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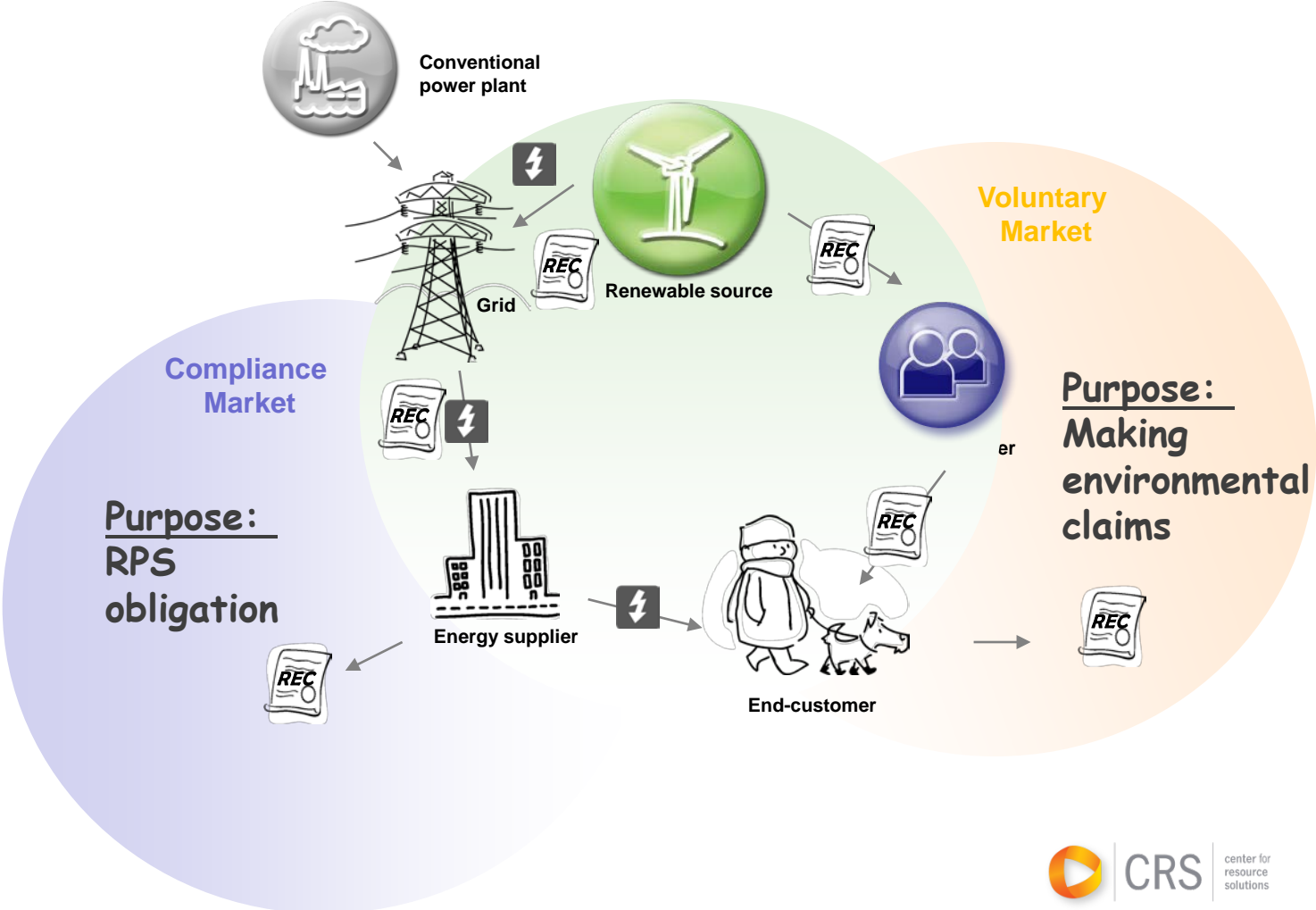
# International Voluntary Renewable Markets

Renewable Energy Markets Conference  
November 17, 2011

**by**

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# The REC Market



# REC Definitions

- **Green-e Energy:** requires “fully bundled” RECs = all environmental attributes, including zero emissions & emissions reductions claims.

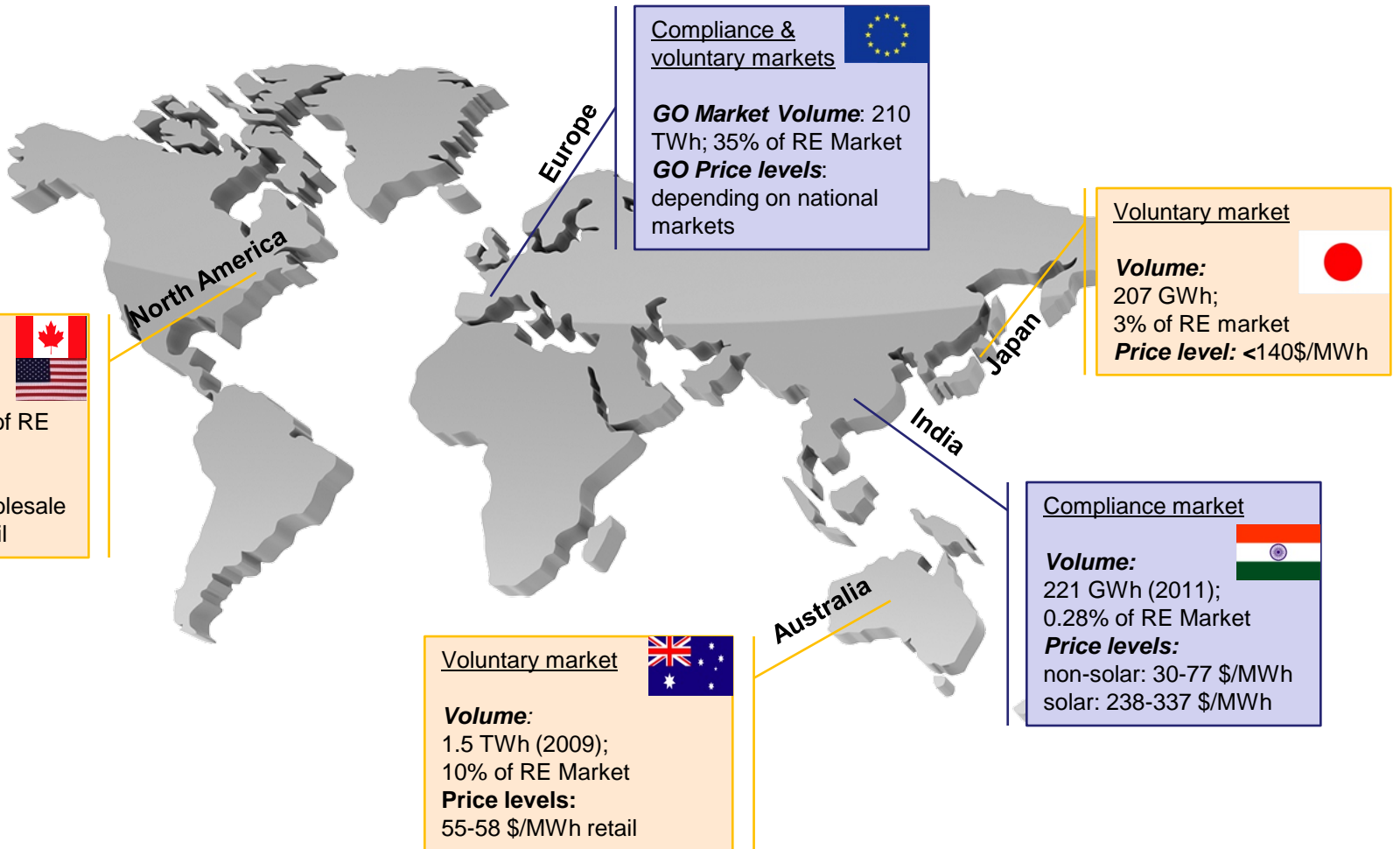
- **RECS International:**

- **EU Renewable Energy Directive (2009/28/EC)** ...“guarantee of origin” means an electronic document which has the sole function of providing proof to a final customer that a given share or quantity of energy was produced from renewable sources

- **AU GreenPower:** ...the zero-emissions electricity

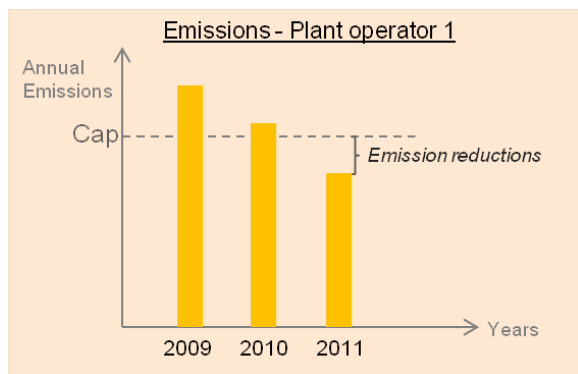
- **Japan Green Power scheme:** ... the owner should be regarded as green (that is, zero-CO<sub>2</sub>) energy
- ... an electronic form of currency created to 1 MWh of renewable electricity
- ... cancellation of GreenPower™-eligible RECs are treated as a
- ... in a product's LCA or an organization's GHG Inventory.
- ... the REC Registry by en
- ... generated above the power station

# The International Voluntary REC Markets



All volume and price figures refer to the year 2010 unless indicated differently. Data derives from following sources: Deutsche Bank; Energy Alternatives India; mnre.gov.in; Natural Energy Company, LD; orer.gov.au; Rec Registry India & Australia.

# The Risk of Double Counting



Voluntary/  
Compliance Market

Including emission  
reduction benefits

Retirement of CO2  
allowance

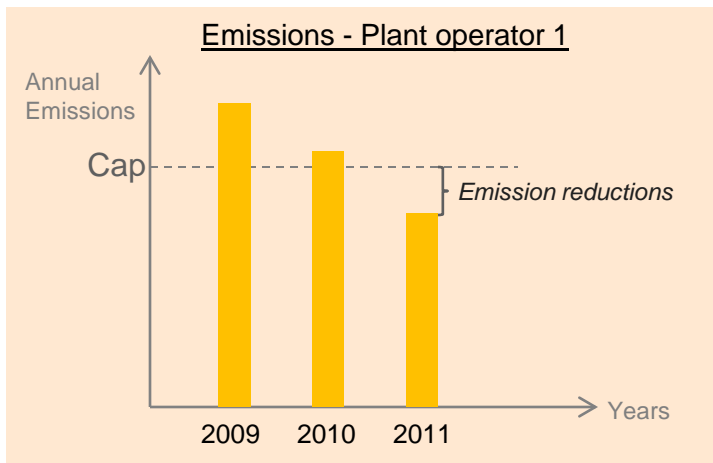
## Conclusion

- Consistent REC definition
- Inclusion of all environmental attributes
- Exclusion of double counting
- Market transparency

# CONTACT

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# Backup



**Incredible market growth, News Gothic Demi.** News Gothic T. Align the bottom of the graph with the bottom guide and along the left-side guide. Keep this caption short.