## The Best 20 Energy Conservation Measures

<table>
<thead>
<tr>
<th>Overall Total</th>
<th>Annual Energy Cost Saving (RMB)</th>
<th>Investment (RMB)</th>
<th>Payback (Year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel and Solar System</td>
<td>50,000-70,000</td>
<td>Immediate</td>
<td></td>
</tr>
<tr>
<td>Compressed Air System</td>
<td>40,000-50,000</td>
<td>Immediate</td>
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<tr>
<td>Lighting System</td>
<td>40,000-40,000</td>
<td>Immediate</td>
<td></td>
</tr>
<tr>
<td>HVAC System</td>
<td>30,000-40,000</td>
<td>Immediate</td>
<td></td>
</tr>
<tr>
<td>Production Machines</td>
<td>30,000-40,000</td>
<td>Immediate</td>
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</table>

### Low Carbon Manufacturing Programme (LCMP)

**Background**

The PRD constitutes about 30% of the total value of China's exports and represents the world's highest concentration of manufacturing infrastructure. According to research conducted by the Federation of Hong Kong Industries, only 5% of the manufacturing companies in the PRD invested in manufacturing waste. The Low Carbon Manufacturing Programme (LCMP) aims at reducing carbon emissions generated by manufacturing activities in the Pearl River Delta (PRD) and developing an environmentally sustainable governance for those manufacturers.

By providing manufacturers with a carbon accounting and labeling system, LCMP helps to measure their effectiveness in reducing carbon emissions, equip them with best practice in greenhouse gas management, which will raise the energy efficiency standard and save money in the long run.

### Tool

Consistent with all key international carbon accounting and reporting standards and initiatives, the LCMP system utilizes project boundaries and Chinese fuel emissions factors packaged in a simple online software tool. This will provide manufacturers with the ability to develop robust local datasets to international carbon accounting standards.

The LCMP also provides tools to allow companies to identify potential energy saving through GHG management and best-available technologies checklists. These checklists have been designed to be both compatible with a bigger context (GHG management checklist is aligned with ISO 14000 structure) and still work effectively in smaller scopes (best practice checklist includes industry specific production process facilities).

### Labelling

The programme grants “Platinum”, “Gold”, “Silver” or “Certified” label to participating manufacturers after assessing their performance in carbon footprint reduction, GHG management and distance to best practice in energy efficiency of processes and operations.

- **Total Score equal to or greater than 80:** Companies that have implemented a sophisticated greenhouse gas management system, are achieving best-practice energy efficiency and significant greenhouse gas emissions reduction.
- **Total Score from 60 to less than 80:** Companies that have implemented a good greenhouse gas management system, are achieving some best-practice energy efficiency levels in their activities and substantial greenhouse gas emissions reduction.
- **Total Score from 40 to less than 60:** Companies that have partially implemented a greenhouse gas management system, have significant energy saving potential and are achieving average greenhouse gas emissions reduction.
- **Total Score from 20 to less than 40:** Companies that have set up their greenhouse gas emissions inventory, but may not have a greenhouse gas management system yet. These companies still have a large potential for energy saving.

Preparatory level has not yet undertaken any third-party verification / total score less than 20

(LCMP is a WWF initiative with verification from third parties)
LCMP is different from existing international initiatives in that it primarily aims to reduce positive actions to reduce GHG emissions directly by manufacturers in global supply chain and to equip them with tools to identify and report areas for emissions reductions and cost savings.

**Implementation Step**

**Design Boundaries**
Certain criteria need to be established by participating companies in order to accurately assess progress.

**Organisational boundary**
In order to set up a proper greenhouse gas inventory database structure for your carbon accounting system, participants are required to specify how many factories will be participating in the scheme.

**Carbon accounting software**
Based on international standards and Chinese fuel emissions factors, the LCMP has developed a simple, easy-to-use, reliable online monitoring and reporting tool for carbon accounting, in order to provide standardized, sufficient and reliable databases.

**Greenhouse gas management practice**
A checklist compatible with ISO 14001 which, if followed closely, will ensure best greenhouse gas management practices are implemented. Management practice extends to identifying additional risks and rewards of greenhouse gas emissions management, and extends beyond the traditional energy efficiencies to encompass the entire organisation's performance in relation to climate change.

**Accreditation**
The report from the independent verifier organisation will be reviewed by the Accreditation Committee which consists of a panel of industry experts, academics and a representative from WWF and. If approved, accreditation on the LCMP labels will be granted. An Appeal Committee is also established to handle appeals related to the accreditation status of a participating company under the LCMP.

**LCMP Verifiers**
LCMP verifiers are independent third-parties to conduct verification for LCMP participating companies. They are classified into 2 work streams:

1. **Carbon expert** - responsible for verification work on greenhouse gas (GHG) emissions reduction and GHG management system.
2. **Industry expert** - responsible for verification work on energy efficiency best practices.

Qualifi.ed carbon/industry experts are listed on the Directory of LCMP Verifier. LCMP participating companies may directly contact them to arrange for the scheduling of the verification or related matters. Relevant experiences of the verifiers can be found in the LCMP Verifier Professional Experiences.

**Achievement**
The LCMP and energy audit activities have identified significant additional cost savings for each of the three pilot companies:

- **Computeone (Electronics)** could reach cost savings of 2.62 million RMB per year by implementing 20 measures with a payback time of less than 1.5 years.
- **ITFM (Plastics)** could reach cost savings of about 895,000 RMB per year by implementing 16 measures, with a payback time up to 3 years.
- **Lever Style (Garments)** could reach cost savings of 2.16 million RMB per year by implementing 15 measures with payback time of less than 1.5 years.

"LCMP helps manufacturers become more climate friendly and get rewarded for being so."
-Karen Ho, Business Engagement Leader, Climate, WWF-Hong Kong

**Reasons to join the LCMP**

**Improved energy efficiency, saving money in the long run**

Implementation of LCMP measures will raise the energy efficiency standard to the best practice level and uncover operational inefficiencies, which is a simple and effective method of saving money in the long run.

**Easy implementation – low or even no investment cost**

Most of the measures suggested in the LCMP pilot phase involved low investment cost, or even no investment cost. The average payback period ranges from one to three years. It is relatively easy for companies with an existing ISO system to follow the guidance of the LCMP tools and incorporate GHG management into their existing system.

**Attract new customers and retain existing customers**

Nowadays, consumers across the world pay attention not only to the price and quality of products, but also to a brand's transparency and its efforts to control carbon emissions. Showing that a business is in control of its carbon emissions is an excellent way to help retain customers and attract new customers.

**Stand out in global competition**

By joining the LCMP, companies can build up a solid carbon management framework effectively. By cooperating with WWF, a leading global conservation organisation, companies can benchmark themselves against other global competitors, and stand out amongst their competitors.

**Prepared for future global regulatory challenges**

Carbon tax is an inevitable regulation, one which will soon be in force around the world. By joining the LCMP, companies will be well-prepared for a new legislative environment and new regulations on carbon emission control and data disclosure rules which may be drafted within any country at any time - including countries forming a company’s supply chain.

**Demonstrate visibility to shareholders and investors**

Companies joining the LCMP make obvious their management's vision in meeting global requirements on carbon emissions. When a LCMP company is compared with a company that simply meets individual customer's expectations on an ad-hoc basis, it is quite clear that LCMP membership is a distinct highlight for both shareholders and investors.