transports with biofuels

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Investigated biofuels for the “Ökobilanz von Energieprodukten”

- Scope: from cradle-to-grave
- Goal: assess total environmental impacts of different biofuel pathways for a possible tax redemption
- Overview of investigated biofuels:

<table>
<thead>
<tr>
<th>Methane 96%</th>
<th>Ethanol 99.7%</th>
<th>Methanol waste wood</th>
<th>XME</th>
</tr>
</thead>
<tbody>
<tr>
<td>slurry biowaste</td>
<td>wood</td>
<td>industrial wood</td>
<td>waste cooking oil</td>
</tr>
<tr>
<td>sludge</td>
<td>grass potatoes</td>
<td></td>
<td>rape seed CH/RER</td>
</tr>
<tr>
<td>whey</td>
<td>sugar beets whey</td>
<td></td>
<td>soya oil US / BR</td>
</tr>
<tr>
<td>grass</td>
<td>sugar cane BR</td>
<td></td>
<td>palm oil MY</td>
</tr>
</tbody>
</table>

Transport services with biofuels

- Passenger cars
  - Compressed natural gas
  - Methane 96%
  - Ethanol 5%
  - Methanol 100%
  - Plant oil methyl ester 5%
  - ETBE 15%
  - EURO 3, 4, 5 for petrol and diesel

- Trucks
  - Rape seed methyl ester 100%