

CLP's Climate Vision 2050

**CDP Asia Ex-Japan Launch
ASrIA**

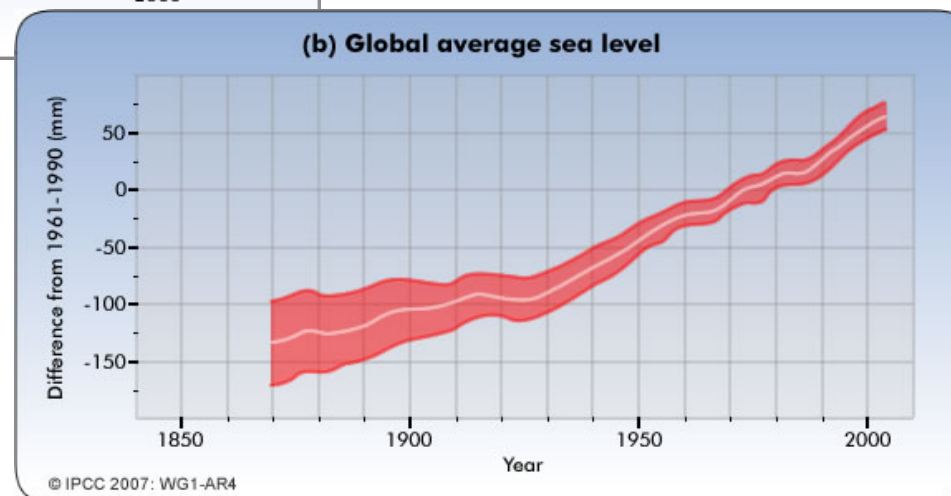
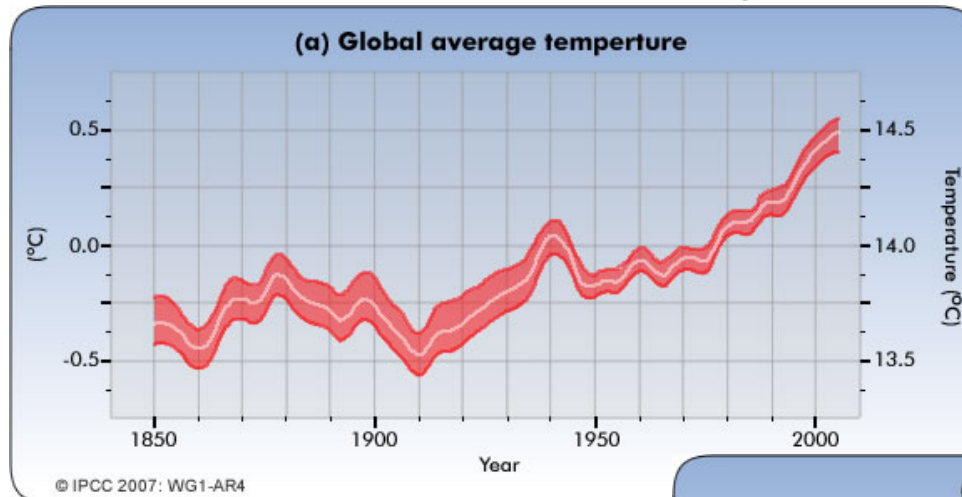
23 September 2009

**Dr Jeanne Ng
Director – Group Environmental Affairs
CLP Holdings Limited**

Why Should Business Care?



Is Climate Really Changing?



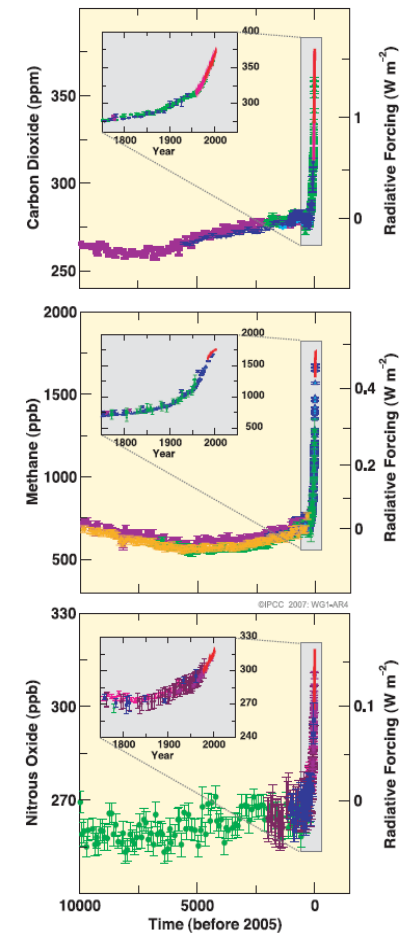
The climate is always naturally changing, the real question is are there excess or unusual changes and...

Are People Causing Climate Change?

- Experts consensus (over 2000 scientists from around the world who advise governments are on the IPCC).
- Fossil fuel combustion major source of carbon dioxide.
- *Current atmospheric levels of greenhouse gases exceed pre-industrial values (and thousands of years back).*

Business look to international scientific views.

CHANGES IN GREENHOUSE GASES FROM ICE CORE AND MODERN DATA



Source: IPCC 4th Assessment Report (FAR), Working Group 1 Report: Summary for Policymakers



Beyond The Science...

- Experts consensus (over 2000 scientists from around the world **who advise governments** are on the IPCC)
- Governments may/will legislate in accordance with **scientific opinion and/or political agendas**



Potential liabilities (& opportunities) from regulations...**regardless of whether the science is right or not...**

Can Climate Change Affect Business?

Potential indirect impacts include:

- *New policies, regulations and incentives*
- Loss of stakeholder confidence
- Customers directly impacted
- Demand growth limited
- Need for new management skills
- Opportunities for new products and services

The image shows two screenshots of news websites. The top screenshot is from MSNBC, featuring a headline: "U.S. energy official: Expect carbon regulation" with a sub-headline: "Bush administration position 'is beginning to evolve,' he adds". The bottom screenshot is from the European Commission website, specifically the "Emission Trading Scheme (EU ETS)" page. It contains text about the Commission's decisions on national allocation plans for 2007 and 2008-2012, and includes a photograph of an industrial facility with smokestacks.

Sooner or later **new climate-related policies, regulations and incentives** may appear everywhere & therefore affect business.

Can Climate Change Affect Business?

Potential direct impacts include:

- Flooding
- Potential for brownout and unplanned outages
- Increased wear and tear
- Loss of efficiency and reduction of capacity
- Problems accessing water
- etc...



Climate change can have **direct physical/operational** impacts.

CLP's Climate Vision 2050



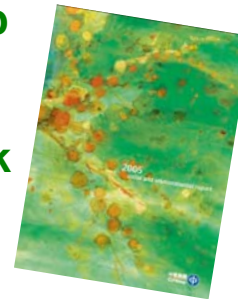
CLP's Early Actions

CLP is already well positioned in Asia with 4 types of generating modes – coal, gas, nuclear, and renewable energy

Nuclear Power – Daya Bay



CLP Group Climate Strategy Framework



Advanced Coal: Fangchenggang – Supercritical plant



1994

1996

1997

2004

2005

2006

2007

Natural Gas:

- Black Point, one of world's largest CCGTs (2,500MW)



Renewable Energy:

- 5% RE target
- First met end 2007



CLP Group Climate Strategy



CLP's Early Actions

Active Participation in Climate Change Debate Internationally

Joined the World Business Council for Sustainable Development (WBCSD) in 2001



Carbon Disclosure Project (CDP):

- Participated in 2002 since it first started.
- In 2006, CLP was named to the Climate Leadership Index by Innovest, as one of the "Best in Class"

Clean Development Mechanism (under Kyoto Protocol):

Project developer (since 2005)

2001

2002

2005

1999

2003

2006

Active Promoter on Renewable Energy

Young Power Programme (YPP):



Energy Innovation Fund:



Easy Being Green, Australia:



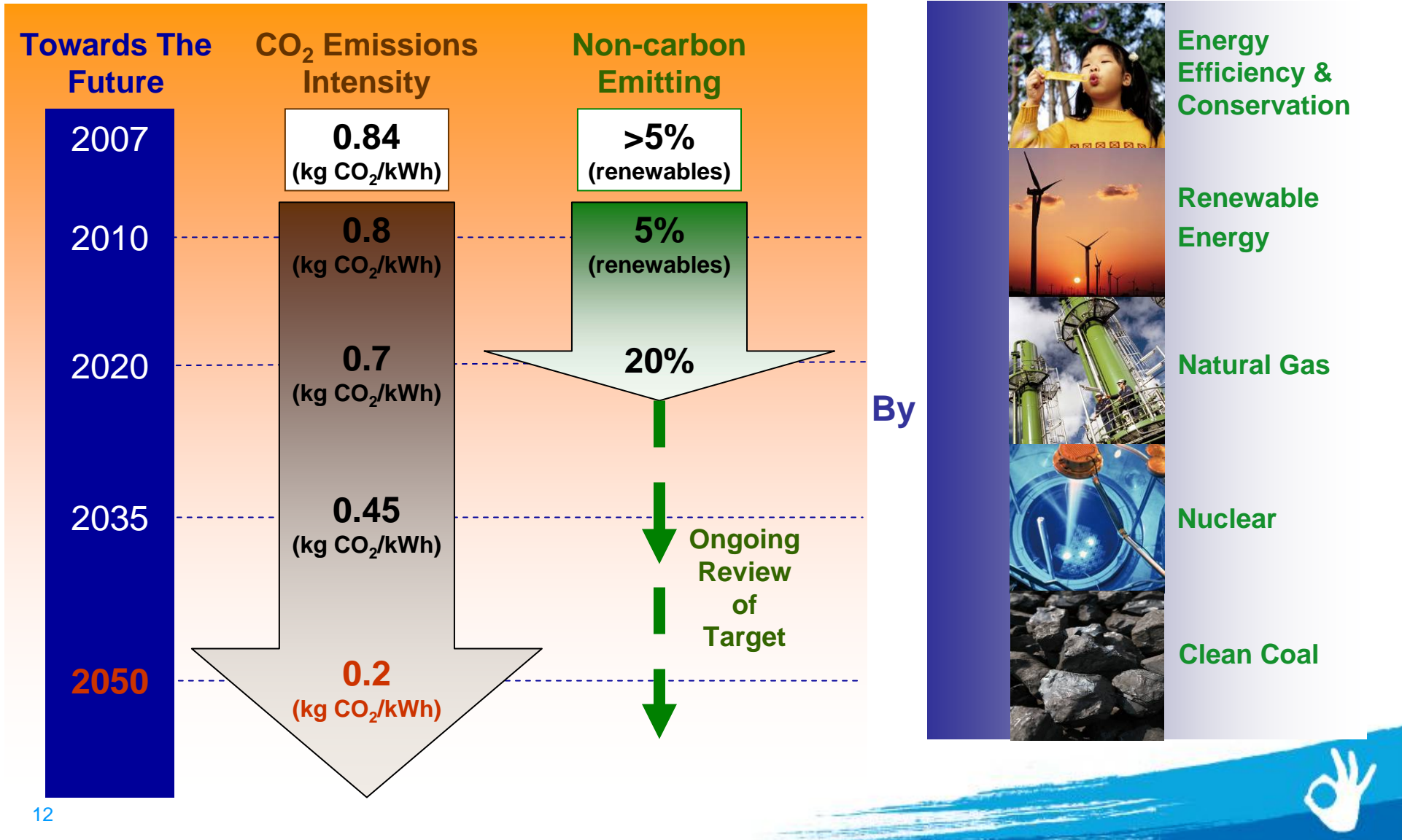
CLP's Climate Vision 2050



75% reduction

in order to help stabilise CO₂ concentrations below 550ppm, a goal to be achieved internationally by all parties concerned

CLP's Climate Vision 2050



CLP's Participation in International Climate Change Discussions

The **World Business Council for Sustainable Development (WBCSD)** is a CEO-led, global association of some 200 companies dealing exclusively with business and sustainable development. Members are drawn from more than 35 countries and 20 major industrial sectors (include companies like Shell, DuPont, Coca Cola, IBM, etc.)



As a member of the WBCSD, CLP attended the United Nations Conference of Parties in Bali in December 2007 and Poznan in December 2008.



CLP's Carbon Disclosure



CLP's Reporting

CLP Resources

- CLP Group public website (www.clpgroup.com)
 - Online Sustainability Report
 - Related publications
 - CLP Group Annual Report & Sustainability Report - In Essence, etc.



CLP's Reporting

External Surveys

In March 2009, listed on
DJSI Asia Pacific and the
only HK company on DJSI
Asia Pacific 40

- CLP provides environmental performance metrics to a number of international surveys:
 - **Carbon Disclosure Project (CDP)**
 - **Dow Jones Sustainability Index (DJSI)**
 - **FTSE4Good**
- Others may use their own estimation methods & check against our published data:
 - **Reputex**
 - **Trucost**
 - **Etc.**



CARBON DISCLOSURE PROJECT



Measuring First...

- Need to **measure before you can disclose/report**
 - Determine objectives for measuring such as seeing **where you are** and **where you might want to go** (e.g. benchmarking)
 - Once you decide to go 'somewhere' then you must **continue to measure** to track your progress
- Requires resources – **financial, human** and **time**, to set up and maintain robust data/ information collection and management processes & systems
 - Need to be prudent in choice of parameters/indicators – **start with materiality**



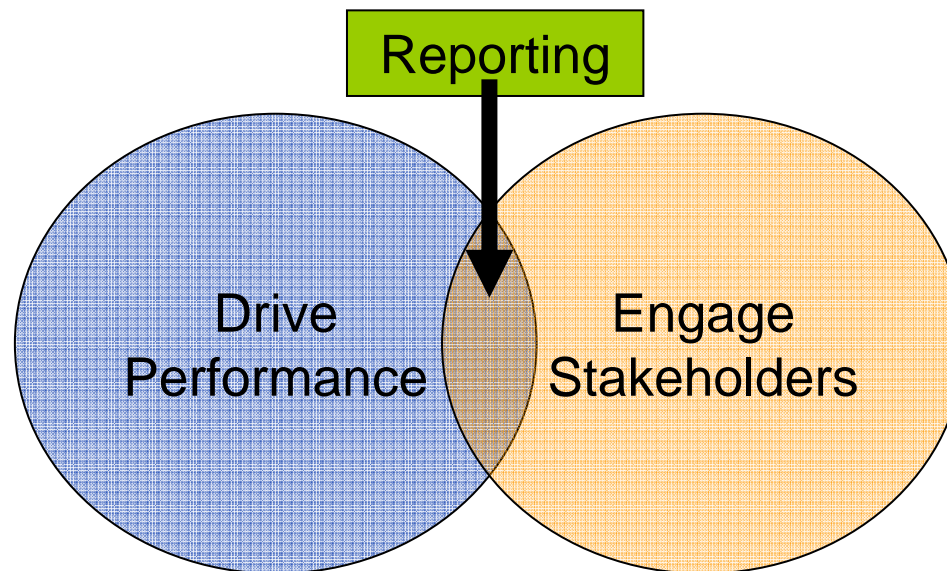
Then Disclosure/Reporting...



- **Need to:**
 - **establish your objective(s) for disclosure**
 - **choose the appropriate parameters/indicators and the relevant format and scope that can best achieve your objective(s)**
 - **understand the potential investment costs (once you start, you can't really stop...)**
- **Requires resources again – financial, human and time to produce and maintain communication channels and materials e.g. websites and publications...**



Possible Objectives for Disclosure



- **Driving performance**, i.e. creating internal and external pressures
- **Stakeholder engagement**, e.g. brand/reputation management, meeting corporate values and/or commitments on transparency, communications & disclosure, etc.



Possible Objectives for Disclosure

- If you don't report your emissions, sometimes someone else will guess your emissions...
 - e.g. CARMA

Carbon Monitoring for Action (CARMA): Climate Campaign Built on Questionable Data

A Due Diligence Report on CARMA's Data and Methodology

Abstract

This due diligence report shows that the popular climate management initiative Carbon Monitoring for Action (CARMA) run by a prominent Washington DC based think-tank, the Center for Global Development (CGD,) utilizes erroneous and questionable CO2 emissions data to rank power plants and motivate public activism. The report concludes that CARMA's data are unfit for policy and business decisions. Our conclusions are derived from comparative analysis of CARMA and United States Environmental Protection Agency's (USEPA) data at the level of each power plant, and it shows that more

Unfortunately, retractions are rare and damage already done..

Some References for Carbon Disclosure

- **Government standards** requirements (local and/or national)
- **Voluntary schemes** (sector, national, international, etc.)
- **The Greenhouse Gas Protocol: A Corporate Accounting & Reporting Standard (WRI & WBCSD)**
- **Carbon Disclosure Project (CDP)**
Extensive survey
 - 1-28 sections @ with 1-15 questions, numeric & text
- **Global Reporting Initiative (GRI)**
Recommended indicators
 - EN16 Total direct and indirect greenhouse gas emissions by weight. (Core)
 - EN17 Other relevant indirect greenhouse gas emissions by weight. (Core)
 - EN18 Initiatives to reduce greenhouse gas emissions and reductions achieved. (Additional)

Choice of carbon disclosure should add value to your operations



**None of us can defeat the threat of global warming
on our own – but together we can cool the climate and
realise our
Climate Vision 2050.**



The world is in our hands.