|  |  |
| --- | --- |
|  | **Anexo XXV.**  **Ficha técnica descriptiva: Sistemas Fotovoltaicos Autónomos** |

|  |
| --- |
| **No. DE FOLIO DE LA SOLICITUD** |
|  |
| **1. NOMBRE DEL PROYECTO OBJETO DE LA INVERSIÓN** |
|  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2.** **COORDENADAS GEOGRÁFICAS DE LA UNIDAD PRODUCTIVA** | | | | | | | | |
| Latitud |  | | Longitud |  | | Elevación |  | m.n.s.m |
| Promedio anual T° | |  | °C |  |  | |  | |

2.1 Anexar Croquis de Localización

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **3. REFERENCIAS ADICIONALES DEL SOLICITANTE** | | | | | | | | | | | | | | | |
| 3.1. No. de Beneficiarios | Hombres | |  | | | Mujeres |  | | Morales | |  | Total | |  | |
| 3.2. No de Beneficiarios pertenecientes a una etnia indígena | | | | | | | Hombres | |  | | Mujeres |  | Total | |  |
| Especifique la etnia a la que pertenece | | | | | |  | | | | | | | | | |
| 3.3 Generación de empleos | | | | Directos permanentes | | | Hombres | |  | Mujeres | |  | Total | |  |
|  |  | | | Temporales | | | Hombres | |  | Mujeres | |  | Total | |  |
| 3.4. Actividad productiva | | | | | | | | | | | | | | | |
| 3.5. Total unidad productiva | |  | | ha | 3.6. Superficie agrícola | | |  | ha | 3.7. Superficie agostadero | | |  | | ha |
| 3.8 Cultivo |  | | | 3.9. Superficie | | |  | | 4.10. Volumen de producción | | | |  | | T/año |

|  |  |
| --- | --- |
| **4. OBJETIVO DEL PROYECTO** | |
|  | |
| **5. METAS Y/O BENEFICIOS DEL PROYECTO (CUANTITATIVAS)** | |
| Meta 1 |  |
| Meta 2 |  |
| Meta 3 |  |

**6. ASPECTOS TÉCNICOS DEL PROYECTO**

6.1. Características actuales del sitio

6.1.1. Condiciones climáticas del sitio

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A) Temperatura promedio/día |  | °C |  | B) Precipitación anual |  | mm |  | C) No. de días nublados |  | días |

6.1.2. Fuente de abastecimiento

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A) Tipo de fuente: | | |  |  |  |  |  |  |  | | |  | | B) Profundidad del pozo | | | | |  | | | m | |
|  | Manantial |  |  |  |  |  |  |  |  | | |  | | C) Nivel estático | | | | |  | | | m | |
|  | Río |  |  |  |  |  |  |  |  | | |  | | D) Nivel dinámico | | | | |  | | | m | |
|  | Noria |  |  |  |  |  |  |  |  | | |  | | E) Profundidad de abatimiento | | | | |  | | | m | |
|  | Pozo |  |  |  |  |  |  |  |  | | |  | | F) Capacidad de la fuente | | | | |  | | |
|  | Otro |  |  | Especifique |  |  | | | | | |  | |  |  |  |  | |  | | |  |  | |
| G) Número de Título de Concesión expedido por la CONAGUA | | | | | | | | | | |  | | | | | | | | | |
| H) Distancia de la red eléctrica | | | | | | | | | |  |  | | km | | | | |  | |  |

6.2. Descripción del sistema de bombeo actual (En caso de contar con uno, pase al Apartado

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A) Tipo de equipo | |  | |  | |  | |  |  |  | | Combustión, etc. | | | |
| B) Capacidad |  |  | |  | |  | |  |  |  | | Hp | | |  | | |  | |
| C Volumen bombeado | |  | |  | |  | |  |  |  | | m3/día | |  | |
| D) Tipo de combustible que utiliza actualmente | | | | | | | | |  | |  | Diésel |  | | | | Gasolina | | | |  |  | Otro | | | |  | Especificar | |  | |
| E) Consumo máximo de combustible del sistema de bombeo actual | | | | | | | | | | | | | | | |  | | |  | litros/hora | | | |
| F) Horas de operación | | |  | |  | | h/día | | G) Días operación | | | | |  | | | | |  | días/semana | | | | |  | H) Semanas operación | | |  | | Sem/año | |

6.3. Demanda de agua de la Unidad Productiva

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Mes** | **Demanda de agua (m3/día)** | | | | **Horas solares** | **Caudal de bombeo** | |
| **Abrevadero** | **Irrigación** | **Uso doméstico** | **Total** | **m3/hr** | **l/seg** |
| Enero |  |  |  |  |  |  |  |
| Febrero |  |  |  |  |  |  |  |
| Marzo |  |  |  |  |  |  |  |
| Abril |  |  |  |  |  |  |  |
| Mayo |  |  |  |  |  |  |  |
| Junio |  |  |  |  |  |  |  |
| Julio |  |  |  |  |  |  |  |
| Agosto |  |  |  |  |  |  |  |
| Septiembre |  |  |  |  |  |  |  |
| Octubre |  |  |  |  |  |  |  |
| Noviembre |  |  |  |  |  |  |  |
| Diciembre |  |  |  |  |  |  |  |
| **Promedio mensual** |  |  |  |  |  |  |  |

6.4. Módulos fotovoltaicos

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A) Marca |  |  | B) Modelo |  |  | C) Potencia Máxima |  |  | Wp |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| D) Número de Celdas | | | |  | |  | |  | |  | |  | | E) Tipo de Módulo FV | | | |  | Si-Monocristalino | | | | F) Certificación de Módulos | | | | | | | | |  | | UL 1703 | | | |
|  |  |  |  |  | |  |  |  | |  | |  | |  |  |  |  |  | Si-Policristalino | | |  |  |  |  |  |  | | |  | | |  | IEC 61215 | | | |
|  |  |  |  |  | |  |  |  | |  | |  | |  |  |  |  |  | Si-Amorfo | | |  |  |  |  |  |  | | |  | | |  | IEC 61646 | | | |
|  |  |  |  |  | |  |  |  | |  | |  | |  |  |  |  |  | CdTe | |  |  |  |  |  |  |  | | |  | | |  | Ninguno | | | |
| G) Fecha de Manufactura | | | | | |  | |  | |  | |  | |  |  |  |  |  | Otro |  |  | | | |  | | |  | | |  | | |  |  | |  | |
|  |  |  |  |  | |  |  |  | |  | |  | |  |  |  |  |  |  |  | Especificar | | | |  | | |  | | |  | | |  |  | |  | |
| H) País de Origen | | | | |  | | | |  | |  | | I) Dimensiones del módulo (LxAxH)(mm) | | | | | |  | | | x | |  | | | | | x | | |  | | | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| J) Peso | |  | | | Kg |  |  |  | K) Eficiencia | | |  | | | % |  |  |  | L) Temp. de operación | | | | | de |  | °C |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | a |  | °C |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| M) Vida útil |  |  | Años |  | N) Garantía |  | Años |

6.5. Bomba

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A) Marca |  |  | B) Modelo |  |  | C) Potencia Máxima |  |  | hp |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| D) País de Origen |  |  | E) Vida útil |  | Años | F) Garantía |  | Años |

6.6. Estructura de soporte

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A) Tipo de | |  |  | Techo |  |  | B) Material de | | |  | Aluminio | |  | C) Acabado o | | |  | Anodizado | | |  |  |  |  |  |
| Fijación | |  |  | Piso |  |  | estructura | | |  | Acero | |  | protección | | |  | Galvanizado en caliente | | | | |  |  |  |
|  |  |  |  | Pared |  |  |  |  |  |  |  |  |  |  |  |  |  | Otro (especifique) | | | |  | | | |
|  |  |  |  | Otro (especifique) | | |  | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| D) área total del |  | m2 |  | E) Peso total de |  |  | | Kg |  | F) Número total de |  |
| arreglo FV |  |  |  | módulos y estructura | |  |  |  |  | puntos de anclaje |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |
| K) Observaciones y/o Comentarios | | | | | | |  |  | | | | | | | | | | | | | | | | | | | | |
|  |  |  |  |  |  | |  |
|  |  |  |  |  |  |  | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |

6.7. Sistema fotovoltaico autónomo

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A) Número de Módulos FV |  |  |  | B) Capacidad Sistema FV |  | kW |  | C) Cap. de generación |  |  | kWh/año |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| D) Volumen bombeado |  | m3/día | E) Cap. de almacenamiento |  | m3 |  | F) Carga dinámica total |  |  | m |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| G) Altura de la descarga |  | m |  | H) Longitud de descarga |  |  | m |

6.8. Cultivo(s) a establecer

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A) Cultivo a establecer bajo riego |  |  | B) Superficie |  | ha |  | C) Rendimiento |  | t/ha |

**7. IMPACTOS DEL PROYECTO**

7.1. Impactos Económicos e Indicadores Financieros

|  |  |  |
| --- | --- | --- |
| **Datos de Entrada** | | |
| **Concepto** | **Monto ($/año)** | **Unidad de medida** |
| Inversión total del proyecto |  | Pesos |
| Costos operación |  | $/Año |
| Costos mantenimiento |  | $/Año |
| Impactos económicos del proyecto |  | $/año |
| Vida útil del proyecto |  | Años |
| Horizonte de evaluación del proyecto |  | Años |
| Periodo de recuperación de la Inversión |  | Años |
| Valor Presente Neto (VPN) |  | $ |
| Tasa Interna de Retorno (TIR) |  | **%** |
| Relación Beneficio Costo (R B/C) |  |  |
| Ahorro por reducción en el consumo de combustibles fósiles |  | $ |
| Otro (Especificar) |  |  |

7.2. Impactos Energéticos y Ambientales

|  |  |  |
| --- | --- | --- |
| Indicadores del Proyecto | Valor | Unidad de medida |
| Generación de Energía Eléctrica en la Unidad Productiva |  | kWh/año |
| Emisiones de GEI generadas actualmente |  | Ton CO2e |
| Reducción de Emisiones de GEI por desplazamiento de Energía |  | Ton CO2e |

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