



## **Carbon trading schemes around the world**

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Companies and governments are turning to emissions trading as a weapon to fight climate change, in a carbon market worth \$64 billion last year.

Cap and trade schemes force participants -- often energy-intensive industries -- to buy permits to emit greenhouse gases such as carbon dioxide, which is produced from burning fossil fuels.

The European Union launched its cap and trade scheme in 2005, while New Zealand will launch a similar initiative this year. Canada and Australia propose to launch schemes in 2010. U.S. senators will debate next month details of a proposed federal U.S. climate change bill which includes cap and trade.

In another type of carbon market, countries and companies can trade carbon offsets under three, UN-led Kyoto Protocol schemes. That allows rich countries to earn emission permits by investing in cuts in greenhouse gases in other countries.

A full list of established and proposed schemes follows.

### **INTERNATIONAL SCHEMES**

#### **KYOTO PROTOCOL (United Nations) (1)**

Launched: 2005

Mandatory for 37 rich countries

Target: 5 pct reduction in 1990 emissions by 2008-2012

Contains three sub-schemes to help signatories meet targets:

1- Clean Development Mechanism (CDM): Rich countries can invest in clean energy projects in developing nations

2- Joint Implementation (JI): Rich countries can invest in clean energy projects in former communist countries

3- Assigned Amount Units (AAUs): Signatories can trade surplus emissions rights amongst themselves

First commitment period expires in 2012, governments scrambling to negotiate a successor agreement.

## EU ETS - European Union Emissions Trading Scheme (2)

Launched: 2005 (Phase I: 2005-2007, Phase 2: 2008-2012, Phase 3: 2013-2020)

Mandatory for 27 nations in EU

Covers around half of all EU emissions

Target: Reduce EU ETS emissions by 21 pct by 2020 compared to 2005 levels

Worth \$50 billion in 2007 (3)

## PROPOSED NATIONAL SCHEMES

### UNITED STATES (4)

Mandatory cap & trade scheme proposed under Lieberman-Warner Climate Security Act, which Senate will debate in June

Bill covers 86 pct of U.S. emissions

Bill's target: Reduce emissions by 18-25 pct by 2020 and by 62-66 pct by 2050

### CANADA (5)

Launch: 2010

Mandatory for all 10 provinces and 3 territories

Target: Reduce 2006 emissions by 20 pct by 2020

Scheme covers 50 pct of Canada's emissions

Potential problems: Alberta already has a provincial scheme and several provinces have joined U.S. regional schemes.

### JAPAN (6)

Currently a voluntary scheme (JVETS)

Launched: 2005

Target: Cut emissions from a 2002-2004 average, using government-subsidized clean energy equipment. Government looking at more options including mandatory cap & trade

## AUSTRALIA (7)

Launch: 2010

Mandatory - to cover 70 pct of Australian emissions

Target: Reduce 2000 emissions by 60 pct by 2050

## NEW ZEALAND (8)

Launch: 2008

Mandatory - includes forestry in 2008, power & industry in 2009, transport in 2011 and agricultural waste from 2013

Target: To be announced

Sources:

- (1) UNFCCC
- (2) European Commission
- (3) World Bank
- (4) Pew Centre on Global Climate Change, NRDC
- (5) Environment Canada
- (6) Japanese government
- (7) Australian government
- (8) New Zealand government

Source: [www.reuters.com](http://www.reuters.com)