

# spectrum automation

## PROCESS CONTROL & AUTOMATION

Spectrum Automation Pty. Ltd. ABN 35 057 824 656

Unit 45, 9 Hoyle Avenue

Castle Hill 2145

# Carbon Management Response Plan

Prepared by: **Stephen Murray**



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### **Spectrum Automation's mission statement:**

To create value for our clients by harnessing the expertise of our highly skilled engineering team in design, integration and provision of high quality sustainable energy solutions Australia wide.

Spectrum Automation will make significant contribution to sustainable development by delivering smart clean energy efficient systems to reduce the enterprises carbon footprints and improve profitability.

#### **Political, Economic, International & Societal**

Predominantly in the manufacturing industry

Price pressures from O/S manufactures'

Energy Costs will continue to increase

Environmental awareness is increasing

Proposed Carbon Tax

Reduction of CO2

Energy Efficiency increases the Enterprise's Bottom Line.

The Company needs to attract new clients



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### Carbon Position:

Scope	Items & Q	Inventory
1	<b>Fuel:</b> <ul style="list-style-type: none"><li>•Vehicle travel</li></ul>	6.74 kilolitres = 16.9 tCO <sub>2</sub> -e
2	<b>Electricity:</b> <ul style="list-style-type: none"><li>•Office</li><li>•Factory</li></ul>	5428kWh = 5.8 tCO <sub>2</sub>
3	<b>Waste / Air Travel:</b> <ul style="list-style-type: none"><li>•Food waste</li><li>•Air Travel</li></ul>	361.2kg = 1.3 tCO <sub>2</sub>

Total CO<sub>2</sub>-e =24t

Exposure at \$23.00 per tonne = \$552

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**CMRP** To reduce the company's CO2 office emissions by 20% by December 2011.

KRA	Objective	Strategy	Targets
Financial	<p><b>Reduce consumption Of:</b></p> <ul style="list-style-type: none"> <li>• Electricity (kWh)</li> <li>• Waste (m3)</li> <li>• Vehicle Fuel (k litres)</li> </ul> <p>Reducing the company's running cost</p>	<p><b>Implement CRI Audits for:</b></p> <ul style="list-style-type: none"> <li>• Energy (kWh)</li> <li>• Fuel (vehicle &amp; air travel),(N2O4)</li> <li>• Waste (kg CH4 )</li> </ul> <p>Implement <b>on-line survey</b> for employees to assist in behavioural change. Retrofitting of <b>VSD</b> to office Air Conditioning Unit. Retrofitting of <b>Power Factor correction</b> unit to lighting circuits.</p>	<p><b>Reduce the following CO2-e emissions:</b></p> <ul style="list-style-type: none"> <li>• Office electricity use by 25% (kWh) by 12/2011 consumption</li> <li>• Reduce fuel use by 5% by end of financial year <b>2011/12.</b></li> <li>• Reduce waste out put by 10% by 06/2012</li> </ul>

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### CMRP PoP:

KRA	Objective	Strategy	Targets
Customers & Markets	Communicate benefits of Lo CO2 certification to clients & employees.	Complete Web site up-grade.	Create web content By 11/2011
	Attract additional clients	Employees complete on line driving survey	On site education of new environmental policy By 11/2011
	To reduce customers power consumption, with clean & efficient energy systems.	Complete Sustainability statement.	
	Increase profit margins	Alien Co-Gen suppliers Promote PFC units and System integration	Complete environmental marketing policy By 10/2011

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### Environmental Analysis:

<b>Political</b>	The Governments monitory reporting on emissions, and the proposed carbon tax are starting to create opportunities for Spectrum Automation CMRP
<b>Economic</b>	After 20 years providing customers with very specific engineering services the company needs to attract a boarder customer base. Inevitable electricity rate increases.
<b>Social/cultural</b>	Spectrum Automation needs to show a it's commitment to a low carbon future through the CMRP and an awareness of the environment issues.
<b>Technological</b>	Providing energy efficiency systems will require additional education and provide greater technical knowledge and skills for all employees. Solar Power Systems. Energy efficiency retrofitting, VDS's for Air Conditioning systems.
<b>Environmental</b>	The Company has commissioned CRI (Carbon Reduction Institute) to enable a "Lo CO2" certification, with 6 monthly emission audits.
<b>Legal</b>	New government company regulations and requirements to combat the human induced climate change. Possible mandatory building energy ratings.

### I will engage people by

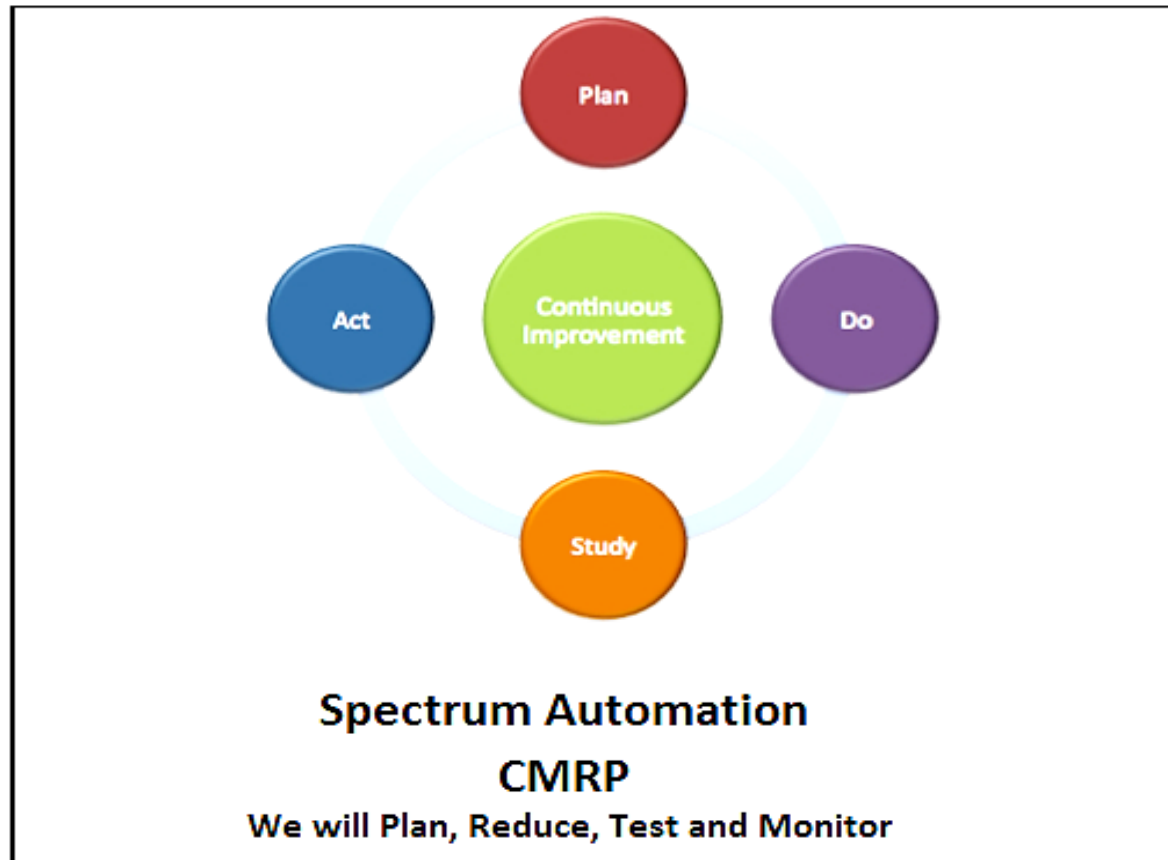
- Utilizing existing experience and skills
- Identify problems
- Provide the best tools and training
- Empower employees
- Promote accomplishment and contribution
- Remove hierarchical obstacles
- Engage in environmental discussions
- Encourage new ideas

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### Continuous Improvement:



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### Communications Plan:

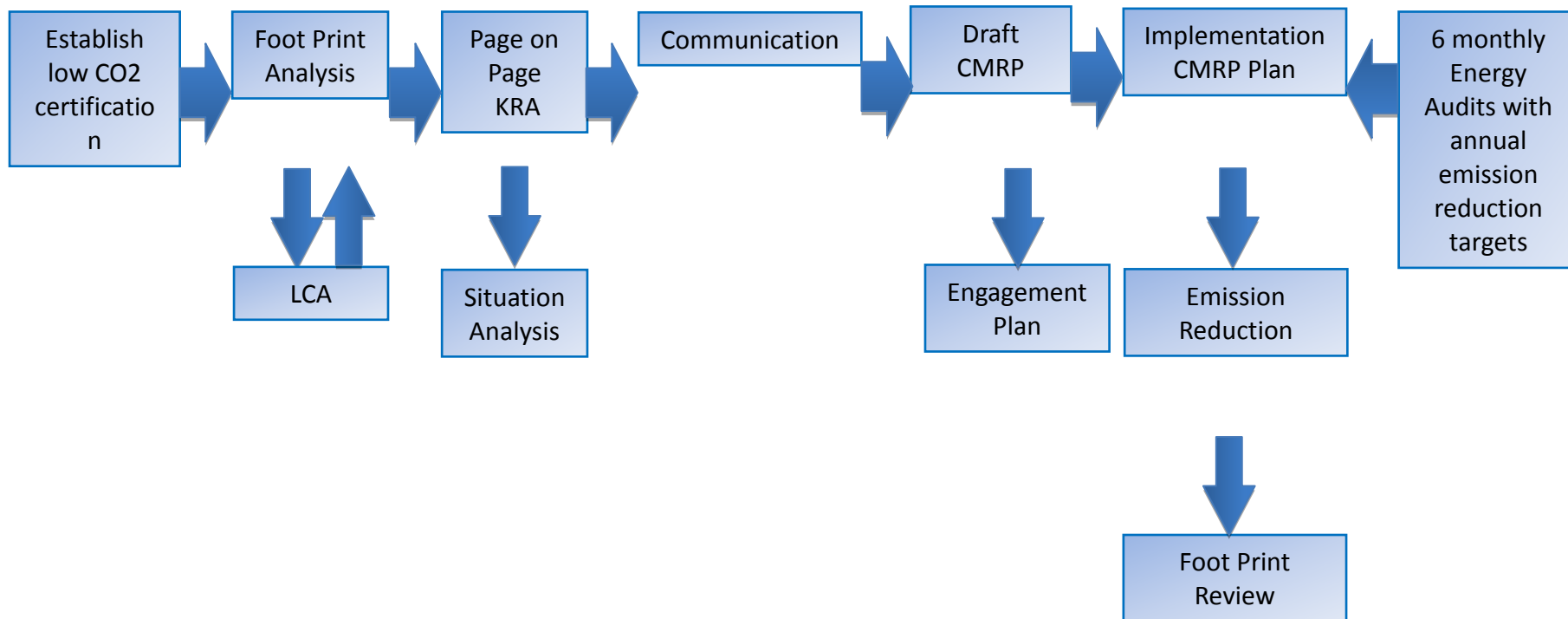
<b>What</b>	Communicate CMRP to customers, employees and business managers with concentration in the areas of energy efficiency, reduction of energy and waste and CO2-e emissions.
<b>To whom</b>	Customers, staff , management.
<b>When</b>	Communicate the plan to Customers, staff , management before end of January 2012. Change and adapt communications to at achieve results.
<b>Why</b>	After 20 years the company needs to broaden the provisions currently offered to clients, and display (CSR) environmental responsibility through the CTI certification.

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### Critical Path Analysis



# Stephen Murray

CMRP

**Spectrum** Automation

Absorption Chiller



Clean Energy



Power Correction



Cogeneration

