

# Lessons learned from the first twelve months of Carbon Trading Yorkshire

## Introduction

The Carbon Reduction Commitment Energy Scheme (CRC) comes into force 2010. This is the most important piece of environmental legislation of recent years, and will have major impacts on businesses, as it will require them to collect and record data more thoroughly than ever before, and log their performance in comparison to their competitors.

As a response to the developing legislation, CO2Sense Yorkshire developed a simulation of the CRC, called Carbon Trading Yorkshire (CTY).

The aim for CTY participants was to:

- Help adapt to carbon trading schemes (eg CRC)
- Reduce carbon dioxide emissions
- Encourage the whole organisation to make the changes needed, to ensure compliance, maximum energy efficiency and cost savings
- Demonstrate leadership on climate change.

Table 1 provides a summary of the planned project stages and activities.

Stage	Major Activities
1 – Recruitment and commitment	Recruit 50 participants and get the chief executive/director to sign agreement to join.
2 - Provide baseline data	Each participant was to submit baseline data, ideally from the previous 12 months (e.g. Jan 08-Dec 08). Data could include some or all of their CRC emissions to ensure flexibility. Data could also include transport (unlike CRC).
3 – Enter auction and agree carbon budget	All participants had to enter a sealed bid auction to buy allowances for their year's carbon emissions, although any financial risk was simulated. Each participant was then given a carbon budget for the year.
4 – Plan carbon reduction	Participants were encouraged to introduce carbon reduction plans for the year, and given support whilst implementing these.
5 – Trade on the carbon market	Participants could buy and sell carbon on a simulated secondary market using an online Yahoo group.
6 – Assessment	Meetings would be held throughout the year to share learning experiences with participants.

CTY was created to reflect the following aspects of phase 2 of the CRC:

- A sealed bid fixed price auction to set the clearing price of allowances (one allowance equals one tonne of CO2 emissions);
- A 5% cap was placed on the market (although this is likely to be more stringent than the percentage cap used in phase 2 of CRC in any given compliance year);

- Allowances could not be banked.

However, CTY was more flexible than CRC in a number of ways, including:

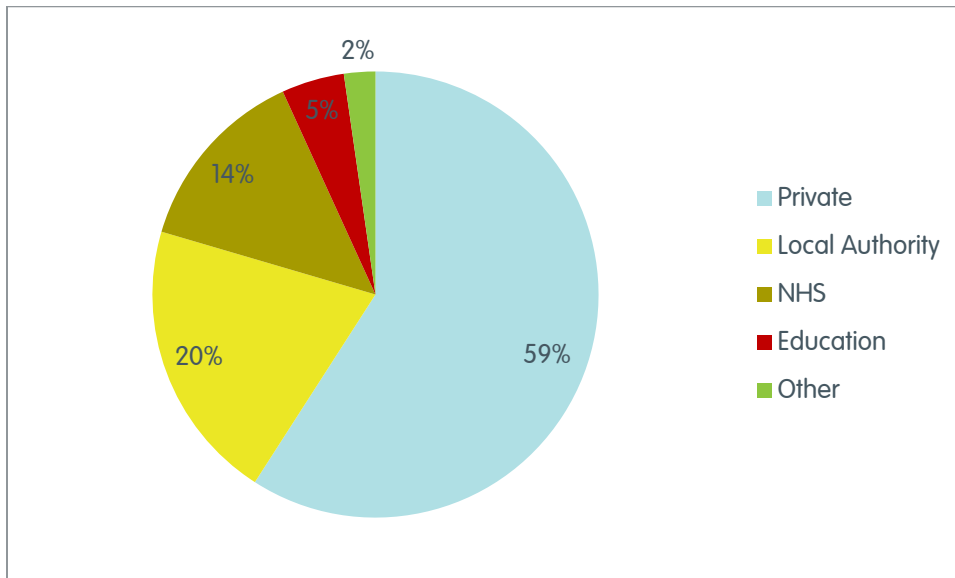
- Participants in CTY could include some or all of their CRC emissions;
- Participants could include transport emissions as part of CTY (this is excluded from CRC);
- Participants could take part even if they were not going to fall within the CRC legislation.

## CTY Participants

CTY had two entry phases: Phase I began in January, with 34 participants and Phase II began in July, with a further 10 participants, making the total number of participants in CTY 44 organisations.

This can be broken down by sector as shown in Figure 1.

*Figure 1: Sector breakdown*



The final positions of participating organisations can be expressed in terms of two key measures:

1. Carbon emissions reduction, which is the main purpose of the CRC
  2. Financial performance, including the degree of success of the auction strategy, trading strategy and emissions forecasting and monitoring
- The scheme demonstrated that the principle of cap-and-trade worked; despite the increase in emissions from some participants, there was an overall reduction of just over 5%.
  - The spread of performance across sectors also demonstrates that no single sector performed particularly well or badly, indicating that readiness for the CRC appears specific to individual organisations rather than industry groups.

- Emissions forecasting and a purchasing strategy to buy or sell allowances when needed at the best available price were important and made a big impact on the overall performance of a company.
- CTY aims to be less a statistical representation of the CRC, but a useful simulation that demonstrates the lessons learned and shows how participants will behave in the simulation.

## Learning outcomes for participants

It is clear that most participants have benefited greatly from their involvement in CTY, a view supported by a research report conducted by Leeds University, which says:

*“When asked to rate the support provided by CO2Sense Yorkshire, 81% of respondents rated the support either helpful (34%) or very helpful (47%), with no respondents stating that the support was either unhelpful or very unhelpful. Engagement with CO2Sense Yorkshire had has a significantly positive impact on organisations, both in terms of their awareness of and capacity to comply with CRC. 50% of respondents suggested that capacities were high or very high following engagement with CO2 Sense Yorkshire; with only 19% rating capacities as low or very low following engagement....”*

The research report continues:

*“there is a strong link between higher levels of understanding of CRC and carbon trading and higher levels of engagement with CTY. On this basis, we cannot say whether understanding of CRC has led to engagement with CTY or the other way around. However, further analysis shows that there have been greater increases in understanding in the last 12 months in organisations that have been highly engaged in CTY than in those that have not. CTY can therefore claim a significant impact on levels of understanding of CRC and carbon trading amongst participating firms.”*

The lessons from this report suggest that there is a clear level of support to continue CTY Mark 2, in addition to other services.

The following are the key areas in which participants felt there were lessons to be learnt ahead of the CRC.

### Data

- Many of our partners have suggested that submitting accurate and timely data is essential to achieving compliance with CRC; one director said *“Data collection is half the battle to ensuring success in the CRC”*.
- One fifth of participants struggled with data submissions during the year. Clearly under the CRC this challenge will be exacerbated when organisations will have to calculate 100% of their footprint to report on a minimum of 90%, as opposed to CTY in which companies selected how much data from which sites they wished to use.

## **Cash flow**

- Cash flow is perceived as less of an issue now that the proposed double payment process in year 1 of the CRC has been removed. Larger organisations do not feel it will overtly impact on profit and/or budgets. However, smaller participants felt that cash flow may be more an issue; one organisation has suggested CRC will turn a site in their estate from breaking even to making a loss.
- In many cases, CTY helped companies determine a more strategic approach. Companies began to look at strategies to manage cash flow for allowances internally. However, many participants have stated that they intend to over purchase allowances initially by 10% per annum. Given that CTY shows prices rising to £20 in the secondary market with a 5% market cap, and no real cost implications, it is a fair assumption to assume that in the initial phase of CRC prices may fall below £12 in the secondary market. Therefore, over purchasing is a risk averse strategy in some respects, but a more risky purchasing strategy could be to not over purchase and spend the income on carbon reduction initiatives which may provide more benefits. More work on scenario planning is clearly needed because the market will also alter scenarios, e.g. over purchasing initially will alter the recycling payment pot.

## **Structural and governance issues**

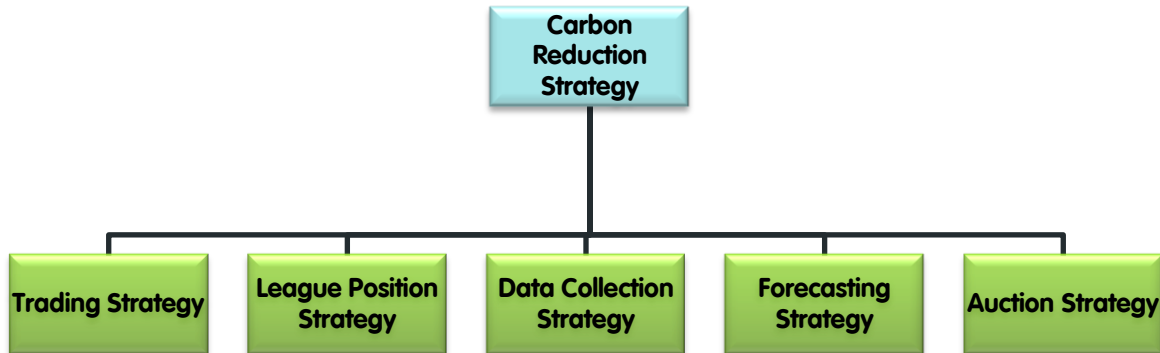
- Some participants are struggling to cope with the requirement to move CRC out of the “environment department” and into the financial arena at senior levels. This is particularly true in terms of who will take the ultimate responsibility for trading if companies need to enter the secondary market. More training and support is required. Structural best practice may also be a helpful tool in helping companies engage and succeed within the CRC.

## **League table**

- The league table has been the most controversial aspect of CTY. The option of developing a league table with each organisation’s position clearly identified was discussed, but there was clear resistance to this, and many organisations only agreed to join CTY if the league table was made anonymous. The main concern, voiced chiefly by private sector participants, was that the CTY league table could be picked up and used negatively by the media. The secondary concern was that companies in competition felt uncomfortable publishing a league table highlighting relative positions.
- The concerns around the CTY league table will be mirrored in the real CRC league table, but there will be no option to remain anonymous. The key and most important issue is that the way the league table is perceived by participants will be secondary to how it is perceived in the media. This may be the biggest threat to public perception of the CRC, both policy makers and the regulator should be prepared and proactive to avoid this scenario.

## Wider strategic issues

Figure 3 highlights the key strategic elements of CRC. *Figure 3: Strategic elements of CRC*



It can be seen in figure 3 that there are a number of strategies an organisation must consider in the in the Carbon Reduction Strategy and to be successful within the CRC. Often we found organisations either have no overarching strategy or have a confused strategy. For example, some organisations think their trading strategy will impact on their league table position. Another common mistake is that the CRC league table position strategy is to delay projects to ensure a higher position and hence receive a larger bonus payment; this does not make economic sense as the recycling payment bonus is small compared to the potential reduction in energy costs.

### Carbon specific strategic issues

- Data collection strategies are the simplest to implement and should be a priority if they are not in place already. Best practice and commercial solutions are developing at a fast pace and this is where CO2Sense could add value to its partners, giving expertise in the field.
- In terms of forecasting strategies, many organisations are using historical data only, and over purchasing by 10% as a contingency. While there are commercial organisations offering full strategic solutions, some are still relatively primitive. CO2Sense with its partners could be at the forefront of developing best practice in this area.
- Auction strategies are a new concept to many organisations, so a full day workshop to introduce them to auction strategies was part of the CTY scheme. Many submitted poor or ill-considered bids, which in one case resulted in a self imposed 12% cap on their allowances. More support and work is needed leading up to phase II of the CRC to help partners understand and prepare for this.
- Trading strategies are also new to many organisations; most organisations have taken an extremely risk averse approach to trading within CTY, and may develop even more risk averse strategies in the CRC. A vehicle where organisations can test drive trading strategies would be of great benefit. We have learnt from CTY that in order to trade it is likely companies will need to collect all CRC data in a monthly format in order to accurately monitor and forecast data in time to take appropriate and effective action.

## **Non carbon specific strategic issues**

- Landlord and tenant/PFI arrangements add complexity to any organisation involved in CRC. Basic best practice is emerging and guidance is freely available. However, long term strategic business models are likely to be affected, for example in the case of retail units in large shopping centres who pay a service charge. At present no strategic best practice is available to foster a suitable relationship under the CRC, so many still have fixed service contracts in place which may not be beneficial in terms of the CRC.
- Business planning and carbon forecasting has not been linked in many organisations, so a basic prediction is based on historical data rather than business growth. While commercial service providers can provide a full CRC compliance service there is little best practice advice or toolkits available to help organisations in this area.
- Trading through the secondary market may present legal and contractual issues that are not clearly understood. CTY partners found it difficult to broker trades, and this will be exacerbated by legal issues in the CRC.

## Conclusions

Key lessons have been learned on many levels, which should add value to any CTY mark II. Below is a summary of the conclusions:

- Reporting would be made easier if all CRC data requirements were based on financial year March-April (including qualification years).
- There is a strong focus on data at present, but it is at the level of ensuring compliance (i.e. gathering comprehensive, accurate data and submitting reports on time). There must be a shift towards intelligent use of data to monitor trends and forecast emissions, to inform auction and trading strategies.
- Better financial analysis and forecasting are required, which must include energy prices, carbon price, cost and benefits of carbon reduction projects and any financial bonus or penalty resulting from recycling payments. When considered together with wider business planning, meaningful decisions can begin to be reached regarding asset management, energy efficiency, and cost-effective carbon reduction strategy.
- Detailed support to Chief Finance Officers is required in terms of awareness, technical training and sharing best practice.
- Many participants perceive a threat to their own PR and to the CRC scheme as a whole resulting from negative press coverage of the published league table. Organisations need assistance to understand the factors affecting league table performance; help with scenario modelling to predict their position; and a communications strategy to manage publicity arising from good/poor league positions.