Dry pulp manufacturing
 - Production of high purity ethanol, Production of methanol
- Complete list of eligible EITE activities available on ORER website

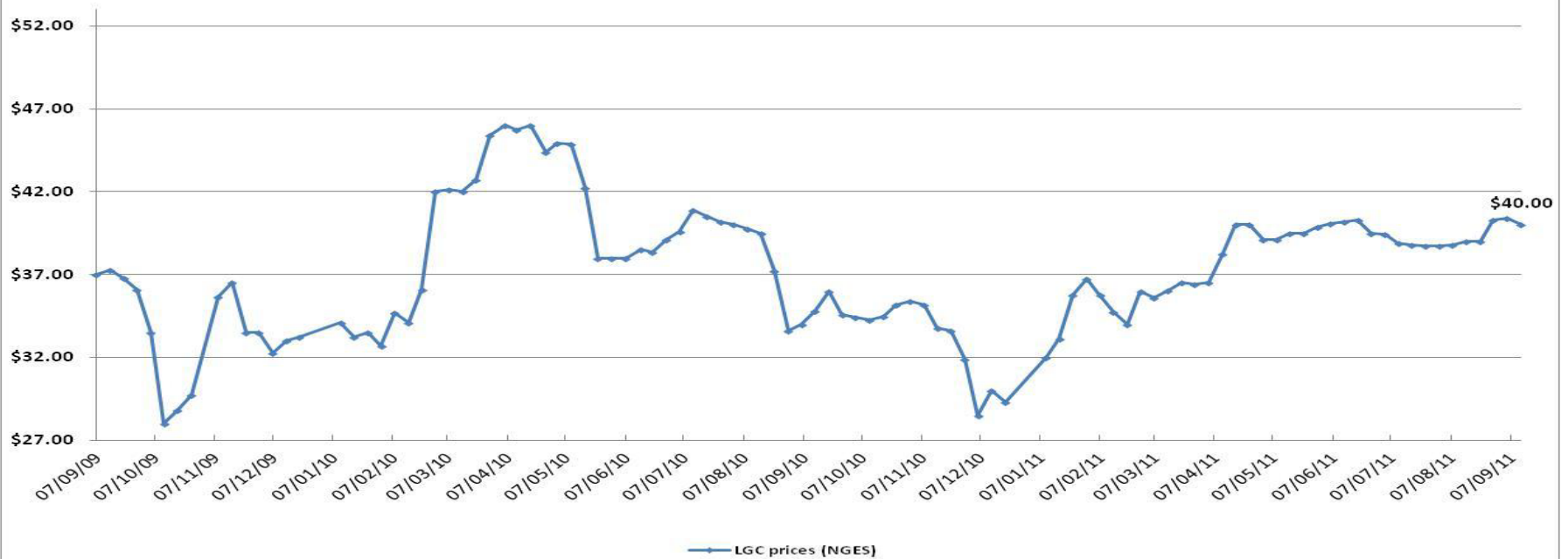


Power station accreditation

- Location of meters which measure imports, exports of electricity and AUX under reg 14 and use of MLF
- Components of the power station under schedule 1 of the Regs.
- Owner and operator details and especially who is the nominated person under the Act.
- Provisional accreditation under the Act.
- Metering data needs to be sent to the ORER while creating LGCs.



LGC Prices - Spot Rate
 Source: The Green Room - (NGES). Rolling 2 year price

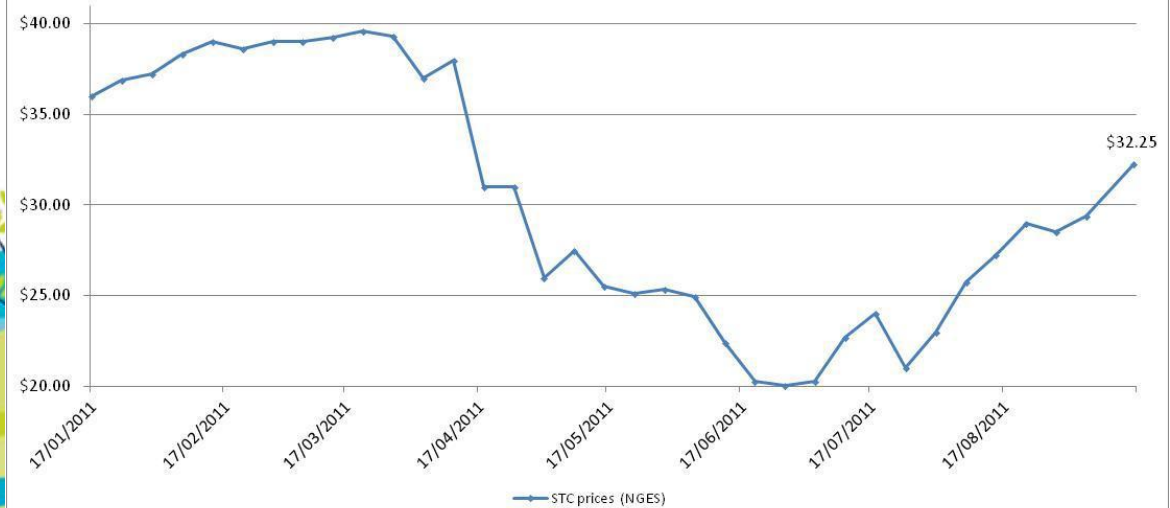


Two tradeable
 certificate markets
 in Australia



STC prices - Spot Rate

Source: The Green Room - Next Generation Energy Solutions (NGES). 2011



Regulation and change – Clean Energy Future

Australian Government's intention:

- Introduce the carbon pricing mechanism legislation in the Spring 2011 sittings
- Passed by Parliament end of 2011.
- Carbon pricing mechanism will commence 1 July 2012.
- Clean Energy Regulator will be established after legislation has passed.



Regulation and change – Clean Energy Future

- Clean Energy Regulator will administer:
 - The Carbon Pricing Mechanism
 - The Renewable Energy Target (both LRET and SRES)
 - The Carbon Farming Initiative
 - National Greenhouse and Energy Reporting System.
- Intended the RET (both LRET and SRES) will remain in operation until 2030.
- Consultation period for the Clean Energy Legislative package closed 22 August 2011. See Department of Climate Change and Energy Efficiency website.

More information - www.cleanenergyfuture.gov.au



More information

www.orer.gov.au

- Provides information on the Act and participation
- Detailed information, forms and fact sheets about the scheme.



More information

www.orer.gov.au

- Provides information on the Act and participation
- Detailed information, forms and fact sheets about the scheme.

www.rec-registry.gov.au

- Register of Small-scale Technology Certificates
- Register of Large-scale Generation Certificates
- Register of Accredited Power Stations
- Register of Applications for Power Stations
- Register of Registered Persons
- STC Clearing House Transfer List.



Australian Government
Office of the Renewable Energy Regulator