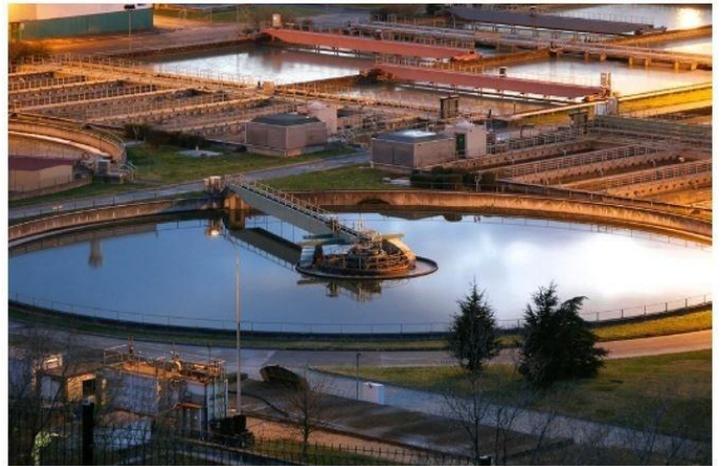
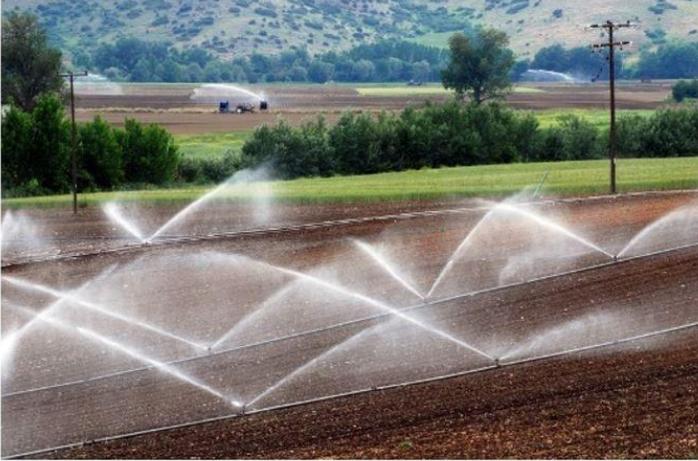


# The Gold Standard®



## The Gold Standard Water Benefit Standard

### Financial Needs Assessment (beta)

## Eligibility

Water projects submitted for certification under the Gold Standard Foundation's Water Benefit Standard (WBS) shall demonstrate that they are not financially feasible without annual Water Benefit Certificate (WBC) revenues earned over the proposed project period. The Project Representative (PR) shall conduct a Financial Needs Assessment of the project as part of the initial certification of a project, a Programme of Activities (PoA), or when adding a Component Project (CP) to an existing certified PoA. This Financial Needs Assessment shall be conducted at the CP level for a PoA and the investment analysis presented both with and without the additional CP element.

A Financial Needs Assessment is also required of an existing project that is proposed to be scaled-up with WBC funding. In this case, the PR shall submit ex post financial results for the existing project and an ex ante financial forecast for the proposed scaled-up project.

A Financial Needs Assessment is required of an existing project applying for certification and issuance of retroactive WBC funding. In this case, the PR shall submit ex post financial results clearly demonstrating that the project has under-performed financial expectations and is not expected to be viable during the WBC funding period. Evidence demonstrating such under-performance shall be as defined in Step 3 - Alternative 2 below described below.

### Track 1 - Positive List Financial Disclosure

If the project complies with the Positive List criteria defined in the "Water Benefits Standard Requirements Document", then Project Certification shall not be dependent on the outcome of a financial needs assessment. However, the PR shall still be required to prepare and submit a financial forecast and sensitivity analysis for the WBC revenue period as illustrated in Annex 1 to this Financial Needs Assessment guidance document and provide documentation of anticipated revenues and costs.

### Track 2 –Financial Needs Assessment

If the project does not comply with the Positive List criteria, then the PR shall prepare a financial analysis and demonstration of financial need as set forth below. The PR shall analyse forecasted project financial performance with and without WBC revenues using the methodology described in this guidance. Projects that are comprised of business-as-usual activities shall not be eligible for WBC certification.

The steps of the process are given below.

### **Step 1: Project and Baseline Conditions Definition**

Project conditions are the revenues, expenses, and capital assets that are expected to be generated directly as a result of the project. Baseline conditions are defined as the most likely course of events if the project is not implemented.

If there are no credible structural or programmatic alternatives to implementing the proposed project, the project is then considered to be identical to baseline conditions and the project is therefore does not pass the Financial Needs Assessment. Alternative structural or programmatic alternatives to the project shall be prepared for subsequent analysis in Step 2. Alternatives other than defined baseline conditions shall only be dismissed if:

- The alternative provides an undesirable level of service;
- Each alternative providing the same or a higher level of service is not feasible in the specific local project context.

### **Step 2: Legal Requirements Assessment**

The PR shall analyse the relevant national, regional and local legal requirements concerning the project and alternatives established in this Step 2. If implementation of the project is the only legal course of action, the project is defined to be identical to baseline conditions and the financial needs assessment is considered moot and the project rejected.

If the project provides a service that is mandated by law or any other regulation, the project must provide a higher level of service than at least one other legally compliant alternative to the implementation of the project.

Laws or regulations need not to be considered if the PR can demonstrate that these laws or regulations are systematically not enforced in the country or region in which the project is to be located.

Changes to existing legislation do not need to be taken into consideration if they occur after the decision to certify the project has occurred, unless the PR can be reasonably expected to having been aware of an imminent change <sup>[4]</sup>. The list of legally compliant alternatives to the project established in this Step 2 shall be used for subsequent analysis in Step 3.

### **Step 3: Investment Analysis**

The PR shall positively demonstrate a financial need for the proposed project using either a Barrier Analysis or Investment Analysis test, as described below.

### Alternative 1: Barrier analysis Test

A project passes the Barrier Analysis Test if it can be shown that barriers exist that:

- Prevent the realization of the project, and
- Do not prevent the realization of at least one legally compliant alternative established in Step 2.

The PR shall demonstrate how registration as a WBC project alleviates the barrier(s). Barriers can include the following categories:

- Investment (other than insufficient returns)
- Institutional
- Technological
- Local tradition
- Prevailing practice
- Local ecological conditions
- Local social conditions
- Land tenure, ownership, inheritance and property rights

Barriers shall be:

- Credible
- Material
- Able to be validated
- Relevant to the project, but not limited only to the proposed project, (i.e. a similar would face the same barriers)

If one of the conditions above cannot be met, the PR shall demonstrate the financial need via the Investment Analysis (Step 3 - Alternative 2).

### Alternative 2: Investment Analysis Test

The Investment Analysis Test shall be used to demonstrate whether or not the proposed project is:

- (a) Not the most economically or financially attractive. Not financially feasible without WBC revenues;

OR/AND

- (b) Not economically or financially feasible without the revenue from the sale of WBCs, where financial feasibility is defined by Return on Investment (ROI), Payback, and/or Net Present Value (NPV).

If the project is the most financially feasible when compared with the alternatives defined in Step 2, the project cannot claim a financial need based on the investment analysis. In this case the PR shall attempt to demonstrate financial need via the Barrier Analysis Test (Step 3 - Alternative 1).

A project shall be deemed to pass the Investment Analysis Test if one of the following criteria can be demonstrated.

- 1 – Simple Cost Analysis:** It is demonstrated that the project is projected to generate no revenue other than WBC revenues. Grants made to the project or to the PR do not automatically count as other revenues. A Simple Cost Analysis shall include: 1) an itemization and forecast of annual operations, maintenance, renewal and replacement costs for each year of the Benefit Period, 2) a listing of known grants that would directly or indirectly benefit the Project Activity, and 3) the years such grant revenues are expected to be available. The analysis shall be conducted both with and without WBC revenues using unit prices adopted by the Gold Standard Foundation as of the date of the Project Design Document. Costs shall account for inflation.

The analysis shall include calculation of costs per unit volume of water over the proposed benefit period. The discount rate applied shall be as adopted by the Gold Standard Foundation as of the date of the Project Design Document.

- 2 – Investment Benchmark Analysis:** It is demonstrated that the project is financially less attractive than at least one other alternative established in Step 2. The analysis shall include annual operations, maintenance, renewal and replacement costs for each year of the Benefit Period and a listing of anticipated revenues including tariffs, government transfers, as well as grants that would directly or indirectly available to project accounts. The analysis shall be conducted both with and without WBC revenues using unit prices as adopted by the Gold Standard Foundation as of the date of the Project Design Document. Costs shall account for inflation.

The PR shall not disclose confidential information in publicly accessible documents. Alternately, documentation reasonably required to substantiate the assumptions and conclusions of this Financial Needs Assessment shall be made available for inspection by the Secretariat or the auditor.

If the PR is applying for issuance of WBCs retroactive to the date that the project began operations, the PR shall submit detailed ex post financial results clearly demonstrating that the project has under-performed financial expectations and is not expected to be viable during the WBC funding period. Underperformance shall be defined as: 1) chronic operating losses, 2) inability to secure grant funding, 3) inability to secure additional debt financing, and/or 4) insufficient return on investment due to changed financial conditions.

### Sensitivity Analysis

The PR shall conduct a sensitivity analysis of key parameters and assumptions made in the Financial Needs Assessment. At a minimum, the sensitivity analysis shall test for financial feasibility due to changes in the inflation rate, discount rate, upfront capital cost, and annual operating costs.

The auditor shall take the sensitivity analysis into account to assess the significance of the Investment Analysis Test results. The auditor may reject a financial needs claim if the sensitivity analysis suggest that the results are not sufficiently robust.

### Step 4: Common Practice Test

The developer PR shall demonstrate that any Project Activity demonstrating financial need under Track 2 is not common practice in the local area, region or country in which the project is proposed to be located.

If widespread application of project technologies and practices is observed, the PR shall demonstrate that essential distinctions exist that justify the project's financial needs notwithstanding.

Figure 1 Sample investment Analysis

<b>INVESTMENT ANALYSIS</b>												
<b>Proposed Project Activity, Component Project or Programme of Activities</b>												
Year	0	1	2	3	4	5	6	7	8	9	10	
Water Volume, m3/yr		1,000	2,000	3,000	4,000	5,000	5,000	5,000	5,000	5,000	5,000	
Upfront Capital Cost	100,000	-	-	-	-	-	-	-	-	-	-	
Less Capital Grants	(10,000)											
Total Capital Cost	90,000											
<b>Annual Operating Costs</b>												
Operations - Labor		5,000	5,250	5,513	5,788	6,078	6,381	6,700	7,036	7,387	7,757	
Operations - Purchased Electric Power		2,000	2,100	2,205	2,315	2,431	2,553	2,680	2,814	2,955	3,103	
Operations - Chemicals		1,500	1,575	1,654	1,736	1,823	1,914	2,010	2,111	2,216	2,327	
Maintenance - Preventative		500	525	551	579	608	638	670	704	739	776	
Maintenance - Routine		1,000	1,050	1,103	1,158	1,216	1,276	1,340	1,407	1,477	1,551	
Total Operating Costs		10,000	10,500	11,025	11,576	12,155	12,763	13,401	14,071	14,775	15,513	
Asset Renewal and Replacement		500	500	500	500	500	500	500	500	500	500	
Total Gross Costs		90,000	10,500	11,000	11,525	12,076	12,655	13,263	13,901	14,571	15,275	16,013
Less Tariff Revenue		-	-	(500)	(500)	(1,000)	(1,000)	(1,500)	(1,500)	(2,000)	(2,000)	
Less Other Operating Grants		-	-	-	-	-	-	-	-	-	-	
Less Government Transfer Revenue		(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	
Less Water Benefit Certificate Revenue		(7,500)	(15,000)	(22,500)	(30,000)	(37,500)	(37,500)	(37,500)	(37,500)	(37,500)	(37,500)	
Total Net Costs		90,000	2,500	(4,500)	(11,975)	(18,924)	(26,345)	(25,737)	(25,599)	(24,929)	(24,725)	(23,987)
<b>RETURN ON INVESTMENT</b>	<b>11.6%</b>	<i>Benchmark used to compare the Project Activity with other scenarios or investment criteria</i>										
<b>NET PRESENT VALUE</b>	<b>(41,134)</b>	<i>Benchmark used for projects not expected to generate revenues other than WBC revenue</i>										
<b>LEVELIZED COST OF WATER</b>	<b>3.36</b>	<i>Other financial feasibility metric</i>										
<b>SIMPLE PAYBACK</b>	<b>7</b>	<i>Other financial feasibility metric</i>										

Units are in local currency except where noted												
Analysis period shall conform to the proposed WBC benefit period, including renewals.												
Nominal Inflation Rate	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	
Discount Rate	5.0%											
Water Benefit Certificate, USD/m3	7.50											
Cumulative Cash Flows for Payback calculation	(2,500)	2,000	13,975	32,899	59,244	84,981	110,580	135,509	160,234	184,221		

Return on Investment shall be calculated using an iterative internal rate of return formula (IRR) in Microsoft Excel (or equivalent):  $i_0 = i_1 + \frac{(i_2 - i_1) \times (NPV)_1}{(NPV)_1 - (NPV)_2}$ . The internal rate of return is the discount rate that gives an NPV of zero.

Payback is a simple measure of a project's ability to repay the original capital outlay. It shall be calculated using the following formula:  $Payback, \text{ years} = \frac{C_0}{\sum_1^N C_n}$

Net present value shall be calculated using the following equation:  $NPV = \sum_1^N \frac{C_n}{(1+i)^n} - C_0$  where  $C_n$  refer to Cash Flows associated with a project in each benefit year  $n$ ,  $i$  refers to the discount rate, and  $C_0$  refers to the initial capital outlay for the project.

Levelised water cost (LWC) is an economic assessment of the cost of a water project including all costs incurred over its lifetime: initial investment, annual operations costs, annual maintenance costs, and periodic

asset renewal and replacement costs. It shall be calculated using the following formula:  $LWC = \frac{\sum_{t=1}^n \frac{C_0 + C_t}{(1+i)^t}}{\sum_{t=1}^n \frac{W_t}{(1+i)^t}}$ , where

$C_0$  refers to the initial capital outlay for the project,  $C_t$  refers to the annual costs of running the project, and  $W_t$  refers to the amount of water produced, saved, or treated by the project each year.