



## GPP 2020 Future Tender Implementation Plan

Partner name (Country): Rijkswaterstaat, The Netherlands

Date Updated: February 2016

Signed by authorised representative (location, date, name, function, signature): Roelof Triemstra, (acting director Purchasing and Contract management Rijkswaterstaat GPO, Utrecht, The Netherlands)

### Task 2.6 Future planning

*Within the final year of the project, the PB will update the implementation plan for the three years following the end of the project, identifying potential reduced CO<sub>2</sub> tenders. This will be prepared with the support of the NSP and may also include complementary activities such as regular training, preparation of an organisational policy/strategy, external communication of GPP activities, etc. Where considered necessary, the plan will be translated into the local language by the NSP.*

| Deliverable N° | Deliverable name  | Type of deliverable | Format     | Language(s)                            | Target group | Lead participant | Dissemination level | Month of completion |
|----------------|---|---------------------|------------|--|--------------|------------------|---------------------|---------------------|
| D2.5           | Final GPP implementation plan for each PB for the 3 years following the project | Working paper       | Electronic | English (possibly also local language) | PB staff     | Each PB          | CO                  | 36                  |

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| <p><b>The Dutch Approach</b></p> <p><b>Methodology for calculating CO<sub>2</sub> savings</b></p> | <p>All parties involved in the civil engineering trade in the Netherlands (including Rijkswaterstaat) agreed to use procurement as a tool to give an advantage to providers which have energy efficient working processes. The advantage for companies with efficient working processes will be benefited by using a tool called the CO<sub>2</sub>-performance ladder.</p> <p>The client also benefits the provider that offers the most sustainable product (which mostly is also the product with the lowest power consumption i.e. the most efficient energy use). The tool by which the benefit is calculated is a LCA based software instrument called DuboCalc. DuboCalc calculates the environmental impact of the materials and methods of an infrastructural work. This impact is expressed as environmental costs indicator units (or ECI-value).</p> <p>The ECI-value is used in the tendering procedure as follows: the contracting authority provides the provider all the functional requirements. The providers make a design and calculate the price and the ECI-value and offer these to the contracting authority. The contracting authority selects the provider with the lowest price and ECI-value combination to make the work. This procedure ensures that providers do their utmost best to make an inexpensive and environmentally friendly (and thus energy efficient) design. Beforehand the contracting authority makes a reference design and uses this to estimate the costs and the ECI-value. CO<sub>2</sub>-emission is one of the (in total 11) parameters of the LCA calculation that contributes to the ECI-value. This CO<sub>2</sub>-emission is the amount that is emitted as a result of the use of building materials (production, transport, etc). The amount of CO<sub>2</sub>-emission that is reduced can easily be calculated by subtracting the ECI-value of the offered design from the reference design. This is directly proportional to the reduction in energy use.</p> <p>The DuboCalc software is based on an independent dataset containing certified LCA information. The same dataset is also used to calculate the LCA performance of buildings (houses, offices etc).</p> |
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|---|---------------------------------|--|---|---|--|
| <p><b>Project name</b><br/><b>Ring Zuid A7 om</b><br/><b>Groningen</b></p> <p>Construction of several<br/>infrastructural objects;<br/>road, sunken road,<br/>bridge, underpasses,<br/>overpasses, lighting etc</p> | <p>Q4 2014</p>                  | <p><b>Contract type</b><br/>Design and Construct of a civil<br/>engineering work</p> <p><b>Contract length and timing</b><br/>Start tendering procedure winter 2014,<br/>awarding date Q2 2016, start<br/>construction Q1 2017, opening 2020</p> <p><b>Estimated contract value/volume</b><br/>€ 606.000.000 (source: MIRT)</p> <p><b>Procurement procedure</b><br/>Competitive dialogue</p> | <p><b>Calculated potential energy<br/>savings</b><br/>? ktonnes CO<sub>2</sub> (est 20%)</p> <p><b>Possible measures to achieve<br/>energy savings:</b></p> <ul style="list-style-type: none"> <li>- Innovative (slim) constructions,</li> <li>- use of 'green' electricity</li> <li>- use of energy saving transport<br/>methods of materials</li> <li>- local generation of energy</li> </ul>   | <p>There is no research into<br/>products or producers<br/>with the lowest CO<sub>2</sub><br/>emissions.</p> <p>The tender shall be<br/>carried out in such a way<br/>that the provider who<br/>wins does its utmost best<br/>to reduce emissions that<br/>are the result of its work<br/>processes and in addition<br/>also offers the product<br/>that emits the least CO<sub>2</sub><br/>(see top row).</p>  | <p><b>Methodology:</b><br/>See first page in this<br/>table</p> <p>PLUS<br/>Calculation of the<br/>reduction of lost<br/>vehicle hours using a<br/>location specific traffic<br/>model</p> |
| <p><b>Project name N35</b><br/><b>Zwolle-Wijthmen</b></p> <p>Several infrastructural<br/>objects; flyovers, roads,<br/>underpasses and<br/>overpasses, road lighting<br/>etc</p>                                    | <p>Q3 2016</p>                  | <p><b>Contract type</b><br/>Design and Construct of a civil<br/>engineering work</p> <p><b>Contract length and timing</b><br/>Start tendering procedure Q3 2016,<br/>delivery summer 2017</p> <p><b>Estimated contract value/volume</b><br/>€ 48.000.000 (source: MIRT)</p> <p><b>Procurement procedure</b><br/>Selective tendering</p>  | <p><b>Calculated potential energy<br/>savings</b><br/>??? ktonnes CO<sub>2</sub> (est 20%)</p> <p><b>Possible measures to achieve<br/>energy savings:</b></p> <ul style="list-style-type: none"> <li>- Innovative (slim) constructions,</li> <li>- use of 'green' electricity</li> <li>- use of energy saving transport<br/>methods of materials</li> <li>- local generation of energy</li> </ul> | <p>There is no research into<br/>products or producers<br/>with the lowest CO<sub>2</sub><br/>emissions.</p> <p>The tender shall be<br/>carried out in such a way<br/>that the provider who<br/>wins does its utmost best<br/>to reduce emissions that<br/>are the result of its work<br/>processes and in addition<br/>also offers the product<br/>that emits the least CO<sub>2</sub>.<br/>(see top row).</p> | <p><b>Methodology:</b><br/>See first page in this<br/>table</p>  |
| <p><b>Project name N18</b><br/><b>Varsseveld-</b><br/><b>Lichtenvoorde</b></p> <p>Several infrastructural<br/>objects; flyovers, roads,</p>   | <p>Q1 2016</p>                  | <p><b>Contract type</b><br/>Design, Build, Finance and Maintain</p> <p><b>Contract length and timing</b><br/>Start tendering procedure Q1 2016,<br/>delivery summer 2018, contract length</p>  | <p><b>Calculated potential energy<br/>savings</b><br/>??? ktonnes CO<sub>2</sub> (est 20%)</p> <p><b>Possible measures to achieve<br/>energy savings:</b></p>   | <p>There is no research into<br/>products or producers<br/>with the lowest CO<sub>2</sub><br/>emissions.</p> <p>The tender shall be<br/>carried out in such a way</p>   | <p><b>Methodology:</b><br/>See first page in this<br/>table</p>  |



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|---|---------------------------------|---|--|---|---|
| underpasses and<br>overpasses, road lighting<br>etc   |                                 | 30 years.<br><br><b>Estimated contract value/volume</b><br>€ 316.000.000 (source: MIRT)<br><br><b>Procurement procedure</b><br>Competitive dialogue   | - Innovative (slim) constructions,<br>- use of ‘green’ electricity<br>- use of energy saving transport<br>methods of materials<br>- local generation of energy   | that the provider who<br>wins does its utmost best<br>to reduce emissions that<br>are the result of its work<br>processes and in addition<br>also offers the product<br>that emits the least CO <sub>2</sub> .<br>(see top row).  |   |
| <b>A27/A12 Bypass Utrecht</b><br><br>Extension of capacity<br>including a green<br>connection between city<br>and estate Amelisweerd.                                   | Q1 2018                         | <b>Contract type:</b><br>Not yet known<br><br><b>Contract length and timing:</b><br>2017: Route Decision<br>2018: start realisation<br>2024-2026: opening<br><br><b>Contract value/volume:</b><br>budget: €1.138.000.000 (source:<br>MIRT)<br><br><b>Procurement procedure to be<br/>followed:</b><br>Not yet known | <b>Calculated potential energy<br/>savings</b><br>??? ktonnes CO <sub>2</sub> (est 20%)<br><br><b>Possible measures to achieve<br/>energy savings:</b><br>- Innovative (slim) constructions,<br>- use of ‘green’ electricity<br>- use of energy saving transport<br>methods of materials<br>- local generation of energy | There is no research into<br>products or producers<br>with the lowest CO <sub>2</sub><br>emissions.<br>The tender shall be<br>carried out in such a way<br>that the provider who<br>wins does its utmost best<br>to reduce emissions that<br>are the result of its work<br>processes and in addition<br>also offers the product<br>that emits the least CO <sub>2</sub> .<br>(see top row). | See first page in this<br>table                                   |
| <b>Reinforcement<br/>Afsluitdijk</b><br><br>Strengthening of the dike<br>and existing blowdown<br>and locks and installation<br>extra pumps for<br>additional drainage. | Q2 2016                         | <b>Contract type:</b><br>Design, Build, Finance and Maintain<br><br><b>Contract length and timing:</b><br>2018: start realisation<br>2022: opening<br>Contract length 30 years<br><br><b>Contract value/volume:</b><br>Budget €831.000.000,- (source: MIRT).<br>In addition €18.000.000 available for               | <b>Calculated potential energy<br/>savings</b><br>??? ktonnes CO <sub>2</sub> (est 20%)<br><br><b>Possible measures to achieve<br/>energy savings:</b><br>- Innovative (slim) constructions,<br>- use of ‘green’ electricity<br>- use of energy saving transport<br>methods of materials<br>- local generation of energy | There is no research into<br>products or producers<br>with the lowest CO <sub>2</sub><br>emissions.<br>The tender shall be<br>carried out in such a way<br>that the provider who<br>wins does its utmost best<br>to reduce emissions that<br>are the result of its work<br>processes and in addition  | See first page in this<br>table                                   |



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|--|---------------------------------|--|---|--|---|
|  |                                 | <p>the promotion of sustainable and innovative projects</p> <p><b>Procurement procedure to be followed:</b><br/>Competitive dialogue</p>   |   | <p>also offers the product that emits the least CO<sub>2</sub>. (see top row).</p>   |   |
| <p><b>A13/A16/A20 Bypass Rotterdam</b></p> <p>Extension of capacity and increasing environment quality</p>         | <p>Q2 2016</p>                  | <p><b>Contract type:</b><br/>Design, Build, Finance and Maintain</p> <p><b>Contract length and timing:</b><br/>2016: Route Decision<br/>2017: start realisation<br/>2021-2023: opening<br/>Contract length 30 years.</p> <p><b>Contract value/volume:</b><br/>Budget €979.000.000,- (source: MIRT).</p> <p><b>Procurement procedure to be followed:</b><br/>Competitive dialogue</p> | <p><b>Calculated potential energy savings</b><br/>??? ktonnes CO<sub>2</sub> (est 20%)</p> <p><b>Possible measures to achieve energy savings:</b></p> <ul style="list-style-type: none"> <li>- Innovative (slim) constructions,</li> <li>- use of 'green' electricity</li> <li>- use of energy saving transport methods of materials</li> <li>- local generation of energy</li> </ul> | <p>There is no research into products or producers with the lowest CO<sub>2</sub> emissions.<br/>The tender shall be carried out in such a way that the provider who wins does its utmost best to reduce emissions that are the result of its work processes and in addition also offers the product that emits the least CO<sub>2</sub>. (see top row).</p> | <p>See first page in this table</p>                               |
| <p><b>A24 Blankenburg-verbinding</b></p> <p>Construction of a new river crossing at the west-side of Rotterdam</p> | <p>Q2 2016</p>                  | <p><b>Contract type:</b><br/>Design, Build, Finance and Maintain</p> <p><b>Contract length and timing:</b><br/>2016: Route Decision<br/>2017: start realisation<br/>2022-2024: opening<br/>Contract length 30 years.</p> <p><b>Contract value/volume:</b><br/>Budget: €1.173.000.000,- including toll (source: MIRT)</p>   | <p><b>Calculated potential energy savings</b><br/>??? ktonnes CO<sub>2</sub> (est 20%)</p> <p><b>Possible measures to achieve energy savings:</b></p> <ul style="list-style-type: none"> <li>- Innovative (slim) constructions,</li> <li>- use of 'green' electricity</li> <li>- use of energy saving transport methods of materials</li> <li>- local generation of energy</li> </ul> | <p>There is no research into products or producers with the lowest CO<sub>2</sub> emissions.<br/>The tender shall be carried out in such a way that the provider who wins does its utmost best to reduce emissions that are the result of its work processes and in addition also offers the product that emits the least CO<sub>2</sub>.</p>                | <p>See first page in this table</p>                               |



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|--|---------------------------------|---|--|---|---|
|  |                                 | <b>Procurement procedure to be followed:</b><br>Competitive dialogue  |  | (see top row).  |   |
| <b>New lock Terneuzen</b><br><br>Construction of a new<br>sea lock | Q3 2016                         | <b>Contract type:</b><br>Design and Construct of a civil<br>engineering work<br><br><b>Contract length and timing:</b><br>2016: Route Decision<br>2017: start realisation<br>2021: opening<br><br><b>Contract value/volume:</b><br>Budget: €1.204.000.000,-<br><br><b>Procurement procedure to be followed:</b><br>Competitive dialogue | <b>Calculated potential energy savings</b><br>??? ktonnes CO <sub>2</sub> (est 20%)<br><br><b>Possible measures to achieve energy savings:</b><br>- Innovative (slim) constructions,<br>- use of 'green' electricity<br>- use of energy saving transport<br>methods of materials<br>- local generation of energy | There is no research into<br>products or producers<br>with the lowest CO <sub>2</sub><br>emissions.<br><br>The tender shall be<br>carried out in such a way<br>that the provider who<br>wins does its utmost best<br>to reduce emissions that<br>are the result of its work<br>processes and in addition<br>also offers the product<br>that emits the least CO <sub>2</sub> .<br>(see top row). | See first page in this<br>table                                   |
|  |                                 | <b>Contract type</b> (supply, framework,<br>service etc.):<br><br><b>Contract length and timing</b> (if<br>relevant):<br><br><b>Contract value/volume</b> (if known):<br><br><b>Procurement procedure to be followed</b><br>(open, restricted, competitive dialogue<br>etc.):   |  |   |   |