Canadian Nuclear Laboratories | Laboratoires Nucléaires Canadiens

Invitation for Clean Energy Projects

Part 1: Instructions to Proponents

Revision 2

Table of Contents

1. INTRODUCTION

This is an invitation ("Invitation") by Canadian Nuclear Laboratories Ltd. ("CNL") to Proponents ("Proponents" or "Proponent") of Small Modular Reactors ("SMRs") and other Clean Energy Demonstration, Innovation and Research (CEDIR) Projects (collectively with SMRs, "Clean Energy Projects") who wish to be considered for inclusion in the evaluation process for a clean energy demonstration project. This update to the Invitation process is to expand its applicability to a variety of clean energy projects and not just demonstration SMRs. A clean energy demonstration project can be characterized as a project that demonstrates:

1) A fission based (SMR) experiment, process, or related facility.
2) A fusion based experiment, process, or facility.
3) A new or innovative consumer (end user) process where the use of a captive nuclear energy production facility is advantageous. These could include such things as innovative energy storage systems, clean hydrogen and clean fuels production using non-commercial methods, etc.

A "Proponent" is the person representing the Clean Energy Project who will be the lead respondent to this Invitation. The Proponent may or may not be the developer of the technology, the operator of the technology, or the project manager. For clarity, this Invitation is not a procurement process, but rather a process to help CNL advance its clean energy demonstration initiative.

CNL has established a process whereby CNL will set criteria and evaluate responses against those criteria. CNL may recommend as acceptable and warranting further development to Atomic Energy of Canada Limited ("AECL"), as the owner of the CNL managed land, those responses that CNL believes will be:

- feasible (technically and socially, looking at safety, security, environmental and other factors);
- of benefit to CNL and to Canada; and
- financially viable.

In revising this Invitation, CNL is also contemplating potential end-users of SMR technologies such as:

- Microgrid (remote communities / military bases/steam heating), the main proponent being Federal/provincial governmental entities.
- Remote mining decarbonisation (replacing diesel plants on brownfield mines and powering greenfield mines).
- Heavy industry decarbonization – high temperature, high grade heat is required for industrial processes.

- Pink hydrogen or ammonia production and traders, power off-takers or agricultural ammonia traders.
- Synthetic fuel production.
- Heavy water production.
- Coal and gas plant replacement (utilities, energy companies).
- Desalination: several countries are looking at using SMRs for desalination.
- Data servers (artificial intelligence, storage, processing, etc.).

CNL reserves the right to select none or one or more Clean Energy Projects as part of this Invitation.

Use of the term "person" in this Invitation is meant to reference an individual as well as a corporation, company, partnership, joint venture or other legally recognized entity or person.

2. BACKGROUND

CNL is a world leader in nuclear science and technology offering unique capabilities and solutions across a wide range of industries. CNL is a site operating company owned by Canadian National Energy Alliance ("CNEA"). CNL manages AECL's sites under a Government-owned, Contractor-operated (Go-Co) model. While AECL is currently in the process of rebidding the Go-Co contract, there is no change to either CNL's or AECL's priorities with respect to advancing clean energy projects.

While there are several AECL sites managed by CNL, the Chalk River Laboratories and Whiteshell Laboratories are the two main sites proposed for this Invitation (the "Sites"). Other AECL sites may be considered if there is a compelling reason.

CNL has outlined in its long-term plan[1] its strategy to enhance CNL's role as a global leader in nuclear science and technology: an organization that is commercially successful, respected for its scientific capabilities, and home to world-leading expertise based out of a modern, efficient, and collaborative campus environment. To help the Government of Canada achieve its national target of net-zero carbon emissions by 2050, CNL is advancing clean energy technologies for today and tomorrow, including small and advanced nuclear reactors, hydrogen, and fusion technologies.

Building on decades of experience in supporting and deploying numerous prototype, demonstration, research, and power reactors, CNL is well equipped to support the development and deployment of clean energy technologies, including hosting demonstrations. The long-term vision is for CNL to be a recognized hub for nuclear energy testing and

[1] Canadian Nuclear Laboratories, "Vision 2030, A STRATEGY FOR A SUSTAINABLE CNL," CW-502100-PLA-001, Revision 0, 2022 September 29, available at Strategy_Final_EN.pdf (cnl.ca).

demonstration, where multiple vendor-supported prototypes or demonstrations are built and tested. As part of this long-term vision, CNL's goal in the next 10 years is to host one or more prototype SMR, other clean energy technology demonstrations such as fusion or hydrogen, or other clean energy projects.

The Invitation solicits Clean Energy Projects:

- That produce either steam or electricity (e.g. SMRs) or of significant research, isotope production or other significant value to Canada,
- In alignment with Government of Canada aspirational objectives (e.g. indigenous reconciliation, reduction of GHG emissions, energy security, economic prosperity, etc.),
- That could utilize AECL's intellectual property, namely the SLOWPOKE and Nuclear Battery designs, or
- For a captive nuclear energy production facility.

SMRs have been recognized as a potential alternative to large-scale nuclear reactors, a contributor to achieving zero-carbon energy production and a significant contributor to a sustainable energy system. Given their smaller physical size and electrical output, SMRs could be suitable for applications that require a small footprint or a relatively small amount of power. As a zero-carbon energy source, SMRs have the potential to bring positive economic benefits to Canada, align with Canada's commitment to fight climate change, enable important applications for remote communities, and enhance nuclear safety through next-generation nuclear technology. SMRs may offer several advantages over traditional technologies, notably: reduced size more suitable for some applications; the ability to purchase and construct in a modular way, which decreases up-front capital costs; simpler, less complex plants; and reduced staff complement. In addition to electricity generation, SMRs can be part of an overall energy strategy that can include applications such as district heating, co-generation, energy storage, desalination, or hydrogen production.

Fusion energy has also seen significant advancements in recent years, with notable breakthroughs and increased investments in fusion research and development. These advancements have reinvigorated interest in fusion as a potential clean and virtually limitless energy source for the future. The private sector has increasingly become involved in fusion research, with more than $4.7 billion invested in fusion energy start-ups according to the Fusion Industry Association. Private companies are now competing to develop functional fusion reactors, with projections varying on when these reactors will be operational.

Historical reactor development by AECL has produced microreactor designs of potential interest for demonstration projects, providing relevant benefits including minimal staffing requirements. The SLOWPOKE reactor family includes kilowatt-scale research reactor (SLOWPOKE-1 and SLOWPOKE-2), as well as district heating reactors providing water at ~90°C with powers ranging from the 2 MWth SLOWPOKE Demonstration Reactor (SDR) to the 10 MWth SLOWPOKE Energy System 10 MW (SES-10 / SES-10X). In addition to providing heat,

these pool-type reactors can be used for neutron activation analysis, neutron radiography, isotope production, and modest electrical production. The AECL Nuclear Battery is a 'solid-state', graphite moderated heat pipe micro-reactor (600 kWe / 2400 kWth at ~400°C) with strong inherent safety features, designed to operate for 15 years without refuelling. Variations of the reactor have been explored, ranging from kWe to MWe scales.

Although fission and fusion technologies are significant areas of interest, CNL is also interested in other clean energy technologies. Plans for the CEDIR initiative include demonstrations that couple clean technologies as part of a larger system, to allow a more thorough understanding of various aspects of integration and how best to design systems to achieve Canada's decarbonization goals. Some examples of clean technologies are hydrogen and clean fuels production, energy storage systems, and novel end-use applications (e.g. enhanced greenhouses, fish farming). Industrial decarbonization is also a priority, where collaborative work on decarbonization strategies will be crucial to understanding these end-user needs. In some cases, new processes must be developed to fully decarbonize operations as fossil fuels are used as part of the process not just as a source of electricity and heat (e.g. steelmaking). Further, emerging areas of nuclear technology development that would benefit from larger scale demonstration at a licenced nuclear site are of interest.

The Sites are well-characterized and licensed by the Canadian Nuclear Safety Commission (CNSC), with multiple siting opportunities at each and the required supporting services and general infrastructure. As such, CNL can offer support in all aspects, from technology development through to deployment, including demonstration on one of the Sites, with support for regulatory and licensing considerations. The integrated nature of the Sites in supportive host communities creates a collaborative environment where stakeholders, students, visiting scientists, operators, regulators, and the supply chain can meet, discuss technical aspects of the Clean Energy Projects, and advance and understand the technologies.

CNL offers a world-class Science & Technology (S&T) team with comprehensive experimental and modeling facilities, underpinned by a complete roster of support services, such as radiation protection, health physics, security, safeguards, and nuclear material management, decommissioning, waste management, and emergency planning. CNL has commercially available research facilities and scientists to perform discovery research and development (R&D), and to solve key technology challenges, along with integrated fuel manufacturing, testing and examination, and waste solutions.

New capital investments in facilities, equipment and infrastructure are underway at the Chalk River Laboratories as part of ongoing investments by AECL and the Government of Canada. In addition to infrastructure upgrades, such as a new switchyard, and municipal services, the largest single capital investment currently under construction is the Advanced Nuclear Materials Research Centre (ANMRC). This new facility will be the foundational element supporting the broader S&T program, including the SMR and clean energy programs. This facility is anticipated to strengthen CNL's existing capabilities in nuclear fuels and materials testing and characterization, with a suite of new, world-class hot cells, shielded facilities, and

flexible laboratories. Additionally, the CRL site is within proximity of CFB Petawawa. Given that the Canadian Government has a goal to reduce by 30% the total greenhouse gas emissions in Crown-owned buildings by 2030, both are potential energy take-off customers for clean energy projects that involve electricity generation, district heating or similar technologies.

While Whiteshell Laboratories is currently undergoing decommissioning, it is possible that some site support infrastructure will remain available for use. If a Proponent is interested in siting a Clean Energy Project at this Site, CNL is willing to discuss the Proponent's infrastructure needs to determine if any of the existing infrastructure can be repurposed or shared with the Clean Energy Project to be located at the Whiteshell Site.

3. DISCLAIMER

Neither CNL nor AECL shall be bound by any response provided by a Proponent, or by any discussions with any Proponent unless and until terms and conditions of various agreements respecting the disposition or use of a site and provision of site services agreements have been negotiated and agreed by the Proponent and CNL or AECL, as the case may be. Issues that would be addressed by these agreements include items such as the following:

- site use, access, and control, including during all phases of project development,
- project approval rights of CNL and/or AECL; interplay between any licensing required by the Clean Energy Project and the applicable site licence,
- conditions precedent to the agreements, including material changes to the Clean Energy Project, changes within CNL, AECL, and the Proponent (excluding changes as a result of the Go-Co), changes in law/regulatory framework,
- force majeure, including operations, impacts and responsibilities,
- environmental due diligence, investigation, and responsibility,
- site services (emergency management/fire/protection services, utilities/internet, and security screening) provided by CNL, and cost of same, and
- termination rights of the parties and impacts of termination for cause and convenience.

This list is neither exhaustive nor determinative, but merely an indication of some of the issues that may arise during contract negotiations.

4. INVITATION STAGES

The Invitation process for Clean Energy Projects has four stages:

Entry Stage	Pre-qualification and due diligence Identification of CNL's offering to the process
Acceleration Stage	Co-operative advancement of Clean Energy Project
Investment Assessment Stage	Co-operative assessment of funding request to Federal/Provincial Government agencies (including AECL) and Proponent private funding efforts
Negotiation Stage	Negotiation of land arrangements and other ancillary agreements

This Invitation and the accompanying Evaluation Question Set (Part 2) provide the information for Proponents to advance through the Entry Stage. An overview of the other stages is provided for information purposes only at this time.

Under certain circumstances, CNL may elect to put on hold review and evaluation of one or more Clean Energy Projects. The selection of which Clean Energy Projects to put on hold will be made based on the scores received through the evaluation process and the overall interests of CNL and AECL.

Additionally, Annex A to this document provides examples of areas where CNL may be able to support a Clean Energy Project.

4.1 Entry Stage

The Entry Stage is a pre-qualification and due diligence assessment period and a chance to identify CNL's potential offerings to furthering the Clean Energy Project. The Entry Stage (i) considers the extent to which the Proponent meets national security and integrity requirements, (ii) assesses technical and business merits of the Clean Energy Project, (iii) assesses the financial stability[2] of the Proponent, (iv) assesses the financial readiness[3] of the Clean Energy Project, and (v) identifies any offerings CNL may contribute to the Clean Energy Project.

Proponents must agree to provide CNL updated responses as applicable. Failure to do so may result in disqualification.

The assessment of submissions is completed against rated criteria. The criteria are set for all sizes of Clean Energy Projects and the application will be applied in a graded manner by CNL during the evaluation process. It is important to identify the stage and current progress of the project such that an appropriate evaluation can be performed. If the evaluation criteria requests documentation that is not currently available but will be available later in the project,

[2] Financial stability looks at the overall health of the Proponent and/or their Key Partners as applicable.

[3] Financial readiness looks at the funding requirements of the Clean Energy Project and supporting programs to determine that appropriate funding levels are in place.

then the plan to produce the documentation and any other supporting information should be provided. CNL's decision to accept or reject a Clean Energy Project will be based on the completeness of the response, and the assessment against the criteria. The Entry Stage is not intended to fail Clean Energy Projects. Proponents that do not meet the criteria to proceed to the Acceleration Stage will receive feedback and input from CNL and may be invited, at CNL's discretion, to resubmit their submission at any time.

Proponents must provide information regarding any gaps they currently have in their Clean Energy Project plan, particularly in financing, waste management and decommissioning. There is also opportunity to indicate types of support, both direct and indirect, that could allow their Clean Energy Project to be successful on a shorter timeline. In addition to reviewing and evaluating the submission, CNL will use this information to propose any offerings that CNL may be able to provide to advance the project.

4.1.1 Successful Outcome of Entry Stage

Clean Energy Projects that pass the Entry Stage will move to the Acceleration Stage.

Proponents will be notified of the result of their response according to four (4) potential envisioned outcomes:

1. The Proponent is provided feedback on the response and is invited to submit to the next appropriate Stage.
2. The Proponent is provided feedback on the response and is invited to resubmit a response once revisions have been made or the Clean Energy Project is further advanced.
3. The Proponent is provided feedback that the response does not meet mandatory minimums or pass the evaluation criteria and is rejected outright.
4. The Proponent is notified that CNL has elected to put on hold the review and evaluation of the Clean Energy Project and, if known, when CNL anticipates resuming the review and evaluation of the Clean Energy Project.

A letter will be provided to the Proponent documenting that the Clean Energy Project has passed to the Acceleration Stage and to identify which areas identified for CNL support in the submission, CNL is able to progress.

The outcome of this stage does not guarantee or reserve a Clean Energy Project a site, nor does it in any way commit AECL or CNL to do anything for a pre-qualified Proponent or Clean Energy Project.

A successful outcome of the Entry Stage is a recommendation from CNL to AECL, and a potential subsequent acceptance by AECL, of the Clean Energy Project. If AECL accepts CNL's recommendation, it is anticipated that AECL will provide the Proponent with a letter of support for the Clean Energy Project, which includes AECL's support of the Proponent in advancing towards a Clean Energy Project on a CNL Site, subject to certain terms and conditions (T&Cs) defined by AECL. The intent of the letter of support is to support the Proponent, or the relevant

partner, in pursuing any required site licensing processes[4] with the regulatory authority. It is important to understand, however, that a recommendation from CNL to AECL does not guarantee acceptance of the response or Clean Energy Project by AECL. Furthermore, a recommendation from CNL to AECL does not in any way commit AECL to proceed with the Proponent; AECL in its sole discretion may accept or reject Clean Energy Projects at later dates.

As an outcome of the Entry Stage, CNL will notify the Proponent in writing as to whether it will advance to the Acceleration Stage.

4.2 Acceleration Stage

The Proponent and CNL and/or AECL will work together to position the Clean Energy Project for successful funding and further advancement.

In the Acceleration Stage, CNL will recommend a collaborative program based on the Entry Stage response from CNL. CNL will continue to undertake due diligence activities on ongoing projects to ensure the project remains viable. Additionally, suitable milestones will be identified and monitored to track progress in the Acceleration Stage towards advancing the Clean Energy Project.

4.3 Investment Assessment Stage

Once the Clean Energy Project reaches a defined level of maturity in the Acceleration Stage as deemed collectively by CNL and the Proponent, the Proponent will enter the Investment Assessment stage. This stage may overlap with the Acceleration Stage, in CNL's sole discretion.

The Investment Assessment Stage is intended for co-operative assessment of funding request(s) to Federal/Provincial Government (such as Innovation, Science and Economic Development Canada (ISED), Canada Infrastructure Bank (CIB), etc.) and Proponent private funding efforts including potential joint ventures.

4.4 Negotiation Stage

Upon acceptance by AECL of CNL's recommendation, and the satisfaction of any conditions placed on the Proponent as part of AECL's acceptance, the Proponent enters the Negotiation Stage. The Negotiation Stage may happen after, or concurrent with, either the Acceleration Stage or the Investment Assessment Stage depending on the Clean Energy Project. In this stage, CNL and the Proponent, with AECL engaged as appropriate, will begin negotiations for a land arrangement and other contracts as required. When the Proponent has funding, resources, key Clean Energy Project partners, a compelling business case and has made progress toward obtaining the required regulatory approvals, CNL will recommend to AECL a site disposition or use agreement with the Proponent. This agreement is subject to conditions

[4] Class 1 Nuclear Facilities Regulations clause 3c) states that a licence application must include *evidence that the applicant is the owner of the site or has authority from the owner of the site to carry on the activity to be licensed.*

precedent/conditions subsequent that, among other things, allows CNL to oversee the contracts through to completion, or terminate for material changes or breach.

4.5 Continuing Due Diligence

The Acceleration, Investment Assessment, and Negotiation Stages will see continued due diligence assessments of the Proponents. Within the Invitation process, the term "due diligence" means confirmation that the plans put forward by the Proponent in the previous stages have accurately assessed the project's assets and liabilities and are advancing and being implemented as planned. Where there are material changes or developments to those plans, further due diligence will be required such that that any changes and their risks are understood and accepted by CNL and AECL. This is particularly important around national security reviews, the financial health of the Clean Energy Project and the risk profile for the Clean Energy Project. No new criteria are expected to be developed for the continuing due diligence, rather CNL and AECL will establish continuing tests that assess their risk profile as the host of one or more Clean Energy Projects as the Clean Energy Projects progress towards licensing, site lease, construction, and commissioning.

5. RESPONSE FORMAT

Responses shall be in the form set out in the Invitation Part 3: Response Template and will follow the structure of the criteria as identified in the document "Invitation for Clean Energy Demonstration Projects, Part 2 – Evaluation Question Set".

Responses shall consist of five (5) separate sections consisting of General Information, Integrity and Security Requirements, Safety, ESG and Benefits to Canada, Commercial Feasibility and Deployment Strategy, and Technical Requirements, each corresponding to the sections of the Evaluation Question Set.

It is very important that the scale and technology readiness level of the Clean Energy Project be clearly defined in the General Information allowing CNL to appropriately apply grading of the criteria in the evaluation of the responses.

Additional response materials, as identified in the individual criteria requirements, shall be supplied separately as required to support the Proponent's response.

The maximum length of the response document for the Entry Stage is 130 pages, of which 80 pages are set aside for the technical criteria. Response documents shall be prepared as an 8 ½ x 11 document using Calibri 11 font and submitted as a PDF file.

6. SUBMISSION OF RESPONSES

All questions regarding the Invitation must be submitted to cep@cnl.ca. Questions may also be submitted through any public engagement fora that CNL provides, such as webinars. Questions received through other means, such as telephone calls or e-mails to individuals at CNL, will not be answered but may, or may not, be forwarded to the CEP mailbox. The topical areas of any questions along with the response may be issued publicly, for example, included in a public

Question and Answer section on CNL's website. The identity of the person asking the questions will be protected, and the source of the question will not be attributed.

The Invitation is an open invitation. There are no specified intake periods or submission deadlines. CNL may close, pause, or terminate the Invitation process at CNL's sole discretion.

7. OPENING AND EVALUATION OF RESPONSES

CNL shall open and begin review of responses as they are received.

8. EVALUATION CRITERIA

CNL will evaluate each response received under this Invitation based on the evaluation criteria as set out in Part 2: Evaluation Question Set of this Invitation.

CNL reserves the right to change the Invitation process and/or the evaluation criteria over time in response to lessons learned throughout the Invitation process, and may update this Invitation accordingly from time to time.

9. COMMUNICATION WITH PROPONENTS

CNL may, at any time, discuss with any Proponent its response, to understand technical and operational issues, to refine understanding of financing criteria, to explore the Proponent's Clean Energy Project development maturity, and address any other point of clarification that CNL may have regarding the response.

10. CONFLICT OF INTEREST

Proponents are required to disclose in their responses whether they or any key partner have any interests connected to CNL or its affiliates (which includes, for certainty CNEA and its shareholders), and if so to provide details of any such interest. Following the completion of the AECL Go-Co bidding process, CNL will notify the Proponents of any new company names that must be reviewed for conflicts of interest to comply with this requirement.

11. OWNERSHIP OF MATERIALS AND CONFIDENTIALITY

Other than as set out in this section, no title or interest in the material and information prepared by or for the Proponent in connection with or in relation to the response and delivered to CNL (collectively, the "Response Materials") shall transfer to CNL, AECL, or the Government of Canada. In submitting its response, the Proponent agrees that it grants CNL, and to the extent applicable, AECL and the Government of Canada, an irrevocable, perpetual, royalty-free, worldwide licence to use the Response Materials for its internal use.

Proponents acknowledge and agree that as a condition of this Invitation, CNL may share any information provided in the Response Materials with AECL and the Government of Canada for purposes of this Invitation and for the broader Canadian energy strategy development. Any proprietary information provided in the Response Materials will be governed by one or more Non-Disclosure Agreements (NDA). A multi-party NDA for the Invitation is available on the CNL

website and shall be used specifically for a submission to this Invitation. A Proponent can seek to enter into an NDA with CNL at any time by submitting a request to cep@cnl.ca. CNL may employ external subject matter experts in the evaluation process. Any such external experts will also be subject to NDAs.

12. WORK FOR PROPONENTS OUTSIDE OF THIS INVITATION

CNL will not perform any work for Proponents that requires any level of commitment from CNL or AECL to provide a site for a demonstration Clean Energy Project at a Site prior to a successfully completed Entry Stage. CNL may perform clean energy-related work on a commercial basis or in partnership with any Proponents or any other entity outside of this Invitation if that work does not require a commitment from CNL or AECL to provide a Site.

Examples of work that CNL may perform prior to the successful completion of the Entry Stage are:

- Initial site-specific work, such as geotechnical studies,
- Assistance in developing a plan as to how to prepare an environmental assessment,
- Any R&D work in support of concept development, design, or technical basis for licensing,
- Site feasibility studies,
- Support related to the development of plans for future environmental assessment and regulatory submissions,
    - Development of plans or the review of documentation supporting the development of plans to develop an Environmental Assessment, Licence to Prepare Site and Project Description; and
    - Surveys of flora and fauna of potential sites.
- Regulatory support, such as technical support for vendor design review submission, and
- Meetings and consultations on communications requirements related to potential Proponent's regulatory expectations.

Examples of work that CNL will not perform for Proponents prior to the successfully completed Entry Stage are:

- Any clean energy technology-specific engagements with any stakeholders, local communities or Indigenous communities,
- Site preparation activities,
- Development of a stakeholder engagement strategy,
- Execution of a stakeholder engagement strategy,
- Review of draft Environmental Impact Statement documents,

- Assistance with disposition of stakeholder comments and questions,
- General communications services (e.g., communications plans, draft press releases, website content, marketing materials, etc.),
- Media relations, including spokesperson advice (Proponent responsible for media inquiries),
- Representation at trade shows and conferences,
- Document coordination and translation and
- Overall stakeholder and communications advice.

13. INVITATION COSTS AND FEES

No payment will be made by CNL, AECL or the Government of Canada for costs incurred by any Proponent (or any Person acting on behalf of a Proponent) in the preparation and submission of a response to this Invitation. Costs associated with preparing and submitting a response, the Response Materials, as well as any costs incurred by the Proponents (or any Person acting on behalf of a Proponent) associated with the evaluation of the Proponent, are the sole responsibility of the Proponent.

There will be no fee charged for Proponents to submit a response.

Additional fees, for example, for services provided by CNL and utilities and site services provided to Proponents as well as for access to and use of the land, will be required and will be negotiated at later stages.

14. PUBLIC ANNOUNCEMENTS

When a Proponent successfully passes the Entry Stage, CNL may announce the following details without seeking further consent or approval from the Proponent:

- name of Clean Energy Project Proponent,
- a description of the Clean Energy Project including:
  - for a fission based SMR facility:
    - name of design and cooling type, and
    - approximate electrical and/or thermal capacity,
  - a fusion based facility:
    - name of design and main components, and
    - approximate energy capacity
  - projects that could utilize AECL's intellectual property, namely the Slowpoke and Nuclear Battery designs.

        - pertinent information on the Clean Energy Project and intellectual property being utilized,
    - a consumer of a captive nuclear energy production facility:
        - pertinent information on the nuclear technology being integrated,
- stage completed.

CNL will only make a public release of any further information about the responses, or public release of information prior to the successful completion of a Stage, following discussion and agreement between CNL and the Proponent. CNL will not release any such information, except to AECL and the Government of Canada as per Section 11, without the permission of the Proponent.

ANNEX A: POTENTIAL CNL OFFERINGS

There are numerous areas where CNL may be able to provide support to a Clean Energy Project. These areas are divided into Mandatory Offerings and Optional Offering.

A.1 Mandatory Offerings

The following offerings must be provided by CNL for Clean Energy Projects located at the Sites:

- **Fire Services**

  The mandatory Fire Services include the following.

  - Emergency fire response service: services in response to emergency fire needs as outlined in the license requirements. Typically, emergency response services are provided 24 hours a day by the industrial Fire Brigade (Fire Department) and include advanced interior and exterior fire suppression, wildland fire fighting and search and rescue. The exact scope of these fire services will depend on the requirements identified by the Proponent for the Clean Energy Project.
  - Fire operations: These services include dealing with hazardous material spills, high angle rescue, confined space rescue, auto extrication and medical response services.
  - Fire systems infrastructure requirements: This includes the infrastructure required to support fire services (e.g. fire water supply and alarm monitoring installed, as well as routine inspection of the required infrastructure).

- **Security Services**

  If the Proponent's site license has site security requirements, then security services will be considered mandatory. Mandatory services provided by CNL include the following:

  - Access control: These services include the provision of trained guards to conduct access control to the Clean Energy Project's site areas.
  - Armed security response: These services include the provision of effective intervention to site security emergencies.
  - General access control: These services include the control and monitor the outer gate perimeter. This may include controlling entry of contractors, Proponent personnel, and site visitors, and providing outer gate perimeter surveillance including the hardware required for such surveillance.

A.2 Optional Offerings

These are offerings that a Proponent may be able to source elsewhere but CNL has the expertise to provide:

- **Site support services**
    - Water, sewer, and power
    - Waste management (could include management of wastewater, water, sanitary, paper and office supplies, processed water, etc.)
    - Skilled construction, mechanical, and electrical professionals and maintenance facility
    - IT infrastructure conduits to the Clean Energy Project's site
    - Environmental monitoring and reporting
    - Radiation protection support and bioassay support
    - Property management (could include grounds maintenance, snow removal, etc.
- **Emergency preparedness services**
- **Licence support services**
    - Third party reviews
    - Fitness for service
- **Performance services**
    - Human performance management supporting activities that enable effective human performance through the development and implementation of processes.
- **Active waste management services**
    - Interim solid high-level waste storage
    - Support for intermediate and low-level active waste storage
- **Science and technology services in CNL's strategic areas:**
    - Advanced nuclear materials and fuels research
    - Radiobiology, radioecology and dosimetry
    - Hydrogen and hydrogen isotopes management
    - Nuclear safety, security and risk management
    - Nuclear and systems engineering
    - Nuclear chemistry applications
    - Energy system modeling (e.g. through the Hybrid Energy System Optimization (HESO) model)

- Access and connections to applications available in the Clean Energy Research Park initiatives (wind, solar, district heating)

- **Engineering support**
  - Support to help proponents tailor designs to the Site conditions (e.g., knowledge and experience of Site attributes, Site's geology, surface grades, utility connections, environment, seismic and flooding)

- **Operations support**

  CNL has a long history of operating demonstration facilities. Operations support may be possible in

  - Operations
  - Training
  - Procedure development, etc.
  - Maintenance services

- **CNL Facilities**
  - Facilities for post irradiation examination to analyze nuclear fuel
  - Maintenance facilities