



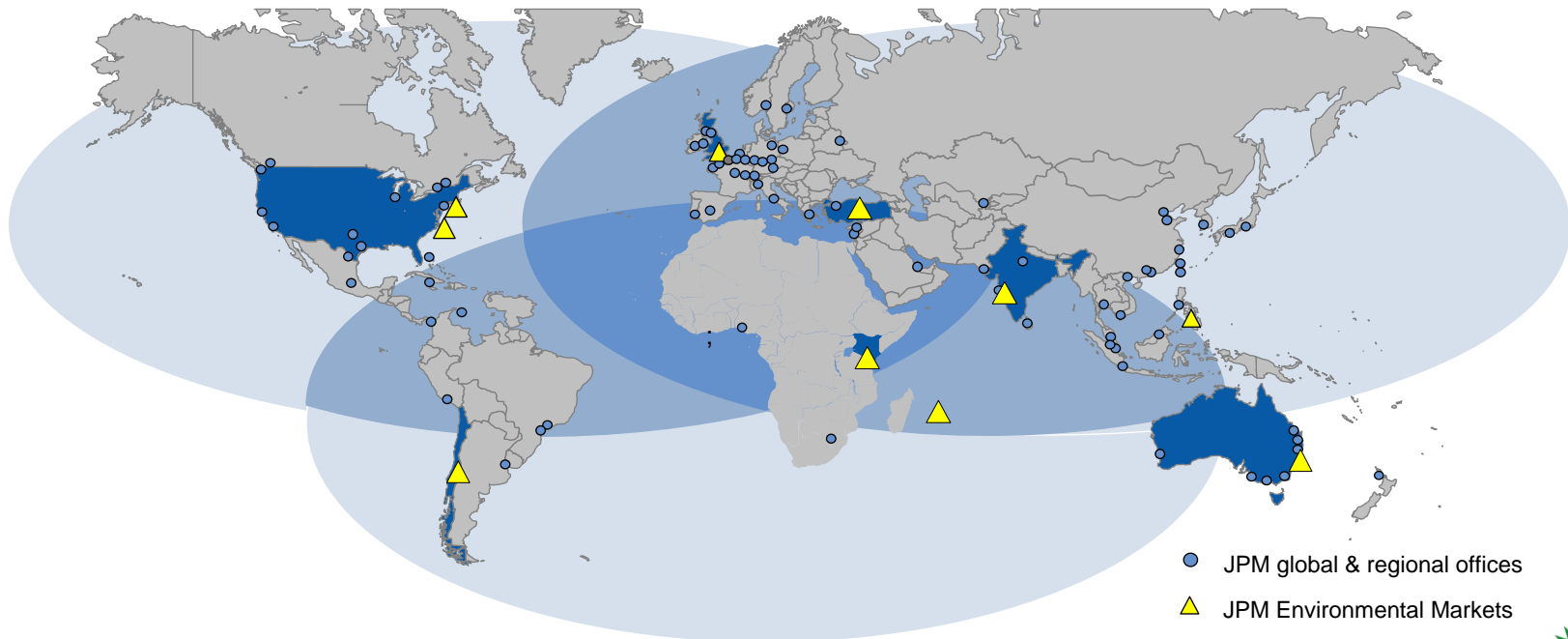
ClimateCare

The importance of VERs in the carbon markets

About ClimateCare

► Founded in 1997 in the UK

- We are one of the longest established environmental organisations in the carbon market industry
- Recently purchased by JPMorgan - Now part of JPM Environmental Markets team
- Extensive expertise in both voluntary and compliance markets
- End to end service – Project development/origination/sales/services and support
- 55 people worldwide and growing



● JPM global & regional offices

▲ JPM Environmental Markets

a business unit of JPMorgan



About ClimateCare

- ▶ Recognised as a world leader in the development of emission reductions projects and the provision of carbon offsets
- ▶ ClimateCare's mission is *"to have the biggest impact in tackling climate change, globally"*.
- ▶ Chosen by opinion formers and leading brands



- ▶ Top rated in surveys



a business unit of JPMorgan



Offsets are essential

- ▶ Responsible and best practice response to climate change from business community is

reduce emissions AND offset what can not be avoided

- ▶ Because.....
 - ▶ **Urgency:** Reducing large scale emissions in a business takes time, and offsetting alongside a reduction strategy has a greater immediate impact. Offsetting is the only way to deal with unavoidable emissions and take responsibility for total emissions impact from day one
 - ▶ **Value for money:** makes the highest number of reductions per £/\$ spent
 - ▶ **Carbon pricing:** builds cost of carbon, determined by offsets, into business accounting to provide a financial driver for reductions.
 - ▶ **Greatest impact:** a successful carbon market helps allocate investment where it can make the greatest longer term impact – businesses should support this through voluntary offsets.
 - ▶ **Promotes innovation:** Funding the development of the new low carbon technologies the world (especially the developing world) needs and creates longer term capacity, skills and knowledge, bringing wider benefits to local communities

An Analogy for Emission Reductions

- ▶ We're in a lifeboat in the middle of the ocean
- ▶ The lifeboat has a hole in it
- ▶ The biggest passengers, who made the hole, are arguing about whether it needs to be fixed and if it does, who should fix it
- ▶ Half the passengers say they didn't make the hole so they won't do anything
- ▶ We know that if we let too much water in, we will sink!
- ▶ Emission reduction projects are about bailing the boat to buy us the time we realistically need to fix the hole



The environment & humanity need real reductions to happen now

Background to VERs

- ▶ VER = Verified Emission Reduction
- ▶ Transacted outside the compliance market as customers (individual and corporate) *voluntarily* purchase VERs
- ▶ Quality VERs adhere to all the principles and criteria of compliance market (CERs) even using the same accreditation organisations (DOEs). The only difference is they do not become CERs or become part of the Clean Development Mechanism (CDM)
- ▶ The CDM currently has a number of procedural inefficiencies and bottlenecks:
 - ▶ DOEs finding it difficult to recruit, train and retain qualified technical staff and are thus experiencing massive backlogs
 - ▶ Can take up to 6 months to engage a DOE
 - ▶ Projects take an average of 1-2 years to reach issuance from time they enter the pipeline
 - ▶ Absence of market continuity beyond 2012 is deterring investors and the viability of some smaller projects
- ▶ Many types of emissions reduction project are still not accepted under the CDM as well as some key geographical areas.

VERs & Sustainable Development

- ▶ VERs deliver sustainable development benefits (whereas over 70% of CERs are currently from large scale industrial gas projects with few if any SD benefits).
- ▶ In developing countries access to energy is always a precursor to development. Small scale renewable energy projects (solar and wind) help provide access to energy in a more sustainable way.
- ▶ Currently poverty forces millions of people to cook and heat their homes on open fires accelerating deforestation and emissions.
- ▶ Many VER projects increase use of more fuel efficient stoves or domestic bio gas digesters. This reduces:
 - ▶ CO2 emissions
 - ▶ use of fuel wood (thus slowing the rate of deforestation)
 - ▶ the levels of indoor air pollution thus decreasing incidents of respiratory diseases and deaths
- ▶ The individual stories associated with these SD benefits provide a positive human angle which helps to engage an organisation's stakeholders on the issue of climate change

VERs & value for money

VERs offer most emission reductions per £/\$ spent and deliver carbon reductions for significantly less money than the equivalent offset from the compliance market (primarily because the price of a CER is determined by market forces whereas VERs are generally priced based on a mark up on the actual cost of delivery).

	Spending Option 1	Spending Option 2	Spending Option 3
	2 kWh solar PV system for UK home	Offsets funding efficient cooking stoves in Uganda	Purchasing CERs from the market 08/08/08
Cost	\$24,000 (average cost to buy and install)	\$24,000	\$24,000
Provides	PV for one house	Affordable efficient stoves	Industrial HFC gas destruction
Tonnes CO2e saved	40 (over 50 years 0.8 per year)	1200	827
Non carbon benefits	Money saved on annual utility bills and home owner feels 'good' about purchase.	400 families have cleaner kitchens, healthier lungs and reduced costs for fuel. Production of stoves supports jobs for 50 workers.	None.
Time taken for solar to get the same savings:		1500 years	1033 years

Based on indicative figures as of September 2008

Advice for purchasers of VERs

- ▶ Only purchase VERs that come from
 - ▶ Projects that meet internationally recognized standards
 - ▶ ...and are independently verified.



- ▶ Be made through a portfolio
 - ▶ Ensuring that the performance of individual projects does not affect delivery of your reductions.
- ▶ Be retired to a public registry to avoid double selling
- ▶ Be made as soon as possible.
 - ▶ In our 2007 financial year, 78% of emission reductions sold through our Portfolio had already been made.

ClimateCare has been leading the market in the development of such transparent and robust approaches since 1997

Our projects



a business unit of JPMorgan



ClimateCare Carbon offset project types

▶ Energy efficiency – getting more from the energy we use

- ▶ CFLs
- ▶ Fuel efficient stoves
- ▶ Insulation
- ▶ Industrial efficiency



▶ Methane Capture

- ▶ Coal Mine methane
- ▶ Agricultural methane
- ▶ Landfill Gas



▶ Renewable energy – generating energy without fossil fuels

- ▶ Wind farms
- ▶ Hydro power
- ▶ Solar energy
- ▶ Biomass



Project example: Zambia hydro

- ▶ This is a 700kW mini 'run of river' hydro project in the North West of Zambia
 - ▶ The carbon finance pays for the operation, maintenance and grid infrastructure
 - ▶ It is replacing diesel generators and providing reliable electricity to schools, villages, the local hospital and a number of children's homes
-
- ▶ *"We anticipate lots of people at the low end to improve their standard of living in the home where children can study at night, read, charge their cell phones, use their computers, watch Nigerian videos..."*

Charles Rea, Project Partner



Project example: Tangshanpeng Wind

- ▶ Baseline: Coal-powered grid in China
- ▶ Tangshanpeng wind farm generates 45,000MWh per year
- ▶ Fossil fuel power plants require half the investment
- ▶ Additional benefits:
 - ▶ 200 employed during construction
 - ▶ 60 workers now employed
 - ▶ Area opened to trade by road construction to transport materials
 - ▶ Reduction in local pollutants through clean electricity production



Project example: Cambodia efficient stoves



- 90% of the Cambodian people depend on fuel-wood daily for cooking, causing deforestation and threatening available forest resources in the country
- This project replaces the traditional Lao stove with a more efficient Improved Lao stove
- Result is a net saving of 21% of the charcoal
- The stoves also improve health as less smoke is created during cooking
- This project is validated to the VCS, with early vintages already verified

“The new stoves are much better...Firstly, It’s more comfortable for me to cook because all the heat goes to the wok and there is less smoke. Secondly, it uses less fuel..”

Lol Lang (left), Cook, Kampong Cham province.

ClimateCare contact details

For further information please contact:

Brian Parry
Project Development Manager
mobile: +230 254 1877
email: brian.parry@jpmorganclimatecare.com

PO Box 12
Flic en Flac, Mauritius

ClimateCare - Oxford, UK
112 Magdalen Road, Oxford, OX4 1RQ, United Kingdom
www.jpmorganclimatecare.com

Disclaimer

Disclaimer: This presentation was prepared exclusively for the benefit and internal use of the JPMorgan client to whom it is directly addressed and delivered (including such client's subsidiaries, the "Company") in order to assist the Company in evaluating, on a preliminary basis, the feasibility of a possible transaction or transactions and does not carry any right of publication or disclosure, in whole or in part, to any other party. This presentation is for discussion purposes only and is incomplete without reference to, and should be viewed solely in conjunction with, the oral briefing provided by JPMorgan.

Neither this presentation nor any of its contents may be disclosed or used for any other purpose without the prior written consent of JPMorgan. The information in this presentation is based upon any management forecasts supplied to us and reflects prevailing conditions and our views as of this date, all of which are accordingly subject to change. JPMorgan's opinions and estimates constitute JPMorgan's judgment and should be regarded as indicative, preliminary and for illustrative purposes only. In preparing this presentation, we have relied upon and assumed, without independent verification, the accuracy and completeness of all information available from public sources or which was provided to us by or on behalf of the Company or which was otherwise reviewed by us.

In addition, our analyses are not and do not purport to be appraisals of the assets, stock, or business of the Company or any other entity. JPMorgan makes no representations as to the actual value which may be received in connection with a transaction nor the legal, tax or accounting effects of consummating a transaction. Unless expressly contemplated hereby, the information in this presentation does not take into account the effects of a possible transaction or transactions involving an actual or potential change of control, which may have significant valuation and other effects.

Notwithstanding anything herein to the contrary, the Company and each of its employees, representatives or other agents may disclose to any and all persons, without limitation of any kind, the U.S. federal and state income tax treatment and the U.S. federal and state income tax structure of the transactions contemplated hereby and all materials of any kind (including opinions or other tax analyses) that are provided to the Company relating to such tax treatment and tax structure insofar as such treatment and/or structure relates to a U.S. federal or state income tax strategy provided to the Company by JPMorgan.

JPMorgan's policies prohibit employees from offering, directly or indirectly, a favorable research rating or specific price target, or offering to change a rating or price target, to a subject company as consideration or inducement for the receipt of business or for compensation. JPMorgan also prohibits its research analysts from being compensated for involvement in investment banking transactions except to the extent that such participation is intended to benefit investors.

JPMorgan is a marketing name for investment banking businesses of JPMorgan Chase & Co. and its subsidiaries worldwide. Securities, syndicated loan arranging, financial advisory and other investment banking activities are performed by a combination of J.P. Morgan Securities Inc., J.P. Morgan plc, J.P. Morgan Securities Ltd. and the appropriately licensed subsidiaries of JPMorgan Chase & Co. in Asia-Pacific, and lending, derivatives and other commercial banking activities are performed by JPMorgan Chase Bank, N.A. JPMorgan deal team members may be employees of any of the foregoing entities.

This presentation does not constitute a commitment by any JPMorgan entity to underwrite, subscribe for or place any securities or to extend or arrange credit or to provide any other services.