Measuring Carbon Reduction Potential at the Local Level

Jon Kellett
CI
Carbon Neutral Communities Forum
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GHG Emission Trends - Australia
(Source: Garnaut, 2008)

Stationary energy
Transport

Note: 1990 and 2005 emissions are from the most recent National Greenhouse Gas Inventory (DCC 2008b). 2020-2100 projections are from MMRF.
Measuring the baseline
Three methods - three answers

Baseline for Playford: SA
Assessing the Renewable Potential

1960-69  
2000-2007
### Potential Renewable Energy Resources for Playford

<table>
<thead>
<tr>
<th>Energy Resource</th>
<th>PJ/yr (Range)</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Energy Demand including transport</td>
<td>Ave 10.30</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>(Range 8.48 to 12.23)</td>
<td></td>
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<tr>
<td>Total energy demand excluding transport</td>
<td>Ave 6.92</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>(Range 5.45 to 8.11)</td>
<td></td>
</tr>
<tr>
<td>Solar PV</td>
<td>1.55</td>
<td>15</td>
</tr>
<tr>
<td>SHW</td>
<td>0.60</td>
<td>6</td>
</tr>
<tr>
<td>Wind</td>
<td>3.68</td>
<td>37</td>
</tr>
<tr>
<td>Biomass</td>
<td>0.06</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Total renewable energy resource</td>
<td>5.89</td>
<td>57</td>
</tr>
<tr>
<td>Remainder Including transport</td>
<td>4.41</td>
<td>43</td>
</tr>
</tbody>
</table>

- Renewable Resource = 57%
- Renewable Reserve = 35%
Where does this take us?

- Are stakeholders aware of this potential?
- How should this information be handled?
- What needs to change to see this potential made a reality?

Adaptation is NOT enough!
Policy which changes the context
City design and layout. Consolidation v dispersion. Can green be urban? The zero emission city – achievable or impossible?
Behavioural change – convenience, cost, status. Market or policy driven?
Making sure DA decisions reinforce the message

Climate Proofing Australian Cities
A role for planning?