# Site Assessment

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Date of visit: |  | Time:  |  | Name of Turbulent representative |  | Form Nr.  |  |

## General Project information

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| --- | --- |
| Project name:  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Contact person: |  | Email: |  | Phone no: |  |

|  |  |
| --- | --- |
| Village/City/Country |  |
| GPS coordinates (latitude, longitude) |  |
|   |   |   |  |  |   |   |   |   |

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| Electric Generation Potential  |  |  |  |  |
| Height difference*(between up- and downstream water level)* |  | M | Ft | Flow to be used (\*) |  | m³/s | CFS |   |
|  |   |   |  |  |  |

**Flow Duration information**

If there are fluctuations to the usable flow please indicate in this table how the flow varies.

Fill each box with

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |
| (\*) | (\*\*) | … |  |  |  |  |  |  |  |

(\*) Fill in the flow that is available 10% of the time (per year)

(\*\*) Fill in the flow that is available 20% of the time (per year)

… and similar for all other boxes.

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| --- | --- | --- | --- | --- |
| **Energy generation requirements** |  |  |  |  |
| Off/On-grid? | On/Off |   | If on-grid, power needed during blackout? | Yes/no |  |
| What is your current energy cost per kWh? |  | €/kWh$/kWh | If off-grid, what energy generation are you currently using *(Diesel genset, solar,...)* |  |  |
| Needed AC frequency | 50 / 60 | Hz | 3 phase or 1 phase | 3 / 1 |   |
| Voltage (Phase to Neutral) | 220/240/120/… | V |  |  |  |
| Total yearly energy consumption |  | kWh/y | Peak power demand |  |  kW |

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| --- | --- | --- | --- | --- |
| **Energy distribution information** |  |  |  |  |
| Amperage rating of main breaker |  | A | Amount of households (if applicable) |  | # |
| Distance to electrical connection point *(electrical cabinet, transformer, pole)* |  | m/Ft |  |  |  |

|  |  |
| --- | --- |
| **Permitting information** |  |
| Permitting state for water use? | Todo/Done/NA |  | Permits needed/available for land user use? (state, community) | Todo/Done/NA |  |  |
| Permitting state for grid connection ? | Todo/Done/NA |  | Environmental permits needed/available for the project? | Todo/Done/NA |  |

|  |  |  |
| --- | --- | --- |
| **Varia** |  |  |
| Sluice gate automationrequired*(for flood protection and turbine safety)* | Yes / No |  | Number of sluices |  |  |  |

|  |
| --- |
| **Elevation map or side view of site with distances and heights (specify m or ft)** |
| Be sure to clearly measure the height difference between upstream and downstream water level and to indicate how much this head difference can change. Clearly indicate the depth of the water (water level to bottom) for both up- and downstream water levels. Be sure to measure the dimensions of the downstream area where the turbine will be installed.  |
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| **River sketch of the planned location of the turbine (add distance to electrical connection point)** |
| Measure how wide and deep the river is in the downstream direction. We need to know this to see if the whole structure will fit.  |
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| **Notes** |
| Does the site head change due to changing flows or tidal effects? If so, give a range.Are there important details to know? Safety system needed for sluice gate? Does the flow change suddenly (ex. Upstream weir gate that opens suddenly, sluice gate near turbine that controls flow) |
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