

Clean Development Mechanism South Africa  
Designated National Authority



energy

Department:  
Energy  
REPUBLIC OF SOUTH AFRICA

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## Project Design Document (PDD)

Project reference number (office)	
Date received (office use only)	

**NOTES ON COMPLETING THIS PROJECT DESIGN DOCUMENT**

1. Please provide this PDD in both hard-copy

### Part A: Project Proponent Details

Project Name	
Date of Submission of PDD	

Project Developer	
Name	<i>Name of project company/ developer (Note: this is the name of the project owner NOT the name of any other party acting on behalf of the project owner)</i>
Organizational Category	<i>Select most applicable: National Government/ Government Agency/ Provincial Government/ Municipality/ Private Company/ Non-Governmental Organisation/ Other (give details)</i>
Legal Status	<i>For example: Privately held company/ limited company/ limited partnership etc.</i>
Street Address	

Postal Address (if different from above)	
Website Address	
Main Activities	<i>(Not more than 1 paragraph)</i>
Summary of Financial Performance in last fiscal year	<i>Summarise financials (total assets, revenues, profits etc) in 5 lines or less</i>
Contact Person(s)	
Telephone	Work: Cell:
Fax	
Email Address	
<b>Project Partners</b>	
Provide the following Information for <b>all</b> project partners (copy and paste relevant sections of the table if information is to be provided on more than one partner organisation)	
Name	
Nature of partner	<i>Describe nature of relationship with partner</i>
Organizational Category	<i>Select most applicable: National Government/ Government Agency/ provincial Government/ Municipality/ Private Company/ Non-Governmental Organisation/ Other (give details)</i>
Legal Status (if private company)	<i>For example: Privately held company/ limited company/ limited partnership etc.</i>
Street Address	
Postal Address (if different to Street Address)	
Website Address	
Main Activities	

	<i>(Not more than 1 paragraph)</i>
<b>Contact Person(s)</b>	Name
<b>Telephone</b>	Work: Cell:
<b>Fax</b>	
<b>Email Address</b>	
<b>Contractual Arrangements</b>	
<b>Contractual arrangements between various entities involved</b>	<i>Provide a brief description of the contractual and/or legal relationship(s) between the various key business entities including owner(s) of the future CERs. (If applicable)</i>

## **Part B: Project Overview (Technical Summary, Location and Schedule)**

<b>Technical Summary of the project</b>	
<b>Objective of the Project</b>	<i>Describe in less than 5 lines</i>
<b>Project Description</b> <i>Present a brief description of the project (approximately ½ page A4)  Identify the main processes and activities involved in the project. A flow diagram showing the processes/materials and/or products involved may be used to complement the description (over and above the ½ page A4).</i>	

## Technical Summary of the project

### Project Constraints

Are there any constraints affecting project operations or commissioning? (*Brief description: 1 paragraph or less*) *Note: these may be due to energy supply, infrastructure, other resources etc.*

### Technology to be employed

*Describe in less than 5 lines.*

*Is the technology one that has been previously tried and tested in South Africa or internationally? If yes, provide details (1 paragraph)*

*Have the project operators had any previous experience or expertise with operating the technology?  
If yes - provide brief details (1-2 lines)*

### Greenhouse Gases Targeted

*Identify which greenhouse gas(es) this project will target.*

*Note: CDM projects must result in a reduction of one of the following greenhouse gases: CO<sub>2</sub>/ CH<sub>4</sub>/N<sub>2</sub>O/HFCs/PCFs/SF<sub>6</sub>*

### Emission reductions

*Indicate the expected emission reductions that will occur due to the project.*

*Note: please provide annual and total emission reductions in tonnes CO<sub>2</sub> equivalent*

<b>Technical Summary of the project</b>	
<b>Baseline &amp; Additionality Assessment</b>	<i>Provide an indication of the baseline and additionality approach to be used, with a brief explanation of why the project is additional as defined under the Kyoto Protocol.</i>
<b>Monitoring</b>	<p><i>Describe the parameters that will be used as performance indicators that will be monitored to verify that emissions reductions are taking place.</i></p> <p><i>Note: parameters may include emissions output, energy production, energy sales, environmental impacts etc.</i></p>
<b>Type of project/activities</b>	<i>Identify which type of activity is involved in this project - and for each, provide brief details</i>
a. Energy Supply	<p><i>Select if applicable: Renewable Energy (excluding biomass)/ Biomass/ Cogeneration/ Improving energy efficiency by replacing existing equipment/minimization of transport and distribution/ fuel switch/ other</i></p> <p><i>Provide details (1-2 lines)</i></p>
b. Energy Demand	<p><i>Select if applicable: Replacement of existing 'household equipment'/ improvement of energy efficiency of existing production equipment/ other</i></p> <p><i>Provide details (1-2 lines)</i></p>
c. Industrial Process	<i>Provide details (1-2 lines)</i>
d. Transport	<p><i>Select if applicable: More efficient engines for transport/ modal shift/ fuel switch/ other</i></p> <p><i>Provide details (1-2 lines)</i></p>
e. Waste Management	<p><i>Select if applicable: Capture of landfill methane emissions/ utilization of waste and waste water emissions/ other</i></p> <p><i>Provide details (1-2 lines)</i></p>
f. Forestry/ land use	<i>Provide details (1-2 lines)</i>
g. Other	<i>Provide details (1-2 lines)</i>
<p><b>Project Boundary</b>  Define the Project Boundary (Approximately 1 paragraph)  <i>Note: a project boundary refers to all emissions which are under the control or directly affected by the project activity. Such a boundary can encompass equipment, processes and process flows.</i></p>	

## Technical Summary of the project

Indicate Emissions outside the Project Boundary

*Note: Significant and measurable net emissions of GHG that are attributable to the project outside of the project boundary*

## Location of the Project

Province

Municipality

Nearest city/large town

Brief description of the location of the project site

*No more than 3-5 lines*

## Project Schedule/Timetable

Earliest Project Start Date

*Year/month*

When is the expected first year of CER delivery

*Year*

Project Lifetime

*No. Years*

Project End Date

*Year/month*

Crediting Period

*Has a crediting period for the project been identified?  
If yes - which option has been selected (10 years or X times 7 years, with reassessment of baseline for each 7 year renewal?)*

Current Status or phase of the project

*Select most applicable:  
Under discussion/ planning/preparation/construction or other actions already commenced/ Other (explain)*

*Please provide brief details (1-2 lines)*

DNA Approval

*Has this project been submitted to the DNA for approval previously?*

*If yes - provide date of last submission and brief details of the response from the DNA (1 paragraph)*

Project Schedule/Timetable	
	<i>Provide details of any other official response by the DNA regarding this project</i>
Approval by other bodies	<i>Has this project (or any elements of the project) been submitted to any other national, provincial or local government departments or agencies for regulatory or legal approval (excluding EIA process - see Part C). If so - provide brief details.</i>

## Part C: Performance Against the DNA's Sustainable Development Criteria

South Africa has identified the following sustainable development criteria and indicators against which each CDM project will be assessed. Please provide your interpretation of how this project will address each of these **criteria and indicators** where they are relevant to the project. If the space provided is not sufficient please append additional information as required.

**NOTE:** For all indicators which are of relevance to the project show how the performance of the project against these indicators can be objectively monitored and measured on an ongoing basis.

**1. Economic: Does the project contribute to national economic development?**

Please give details (1 paragraph)

**2. Social: Does the project contribute to social development in South Africa?**

Please give details (1 paragraph)

<p><b>3. Environmental: Does the project conform to the National Environmental Management Act principles of sustainable development?</b></p> <p>Please provide brief comment for each of these below.</p>	
<p>i) That the <b>disturbance of ecosystems and loss of biological diversity</b> are avoided, or where they cannot be avoided, are minimised and remedied</p>	<p><i>(1 paragraph)</i></p>
<p>ii) That <b>pollution and degradation of the environment</b> are avoided, or where they cannot be altogether avoided, are minimised and remedied</p>	<p><i>(1 paragraph)</i></p>
<p>iii) That the <b>disturbance of landscapes and sites that constitute the nation's cultural heritage</b> is avoided, or where it cannot be altogether avoided, is minimised and remedied</p>	<p><i>(1 paragraph)</i></p>
<p>iv) That <b>waste is avoided</b>, or where it cannot be altogether avoided, minimised and reused or recycled where possible and otherwise disposed of in a responsible manner</p>	<p><i>(1 paragraph)</i></p>
<p>v) That the <b>use and exploitation of non-renewable resources is responsible and equitable</b>, and takes into account the consequences of the depletion of the resource</p>	<p><i>(1 paragraph)</i></p>
<p>vi) That the <b>development, use and exploitation of renewable resources is responsible and equitable</b>, and takes into account the consequences of the depletion of the resource.</p>	<p><i>(1 paragraph)</i></p>

<p>vii) That a <b>risk averse and cautious approach</b> is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions</p>	<p><i>(1 paragraph)</i></p>
<p>vii) That <b>negative impacts on the environment and on people's environmental rights</b> be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied</p>	<p><i>(1 paragraph)</i></p>
<p><b>Other comments</b> Please provide any other comments on how this project contributes to sustainable development in South Africa (optional)</p>	

## Indicators in Support of the Project Approval Criteria

	Category	Indicator	Comment
Environmental	Impact on local environmental quality	<ul style="list-style-type: none"> <li>• Impact of the project on air quality</li> <li>• Impact of the project on water pollution</li> <li>• Impact of the project on the generation or disposal of solid waste</li> <li>• Any other positive or negative environmental impacts of the project (such as impacts on noise, safety, visual impacts, or traffic)</li> </ul>	Please comment on the impact of the project on local environmental quality. Comment specifically on the indicators of relevance which are given here. (1 paragraph)
	Change in usage of natural resources	<ul style="list-style-type: none"> <li>• Impact of the project on community access to natural resources</li> <li>• Impact of the project on the sustainability of use of water, minerals or other non renewable natural resources</li> <li>• Impact of the project on the efficiency of resource utilisation</li> </ul>	Please comment on the impact of the project on the usage of natural resources. Comment specifically on the indicators of relevance which are given here. (1 paragraph)
	Impacts on biodiversity and ecosystems	<ul style="list-style-type: none"> <li>• Changes in local or regional biodiversity arising from the project</li> </ul>	Please comment on the impact of the project on biodiversity and ecosystems. Comment specifically on the indicators of relevance which are given here. (1 paragraph)

## Indicators in Support of the Project Approval Criteria

	Category	Indicator	Comment
Economic	Economic impacts	<ul style="list-style-type: none"> <li>• Impact of the project on foreign exchange requirements</li> <li>• Impact of the project on existing economic activity in the area</li> <li>• Impact of the project on the cost of energy</li> <li>• Impact of the project on foreign direct investment</li> </ul>	<p style="color: green;">Please comment on the economic impacts of the project. Comment specifically on the indicators of relevance which are given here. (1 paragraph)</p>
	Appropriate technology transfer	<ul style="list-style-type: none"> <li>• Positive or negative implications for the transfer of technology to South Africa arising from the project</li> <li>• Impacts of the project on local skills development</li> <li>• Demonstration and replication potential of the project</li> </ul>	<p style="color: green;">Please comment on the impacts of the project on appropriate technology transfer. Comment specifically on the indicators of relevance which are given here. (1 paragraph)</p>

## Indicators in Support of the Project Approval Criteria

Category	Indicator	Comment
Social	<p>Alignment with national provincial and local development priorities</p> <ul style="list-style-type: none"> <li>• How the project is aligned with provincial and national government objectives</li> <li>• How the project is aligned with local developmental objectives</li> <li>• Impact of the project on the provision of, or access to, basic services to the area</li> <li>• Impact of the project on the relocation of communities if applicable</li> <li>• Contribution of the project to a any specific sectoral objectives (for example, renewable energy targets)</li> </ul>	<p>Please comment on how the project is aligned with national, provincial and local development priorities. Comment specifically the indicators of relevance to the project which are given here. (1 paragraph)</p>
	<p>Social equity and poverty alleviation</p> <ul style="list-style-type: none"> <li>• Impact of the project on employment levels? (specify the number of jobs created/lost; the duration of time employed, distribution of employment opportunities, types of employment, categories of employment changes in terms of skill levels and gender and racial equity)</li> <li>• Impact of the project on community social structures</li> <li>• Impact of the project on social heritage</li> <li>• Impact of the project on the provision of social amenities to the community in which the project is situated</li> <li>• Contribution of the project to the development of previously underdeveloped areas or specially designated development nodes</li> </ul>	<p>Please comment on the impact of the project on social equity and poverty alleviation. Comment specifically on the indicators of relevance which are given here. (1 paragraph)</p>

### Indicators in Support of the Project Approval Criteria

Category	Indicator	Comment
General	General Project Acceptability <ul style="list-style-type: none"><li data-bbox="506 500 890 578">• Are the distribution of project benefits deemed to be reasonable and fair?</li></ul>	Please comment on whether the benefits occurring from the project due to the contribution of the CDM are reasonable and fair. (1 paragraph)

## Part D: Finance

Project Costs	
Development Costs (R's )	
Installed Costs (R's)	
Other Costs (R's)	
Total Project Costs (R's)	
Sources of Finance	
Equity	<i>Name of Organisation(s) and amount (R's) contributed by each</i>
Debt (long term)	<i>Name of organization(s) and amount (R's) for each</i>
Debt (short term)	<i>Name of organization(s) and amount (R's) for each</i>
Amount not identified (R's)	<i>Amount (R's) and a brief summary of the needs and any outstanding issues (1 paragraph or less)</i>
Total CDM Contribution sought	<i>Amount (R's) and a brief summary of the needs and any outstanding issues (1 paragraph or less)</i>
Expected Price of CER in case of a contract to purchase for: A period of 7 years A period of 10 years A period of 14 years (2x7 years)	<i>Price? (R's) Price? (R's) Price? (R's)</i>
Indicate the <b>projected Internal Rate of Return</b> for the project with and without CER revenues.	<i>Note: Please indicate assumed price of CER as used in your calculation</i>

<b>Constraints on tradability of carbon credits</b>	<i>Have any commercial arrangements been made that may impact the tradability of the carbon emission reductions? If yes, please define. Note. Examples would be subjection to a mortgage, government tax etc.</i>
<b>Preliminary discussions with potential purchasers</b>	<i>Have you had any preliminary discussions with any potential purchasers of the carbon credits (CERs) If yes, please give brief details.</i>