**2021 CHP RFO**

**Project Description Form**

*Instructions:*

1. *Submit one Project Description Form for each project being submitted for SDG&E’s consideration.*
2. *If offering multiple pricing options for one project, please do so via multiple Offer Forms.*
3. *Use green font for information the Respondent deems to be confidential.*
4. *Limit and focus the discussions so that this form does not exceed 50 pages (10 size font).*
5. ***Company Information***

|  |  |
| --- | --- |
| Company Name Submitting Offer(s) |  |
| Company Legal Name as party to  potential contract(s) (if different) |  |
| Project Name |  |
| Company Street Address |  |
| Company City |  |
| Company State |  |
| Company Zip Code |  |
| How did the company hear of the RFO?   * SDG&E Website * Email from SDG&E * Colleague * Other (please elaborate) |  |

1. ***Company Representative***

|  |  |  |
| --- | --- | --- |
|  | Primary Contact | Secondary Contact |
| Name |  |  |
| Title |  |  |
| Office Phone |  |  |
| Cell Phone |  |  |
| Email Address |  |  |

1. ***Project Summary***

**Resource Origin** *(Check one)*

|  |  |  |
| --- | --- | --- |
|  | New Facility | |
|  | Re-powered Facility | |
|  | Existing Facility with expiring contract with SDG&E or a third-party | |
|  | Upgrading an existing Facility and offering upgraded output to SDG&E | |
|  | Other. Please describe: | |
|  |  | |
| Technology Type *(gas-fired, fuel cell, etc.)* | | |  | |
| Expected Project Completion Date | | |  | |
| Nameplate MW AC*(at 100% project completion)* | | |  | |
| Net Contract MW AC *(at 100% project completion)* | | |  | |
| Capacity Factor | | |  | |
| Expected MWH *(first 12months after 100% project completion)* | | |  | |
| Percent Expected MWH degradation per year (Solar only) | | |  | |
| Project service territory (please select SDG&E, SCE, or PG&E or IID). Indicate other if not included. | | |  | |

1. ***Proposed Facility Location***

*Insert site location map(s) in Section O of this Response Form.*

|  |  |
| --- | --- |
| Project Name |  |
| Site Name *(if different from above)* |  |
| Project Street Address |  |
| Project City, State |  |
| Project Longitude: |  |
| Project Latitude: |  |
| Project parcel numbers: |  |
| Describe merits of proposed site/location. | |
| Discuss status of site control, including required easements. Note that the site control documentation should be in the name of the entity that will sign the PPA. If not, please provide explanation. | |

1. ***System Description***

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| *Provide the system description of the Combined Heat and Power Facility.* |
| *Describe the type of business/facility that will benefit from the useful thermal energy to be supplied by the cogeneration. Include a description of how the thermal energy will be used throughout a representative year and whether there are any hourly, daily or seasonal variations in thermal demand. Describe the system replaced by the CHP facility. Include the requirements of the steam host.* |
| *If the thermal host is an existing business, by what means do they currently take delivery of their thermal energy? Briefly describe the thermal host’s thermal and electrical needs over the term of the contract.* |
| *Does the proposed CHP system allow the shutdown of other major operating equipment (whether heating, cooling, or electric power)? Please describe.* |
| *Describe the technology/configuration being proposed, e.g. Combined Cycle Gas Turbine (1 x 1, 2 x 1, 3 x 1), Simple Cycle Peaker (Number of units), Renewable generation (specify fuel type/source), Reciprocating engine(s), Conventional Fossil (boiler/steam turbine) etc.* |
| *Heat Balance Diagram for each fuel to be permitted. Include the flow (lb/hr), temperature (°F), pressure (psia), and enthalpy (BTU/hr) for all water, steam, combustion air, and fuel streams entering and exiting the boundaries of the generating unit and of each major equipment component.* |

1. ***Equipment Description and Operating Parameters***

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| *Provide a complete equipment description for all major components including: Combustion Turbine Generator, Steam Turbine Generator, HRSG, plant control system, air emissions control equipment, cooling system, major pumps, water treatment system, fuel storage facilities, etc.* |
| *Describe specific design considerations and provide, where appropriate, significant design detail to confirm that the unit has been designed to accommodate planned operations and/or cycling. Components that should be specifically addressed include: combustion and steam turbine systems, HRSGs and water chemistry control systems. Comments should emphasize minimizing maintenance down time, thermal fatigue effects and associated wear and tear.* |

1. ***Proposed Product***

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| Describe the attributes which are and are not bundled within the Respondent’s offer, including Renewable Energy Credits as defined by the CPUC, resource adequacy, ancillary services, etc. |

1. ***Interconnection, Interconnection Application, Delivery Point***

|  |  |
| --- | --- |
| Host Utility/Muni |  |
| Interconnection Point  *(substation name, line or physical description)* |  |
| City, State of Interconnection Point |  |
| Proposed Delivery Point |  |
| Interconnection COD |  |
| Provide an explanation if the Interconnection COD (above) is different than the Expected Project Completion Date specified under the Project Summary Section of this form. |  |
| CAISO Phase II Study  (*or equivalent: System Impact Study or Facility Study from official North American Electric Reliability Corporation Transmission Operator*) |  |
| On what date was the application filed? |  |
| On what date was the study completed? |  |
| Interconnection Agreement |  |
| Has an interconnection application been submitted?  (*please indicate CAISO, Rule 21, or WDAT*) – see above |  |
| Has the project executed an Interconnection Agreement? |  |
| Who is the counterparty to the agreement? |  |
| Entity that requested study and/or signed Interconnection Agreement should be the same as entity that will sign the PPA. If not, please provide explanation. |  |
| Actual Delivery Point per Interconnection Agreement  *(Identify the specific substation, pnode, etc…)* |  |
| Delivery Zone *(NP-15, ZP-26, SP-15)* or  Trading hub *(Palo Verde, Mid-C, Mead, etc.)* |  |
| First Point of Interconnection |  |
| Is a System Impact Study for this project included with the offer? |  |
| If yes: |  |
| Is the study CAISO approved? |  |
| If the study is dated 2006 or earlier, explain why the study and costs are still valid. |  |

1. ***Electric Interconnection Plan and Costs***

*Transmission upgrade plan and costs are vital for SDG&E to assess overall project viability and cost. The absence of this information or providing inaccurate descriptions or costs may render a Respondent’s offer(s) non-conforming, delay the evaluation for the response(s) and/or impact the Respondent’s standing on the short-list.*

|  |
| --- |
| Discuss interconnection plan and status. |
| Please identify any termination clauses or other potential issues with existing Interconnection Agreements (*for existing only*) |
| Provide an itemized cost breakdown of expected interconnection costs attributable to both Respondent and host utility. *(i.e. voltage support costs, reconductoring costs, etc..)*  *(Note that gen-tie costs (including but not limited to: cable, transformers, protection gear and other equipment on the generator side of the meter) attributable to Respondent shall be included in the bid price indicated on the Offer Forms.)* |

1. ***Safety Plan***

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| 1. Please summarize your safety plan for your intended project or program below. If you have a separately documented safety plan, please include it as an attachment in your response. |

1. ***Proposed Technology***

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| Describe the proposed technology: |
| Describe the proposed technology and equipment manufacturer by name and model ( include inverter characteristics if applicable): |
| Discuss the viability of proposed technology and credibility of the manufacturer: |
| Discuss operational reliability of proposed technology and manufacturer. |
| How many projects and MWs with proposed technology have been installed worldwide? Discuss year(s) of installation, project locations, project size at each location and operational success. |
| Discuss and provide published reports demonstrating that the proposed technology is commercially proven. |
| Described the warranty of major components. |

1. ***Fuel Source Plan***

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| If applicable, has a long term fuel contract been executed with a supplier? |
| Discuss project’s overall fuel plan and status. |

1. ***Ownership and Operations***

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| Explain how the Respondent has operational control of the project. (*Either through contractual operational control of the project, or if the Respondent is the project operator.)* |

1. ***Financing Plan***

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| Discuss the project’s financing plan and status, including on-going debt/equity ratio to be carried by the project during construction (if a new facility) and during operation, sources of debt and equity, equity percentage by sponsor, financing organizations (including rates and terms), level of commitment by investors and lenders. (*If anticipating the need for subsidies, grants, Production Tax Credits, Investment Tax Credits or any other third party monetary awards, detail finances associated with monetary awards and discuss how the lack of funding shall impact the offer and deadlines for obtaining such awards*.) |

1. ***Permitting***

*Populate the following table with a list of required permits and anticipated completion. Include CEC RPS Certification and if applicable, water rights.*

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Permit Type/Name** | **Issuing Agency** | **Completion Date** |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
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| --- | --- |
| Has project received  RPS Certification from the CEC? |  |
| If yes: |  |
| Certification No. |  |
| If no: |  |
| Date Application filed or to be filed |  |
| Describe anticipated issues surrounding RPS certification. |  |

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| Discuss plan and status to obtain the permits listed above. Discuss required water rights and status to obtain such rights. Describe scope of assistance from any third party (if applicable). |

1. ***Project Schedule***

|  |  |  |
| --- | --- | --- |
| *No.* | *Milestones* | *Date* |
| 1. | Obtain control of all lands and rights-of-way comprising the Site. |  |
| 2. | File a CEC Pre-Certification and Verification application. |  |
| 3. | Receive a completed [Phase I Interconnection study report] [Interconnection System Impact study report]. |  |
| 4. | Receive CEC Certification and Verification. |  |
| 5. | Files permitting application with appropriate agency(ies). |  |
| 6. | Receive a completed [Phase II interconnection facility study][interconnection system impact study]. |  |
| 7. | Execute Interconnection Agreement and/or Transmission Agreement. |  |
| 8. | Receive permitting approval(s). |  |
| 9 | Execute long term fuel contract. Complete a comprehensive resource assessment. |  |
| 10. | Execute a turbine/panel supply contract. |  |
| 11. | Execute an Engineering, Procurement and Construction (“EPC”) contract. |  |
| 12. | Deliver full NTP under EPC contract and begins construction of the Project. |  |
| 13. | Execute Meter Service Agreement and Participating Generator Agreement. |  |
| 14. | Achieve initial operation. |  |
| 15. | Receive all Governmental Approvals necessary to achieve Commercial Operation (*add details).* |  |
| 16. | Receive CEC Certification and Verification. |  |

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| --- |
| Discuss overall project and construction schedule. |

1. ***Operational Characteristics***

Insert Facility Drawings in Section P of this Response Form.

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| --- |
| Discuss operational characteristics including required maintenance, delivery profile (peak and off-peak, hourly, daily, seasonal, annual), curtail-ability and dispatchability.  *(If offering the ability to curtail deliveries, discuss terms and operational conditions including, annual hours resource can be curtailed, the amount of curtailable capacity and the cost to SDG&E.)* |

1. ***Corporate Profile and Experience***

*Please be brief and refrain from including extensive marketing materials, resumes, etc., especially information outside the scope of the project.*

|  |
| --- |
| Corporate background and organizational structure for the project. |
| Describe project team’s background and experience developing projects of a similar nature and technology. How many MWs total are currently under construction? |
| List and describe other projects of a similar nature and technology developed by Respondent currently in operation. What are the total MWs of projects installed? |

1. ***Site Location Maps***

*Insert site location map(s) clearly showing the location, size, and orientation of the site; the location of the expected interconnections for transmission, fuel, and water; and the location of residential communities, schools, hospitals, airports, churches, cemeteries, or other expected sensitive receptors within five miles of the site.*

1. ***Facility Drawings***

*Insert facility drawings and diagrams including general equipment arrangement of the site, electric interconnect one line diagram showing the scope of supply, delivery point and metering for the electric interconnection including any transmission line and switchyard. If applicable, include fuel interconnection diagram indicating fuel delivery point.*

1. ***Diverse Business Enterprise Information***
2. *Please indicate whether the Respondent is a DBE (yes/no).  Please also provide any relevant documentation proving such status.*
3. *Please indicate whether the Respondent has or will utilize DBE services during the development and/or construction of the project.*
4. ***Additional Information***

*Insert additional relevant information necessary for SDG&E to evaluate the merits of the proposal.*

1. ***Confidential Information***

*Identify parts, sections and elements of the offer (including information in this and all other forms) which Respondent considers to be Confidential and Proprietary in accordance with RFO Section 10 Confidentiality.*