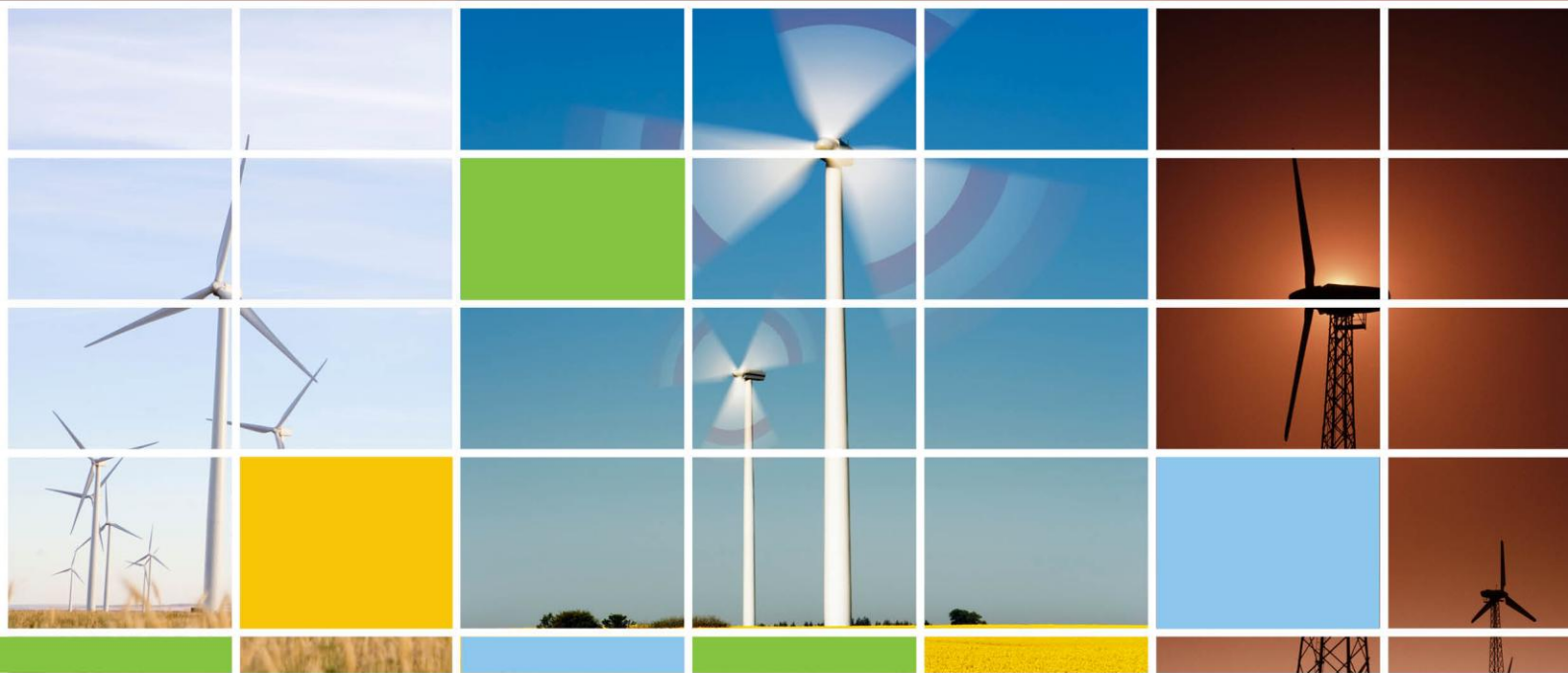


# Improving the performance of the National Clean Energy Fund



An initiative supported by



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## Introduction

Over the years, India has taken a number of concrete steps to enable the transition towards a cleaner environment. The National Clean Energy Fund (NCEF) was one of the major initiatives taken in this direction to provide an impetus for the development of clean energy. NCEF was introduced in the 2010-2011 budget by the Finance Minister and its stated objective was 'funding research and innovative projects in clean energy technologies'. Although the non-lapsable corpus is expanding steadily through consistently collected levies of INR 50 per tonne of coal (revised to INR 100 per tonne from July 2014), it has come under criticism for severe under-utilisation and the way it is operated and administered. Recent assessments by research institutes such as National Institute of Public Finance and Policy and the Centre for Budget and Governance Accountability have identified gaps and highlighted that the NCEF's present structure and framework for operation, needs to be sharpened and strengthened to improve its effectiveness and performance. Through this study, we have recommended several amendments to the existing guidelines in order to improve the performance of the Fund, including:

- Revisions to the existing 'guidelines for appraisal and approval of projects/schemes eligible for financing under the National Clean Energy Fund' (F. No. 16(5)/PF-II/2010)
- Formulation of a separate process document which provides an overview of the suggested governance structure of the Fund and the basic underlying operational policies and processes
- Revised application form with added information requests and detailed guidance
- Formulation of a separate proposal appraisal form, listing the basic and detailed appraisal criteria along with assigned weightages
- Formulation of a separate document establishing the monitoring and evaluation (M&E) procedures and processes for the fund as well as approved projects

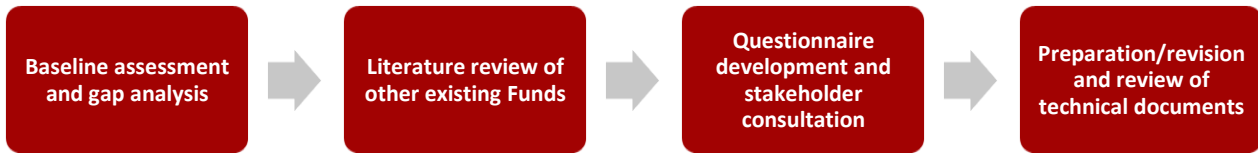
## Objective of the study

The study was carried out to build upon existing research and develop technical documents and practical recommendations to improve the performance of the Fund. The study focussed on framing and suggesting modifications to the existing NCEF guidelines and developing an alternative governance and procedural framework that addresses gaps and pertinent issues that were revealed during the course of our study as well as those previously identified by other research institutions.

A research study, entailing necessary data collection, review and analysis, stakeholder engagement, and development of sample technical documents was undertaken to achieve this objective. Amendments that have been suggested to improve the performance of the Fund include, among others, increased clarity on the intent of the NCEF and the definition of eligible projects; revisions of Fund guidelines to improve its alignment with the original objective of the Fund; establishment of a new set of guidelines, introducing and detailing operational processes such as strategy/vision formulation, communication strategy; revision in the project appraisal framework to limit funding to quality proposals ; development of a theoretical monitoring and evaluation framework, including defined metrics to evaluate progress of projects as well as the fund.

## Methodology

The overall methodology adopted was a combination of secondary data collection (desktop research) and analysis based on primary research (stakeholder consultations and internal discussions with senior members from KPMG in India and Shakti Sustainable Energy Foundation). Built on these discussions, the technical documents were developed/revised and also underwent periodic revisions and review.



### Baseline assessment and gap analysis

Baseline review and analysis in support of the study was carried out to understand the existing structure, operationalisation, and performance of the NCEF, including implications of provisions made in the Union Budget 2013-2014. An evaluation of existing studies by the Centre for Budget and Governance (CBGA) and National Institute of Public Finance and Policy (NFPIP, 2012), as well as independent secondary research of publically available sources was carried out. A detailed review of existing structures, mechanisms prevalent for evaluating proposals and allocating funds, as well as barriers preventing/restricting disbursements of NCEF was carried out to determine boundary conditions for the study. Based on this research, the basis of the study plan to be pursued was determined.

### ***Critical NCEF related government documents referred***

- Guidelines for appraisal and approval of projects/schemes eligible for financing under the National Clean Energy Fund (F. No. 16(5)/PF-II/2010)
- Response to RTI application no. DOEXP/R/2014/60089 regarding limit of 40 per cent for government assistance under NCEF
- Response to RTI application no. DOEXP/R/2014/60187 regarding rules for protection and handling of Intellectual Property Right under NCEF
- Minutes of first meeting of Inter Ministerial Group (IMG) on NCEF dated, 21 July 2010
- IREDA NCEF Refinance Scheme- Refinance Scheme for Promotion of Renewable Energy supported by the National Clean Energy Fund (MNRE IREDA) announced in March 2014
- Letter from Chairman and Managing Director, IREDA (IREDA-NCEF Refinance Scheme: Financing Renewable Energy Projects) Letter dated: 14 March 2014

## Literature review of other existing funds

Credible international funds with extensive and robust frameworks were delineated and studied. Only those institutions/agencies/governments or mechanisms that have well established guidelines and technical documents such as; application forms, monitoring and evaluation frameworks, etc. relevant to NCEF were studied. This was determined based on similarities in goals, objectives, processes, and causal linkages.

Existing foreign funds that were studied include: Clean Technology Fund (World Bank); Special Climate Change Fund; US State Clean Energy Funds; Energy Innovation Fund; Strategic Climate Fund; Least Developed Countries Fund (GEF); Green Climate Fund; Climate Investment Funds and EBRD; African Climate Fund; Adaptation Fund; Amazon Fund.

In order to study how innovation aspects are handled in the national context, R&D funds (not necessarily related to clean technology) disbursed by departments/ministries in India were studied, including: Department of Biotechnology; Department of Coal; Ministry of Earth Science; DST (Department of Science and Technology); DSIR (Department of Scientific and Industrial Research); Indian Meteorological Department; ISRO (Indian Space Research Organization); MOCIT (Ministry of Communication and Information Technology); MFPI (Ministry of food processing industries); DRDO (Defense Research and Development Organization); Ministry of Power, CPRI (Central Power Research Institute); MoEF (Ministry of Environment and Forest); Ministry of Water Resources (MOWR); Petroleum Conservation Research Association (PCRA); Technology Development Board; Technology Systems Development (TSD) Programme; University Grants Commission (UGC), etc. were studied.

Based on prior discussions with Shakti Sustainable Energy Foundation, and given the importance of exploring innovative financial instruments and mechanisms beyond grants and concessional loans, the financial instruments deployed by the following institutions were also studied:

Concessional loans: IRENA/Abu Dhabi Fund for Development (ADFD), International Climate Fund (UK), MDB Clean Technology Fund (CTF)

Co-financing: Climate Development-Africa Special Fund (CDSF), Africa Enterprise Challenge Fund: Renewable Energy and Adaptation to Climate Technologies (REACT)

Carbon finance: Climate Finance Innovation Facility (CFIF), ADB Carbon Market Initiative (CMI), Multilateral Carbon Credit Fund (MCCF)

Equity: Global Energy Efficiency and Renewable Energy Fund (GEEREF), Interact Climate Change Facility (ICCF), Seed Capital Assistance Facility (SCAF), Multilateral Investment Fund (MIF) of the IDB group

Grant: Climate and Development Knowledge Network, ADB Clean Energy Financing Partnership Facility (CEFPF), BNDES Amazon Fund

In kind/end-user payment: Mediterranean Investment Facility (MIF), end-user Finance for Access to Clean Energy Technologies in South and South-East Asia (FACET)

Risk mitigation product: Global Climate Partnership Fund, IFC Risk Sharing Facility, Climate Technology Initiative (CTI), Private Financing Advisory Network (PFAN), Africa Enterprise Challenge Fund: Renewable Energy and Adaptation to Climate Technologies (REACT)

Debt: IFC partial credit guarantees, DEG - Deutsche Investitions- und Entwicklungsgesellschaft mbH

Venture capital: CalCEF Clean Energy Angel Fund, Massachusetts Green Energy Fund, Sustainable Development Technology, Canada: SD Tech Fund, Global Energy Efficiency and Renewable Energy Fund, YOZMA

Based on literature review, the relevance and potential of incorporation of specific aspects of these funds into the NCEF guidelines, were determined. Preliminary solutions and best practices addressing previously identified gaps in the NCEF, were identified.

### **Questionnaire development and stakeholder consultation**

At this stage, a series of questions were drafted to provide the basis for structured stakeholder interactions. The questions were framed so as to derive the range of possibilities that the NCEF could pursue to plug identified gaps, and the rationale for choosing any particular approach. This questionnaire was shared with the stakeholders prior to the detailed consultations. Relevant functionaries from MoF, MNRE, MoEF, Planning Commission, and BEE were consulted to extract views and options.

### **Preparation/revision and review of technical documents**

Based on the research carried out in the previous stages, multiple revisions to the existing 'guidelines for appraisal and approval of projects/schemes eligible for financing under the National Clean Energy Fund' (F. No. 16(5)/PF-II/2010) was undertaken. A separate process document which provides an overview of the suggested governance structure of the Fund and the basic underlying operational policies and processes, was developed. The application form was updated with added information requests, detailed guidance and a separate proposal appraisal form listing basic and detailed appraisal criteria along with assigned weightages, was prepared. Separate documents detailing the M&E procedures and processes for the fund as well as approved projects were prepared. Further research on IPR arrangements was also undertaken and recommendations are compiled in the report. The rationale for each of the changes proposed and ways to plug identified gaps are explored in the next section.



## Key recommendations

The subsequent sections of the report i.e. the draft documents, broadly reflect the results of this study. These documents should not be read as narratives, but as suggested prototypes of the guidelines and frameworks recommended. The current NCEF guidelines have been modified to represent our suggestions in the form of model revised guidelines, and two new documents i.e. a process document and a theoretical M&E framework, have been developed to offer suggestions and recommended approaches of addressing specific structural and operational deficiencies of the fund. Presented below is a summary of some of the major recommendations, most of which are reflected in the subsequent sections.

**Strategy formulation and visioning:** The NCEF should formulate a long-term vision and short term objectives for allocation of funds, and update it routinely. Developing well-defined vision statements and objectives would help clarify and communicate the purpose of the Fund, and also serve as a constant reminder of the real objectives of the Fund. So far, several projects that do not credibly align with the objective of the NCEF have received funds, this exercise would help limit such disbursements in the long-term. The allocation and disbursement strategy of the fund should also be revisited annually to ensure balanced distribution of resources between the identified thrust areas of the Fund.

**Governance structure:** It is necessary to strengthen the institutional set-up to improve the effectiveness and performance of the Fund. The current structure and mode of administration is not optimal, hence an alternative governance framework should be implemented to address gaps. A dedicated NCEF team housed within an appropriate ministry with clearly defined roles and responsibilities could be established. There have been several conversations within the government about moving the Fund to a separate ministry which could also function as an executing entity. However, in order to maintain impartiality and encourage all types of eligible projects from different ministries, the Fund should continue to be housed in a neutral entity such as the Ministry of Finance.

**Communication strategy:** A strong communication strategy is vital to incite greater participation from categories of eligible entities that have so far not been engaged adequately, for example; the private sector. Progress on the objectives of the Fund can be accelerated by raising awareness and strengthening broad-based support and action. A large number of private sector organisations are keenly involved in clean energy technology development, efforts should be made to bring Industry and research institutions on board and encourage collaborative efforts to scale up impacts.

**Operational processes:** Operational processes should be streamlined to reduce procedural delays and enhance effectiveness. One approach could be to eliminate the first stage of appraisal at the line ministry level, with NCEF functioning as the nodal entity and single window of communication with applicants and line ministries. A two stage project approval process could be introduced in the NCEF, in which the first stage could enable quick filtering of projects based on broad based applicability criteria. In the second stage, proposals could be assessed on a point-grade system which allows ranking of projects based on merit, thus permitting only proposals of the desired level of quality to qualify for funding. The proposal evaluation framework should be rule based, transparent, and time-bound to be able to enhance efficacy and encourage participation.

**Project categorisation:** Categorisation of projects should be introduced to maintain a balance in the distribution of resources between major objectives of the Fund. A distinction should clearly be made between projects that push development of clean energy technologies (through R&D in innovation and/or demonstration/pilot stages) and projects that advance innovative methods of adoption/diffusion of clean energy technologies. The former category of projects has not yet seen sufficient disbursement under the current NCEF framework, despite the Fund's strong focus on R&D, and this could be one effective approach to direct funds for this purpose.

**Monitoring and evaluation:** Consistent monitoring and evaluation strengthens the basis for managing results. Monitoring and evaluation should take place both, at the level of specific projects funded by the NCEF as well as the overall fund. A project monitoring and evaluation framework, which includes clearly defined metrics to evaluate progress should be adopted. Independent external evaluation of the overall fund as well as select critical projects would ensure complete transparency and unbiased assessments. At the project level, given the unique nature of eligible projects, the NCEF should not prescribe how exactly projects will carry out monitoring and evaluation, but set out what is required at a minimum to demonstrate accountability. A globally accepted standard for results-based project planning such as the log-frame approach should be adopted. At the Fund level, ability to catalyse visible change in the clean energy sector must be showcased with demonstrable indicators of success.

**Segregation of funds for NCEF:** The proceeds of the coal cess are first credited to the Consolidated Fund of India and the Central Government, after due appropriation made by the Parliament, the cess is utilised for the NCEF. It has been seen that, since the inception of the Fund, considerable quantum of the cess has not been transferred to the National Clean Energy Fund for achieving the desired objectives. This discrepancy needs to be addressed, and one approach could be to ensure that adequate allocations are made in the Union Budget keeping in mind anticipated revenues, with necessary corrections made in the supplementary budget.

## Revised Guidelines

F. No. 16(5)/PF-II/2010  
Ministry of Finance  
Department of Expenditure  
Plan Finance II Division

New Delhi: \_\_\_\_\_

### Office memorandum

**Subject: Amendment in the guidelines for appraisal and approval of projects/schemes eligible for financing under the National Clean Energy Fund.**

The following amended guidelines have been approved by the government for appraisal and approval of the projects/schemes eligible for financing under the National Clean Energy Fund, and is hereby published for general information:

#### **1 Types of projects eligible for funding**

The National Clean Energy Fund has been created for funding research and innovative projects/schemes in clean energy technology development and deployment. Any project/scheme, submitted by an individual or a consortium of organisations in the government/public/private/NGO sector relating to either of the following shall be eligible for funding under the NCEF:

- 1.1 **Category 1: Development of clean energy technologies** (through R&D in innovation and/or demonstration/pilot stages): The Fund will target projects associated with pre-commercialisation R&D activities in transformational and cutting edge clean energy technologies. The Fund will target projects that are supported by viable science; propose game-changing, transformational technology, have promising market potential, are likely to be commercialised or manufactured within the country; and have other associated co-benefits.

*Examples of category 1 projects include, but are not limited to:*

- i. Projects supporting development of renewable/alternate energy technologies;
- ii. Projects supporting development of energy efficiency equipment and technology that reduce electricity or fossil fuel consumption;
- iii. Projects supporting development of other manufactured technologies or equipment that can demonstrate their integral nature to the development of innovative renewable energy and energy efficiency technologies (for example, R&D projects in critical renewable energy infrastructure areas such as, silicon manufacturing);
- iv. Projects supporting development of cleaner fossil fuel based energy generation technologies (oil, gas, coal, and other fossil fuel technologies such as coal gasification, advanced turbine and technology for IGCC power plants, R&D on methane hydrates, enhanced recovery from unconventional resources, carbon capture and sequestration, carbon capture and reformation).
- v. Pilot and demonstration projects for commercialisation of innovative clean energy generation technologies.

- 1.2 **Category 2: Innovative methods of adoption/diffusion of clean energy technologies:** The Fund will target innovative projects/schemes that support the production, adoption, and use of energy from clean sources, as well as the adoption/diffusion of products that increase energy efficiency or use of clean energy.

*Examples of category 2 projects include, but are not limited to:*

- i. Projects supporting innovation by means of adoption/deployment of renewable/alternate energy technologies;
  - ii. Projects that lower the barriers to adoption of clean energy technologies;
  - iii. Projects/schemes supporting the demonstration and deployment of innovative integrated community clean energy solutions and smart grid technology;
  - iv. Innovative projects which result in replacement of existing technology with cleaner technology;
  - v. Research in energy sciences specifically supporting development of clean energy technologies, for example, energy storage for hybrid and plug-in electric vehicles.
- 1.3 For the purpose of this guideline, clean energy technologies refer primarily to renewable energy and energy efficiency technologies:

- 1.3.1 **Renewable energy:** Renewable energy is energy which can be obtained from natural resources that can be constantly replenished including bio-energy, geothermal energy, small/micro hydro energy, hybrid ocean energy, solar energy, and wind energy. Renewable energy technologies also include those hybrid and enabling technologies that facilitate production or consumption of renewable energy e.g. technologies that store energy generated using renewable energy; predict renewable energy supply; assist in the delivery of energy generated using renewable energy technologies to consumers, etc.

A hybrid technology is one that integrates a renewable energy generation technology with other energy generation systems. It may involve a combination of renewable energy resources with fossil fuel resources.

- 1.3.2 **Energy efficiency:** Energy efficiency technologies include 'energy efficiency', 'energy conservation' and 'demand management' technologies.

*'Energy efficiency'* refers to increased output per unit of energy input, where output and energy input are measured in physical units, and this results in a decrease in energy intensity relative to the baseline activity.

*'Energy conservation'* is the reduction of energy consumption.

'Demand management' refers to demand response, demand side management, and demand side response. A demand management technology might be considered eligible for NCEF investment where it can be clearly demonstrated that the technology results in a reduction in energy intensity.

- 1.4 Projects relating to basic/fundamental research (research undertaken to acquire knowledge for knowledge's sake without an expectation of near term application) shall not be supported through NCEF.

- 1.5 Optionally, apart from these two categories of projects/schemes mentioned in paragraph 1.1 and 1.2, a portion of the fund could also be earmarked for 'other' clean energy projects/schemes not specifically targeting innovation, but considered urgent and necessary by the IMG and Secretariat at the beginning of each allocation cycle. Examples include clean energy related projects/schemes identified under missions in the National Action Plan on Climate Change (NAPCC) and projects relating to creation of infrastructure for clean energy deployment.

## **2 Governance structure**

The NCEF is a non-lapsable fund under public accounts housed in Plan Finance II Division, Department of Expenditure.

- 2.1 The Fund will be administered by an IMG and a Secretariat comprising of two units: An administrative unit and a Technical Support Unit (TSU). The administrative unit will be responsible for the day-to-day operations of the Fund in all respects and the Technical Support Unit will assist the administrative unit in its functions, as necessary. The Secretariat will report to the Inter Ministerial Group (IMG) who will be assigned with the overall responsibility for overseeing the operations of all relevant components of the Fund. The Secretariat will be supported by the line ministries which be responsible for providing technical advisory on projects and subject matter which fall under their purview.

- 2.2 The IMG will comprise of:

- i. Finance Secretary-Chairperson;
- ii. Secretary (Expenditure);
- iii. Secretary (Revenue);
- iv. Principal Scientific Advisor to the Government of India;
- v. Representatives of the Planning Commission;
- vi. Representatives of other relevant ministries such as Ministry of Power, Ministry of New and Renewable Energy, Ministry of Environment & Forests, etc.
- vii. Ex-officio Secretary of the IMG (the Fund Director or any other chosen member of the Secretariat will be such an officer, and he will act as a permanent link between the IMG and the Secretariat of the Fund)

- 2.3 For further details on the governance structure of the Fund, and the roles and responsibilities of the IMG and Secretariat, please refer to the detailed process document.

## **3 Disbursement of funds**

In case of ministry sponsored proposals (proposals received directly from a line ministry or proposals supported by a letter of endorsement from a line ministry), NCEF funds would be allocated to the line ministry, and the line ministry would in turn allocate funds to the project. In this case, the line ministry will assume the responsibility of carrying out/overseeing M&E of the project in line with NCEF's M&E guidelines. For all other projects, the NCEF secretariat will directly disburse funds to the project proponents (with or without the involvement of a financial intermediary) and be responsible for overseeing adherence to the NCEF's M&E guidelines.

The NCEF may choose to independently disburse funds directly to the implementing agencies or may take the assistance of a financial institution for project appraisal and/or fund disbursement. The mode of appraisal defined in these guidelines and the operational processes highlighted in the process document only apply to independent disbursement of funds. A separate case specific set of guidelines and procedures would need to be prepared in case a financial institution is involved.

- 3.1 For the funds which are to be disbursed directly to the implementing agencies by the NCEF without the involvement of a financial institution, the line ministries most relevant to the project will be responsible for providing technical support to the NCEF during all stages of proposal evaluation and appraisal as well as during post-approval M&E processes.

In case the support of a financial institution is taken, it may be done in one of the following ways:

- 3.2 The IMG may choose to select a financial institution to manage all or some portion of the fund on behalf of the NCEF. In this case, the financial institution would manage the financial resources and processes (including evaluation of financial aspects), with the NCEF retaining technical and administrative control.
- 3.3 The IMG may choose to allocate a portion of the fund to a financial institution, which could in turn independently disperse funds through agreed upon financial instruments to support projects which comply with the eligibility criteria of the NCEF. A separate set of guidelines and procedures would need to be prepared in this situation to be included in the agreement between the NCEF and financial institution.

#### 4 Mode of appraisal

A summary of the steps that will be followed during proposal evaluation and appraisal is provided below. For details on the appraisal process, refer to the process document.

- (a) Proposals would be invited from eligible parties on specific dates in the beginning of a year through a call for proposals.
- (b) In a regular funding cycle, each proposal will undergo a two-stage evaluation i.e. basic eligibility check and detailed appraisal.
- (c) The basic eligibility check would be carried out by the Secretariat in consultation with the relevant line ministry as the first step of the selection process.
- (d) All the proposals that comply with the basic eligibility criteria in the first stage, will proceed to the next stage to be assessed in detail. At this stage, each project/scheme proposed to the Fund will be evaluated on its own merits guided by the detailed appraisal criteria specified in the call for proposals.
- (e) The proposals will be assessed on a point-grade system which allows ranking of projects within each funding category based on the detailed appraisal criteria. Only projects which receive marks that exceed the cut-off criteria specified under each category will qualify for funding. Funds will be distributed on the basis of ranking until available funds for a given category of projects for the call period are exhausted.
- (f) Depending on the amount of funding requested, the following authorities will need to be consulted for final approval of the proposals under NCEF on recommendations of the IMG:

Approval limit	Approval forum
< INR150 crore	The Minister-in-charge of ministry/department
>= INR150 crore and < INR300 crore	The Minister-in-charge of ministry/department and Minister of Finance

## 5 Basic eligibility criteria

- (a) The proposal should be submitted by an individual or a consortium of organisations in the government/NGO/public/private sector
- (b) The project/scheme encapsulated in the proposal should fall under the approved categories of projects specified in the guidelines or the list of 'other' project/scheme categories approved by the IMG for the given year, as listed in the call for proposals
- (c) The proposal should be submitted in the required format, completed as per the guidance and should be clear, logical and comprehensive
- (d) In case the proposal is sponsored or submitted by a line ministry itself, it will be treated as a 'ministry sponsored proposal', the fund disbursement and M&E modalities will differ as explained in the process document. Apart from proposals submitted by a line ministry itself, all other 'ministry sponsored proposals' need to clearly demonstrate that potential outcome(s) of the project aligns with and contributes towards advancing the objectives of one or more line ministries of the government. A letter of support from the relevant line ministry should be submitted as justification during proposal submission. An explanatory note, including reference to official documents or supporting web links could also be provided as additional justification.
- (e) The proposal should specify support requested in the form of concessional loans or viability gap funding (VGF). VGF is a grant one-time or deferred, provided with the objective of making a project commercially viable. Proposals for any other form of assistance may be considered by the Secretariat and sanctioned with the approval of IMG on a case-to-case basis.
- (f) The maximum percentage of funding differs for different categories of participating organisations. For any proposal from academic institutions, government/non-profit research organisations and NGOs, the NCEF may provide assistance up to 100% of the total project cost. For all other organisations, the participating organisations will have to put in a minimum financial commitment to ensure that government assistance under the NCEF does not exceed 40% of the total project cost.
- (g) Projects which are being funded by any other arm of the Government of India or have received grants from any other national/international body will have to submit a strong case to demonstrate why they need additional funding under the NCEF.

## 6 Miscellaneous

- 6.1 Intellectual Property Rights (IPR) issues will be taken on board with the aim to benefit the project proponents before funding is approved for any project.
- 6.2 In a collaborative project, only one entity can apply for funding and the eligibility criteria will only apply to the applicant entity, i.e. the lead applicant. If the application is successful, only the applicant will enter into a funding agreement. The lead applicant will be responsible for the performance of the entire project, even if it subcontracts the performance of any part.
- 6.3 Monitoring and evaluation (M&E) will be carried out by the NCEF as per approved M&E guidelines. M&E will take place both at the level of specific projects funded under the NCEF as well as at the level of the Fund as a whole. In respect of time and cost overruns, a suitable accountability mechanism on lines similar to the one being followed in EFC/PIB projects/schemes shall be enforced strictly.

(\_\_\_\_\_)

**Joint Secretary to the Government of India**

**Secretaries of all ministries/departments;**

**Financial Advisors (FAs) of all ministries/departments;**

**Copy to:**

1. Cabinet Secretariat (\_\_\_\_\_, Additional Secretary);
2. Prime Minister's Office (\_\_\_\_\_, Joint Secretary);
3. Advisor (PAMD), Planning Commission.



# Process document

## 1. Introduction

This document provides an overview of the suggested governance structure of the Fund and the basic underlying operational policies and processes. Eligibility criteria for availing funding under the NCEF has been mentioned in separate documents i.e. NCEF guidelines and the proposal evaluation guidance document.

## 2. Objective and guiding principles

The fund will operate in a transparent and accountable manner guided by principles of efficiency and effectiveness. The fund will act as a catalyst to help boost development of a robust clean energy industry in the country, by providing financial support for accelerating innovation in clean energy technology development and deployment. The Fund will be flexible and will continually evolve and amend procedures and eligibility, guided by monitoring and evaluation. The Fund will strive to maximise the impact of its funding in target areas, and seek to establish balance in allocation of resources between the thematic funding categories. The definition of the thematic funding categories could vary based on decisions taken by the IMG in subsequent strategy documents, and further sub-categories could be introduced. However, the two broad thematic categories which will guide the disbursement strategy of the fund in the short-term are:

**Category 1:** Development of clean energy technologies (through R&D in innovation and/or demonstration/pilot stages): the fund will target projects associated with pre-commercialisation R&D activities in transformational and cutting edge clean energy technologies. It will also target projects that are supported by viable science; propose game-changing, transformational technology; have promising market potential; are likely to be commercialised or manufactured within the country; and have other associated co-benefits.

**Category 2:** Innovative methods of adoption/diffusion of clean energy technologies: the fund will target innovative projects/schemes that support the production, adoption, and use of energy from clean sources, as well as the adoption/diffusion of products that increase energy efficiency or use of clean energy.

The fund can decide to either support both types of initiatives sequentially, or choose to support one or the other in any allocation cycle, as determined during strategy making. At the beginning, technology development through application oriented R&D may be given greater weightage, and in the medium to long term, support activities in the nature of barrier removal and market penetration for large scale deployment could be allotted equal priority. The sequencing and relative weights of these activities will be decided prior to the start of every allocation cycle during the strategy making phase for the fund and will be clearly mentioned in the strategy document.

## 3. Governance structure

The Fund will be administered by a dedicated NCEF Secretariat housed within the Ministry of Finance with appropriate expertise and clearly defined roles and responsibilities. The Secretariat will comprise of two units: An administrative unit and a Technical Support Unit (TSU). The administrative unit will be responsible for the day-to-day operations of the Fund in all respects and the technical support unit will assist the administrative unit in its functions, as necessary. The Secretariat will report to the Inter Ministerial Group (IMG) which will be assigned with the overall responsibility of overseeing the operations of all relevant components of the Fund. The Secretariat will be supported by the line ministries which will be responsible for providing technical advisory, solicited during appraisals and evaluations of projects and subject matter which falls under their purview. The Secretariat or TSU may also draw upon appropriate expert and technical advice from external technical advisory groups when necessary. External assessors would be hired to conduct periodic independent evaluations of the performance of the Fund and funded projects in line with approved monitoring and evaluation (M&E) guidelines.

In case of ministry sponsored proposals (proposals received directly from a line ministry or proposals supported by a letter of endorsement from a line ministry), the line ministry will assume the responsibility of

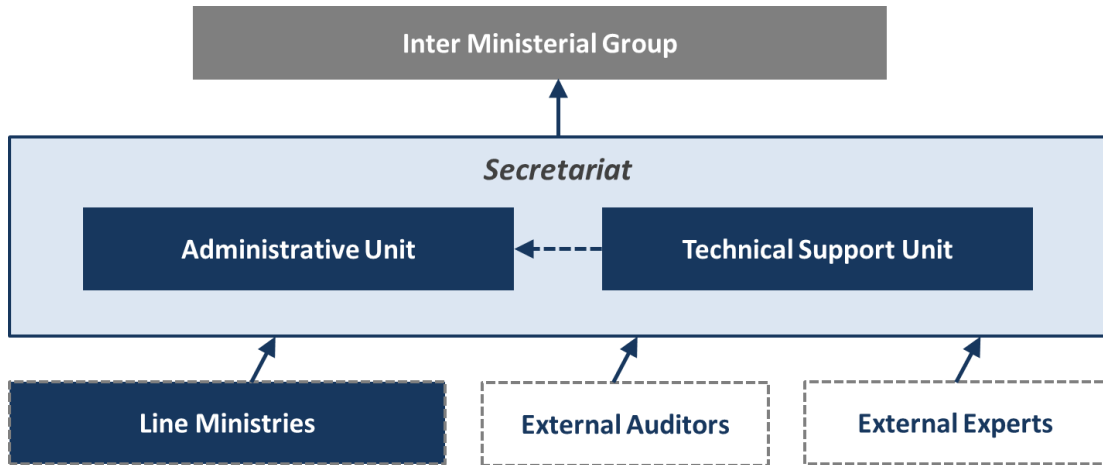
carrying out/overseeing M&E of the project in line with NCEF's M&E guidelines. In this case, NCEF funds would be allocated to the line ministry, and the line ministry would in turn allocate funds to the project. For all other projects, the NCEF Secretariat will directly disburse funds to the project proponents (with or without the involvement of a financial intermediary) and be responsible for overseeing the adherence to NCEF's M&E guidelines.

The NCEF may choose to independently disburse funds to the implementing agencies or may take the assistance of a financial institution for project appraisal and/or fund disbursement. An additional case specific set of guidelines and procedures would need to be prepared in case a financial institution is involved.

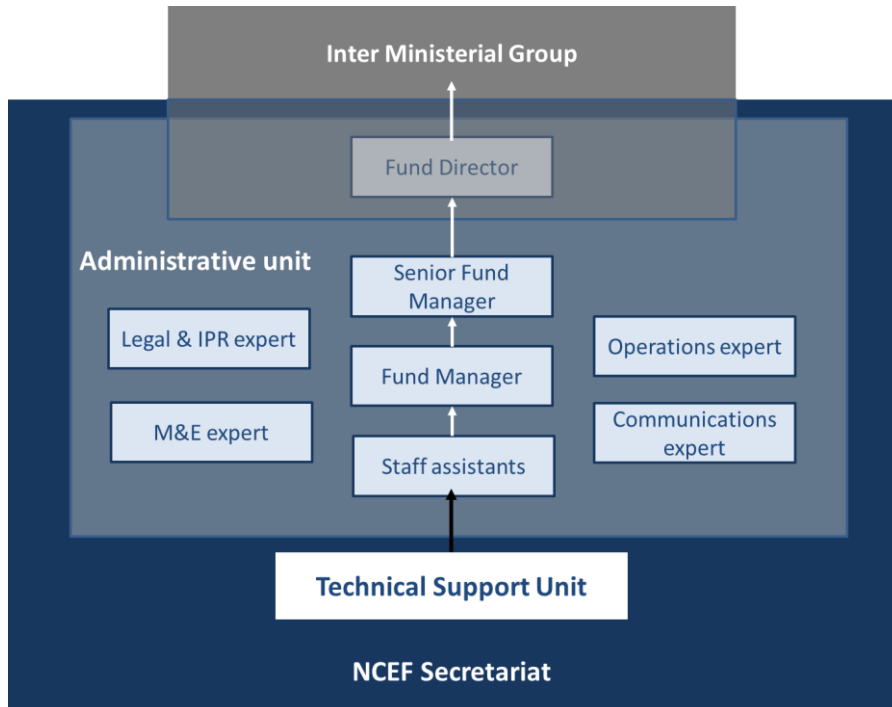
For the funds which are to be disbursed directly to the implementing agencies by the NCEF without the involvement of a financial institution, the line ministry or ministries most relevant to the project will be responsible for providing technical support to the NCEF during all stages of proposal evaluation and appraisal as well as during post-approval M&E processes. In case the support of a financial institution is taken, it may be done in one of the following ways:

- The IMG may choose to select a financial institution to manage all or some portion of the fund on behalf of the NCEF. In this case, the financial institution would manage the financial resources and disbursement processes (including evaluation of financial aspects), with the NCEF retaining all other technical and administrative controls.
- The IMG may choose to allocate a portion of the fund to a financial institution, which could in turn independently disperse funds through agreed upon financial instruments and operational processes to support projects which comply with the eligibility criteria of the NCEF. A separate set of guidelines and procedures would need to be prepared in this situation to be included in the agreement between the NCEF and the financial institution.

## Governance structure of the fund



## Composition of the Secretariat



The detailed responsibilities of each of these constituent groups are provided in the table below.

Group	Members/expertise	Responsibilities
<p><b>IMG</b></p>	<p>Finance Secretary-Chairperson;            Secretary (Expenditure);            Secretary (Revenue);            Principal Scientific Advisor to the Government of India;            Representatives of the Planning Commission;            Representatives of other relevant ministries such as Ministry of Power, Ministry of New and Renewable Energy, Ministry of Environment and Forests, etc.            Ex-officio Secretary of the IMG ( The fund director or any other chosen member of the Secretariat will act as the permanent link between the IMG and the Secretariat of the Fund)</p>	<p>Oversee the operation of all relevant components of the Fund            Govern and supervise the Fund and assume full responsibility for funding decisions            Operationalise the Fund in an expedited manner            Approve the budget and appoint members of the Secretariat and assign specific functions to them            Review and approve the overall strategy for the fund- long term and annual; including setting of thematic categories and funding allocation between the categories; prioritisation of types of projects within these categories            Ensure balance of allocation of resources between thematic categories            Review and approve funding of projects recommended by the Secretariat            Exercise such other functions as may be appropriate to fulfil the objectives of the Fund</p>
<p><b>Administrative unit</b></p>	<p>The staff of the administrative unit would constitute of both fully dedicated staff, as well as officials who are already part of the MoF, and can be given additional charge. Some staff members may be employed on contract basis for fixed periods of time owing to specific expertise requirements.</p> <p>Fund Director (Secretary or Joint Secretary level officer of the MoF recommended) leads the secretariat and its interaction with the IMG and line ministries; may act as the ex-officio secretary of the IMG; manages the human and financial resources; oversees meetings of the secretariat and IMG, and ensures that decisions are implemented; approves projects for recommendation to the IMG for funding based on technical reports submitted by TSU; oversees the development of operational and administrative policies and guidelines; ensures effective follow up and preparation of IMG and secretariat decisions; represents the NCEF externally in line</p>	<p>Develop the long-term and annual strategy documents of the Fund for approval and review by the IMG</p> <p>Balance the allocation of resources between adaptation and mitigation activities under the Fund and ensure appropriate allocation of resources for other activities (needs assessment reports, skill building, stakeholder engagement etc.) and expenditures (such as staff remuneration, administrative expenses, etc.)</p> <p>Coordinate with the relevant line ministries to assist the TSU in the evaluation and appraisal of projects that fall under their purview</p> <p>Review appraisal reports submitted by TSU and recommend projects for funding to IMG in accordance</p>

	<p>with IMG guidance</p> <p>Senior Fund Manager (lead) and Fund Manager (support) (Director level officers of the MoF recommended) manages preparations for the meetings of the IMG and Secretariat, including preparation of documentation of the meetings and follow up to decisions of the IMG; reviews funding allocation and projects for approval along with the Director; manages the work of the Secretariat on strategic policies and stakeholder engagement; manages the work on the Secretariat work plan and administrative budgets, ensuring integrity and accountability in the management of the Secretariat's financial, human, and material resources</p> <p>Legal and IPR expert (external expert recommended) provides legal advice and counsel to the IMG and other governance components of the fund to ensure due diligence in operations; recommends and approves intellectual property rights arrangements for approved projects; provides clear interpretation of all agreements and legal instruments, ensures due diligence in the legal review of all the fund's documents</p> <p>Operations expert (external expert recommended) leads the implementation of the fund's results management framework, financial policies, guidelines, benchmarks, and procedures; leads the development/review of the fund's financial instruments, including grants and concessional lending and operational procedures for employing these financial instruments; manages the fund's operational procedures</p> <p>Communications expert, coordinates with the relevant line ministries to assist the TSU in the evaluation and appraisal of projects that fall under their purview; leads the formulation and execution of the fund's communication strategy</p> <p>Monitoring and evaluation expert, reviews M&amp;E reports/summaries prepared by the TSU; advise the Fund Director on all matters related to the M&amp;E of projects as well as the fund; revise the M&amp;E guidelines of the fund, as and when necessary</p> <p>Staff assistants (one or more), provide general secretarial and administrative support to the director and other members, provide timely and appropriate support to ensure all official documentation and correspondence is prepared,</p>	<p>with the Fund's principles, criteria, modalities, and procedures, considering the balance of allocation between thematic categories</p> <p>Review and revise if necessary, project eligibility criteria and proposal approval processes for basic eligibility check or detailed appraisal stages</p> <p>Review and revise if necessary, the framework for monitoring and evaluation of performance of the Fund as well as projects on an annual basis</p> <p>Review and revise if necessary, the results measurement framework with guidelines and appropriate performance indicators, annually</p> <p>Exercise such other functions as may be directed by the IMG</p>
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	<p>edited, and formatted according to the guidelines, coordinates communication flow ensuring timely dissemination of routine information, coordinate logistical aspects of meetings, and registration at meetings, etc.</p>	
<p><b>TSU</b></p>	<p>The staff for the TSU can be hired by issuing fixed term contracts to consultants or other internal staff which may be short-term or long-term, as need be, and as per availability of funding. The TSU will continually be supported by line ministries in technical evaluation of subject matter falling under their purview.</p> <p>TSU Head leads the TSU and is responsible for reporting to the Secretariat on day to day activities of the TSU; is responsible for overall project assessments as well as M&amp;E processes prior to report submission to the Secretariat</p> <p>Head Engineering specialist; an experienced engineer responsible for allocating projects in the pipeline to the various line ministries and experts available within the NCEF or externally contracted (engineers/consultants/specialists) considering their field of expertise; responsible for tracking progress on project assessments post assignment; reviews and approves all technical eligibility checks and M&amp;E reports prior to final submission to the Secretariat</p> <p>Monitoring and evaluation specialist prepares summary documents after reviewing submitted M&amp;E reports of funded projects; prepares the annual M&amp;E report of the fund; advises the TSU head and head engineering specialist on all matters related to the M&amp;E of projects as well as the fund</p> <p>Finance specialist- reviews and assesses financial arrangements solicited within proposals; provides recommendation to the Secretariat on feasibility and suitability of financial arrangements solicited; assesses financial aspects of M&amp;E evaluations</p> <p>Technical team; this group will consist of highly experienced and skilled engineers in different types of renewable energy technologies and energy efficiency to whom proposals and projects will be allotted for assessment. The engineering team will be in charge of delivering the summary of technical eligibility analysis of proposed projects (submitted by the line ministries) and</p>	<p>Serve as the main pillar to help the Secretariat in evaluation of new proposals as well as analysing M&amp;E reports submitted by ongoing projects by coordinating with relevant line ministries</p> <p>Carry out basic eligibility check and detailed appraisal of proposals by deriving technical inputs and advisory from line ministries, and provide recommendations to the Secretariat through individual appraisal reports</p> <p>Communicate with participating organisations during the appraisal process (directly during the basic eligibility check, and through the Secretariat during the detailed appraisal stage).</p> <p>Solicit input from line ministries, consultants, experts, and stakeholders, including private sector and civil society organisations on specific technical matters</p> <p>Develop and/or revise all technical base documents including need assessment reports for strategy making, M&amp;E, and results management framework, category based funding considerations, etc.</p> <p>Exercise such other functions as may be directed by the Secretariat</p>

	M&E reports submitted by ongoing projects. The total number of members of this subdivision should be four to six (including the Head Engineering specialist).	
<b>Line ministries</b>	The line ministries are expected to designate permanent or temporary staff within the ministry to support the NCEF's Secretariat on a continuous basis. The line ministries may bear staff costs for this purpose or request the NCEF for allocating a budget to enable the same.	<p>Implement a system of assessing and sponsoring proposals or providing letters of support for potential applicants to the fund, based on priority areas of the ministry</p> <p>Support the Secretariat by providing technical advisory on projects and proposals falling under the line ministries' purview.</p> <p>Support the Secretariat in preparing its annual disbursement and allocation strategies by making available for consideration the priority areas for clean energy within the ministry.</p> <p>Support the Secretariat during project appraisal by providing opinions and advisory on all technical aspects of proposal evaluation</p> <p>Analyse and approve M&amp;E plans of funded projects and support the Secretariat in preparing project evaluation summaries.</p> <p>Exercise such other functions as may be directed by the Secretariat.</p>

Apart from permanent staff and line ministries, a pool of external experts will be identified to draw upon appropriate expert and technical advice and assist the Fund staff in strategy making for the fund as well as assessing the quality of proposals received. The pool would include experts covering the range of Fund activities, with particular emphasis on including expertise not available among the Fund's core staff at any point in time. These experts could be called on individually from time to time to provide specific, short-term assistance to the Fund staff when assessing particularly innovative proposals.

External independent assessors would be hired periodically for M&E of the fund and ongoing projects (for details, refer to the M&E process document). If necessary, external assessors may also be employed during project appraisal stages for independent evaluation of proposal merits in order to assist the Secretariat in taking appropriate and timely decisions.

#### 4. Strategy formulation for the fund

The IMG supported by the Secretariat will formulate a long-term vision (10 to 20 years) and short-term (3 to 5 years) objectives for allocation of NCEF funds. The vision should be a reflection of the fundamental purpose of the fund and clearly describe the long-term desired change resulting from the activities of the fund. The short-term objectives should provide a clear delineation priority/thrust areas and impending actions which will help translate vision into action. The short-term objectives would be updated when need arises based on the progress achieved by the Fund, as well as changes in the priority/thrust areas identified.

Further, an annual allocation discussion will also be carried out during which the Fund would periodically review its allocation and disbursement rules, formulas, and provisions. These reviews may lead to revisions in policies, procedures, and funding criteria.

The Secretariat will facilitate the preparation of the discussion document on the annual allocation and disbursement strategy of the fund at the beginning of every allocation cycle, with the assistance of the line ministries and other identified external experts/ stakeholder institutions. The objective would be to develop a document that will provide key inputs and serve as basis for IMG discussions on the decisions it needs to take with an aim to finalise the allocation and disbursement strategy for the allocation cycle. The document may not seek to provide definitive answers but should present options and their implications for consideration by the IMG. A technology needs assessment would be undertaken for this purpose by consulting and collaborating with Industry, scientific, and technical research institutions, public sector institutions such as DST, Strategic Knowledge Mission, National Innovation Foundation, NGOs, and consumer groups. The exercise will result in the identification of specific energy sub-sectors and a priority list within the sub-sectors for each of the thematic categories adopted. In addition, the Secretariat will need to develop options for determining the appropriate balance of resources between categories. Some of the guiding principles that should be used in identifying the specific energy sub-sectors and a priority list within the sub-sectors are:

- Ensuring inclusive development and energy security to all;
- Ensuring balance between promoting further innovation in existing technologies, next generation R&D, and innovative deployment of technologies.
- Encouraging R&D and innovation in key sub-sectors and technologies highlighted in other critical national documents such as five year plans, national action plan on climate change, etc.
- Addressing urgent and immediate technology needs on priority
- Providing community based local solutions;
- Building a robust clean energy industry that becomes an important driver of economic strength.

A process similar to the one initiated by the Secretariat for developing the annual allocation strategy will be followed for developing the long and short term vision documents once in every five years. All relevant line ministries and other identified external experts/ stakeholder institutions will be consulted for this purpose.

During the annual strategy making process, the Secretariat will also budget and develop the plan for knowledge creation and sharing, stakeholder engagement, and serving as an anchor for synergy between other government efforts in areas of core mandate of NCEF. The annual administrative budget and staff remuneration budget will also be included in the draft strategy document for further discussions. Although this budget could vary year on year depending on the funding corpus, available, as a thumb rule, this amount should not exceed 1 per cent of the total corpus available for funding in the NCEF, annually.

The draft strategy document prepared by the Secretariat, including the budget will be put up to the IMG for discussions, review, modifications, and approval. Based on the IMG's inputs and decisions, the Secretariat will develop a detailed annual allocation framework and disbursement strategy for the Fund. Concessional loans will be converted into grant-equivalents (net present values) and these discounted grant-equivalent values will



be used to calculate allocation targets for all categories identified by the Secretariat and IMG. The Secretariat will consult the IMG about the choice of discount rate(s) for reporting purposes. This will be complemented with the revision and adoption of approval criteria and approval processes for proposals. The timing of the call for proposals and the funding available under each call will also be decided by the Secretariat in consultation with the IMG.

## **5. Communication strategy**

The NCEF will set aside administrative budget for framing and executing a communications strategy to increase understanding of the fund's work and incite greater participation from eligible entities.

The communication strategy will respond to clear objectives, set specific targets, and identify activities that need to be executed. A communication review will be conducted as the first step, which will include analysis of the current perception of the Fund by stakeholders. Alongside, a stakeholder-mapping exercise will be undertaken in order to establish target audiences. Comparative mapping of the communication strategies and tools used by comparable funds will also be undertaken. Based on this research and the Fund's overall objectives, more detailed priorities for the Fund's communication work will be established.

As a part of the strategy, a practical schedule of communication activities for the Fund will be developed and administrative budget will be allocated for each activity. Activities will include:

- Launching a web portal for the fund (either independent or housed within MoF's website) designed for easy access by users
- Adding webcasts, online discussion sessions, and other features to the portal on a regular basis
- Making fund material more available and user friendly by preparing clear summaries and supplementary explanatory material and posting it on the website
- Enabling greater transparency in the fund's activities by making important documents publically available
- Publishing results of the activities and projects funded by the NCEF
- Expanding outreach and dialogue with the ministries, state governments, public and private sector organisations, civil society organisations, etc., through more sustained and systematic interaction by way of workshops and briefings

## **6. Project approval process**

1. Proposals would be invited by the NCEF from eligible parties on specific dates pre-determined by the Secretariat in consultation with the IMG in the beginning of the year through a call for proposals. At maximum, two rounds of call for proposals are envisaged annually in an allocation cycle, with majority of the funds envisaged to be disbursed in the first round. The second round is discretionary and may be undertaken to approve proposals that fill the gap between planned fund disbursement and actual fund disbursement for the allocation cycle, if any
2. Illustratively, in any year, annual strategy making for the fund could be carried out in the months of March and April and the first call for proposals may be floated in the month of May with the deadline of submission in the month of June. The results for the first call may be declared by the month of August. The second call could be initiated in the month of October with the deadline of submission in the month of November and declaration of results in January of the following year
3. The annual disbursement strategy document prepared at the beginning of every allocation cycle will outline the percentage of funds agreed to be allocated to the thematic categories. The disbursement strategy and the relative weightage assigned to further sub-categories (if any) will clearly be highlighted in the strategy document. Cut-off marks for consideration of proposals under the detailed appraisal stage will also be mentioned

4. Each proposal will need to be presented in a standard format for submission of projects designed by the Secretariat. Each proposal will be assigned a unique serial number upon submission and will be evaluated within the category under which it applies
5. In a regular funding cycle, each proposal will undergo a two-stage evaluation: basic eligibility check and detailed appraisal. Please refer to the call for proposals for the updated eligibility criteria and the time frame for processing of applications at each stage
6. The basic eligibility check would be carried out by the Secretariat and will be applied as the first step of the selection process. Projects will need to be assessed as 'yes' against all the basic eligibility criteria to proceed to the next stage. Applicants will be given the opportunity to submit clarifications on unclear aspects of the proposal's eligibility and will be provided preliminary feedback to be able to make modifications within a specified time period prior to declaration of results
7. While conducting the basic eligibility check, the Secretariat will engage the line ministry (or ministries) most relevant to the proposal to establish its alignment to their objectives, this is one of the basic eligibility criteria as defined in the next section
8. All the proposals that comply with the basic eligibility criteria in the first stage, will proceed to the next stage to be assessed in detail. At this stage, each project/scheme proposed to the Fund will be evaluated on its own merits guided by detailed appraisal criteria specified in the call for proposals. This assessment would primarily be carried out by the Secretariat supported by the line ministries. The Secretariat will provide an initial ranking of the proposals and shortlist them for discussions with the IMG. Post review by the IMG, the ranking could be modified to incorporate the IMG's recommendations. Applicants will be given the opportunity to make modifications to the section on nature and amount of funds required from NCEF in the proposal format, guided by IMG recommendations
9. The proposals will be assessed on a point-grade system which allows for ranking of projects within each funding category based on the detailed appraisal criteria. Only projects which receive marks that exceed the cut-off criteria, specified under each category will qualify for funding. Funds will be distributed on the basis of ranking until available funds for a given category of projects for the call period are exhausted
10. Depending on the amount of funding requested, the following authorities will need to be consulted for final approval of the proposals under the NCEF on recommendations of the IMG:

Approval Limit	Final approving authority
< INR150 crore	The Minister-in-charge of ministry/department
>= INR150 crore and < INR 300 crore	The Minister-in-charge of ministry/department and Minister of Finance
>= INR 300 crore	CCEA

11. Proposals that satisfy the basic eligibility criteria and cut-off marks criteria, but are not selected for funding in the second stage of a call period will automatically be carried forward to the next call period within the same allocation cycle without submitting a fresh proposal. The points allotted in the first call period will remain the same in the second call period. However, no project will be carried forward to the next allocation cycle

## 7. Basic eligibility check

- a. The proposal should be submitted by an individual or a consortium of organisations in the government/NGO/public /private/ sector
- b. The project/scheme encapsulated in the proposal should fall under the approved categories of projects specified in the guidelines or the list of 'other' project/scheme categories approved by the IMG for the given year, as listed in the call for proposals

- c. The proposal should be submitted in the required format, completed as per the guidance and should be clear, logical, and comprehensive
- d. In case the proposal is sponsored or submitted by a line ministry itself, it will be treated as a 'ministry sponsored proposal' and the fund disbursement and M&E modalities will differ as explained in point number 3 of this document. Apart from proposals submitted by a line ministry itself, all other 'ministry sponsored proposals' need to clearly demonstrate that the potential outcome(s) of the project aligns with and contributes towards advancing the objectives of one or more line ministries of the government. A letter of support from the relevant line ministry should be submitted as justification during proposal submission. An explanatory note, including reference to official documents or supporting web links could also be provided as additional justification
- e. The proposal should specify support requested in the form of concessional loans or viability gap funding (VGF). VGF is a grant one-time or deferred, provided with the objective of making a project commercially viable. Proposals for any other form of assistance may be considered by the Secretariat and sanctioned with the approval of IMG on a case-to-case basis
- f. The maximum percentage of funding differs for different categories of participating organisations. For any proposal from academic institutions, government/non-profit research organisations and NGOs, NCEF may provide assistance up to 100% of the total project cost. For all other organisations, the participating organisations will have to put in a minimum financial commitment to ensure that government assistance under the NCEF does not exceed 40% of the total project cost
- g. Projects which are being funded by any other arm of the Government of India or have received grants from any other national/international body will have to submit a strong case to demonstrate why they need additional funding under the NCEF

## **8. Detailed appraisal criteria (indicative)**

- a. Result areas: alignment of the target result areas of the proposed project/scheme to the overall strategy and target impact areas of the fund in the given year as well as to the general development goals, strategies, and needs of the (sub) sector/region of application would be assessed. The call for proposals would clearly outline the broad (and specific, if any) target areas that the IMG and Secretariat have decided on for the given year. The percentage of total funds to be allocated to different categories of projects (R&D/pilot, adoption/diffusion) will also be clearly specified in the call for proposals
- b. Impact and benefits: the description and/or quantification of expected results in terms of scope, potential for transformative changes or contribution to a paradigm shift, alignment with the general development goals/strategies/needs of the (sub) sector/region of application and other co-benefits and costs associated with the proposal will be analysed.
- c. Technical strength of the project (including the technical capability and resources available to the delivery organisation): it will be assessed whether the project involves an appropriate level of innovation and whether the project will resolve technical risk, or build on prior work that has an appropriate level of technical risk. It will also be assessed whether the delivery organisation (or their collaborative partners, as applicable) has the technical capacity to undertake the project and the activities and milestones planned, contribute to the achievement of the expected outputs, outcomes, and impacts
- d. Nature of financial support requested: the applicants can request for financial support in the form of concessional loans or grants/viability gap funding. Proposals requesting any other form of assistance may be considered by the Secretariat and sanctioned with the approval of the IMG on a case-to-case basis. Category 1 projects will be given preference for availing grants/viability gap funding and category 2 projects will be considered for concessional loans, unless grants/viability gap

funding is specifically requested and adequately justified (preference for availing grants/viability gap funding for category 2 projects will be given to academic institutions, government/non-profit research organisations and NGOs)

- e. Efficiency of resources: the budget of the project/scheme will be analysed to assess the efficiency of resources to be deployed. The explanation for the needed level of resources from the Fund, including an analysis of why lower funding would not be sufficient to achieve the desired results and an explanation of what would otherwise happen without access to the Fund's resources (baseline)
- f. Market demand and sustainability: the target market and the market demand for the outcome of the project/scheme will be assessed and the competitive advantage of the project outcomes compared to direct and indirect alternatives will be examined. The potential for self-sustainability beyond the funding period would also be examined

### **Monitoring and evaluation**

The monitoring of NCEF supported projects will be carried out in line with the results-based monitoring and evaluation (M&E) guidelines of the NCEF. M&E will take place both at the level of the specific projects funded under NCEF as well as at the level of the fund as a whole.

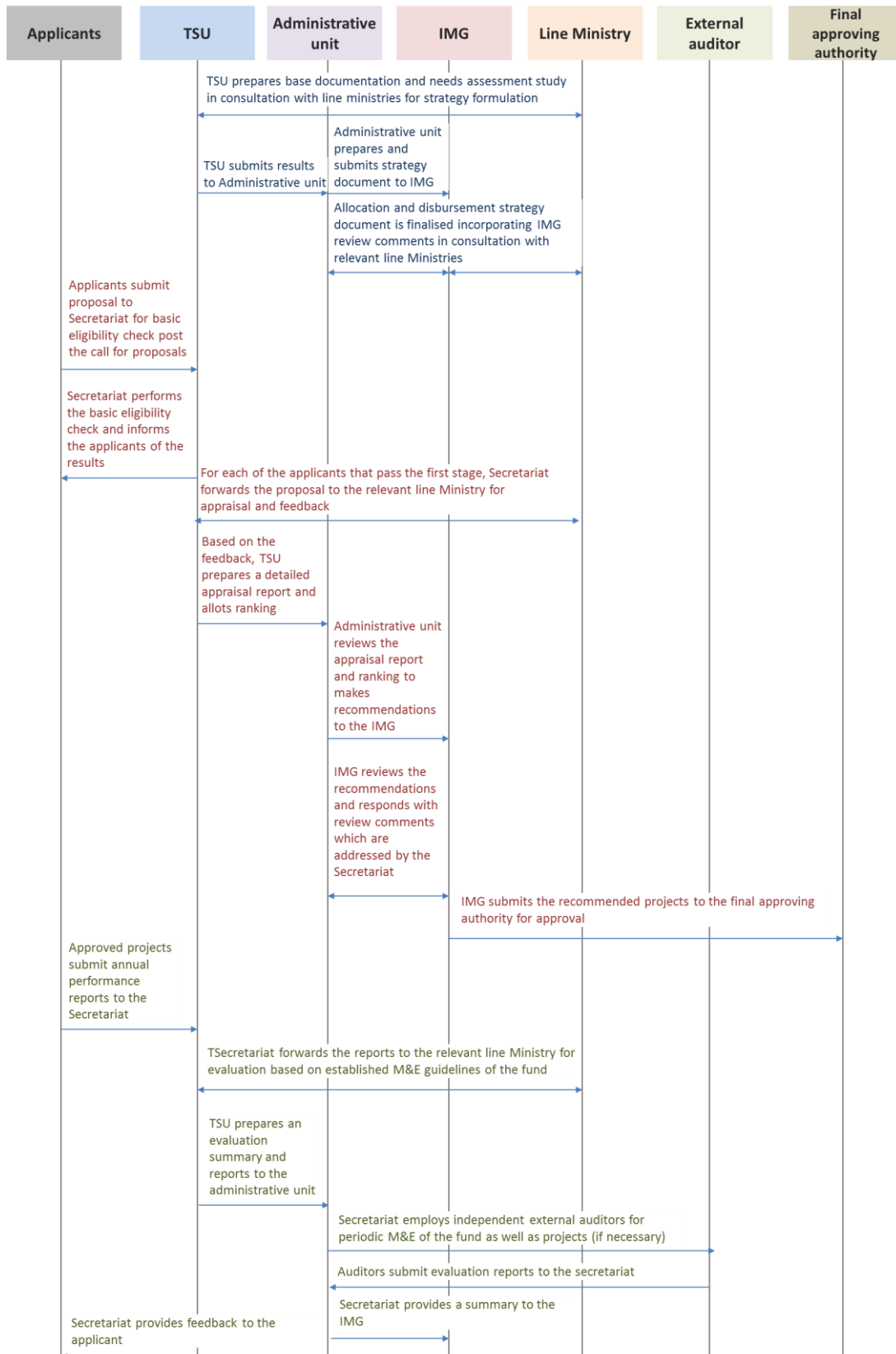
Annual project review: delivery organisations will undertake an annual project analysis to assess the performance of the funded projects in the previous year, and appraise the annual work plan for the current year on the basis of the approved M&E framework. These organisations will submit the M&E report to the Secretariat who will forward the same to the line ministry for feedback, based on which the Secretariat will compile and communicate results.

Annual Fund review: An annual Fund review will be undertaken to assess the performance of the overall Fund in the previous year against the targets set in the annual allocation and disbursement strategy and appraise the work plan for the current year on the basis of the approved M&E framework. The Secretariat will submit the M&E report to the IMG.

External review: Select NCEF supported projects and the overall Fund, will be evaluated ex-post by an independent external agency, annually.

For additional information on the M&E processes, please refer to the detailed M&E guidelines.

# Process flow chart



## Revised Application Form

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<b>1</b>	<b><i>Project/scheme overview: snapshot</i></b>
1.1	Name of the project/scheme
1.2	Category of project/scheme
1.3	Purpose of project/scheme
1.4	Ministry sponsored or stand-alone proposal
1.5	Location
1.6	Nature of support required from the NCEF
1.7	Fund disbursement
<b>2</b>	<b><i>Project/scheme entities</i></b>
2.1	Name of the relevant ministry/administrative agency (if applicable)
2.2	Delivery organisation
2.3	Name of sponsoring or collaborating/partnering entity
<b>3</b>	<b><i>Project/scheme details</i></b>
<b>3.1</b>	<b><i>Project/scheme narrative</i></b>
3.1.1	Overview
3.1.2	Why should the project/scheme be implemented?
3.1.3	Baseline scenario/current context
<b>3.2</b>	<b><i>Result areas and potential impact</i></b>
3.2.1	Alignment with the fund's priorities
3.2.2	Sectoral needs
3.2.3	Replicability and transformative impact
3.2.4	Climate, energy, and pollution related benefits
3.2.5	Other co-benefits
<b>3.3</b>	<b><i>Technology description</i></b>
3.3.1	Technology type
3.3.2	Stage of technology
3.3.3	Level of innovation
3.3.4	Baseline scenario
3.3.5	Assets required
3.3.6	Import of equipments
<b>3.4</b>	<b><i>Timelines and activity wise work plan</i></b>
3.4.1	Project/scheme start date
3.4.2	Tentative project/scheme end date
3.4.3	Duration of the project/scheme
3.4.4	Project Implementation Schedule (PIS)
<b>3.5</b>	<b><i>Capability of implementing the project/scheme</i></b>
3.5.1	Technical ability of company
3.5.2	Management capability of company
3.5.3	Benefit of collaboration
<b>4</b>	<b><i>Project category based questions</i></b>
<b>4.1</b>	<b><i>Category 1: pilot/demonstration project</i></b>
4.1.1	Project expansion plan
<b>4.2</b>	<b><i>Category 1: R&amp;D projects</i></b>
4.2.1	R&D details
	Future collaborations intended

<b>4.3</b>	<b><i>Category 2 projects</i></b>
4.3.1	Commercialisation potential
4.3.2	Commercialisation strategy
4.3.3	Geographic market
<b>5</b>	<b><i>Project/scheme financials</i></b>
<b>5.1</b>	<b><i>Funding requirements</i></b>
5.1.1	Financial instrument
5.1.2	Rationale for NCEF financing
5.1.3	Estimated capital costs with break-up under major heads of expenditure
5.1.4	Funding requirements according to activities
5.1.5	Financing plan
5.1.6	Existing sources of financing
5.1.7	Support from other schemes
5.1.8	Support from other sources
5.1.9	NCEF funding requested as a percentage of total project cost
<b>5.2</b>	<b><i>Financial performance (if applicable)</i></b>
5.2.1	Economic IRR
5.2.2	Financial IRR
5.2.3	Revenue streams
5.2.4	Profitability projections
5.2.5	Tariff authority
5.2.6	Average debt service coverage ratio
5.2.7	Payback period
<b>6</b>	<b><i>Market demand and sustainability</i></b>
6.1	Target market and market demand
6.2	Competitive advantage
6.3	Sustainability
<b>7</b>	<b><i>Risk and external factors</i></b>
7.1	Technical risk/uncertainties of the project/scheme
7.2	Other risk factors
<b>8</b>	<b><i>Others</i></b>
8.1	Intellectual property rights
8.2	Any other remarks

## Application Form

Sr.No.	Information requested	Description	Guidance
<b>1</b>	<b>Project/scheme overview: snapshot</b>		
1.1	Name of the project/scheme	What is the title of the support project/scheme?	<i>The title should be succinct. If the application is successful, this project/scheme title may be used by the Indian Government in published material</i>
1.2	Category of project/scheme	Which category does the project/scheme fall into: category 1, category 2, or other projects?	<p><b>Category 1:</b> development of innovative clean energy technologies (through R&amp;D in innovation and/or demonstration/pilot stages): the fund will target projects/schemes associated with pre-commercialisation R&amp;D activities in transformational and cutting edge clean energy technologies. It will also target projects/schemes that are supported by viable science; propose game-changing, transformational technology; have promising market potential; are likely to be commercialised or manufactured within the country; and have other associated co-benefits</p> <p><b>Category 2:</b> improved innovative methods of adoption/diffusion of clean energy technologies: the fund will target innovative projects/schemes that support the production, adoption and use of energy from clean sources, as well as the adoption/diffusion of products that increase energy efficiency or use of clean energy</p> <p><b>Other projects/schemes:</b> projects/schemes not specifically targeting innovation, but considered urgent and necessary by the competent committee at the beginning of each allocation cycle. Please refer to the call for proposals document for further details</p>
1.3	Purpose of project/scheme	What does the applicant want to achieve by carrying out this project/scheme?	<i>In 2 to 3 succinct sentences, describe the fundamental purpose and the anticipated change the project/scheme intends to bring about, the immediate outcome or direct benefit, as well as overall result that the project/scheme aims to bring about. This should not contain project/scheme details which can be described elsewhere in the form</i>
1.4	Ministry sponsored or stand-alone proposal		<i>Please specify if it is a ministry sponsored or stand-alone proposal. A ministry sponsored proposal can be submitted by a ministry itself; or can be a proposal submitted by any other entity that justifies endorsement through a letter of support from the ministry specifying that the ministry is interested in receiving and routing NCEF</i>



			<i>funding to the delivery organisation, and assuming M&amp;E oversight responsibilities</i>
1.5	Location	State	<i>Please indicate the exact location where the project/scheme will be implemented. Please include exact geographical coordinates including relevant information such as accessibility to the site in case of a category 1 project, and the geographic boundary in case of a category 2 project</i>
		District	
		Town	
1.6	Nature of support required from NCEF	Which form of support is requested?	<i>Please mention which form of support is requested: concessional loans, viability gap funding or alternative instruments. In case alternative instruments are requested, please provide justification for the same</i>
1.7	Fund disbursement	Bulk financing	
		Annual financing:	
		Year 1	
		Year 2	
		Year 3	
		Year 4	
<b>2</b>	<b><i>Project/scheme entities</i></b>		
2.1	Name of the relevant ministry/administrative agency (if applicable)	Name	<i>This is an optional requirement. The proposal may be submitted by a ministry/department itself, in that case the delivery organisation will be the ministry itself. For all other projects, the potential outcome(s) of the project may align with and contribute towards advancing the objectives of one or more line ministries of the government. The applicant may choose to submit a letter of support, if available, from the relevant line ministry or an explanatory note, including reference to official documents or supporting web links as proof</i>
		Location	
		Details of point of contact	
		Justification	
2.2	Delivery organisation	Name of qualified delivery organisation	
		Type of institution	

Legal form	
Department	
Postal address	
Contact person	
Telephone	
Telefax	
Email	
Website	
Total staff	
Staff for the project/scheme	
Year established	
Turnover	
Experience with the implementation of clean energy programmes/projects involving technical development, testing, production start-up, and transition to commercial reality	
Experience with activities relevant to the project/scheme	<i>Please indicate the experience in years (rounded)</i>
Role in the project/scheme	<i>Please describe the role of the organisation in the delivery of the project/scheme</i>

		Availability of skilled technical staff and/or sub-contractors	
2.3	Name of sponsoring or collaborating/partnering entity (insert more cells in case there is more than one sponsoring or collaborating entity)	Name	
		Type of institution	
		City	
		Country	
		Total staff	
		Staff for the project/scheme	
		Year established	
		Turnover	
		Experience with activities relevant to the project/scheme	<i>Please indicate the experience in years (rounded)</i>
		Role within the project/scheme	
		Type of collaboration	<i>Please provide evidence of an agreement setting out existing and proposed ownership and disposition of associated intellectual property rights with the application</i>
<b>3</b>	<b>Project/scheme details</b>		
<b>3.1</b>	<b>Project/scheme narrative</b>		
3.1.1	Overview	Overview	<i>The project/scheme narrative should be a brief explanation of the product, process or service to be researched or commercialised and a summary of what the applicant plans to do with the NCEF grant and the expected project/scheme outcomes. Do not include in-depth detail on the applicant or its history. Focus on the project/scheme and putting it into the context of benefits for users/country For example:</i>

			<i>(Applicant) is developing/has developed (innovative product, process or service) for the (target/priority market/industry/application sectors). NCEF funding support will be used to help (Applicant) (benefit of financial support from NCEF).</i>
3.1.2	Why should the project/scheme be implemented?	Justification	<i>Provide a brief description on why the project/scheme is needed, highlighting the current scenario, context, and challenges in the country and (sub)sector with reference to the objectives of the project/scheme and the envisaged measures</i>
3.1.3	Baseline scenario/current context		<i>Please provide a description of the starting situation/baseline scenario for the project/scheme in its national and sector context as a reference scenario</i>
<b>3.2</b>	<b><i>Result areas and potential impact</i></b>		
3.2.1	Alignment with the fund's priorities	How do the result areas of the proposed project/scheme contribute to the overall strategy and priority target impact areas of the fund in the given year?	<i>Demonstrate how the project will contribute to the achievement of the NCEF's objectives and result areas for the year (decided at the beginning of each allocation cycle and mentioned in the call for proposals)</i>
3.2.2	Sectoral needs	How does the outcome of the project/scheme align with the general development goals, strategies, and needs of the (sub)sector/region of application?	<i>Describe the current scenario, broader context, goals, strategies, and challenges of the target (sub)sector/region of application and explain how the project/scheme addresses these needs</i>
3.2.3	Replicability and transformative impact	What are the expected results in terms of scope of impact, replicability, potential for transformative changes or contribution to a paradigm shift?	<i>Describe the scope for scalability/replicability/transformative impact of the results of the project/scheme</i>

3.2.4	Climate, energy, and pollution related benefits	A note on possible impact of successful implementation of the project/scheme on pollution control/climate change/better utilisation of clean energy resources	<i>In case a study has been conducted to support the above, a copy may be attached</i>
3.2.5	Other co-benefits	Co-benefits	<i>Please provide details explaining which additional development co-benefits beyond energy related benefits will be achieved through the project/scheme. For example, social and economic benefits. Environmental benefits are covered above, do not repeat the information here</i>
<b>3.3</b>	<b>Technology description</b>		
3.3.1	Technology type	Please specify the nature of technology	<i>In case it is a renewable energy technology, specify if there is a natural resource being harnessed (for example, bioenergy, geothermal energy, hydro energy, hybrid, ocean energy, solar energy, wind energy) or if the technology is an enabler (for example to store energy generated using renewable energy, predict renewable energy supply or assist in the delivery of energy generated using renewable energy technologies to energy consumers) or hybrid technology (one that integrates a renewable energy generation technology with other energy generation systems). In case it is an energy efficiency technology, specify whether it is an 'energy efficiency', 'energy conservation' or 'demand management' technology. In case it is neither of the above, specify the nature of the technology and justify its applicability to the guidelines</i>
		Provide details about the technology	<i>Provide a brief overview of the technology, include an overview of the uniqueness of technology or means of commercialisation/adoption/diffusion to justify the innovative content of the proposal. Attach any diagrams, illustrations or charts which would assist in explaining the innovation and technical features of the product, process or service. Describe the technical differentiation of the proposed project outcome from similar, comparable or already available products, processes or services</i>
3.3.2	Stage of technology	Specify which stage the technology is in (in line with the category of project/scheme)	<ul style="list-style-type: none"> <li>• R&amp;D</li> <li>• Demonstration</li> <li>• Deployment</li> <li>• Diffusion</li> <li>• Commercial maturity</li> </ul>

		Describe any technical uncertainties	<i>Discuss any prior work on the project/scheme, any remaining key technical uncertainties and how the applicant will overcome them</i>
3.3.3	Level of innovation	Innovation aspects	<i>Describe how the project/scheme utilises innovative methods or contributes to innovation in the clean energy sector in India</i>
3.3.4	Baseline scenario	Describe the baseline technology in the absence of the project/scheme	<i>Describe the most likely or best substitute technology available in the geographic boundary of the project/scheme</i>
3.3.5	Assets required	Status note on assets required (e.g. land/machinery) to initiate the project/scheme, along with firm timelines by which necessary infrastructure shall be in place	<i>Provide a detailed explanation on land, infrastructure, machinery, equipments, etc. which would be required by the project/scheme</i>
3.3.6	Import of equipments	List the project equipment (needs to be imported)	
<b>3.4</b>	<b><i>Timelines and activity wise work plan</i></b>		
3.4.1	Project/scheme start date	[MM/YYYY]	
3.4.2	Tentative project/scheme end date	[MM/YYYY]	
3.4.3	Duration of the project/scheme		<i>Mention the years and months</i>
3.4.4	Project Implementation Schedule (PIS)	Activity schedule table	<i>Please provide a detailed project activity schedule. For, category 2 projects, project outputs could include proof of technology, concept, profitability, and commercialisation. Refer to the attached template</i>

		Log-frame matrix	<p><i>Please refer to attached template:</i></p> <p><i>Activities: practical time bound actions that the project carries out to deliver the desired project outputs.</i></p> <p><i>Implementation: indications of coordination with other sources of support, effective administration and management, and cost effective operations in the use of public funds.</i></p> <p><i>Output: goods and services that the project must deliver to achieve the project.</i></p> <p><i>Outcome: short to medium term behavioural or systemic effects such as adoption of new practices, improved institutional competency, and new policies.</i></p> <p><i>Impacts: fundamental and durable change in the condition of the pre-project/programme scenario such as lasting improvements in the status of clean energy penetration; or indications of barriers addressed viz. industry development, stakeholder satisfaction, etc.</i></p> <p><i>Indicators should be SMART: Specific, Measurable, Achievable, Relevant, and Time-bound</i></p>
		Reporting mechanisms	<i>Please provide information on how the monitoring and reporting for the project/scheme will be conducted. Provide details on indicators/parameters which will be monitored and assign responsibilities</i>
		Frequency of reporting	<i>Mention how frequently the reporting will be done (weekly, monthly, quarterly, semi annually, annually)</i>
<b>3.5</b>	<b>Capability of implementing the project/scheme</b>		
3.5.1	Technical ability of organisation	Demonstrate possession of technical capacity to undertake the project/scheme	<p><i>Demonstrate that the applicant has:</i></p> <ul style="list-style-type: none"> <li><i>• Adequate infrastructure, facilities, and equipment available to meet the short and long-term requirements of the project/scheme</i></li> <li><i>• A good understanding of the technical development, testing, and transition to commercial reality</i></li> <li><i>• Appropriately skilled technical staff and/or sub-contractors</i></li> </ul>
3.5.2	Management capability of organisation	Demonstrate possession of management capacity to undertake the project/scheme	<p><i>Can be demonstrated through:</i></p> <ul style="list-style-type: none"> <li><i>• How key management personnel have appropriate expertise and a solid track record in project management, commercialisation management, and business management</i></li> <li><i>• How the project fits within the applicant's business and/or commercialisation strategy</i></li> <li><i>• Relevant personnel and their relevant business achievements applicable to the project/scheme</i></li> <li><i>• Company financial viability and performance</i></li> </ul>

3.5.3	Benefit of collaboration	In case of collaboration, how will the project/scheme benefit from the partnership	<p><i>Can be demonstrated through:</i></p> <ul style="list-style-type: none"> <li>• <i>Alignment of interests between parties</i></li> <li>• <i>Terms and nature of the collaboration agreement (including sharing of risks, benefits, IP management)</i></li> <li>• <i>Appropriateness of the project team to undertake the project</i></li> <li>• <i>Adequate project governance arrangements between the parties</i></li> </ul>
<b>4</b>	<b><i>Project category based questions</i></b>		
<b>4.1</b>	<b><i>Category 1: pilot/demonstration project</i></b>		
4.1.1	Project expansion plan	Is there a project expansion plan already in place? Please provide details	<i>Provide details on whether a market assessment for commercialisation of the project/scheme has been undertaken</i>
<b>4.2</b>	<b><i>Category 1: R&amp;D projects</i></b>		
4.2.1	R&D details	Sketch of the project/scheme background, with critical evaluation of the existing situation, specifically identifying the gaps which the project is intended to fill	<ul style="list-style-type: none"> <li>• <i>Process</i></li> <li>• <i>Technology details</i></li> <li>• <i>Source of technology</i></li> <li>• <i>Whether indigenous/imported technology, copy of technology, tie-up agreement and its salient features</i></li> <li>• <i>Statutory approvals/clearances required and present status</i></li> <li>• <i>Patent status of the product/process/service</i></li> <li>• <i>Other competing players, product advantage</i></li> <li>• <i>Indigenous aspects, specific features</i></li> <li>• <i>Testing facilities and quality assurance for the product</i></li> <li>• <i>Uniqueness of the technology</i></li> </ul>
	Future collaborations intended	Yes/no	<i>Provide details of future collaborations envisaged</i>
<b>4.3</b>	<b><i>Category 2 projects</i></b>		
4.3.1	Commercialisation potential	Provide a realistic estimate of market demand for the project outcomes	<i>Provide a definition of the target market and evidence of market demand, competitive advantage of the project outcomes compared to alternatives and why the project outcome will be successful, the strength of the intellectual property/intellectual property</i>



			<i>management strategy and how it will address the market opportunity and the static or dynamic nature of the relevant market</i>
4.3.2	Commercialisation strategy	Outline the commercialisation strategy setting out a clear route-to-market for the project outcomes	<i>Define market entry barriers and the strategies to overcome these barriers, manufacturing and market supply strategy including channel partners if relevant, timeframe to first market entry and outlining expected market growth, revenue strategy including the pricing strategy and the pricing model, and how the applicant will fund the deployment beyond the grant period</i>
4.3.3	Geographic market	Geographies in which to install the project outcome	<i>Provide the current estimated total number of units of technology sold/utilised per annum in the existing market and provide assumptions you are using to calculate the expected market uptake of your product, process or service in terms of sales within the target market</i>
<b>5</b>	<b><i>Project/scheme financials</i></b>		
<b>5.1</b>	<b>Funding requirements</b>		
5.1.1	Financial instrument	Viability funding/loan/other gap	<i>Provide justification for type of funding solicited</i>
5.1.2	Rationale for NCEF financing		<i>Explain the need for requested level of resources from the Fund, including an analysis of why lower funding would not be sufficient to achieve the desired results and also provide an explanation of what would otherwise happen without access to the Fund's resources</i>
5.1.3	Estimated capital costs with break-up under major heads of expenditure	Capex costs: indicate the basis of cost estimation	<i>Land, plant, and machinery, civil works, erection and commisioning, interest during construction, financing expenses to procure the asset, preliminary and pre operative expenses, insurance Cost estimates must not be more than three months old, at the time of being considered by IMG</i>
		Opex costs: indicate the basis of cost estimation	<i>Expenditure on manpower, repairs, spares, consumables, insurance, and overheads</i>
5.1.4	Funding requirements according to activities	Activity wise break-up of cost	<i>Please provide the money allocation according to the activity and divide it further according to the sub activity of the project/scheme. Refer to attached format</i>
5.1.5	Financing plan	-	

5.1.6	Existing sources of financing	Provide existing sources of financing (equity, debt, mezzanine capital, etc.)	<i>Please outline the financing contributions for the overall project/scheme from the different financing sources</i>
5.1.7	Support from other schemes	Whether project/scheme is covered under any other scheme of GOI/state government. If yes, provide justification for seeking funding from the NCEF	<i>In case it is covered by another government scheme, please state the name of the scheme under which the project/scheme is covered and provide justification for seeking additional NCEF funding</i>
5.1.8	Support from other sources	Is the project/scheme funded by any other arm of the Government of India or has received grants from any other national/international body?	<i>If no, please justify why additional funding from the NCEF is necessary</i>
5.1.9	NCEF funding requested as a percentage of total project cost	Does this comply with general NCEF guidelines? In case of a deviation, provide justification	<i>The maximum percentage of funding differs for different categories of participating organisations . For any proposal from academic institutions, government/non-profit research organisations and NGOs, NCEF may provide assistance up to 100% of the total project cost. For all other organisations, the participating organisations will have to put in a minimum financial commitment to ensure that government assistance under the NCEF does not exceed 40% of the total project cost</i>
<b>5.2</b>	<b><i>Financial performance (if applicable)</i></b>		
5.2.1	Economic IRR	Over project life	<i>An ERR provides an indication of the benefits of a project in monetary terms. ERRs can be considered as best pre-investment estimate of the likely economic impact of the proposed investment</i>
5.2.2	Financial IRR	Over project life	<i>The Internal Rate of Return (IRR) is the discount rate at which the present value of all future cash flow is equal to the initial investment or in other words the rate at which an investment breaks even. Indicate various assumptions (attach separate sheet if necessary)</i>
5.2.3	Revenue streams	Indicate the revenue streams of the project (annual flows over project life). Also indicate the underlying assumptions	<i>Take into account cost savings expected over existing technologies and the expected turnover of the project</i>

5.2.4	Profitability projections	Give the basis and assumptions for various heads of income and expenditure. Also provide projected balance sheet	
5.2.5	Tariff authority	Authority responsible for fixing tariff/user charges	<i>Specify in detail who will fix the tariff/user charges (if applicable) and how will it be fixed?</i>
5.2.6	Average debt service coverage ratio	Only in case there is a loan component	<i>In finance, it is a ratio used by bank loan officers in determining loans. This ratio should ideally be over 1, that would mean the investment is generating enough income to pay its debt obligations</i>
5.2.7	Payback period		<i>Provide average payback and discounted payback period</i>
<b>6</b>	<b><i>Market demand and sustainability</i></b>		
6.1	Target market and market demand	Define the demand for the product within the relevant market	<i>Describe the target market (geographical coverage, profile of customers) and the market demand for the outcome of the project/scheme, including different customer segments and the factors that give rise to the demand. In case research reports are available, provide references for industry trends. Estimate the share of the market that can be captured with the product</i>
6.2	Competitive advantage	Describe the competitive advantage of the project outcomes compared to direct and indirect alternatives	<i>Frame response around the following questions: What competition is out there? Is it direct or indirect, local, national, or international? How distinct is the product from what is being offered by the competition? Can the product stand the test of changing trends or take advantage of it before it dies out?</i>
6.3	Sustainability	Describe the potential for self sustainability beyond the funding period	<i>Describe whether the benefits of the project are likely to continue after external support has been completed. Describe, if applicable, the mechanisms to be deployed for ensuring sustainability e.g. through participation, empowerment, ownership, etc. as sustainability is concerned with what happens after a project is completed, it is often difficult to provide a reliable assessment of sustainability while activities are still underway, or immediately afterwards. In such cases, the assessment should be based on projections of future developments based on available knowledge about the intervention/product and the capacity of the implementing entity to deal with changing contexts. Analyse the contextual setting, its capabilities and restraints and future scenarios. Common sustainability factors: 1. Policy support measures</i>

			<p><i>Policies, priorities, and specific commitments of the recipient supporting the chances of success</i></p> <p><i>2. Choice of technology</i> <i>Choice and adaptation of technology appropriate to existing conditions</i></p> <p><i>3. Environmental matters</i> <i>Exploitation, management, and development of resources. Protection of the environment</i></p> <p><i>4. Socio-cultural aspects</i> <i>Socio-cultural integration. Impact on various groups (gender, ethnic, religious, etc.)</i></p> <p><i>5. Institutional aspects</i> <i>Institutional and organisational capacity and distribution of responsibilities between existing bodies</i></p> <p><i>6. Economic and financial aspects</i> <i>Economic viability and financial sustainability</i></p> <p><i>7. External factors</i> <i>Political stability, economic crises and shocks, overall level of development, balance of payments status and natural disasters</i></p>
<b>7</b>	<b><i>Risk and external factors</i></b>		
7.1	Technical risk/uncertainties of the project/scheme	Describe the technical risk/uncertainties of the project/scheme	<i>Explain technical risk/uncertainties resolved in previous R&amp;D and proof-of-concept activities for the project/scheme. Describe any safeguards in place to tackle these risks</i>
7.2	Other risk factors		<i>Describe external factors such as key policies, regulatory and/or market environment factors that may affect the delivery of results, and detail associated risks</i>
<b>8</b>	<b><i>Others</i></b>		
8.1	Intellectual property rights	Whether any intellectual property right(s) safeguards are necessary? If yes, then details thereof	<i>All IPR arrangements must comply with the IPR guidelines of the NCEF. Documentary evidence of intellectual property arrangements must be included in the application. If it is not appropriate or necessary to access intellectual property to carry out and/or commercialise the project, then such documentation will not be required. If an application is successful, all intellectual property arrangements must be formalised before a funding agreement is executed. Provide details of concept/idea patent, process patent, product patent, copyright, trademark, publications (if applicable)</i>
8.2	Any other remarks		



## Activity schedule and budget

<b>Project title</b>	please fill in the project title
<b>Project category</b>	please mention project category
<b>Delivery organisation</b>	please fill in name of delivery organisation

### Legend/colour coding

<b>Outcome</b>
Output time-frame
Activity time-frame
Milestones

	Outcome, outputs and activities	Year 1				Year 2				Year 3				Budget
		1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	
<b>Outcome</b>	please fill in the outcome													
Output 1	please fill in the output													
Activity 1.1	please fill in the activity													Activity wise budget
Activity 1.2	please fill in the activity													Activity wise budget
Activity 1.3	please fill in the activity													Activity wise budget
...														
Output 2	please fill in the output													
Activity 2.1	please fill in the activity													Activity wise budget
Activity 2.2	please fill in the activity													Activity wise budget
Activity 2.3	please fill in the activity													Activity wise budget
...														

Output 3	please fill in the output													
Activity 3.1	please fill in the activity													Activity wise budget
Activity 3.2	please fill in the activity													Activity wise budget
Activity 3.3	please fill in the activity													Activity wise budget
...														

## Log-frame

Summary	Indicators	Sources of verifiability	Central assumptions/risks
<b>Overarching project/programme goal</b>	Baseline:  Indicator:		-
<b>Outcome</b>	Baseline:  Indicator:		<i>(please describe the essential assumptions for reaching the overarching project goal)</i>
<b>Output</b>	Baseline:  Indicator:		<i>(please describe the essential assumptions for reaching the project outcome)</i>
<i>Output A</i>	Baseline:  Indicator:		
<i>Output B</i>	Baseline:  Indicator:		
<b>Main activities</b>			<i>(please describe the essential assumptions for reaching the outputs)</i>
<i>Activity A</i>			
<i>Activity B</i>			



# Proposal Evaluation Form

## Summary

1. General information	
1.1	Project number
1.2	Project title
1.3	Nodal ministry
1.4	Project category <i>Category 1, category 2, or other</i>
1.5	Project summary (200 words)

## Summary

1.6	Date of submission	
1.7	Supporting application documents	Yes <input type="checkbox"/> No <input type="checkbox"/>

## List documents

1.7	Approved for funding?	Yes <input type="checkbox"/> No <input type="checkbox"/>
1.8	Points allotted as per detailed eligibility criteria	0
1.9	Project ranking	1

## Final explanatory statement

**Assessed by:**  
*Name and affiliation of participating committee members*

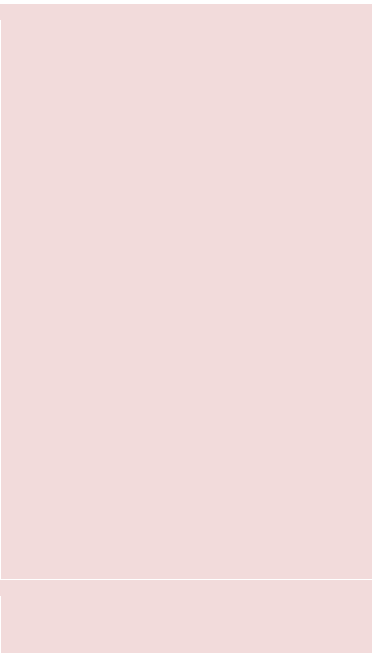
**Sign off**  
Signature:  
Name:  
Date:

## Basic eligibility checklist

Criteria		Requirement	Comments	Yes	No
1	Type of project/scheme	Does the project/scheme fall under one of the two eligible categories of projects specified in the guidelines or the list of 'other' project/scheme categories approved by the IMG for the given year in the call for proposals?		<input type="checkbox"/>	<input type="checkbox"/>
		<b>Eligibility of project type</b> <input type="checkbox"/>			
2	Adherence to format	Is the proposal submitted in the required format, complete as per the guidance and is clear, logical, and comprehensive		<input type="checkbox"/>	<input type="checkbox"/>
		<b>Eligibility of the proposal format</b> <input type="checkbox"/>			
3	Eligibility of the delivery organisation	Legal entity		<input type="checkbox"/>	<input type="checkbox"/>
		Individual/consortium of organisations in the government/public/private sector		<input type="checkbox"/>	<input type="checkbox"/>
		<b>Eligibility of the delivery organisation</b> <input type="checkbox"/>			
4	Ministry sponsored proposals	Is the proposal ministry sponsored? If yes, has a letter of support been furnished?		<input type="checkbox"/>	<input type="checkbox"/>
		<b>Justification provided</b> <input type="checkbox"/>			

5	<b>Financial support requested</b>	Has the proposal requested for support in the form of concessional loans or viability gap funding? In case the applicant is not an academic institution, government/non-profit research organisation or NGOs, is it ensured that government assistance under the NCEF does not exceed 40% of the total project cost? In case any other form of assistance is requested, has the proposal provided a strong justification for the same?	<input type="checkbox"/> <input type="checkbox"/>
<b>Appropriate financing support requested <input type="checkbox"/></b>			
6	<b>Other sources of funding</b>	Has it been stated that the project/scheme is not funded by any other arm of the Government of India and has not received grants from any other national/international body? If no, has a justification been provided to demonstrate why additional funding under NCEF is required?	<input type="checkbox"/> <input type="checkbox"/>
<b>Appropriateness of other sources of funding <input type="checkbox"/></b>			
<b>Does the project/scheme meet the basic eligibility criteria for NCEF funding support <input type="checkbox"/></b>			

**Explanatory statement** (*in case any of the eligibility criteria are not met, and yet the decision to take the proposal to the next round is taken*)



## Detailed assessment criteria

Criteria	Points	Description
<b>1. Result areas and potential impact</b>		
1.1	/10	The project/scheme should be able to contribute to the achievement of the fund's objectives and result areas for the year (decided at the beginning of each allocation cycle and mentioned in the call for proposals). Proposals with the potential to contribute to high priority result areas should be awarded the maximum points and the those with target areas which are not part of the list of priorities should be awarded the lowest points.
1.2	/10	The current scenario, broader context, goals, strategies, and challenges of the target (sub)sector/region would need to be analysed to determine whether the objectives of the project/scheme addresses these needs adequately. If the project/scheme addresses high priority clean energy needs of the sector/region and is contributing to changing the prevailing structures of the sector or helping to overcome systemic barriers, it should be awarded the maximum points.
1.3	/5	Proposals which have a large scope of impact or high degree of scalability/replicability/transformational impact should be awarded the maximum points. For this, it would need to be assessed whether the the baseline (situation in the absence of the project/scheme) has been adequately defined and what potential there is for significant positive deviation from the baseline because of the project/scheme. Assess this criteria based on the indicators that the applicant has provided in the application form to measure the success of the project and the projection of their values.
1.4	/5	The project/scheme may have significant social and economic benefits beyond energy related outputs such as employment generation, health and safety, capacity building, etc. Projects with significant co-benefits addressing priority needs of the sector/region of implementation should be allotted the maximum points.

## 2. Technical strength

2.1

Technical capacity to undertake the project/scheme (Refer Application Form S. No. 3.5)

/10

The technical capacity of the delivery organisation to undertake the project/scheme should be considered, including whether adequate infrastructure, facilities, and equipment available to meet the short and long-term requirements of the project; whether the developer has a good understanding of technical development, testing, production start-up, and transition to commercial reality; and appropriately skilled technical staff and/or sub-contractors, where relevant.

2.2

Work plan (Refer Application Form S. No. 3.4)

/15

A proposal with a well articulated project/scheme plan, including methodologies and milestones linked to a feasible timeframe should be allotted the maximum points. It should be assessed whether the project hypothesis and goals are realistic and achievable, and whether the planned activities are appropriately selected and contribute to the achievement of the expected outputs, outcomes, and impacts.

2.3

Innovation and technical merit of the project/scheme (Refer Application Form S. No. 3.3, 4 and 7)

/15

The level of innovation and technical feasibility should be examined for this criteria. The relevance and timeliness of this project/scheme should also be assessed to ensure that it is not more practical to delay it until more fundamental work on enabling technologies is completed. The factors that endanger the project should also be critically examined. It should be examined whether the proposal has identified technical risks adequately and has safeguards in place to resolve or address them, or whether the proposal aims to build on prior work that has an appropriate level of technical risk. The likeliness of planned efforts should also be assessed in view of external factors such as key policies, regulatory and/or market environment factors that may affect the delivery of results.

### 3. Financing arrangements

3.1

Type of support requested (Refer Application Form S. No. 5.1.1)

-

The applicants can request for financial support in the form of concessional loans or grants/viability gap funding. Proposals requesting any other form of assistance may be considered by the Secretariat and sanctioned with the approval of the IMG on a case-to-case basis. Category 1 projects will be given preference for availing grants/viability gap funding and category 2 projects will be considered for concessional loans, unless grants/viability gap funding is specifically requested and adequately justified (preference for availing grants/viability gap funding for category 2 projects will be given to academic institutions, government/non-profit research organisations, and NGOs).

For this specific criteria, the IMG can negotiate with the delivery organisation along with the concerned line ministry, to ask for changes in the proposal prior to allotting points. If there is no arrangement possible that satisfies both parties, the application may also be disqualified.

3.2

Efficiency of resources (Refer Application Form S. No. 5.1.2)

/15

The response of the applicant in the application form explaining the need for requested level of resources from the Fund, including an analysis of why lower funding would not be sufficient to achieve the desired results and an explanation of what would otherwise happen without access to the Fund's resources need to be examined to award points for this criteria. It should be examined whether the requested funding for the implementation of the project/scheme is reasonable with regard to the planned activities and it should be determined how economically resources/inputs (funds, expertise, time, etc.) are converted to results. It should be examined whether:

- Appropriate resources are to be deployed with due regard for economy
- Activities are essential and to be carried out as simply as possible
- Overheads are kept as low as possible
- Duplication or conflicts are not present

For this specific criteria, the IMG can also negotiate with the delivery organisation along with the concerned line ministry (if applicable) prior to taking a decision.

#### 4. Potential viability

4.1

Market demand and sustainability (Refer Application Form S. No. 6)

/15

The target market and market demand for the outcome of the project/scheme would need to be assessed. The competitive advantage of the project outcomes compared to direct and indirect alternatives will need to be examined. The potential for self sustainability beyond the funding period would need to be examined. The project/schemes with the maximum anticipated market demand should be given the highest points. For category 2 projects, it needs to be examined whether the adoption strategy sets out a clear route to market for the project outcomes including:

- Defining market entry barriers and the strategies to overcome these barriers;
- Manufacturing and market supply strategy including channel partners, if relevant;
- Timeframe for first market entry and outlining expected market growth;
- Outlining the revenue strategy including, the pricing strategy, and the pricing model; and
- How the applicant will fund the deployment beyond the grant period.

<b>Total points</b>	<b>0</b>	<b>/100</b>
<b>Ranking</b>	<b>1</b>	<b>/total number of applications in given category</b>

## Monitoring and evaluation guidelines

### Introduction

Monitoring and evaluation (M&E) will take place both at the level of specific projects funded under the NCEF as well as the overall fund. The programmes and projects funded by the NCEF and the processes followed by the fund will be regularly monitored for impact, efficiency, and effectiveness in line with rules and procedures established in this guideline. This document establishes the M&E procedures and processes for the Fund including:

**Annual project/programme review:** The delivery organisations will undertake an annual review to assess the performance of the funded projects and programmes in the previous year, and appraise the annual work plan for the current year on the basis of the M&E framework established by the Secretariat. The delivery organisations will report to the TSU, which will forward the reports to the line ministries to take their feedback and communicate results to the Secretariat.

**Annual Fund review:** The TSU will undertake an annual Fund review to assess the performance of the Fund as a whole in the previous year against the targets set in the annual allocation and disbursement strategy and appraise the work plan for the current year on the basis of the M&E framework established by the Secretariat. The TSU will report to the Secretariat.

**External review:** Select NCEF supported projects and the Fund as a whole, will be evaluated ex-post by an independent external agency, annually.

### Annual project/programme review

Annual monitoring reports describing how NCEF funds have been utilised and what deliverables have resulted from this investment need to be submitted by all funded projects on an annual basis. All project proponents are expected to complete these each year via a standard reporting template provided by the NCEF Secretariat at the end of each financial year. The TSU and Secretariat will support and co-ordinate the monitoring and evaluation framework overall, by engaging with the project proponents as well as line ministries. The responsibility for ensuring data collection, analysis, and interpretation rests with project proponents, working in collaboration with other partners where appropriate. Given the unique nature of each project, the NCEF does not prescribe how projects will carry out monitoring and evaluation, but sets out what is required at a minimum for accountability. Project proponents are responsible for developing and delivering a proportionate approach that meets monitoring and evaluation objectives without detracting from project delivery. This monitoring plan would need to be approved by the NCEF Secretariat at the time of grant signing. The M&E plan needs to contain detailed information with regards to indicators, data management, data quality assurance, evaluations, M&E coordination, capacity building for M&E and an M&E budget/work plan. At the time of project appraisal and selection, it also needs to be ensured that the budget for monitoring and evaluation has been built into project budgets, to enable adequate participation in delivering these requirements. In case the monitoring plan needs to undergo modifications post implementation, the changes need to be formalised in consultation with the NCEF prior to the monitoring period.



The Logical Framework (log-frame) approach is to be adopted by all NCEF projects/programmes for project planning and M&E. The following terminologies are important in understanding the concept of LFA:

*Activities:* Practical time bound actions that the project carries out to deliver the desired project outputs.

*Implementation:* Indications of coordination with other sources of support, effective administration and management, and cost effective operations in the use of public funds.

*Output:* Goods and services that the project must deliver to complete the project.

*Outcome:* Short to medium term behavioural or systemic effects such as adoption of new practices, improved institutional competency, and new policies.

*Impacts:* Fundamental and durable change in the condition of the pre-project/programme scenario such as lasting improvements in the status of clean energy penetration; or indications of barriers addressed viz. industry development, stakeholder satisfaction, etc.

Delivery organisations are expected to provide an M&E plan in the first year of implementing the NCEF supported project/programme based on the Logical Framework approach, along with a detailed activity and resource schedule. A one-page log-frame matrix which provides a summary of the key information on a project must also be attached to the project brief (see table 1).

Post implementation, on an annual basis, delivery organisations are expected to submit an annual project report which describes the status and progress of the project, provides an update on the implementation schedule, reports on indicators and risks as observed in the log-frame and gives feedback on the financial status of the project. The project report should also assess the overall performance and achievements of the project in terms of outcomes and outputs, and discuss the impacts and lessons learned for broader application.

The delivery organisations may update the log-frame, M&E plan and detailed activity, and resource schedule upon evaluation, if considered necessary. The TSU, supported by the line ministries, will assess the performance of the NCEF supported project/programme on the basis of the annual report, log-frame, the M&E plan, and other activity reports provided by the project, and report to the Secretariat. The Secretariat may decide to conduct an external evaluation of the project following conclusion of the project if deemed necessary.

**Table 1: Log-frame format**

*Project/programme title*

**Log-frame created on** (date)

**Category**

1  2

Summary	Indicators	Sources of verifiability	Central assumptions/risks
<b>Overarching project/programme goal</b>	Baseline: Indicator:		-
<b>Outcome</b>	Baseline: Indicator:		<i>(please describe the essential assumptions for reaching the overarching project goal)</i>
<b>Output</b> <i>Output A</i>	Baseline: Indicator:		<i>(please describe the essential assumptions for reaching the project outcome)</i>
<i>Output B</i>	Baseline: Indicator:		
<i>Output C</i>	Baseline: Indicator:		
<b>Main activities</b> <i>Activity A</i> <i>Activity B</i>	-	-	<i>(please describe the essential assumptions for reaching the outputs)</i>

### **Essential elements of a log-frame**

Within the vertical logic of the matrix, it should be identified what the project intends to achieve and how (clarifying the causal relationships between the different levels of objectives), specifying important underlying assumptions and risks (fourth column of the matrix). Within the horizontal logic of the matrix, indicators to measure progress and impact should be specified and the sources or means by which the indicators will be verified.

Indicators and milestones form the basis for monitoring as they show the extent to which a project intended objectives have been achieved. The logical sequence laid down in the LFA between activities – outputs and outcome helps to choose monitoring indicators. The milestones defined in the activity schedule (based on the log-frame matrix) form part of the basis for monitoring.

### **Objectively verifiable indicators**

Verifiable indicators are performance parameters that translate objectives into measurable indicators for monitoring and evaluation. Indicators describe objectives in measurable 'empirically observable' terms and provide the basis for performance measurement, project monitoring and evaluation.

Delivery organisations should propose specific and measurable indicators which help capture the achievement of project results. These indicators will form the basis for monitoring and evaluation. As a first step in order to be able to assess change, the status of the indicator at the beginning of the project (baseline information) needs to be collected. Performance is to be measured, comparing actual status of the indicators to specific targets expected to be achieved, annually. The indicators of performance will vary across projects and programmes depending on the clean energy sector and the phase of project intervention that is being implemented. Hence, there is no recommended set of 'one size fits all' type of indicators and performance norms. However, some examples of suitable project/programme level indicator categories are provided below:

- Extent of commercialisation of outputs of projects/programmes
- Energy production or savings and installed capacities (actual or potential)
- Growth in use of keywords in documents over time & programme's contribution (role in initiating research)
- Technology cost trajectories, generated
- IPR including patents, registered designs, copyrights, and lay out design of integrated circuits (IC) generated
- Business and supporting services development encouraged through the project
- R&D or knowledge spillovers
- Financing availability and mechanisms that developed around the project's needs
- Cost benefit analysis
- Policy development for the relevant energy sector that addresses some or all of the existing market, technology or financial bottlenecks in the deployment and large scale use of the technology showcased by the project.
-

### **Assumptions**

Assumptions/risks are important conditions that are outside the direct control of the project which must hold true for the project to achieve its objectives. External factors to be included in the log-frame matrix can be derived from the stakeholder analysis. Further external factors that have to be met in order to achieve project objectives can be identified by logical reasoning: reviewing the log-frame matrix systematically starting with the lowest level of objectives, asking what further external factors have to be fulfilled in order to achieve the next higher level of objectives. Frame conditions i.e. macro-economic, institutional-political, ecological, and socio-cultural, which cannot easily be influenced, should be considered for inclusion as assumptions. The aim of specifying assumptions (and pre-conditions) is to identify and assess potential risks to and dependencies of the project right from the initial stages of project design, to support the monitoring of risks during the implementation of the project and to provide a basis for necessary adjustments.

Assumptions are displayed in the fourth column of the log-frame matrix and are stated in positive terms (as assumptions that have been accomplished).

### **Activity and resource schedules**

A log-frame matrix provides a summary of the key information on a project without elaborating the operational details needed for further planning and implementation. Activity and resource schedules are a means to present these operational details and are established on the basis of the log-frame matrix.

### Activity schedules

In an activity schedule a project's activities are broken down into operational details. An activity schedule clarifies the sequence, duration, and precedence of activities, identifies key milestones to be achieved, serves as a basis for project monitoring and assigns management responsibility and implementing responsibilities.

- Break the activities down into sub-activities and manageable tasks.
- Clarify sequence and dependency of the activities.
- Specify start, duration, and completion of activities.
- Define milestones.
- Assign tasks and responsibilities.

The activity schedule should be presented in a Gantt chart format which allows for a rapid perusal of the sequence, duration, and interrelation of activities.

**Table 2: Activity schedule format**

<b>Project title</b>	please fill in the project title
<b>Project category</b>	please mention project category
<b>Delivery organisation</b>	please fill in name of delivery organisation

#### Legend/colour coding

<b>Outcome</b>
Output time-frame
Activity time-frame
Milestones

	Outcome, outputs and activities	Year 1				Year 2				Year 3			
		1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
<b>Outcome</b>	please fill in the outcome												
<b>Output 1</b>	please fill in the output												
Activity 1.1	please fill in the activity												
Activity 1.2	please fill in the activity												
Activity 1.3	please fill in the activity												
...													
<b>Output 2</b>	please fill in the output												
Activity 2.1	please fill in the activity												
Activity 2.2	please fill in the activity												

Activity 2.3	please fill in the activity													
...														
Output 3	please fill in the output													
Activity 3.1	please fill in the activity													
Activity 3.2	please fill in the activity													
Activity 3.3	please fill in the activity													
...														

Resource schedules

Resource schedules provide the basis for planned mobilisation of (external and local) resources, facilitate results-based budgeting and the monitoring of cost-effectiveness. To establish a resource schedule- the list of activities, sub-activities and tasks elaborated in the activity schedule should be copied into a resource schedule form. Subsequently, the means (human and material resources) necessary to carry out the activities should be specified. In a second step the cost of the means should be specified. On this basis cost per period and total project cost can be calculated. In addition, a column should be included to specify the funding source to indicate the contributions of the different parties involved.

**Annual fund review**

At the end of every allocation period, the TSU will undertake an annual Fund review ex-post to assess the overall performance of the Fund against the targets set in the annual allocation and disbursement strategy. The TSU will report to the Secretariat and appraise the work plan for the next year on the basis of the M&E framework established by the Secretariat. The Secretariat will appoint an independent external agency to verify the findings of the TSU, annually.

**Important questions to be assessed during a review**

- What progress is being made by the Fund relative to the objectives?
  - o Effectiveness
  - o Efficiency
  - o Timeliness of inputs and results
  - o Success
- Has the Fund followed standard fund allocation principles of a corpus public resource?
- Was the Fund's working transparent, efficient and as per guidelines (including approval process)?
- Did the disbursement principles follow standard financial assessment tools of Fund allocation?
- Did the Fund choose the most cost effective option to meet the stated objectives?
- Did the Fund support projects which were valid and pertinent to the development needs of the nation?

- Were the programme's R&D efforts focussed on the right research areas?
- Did the programme-created knowledge find varied applications that generate additional benefits to the nation?
- How did funded activities and collaborations stimulated by the programme affect the nation's R&D capabilities?
- Did the funded projects contribute to expanding access to energy?
- What changes did the Fund bring about in the market place and what influence did it have on encouraging future clean energy activities?
- Are the expected long-term impacts, outcomes, outputs and activities appropriately selected and achievable within the proposed time frame? Is the overall theory of change reasonable and appropriate?

### **Performance indicators**

Appropriate performance indicators for the review of the fund will be approved by the Secretariat. Performance against these indicators will be reviewed periodically in order to support the continuous improvement of the Fund's impact, effectiveness, and operational performance. Annually, there will also be an independent evaluation of the performance of the Fund by an external agency in order to provide an objective assessment of the results of the Fund, including its funded activities and its effectiveness and efficiency. The purpose of this independent evaluation would be to carry out decision-making by the Secretariat and to identify and disseminate lessons learned.

#### *Illustrative set of indicators (Quantitative)*

- Innovation and application oriented R&D in clean energy technology supported. Are there one or more noteworthy innovations that can be shown to link back directly to the programme's research?
- Innovation in methods/applications of clean energy deployment and entrepreneurship supported
- Cases of knowledge spill overs (use of research results beyond planned uses)
- Financial and technical sustainability of the projects in medium and long-term
- Overall clean energy penetration in total energy balance; contributing to changes in the power sector structure and in the mix of renewable based energy
- Other sources of funding leveraged
- Realised benefits and costs of projects/programmes funded by the NCEF
- CO<sub>2</sub>/GHG emission reductions enabled

#### *Illustrative set of indicators (Qualitative)*

- Quality of research and research efficiency

- Comparison of fund with counterpart funds
- Socio economic impacts, including employment generation, poverty reduction, long term solution of country's energy security; positive impacts on skill development, and productive uses of energy
- Number and types of critical markets and financial barriers, addressed.



## Annexure: Justification for proposed changes

Aspect and reference	Original statement	Modified statement (suggested)	Justification
<p>Applicability</p> <p><i>'Guidelines for appraisal and approval of projects/schemes eligible for financing under the National Clean Energy Fund' (paragraph 1.1 and 1.2 )</i></p>	<p>"The National Clean Energy Fund is created for funding research and innovative projects in clean energy technologies. Any project/scheme relating to innovative methods to adopt clean energy technology and research &amp; development shall be eligible for funding under the NCEF". <i>This statement is followed by an indicative list of such projects.</i></p>	<p>The National Clean Energy Fund has been created for funding research and innovative projects/schemes in clean energy technology development and deployment. Any project/scheme, submitted by an Individual or a consortium of organisations in the government/public/private/NGO sector relating to either of the following shall be eligible for funding under the NCEF:</p> <p>Category 1: Development of clean energy technologies (through R&amp;D in innovation and/or demonstration/pilot stages)</p> <p>Category 2: Innovative methods of adoption/diffusion of clean energy technologies.</p> <p><i>The definition of clean energy technologies has also been inserted in the guidelines i.e. 'renewable energy' and 'energy efficiency technologies'.</i></p>	<p>There are two reasons for introducing this categorisation. Firstly, there is a natural distinction between these types of projects, and defining them explicitly imparts greater clarity (considering the current guidelines are somewhat vague in their statement of applicability). The second benefit of categorisation is that it would enable balance in the distribution of resources between thematic objectives of the Fund. The indicative list of applicable projects in the original guidelines has also been modified accordingly and grouped under the defined categories. The examples have been modified and retained in the guidelines because it may impart greater clarity to a reader when trying to understand which types of projects are considered eligible. However, we have explicitly mentioned that the examples are not limited to just those that are highlighted.</p> <p>There are many funds that divide the overall allocation into categories at the beginning itself. For example, the GEF and the Global Fund used a two-tier system during the start-up phases of their operations. Allocations were made first to themes, at the start of their replenishment periods. The allocations for each theme were then used to fund proposals meeting specified criteria contingent on the resource availability for the theme. The purpose of the first tier was to achieve a pre-defined balance in resources between themes. It is recognised by stakeholders that focus on one of the major objectives of the Fund i.e. encouraging R&amp;D of clean energy technology is missing currently. During our conversation at MoF, it was mentioned that the NCEF has received more project proposals relating to technology deployment as compared to technology development, and since the implementation of the latter category of projects is generally faster, it makes them more attractive. Hence, more funds have been flowing towards deployment as against technology development. However, it was also expressed that technology development is equally important, and it needs to be allotted greater priority. Introducing categorisation and differential allocation, as suggested, may be one way of solving this issue.</p>

Aspect and reference	Original statement	Modified statement (suggested)	Justification
			<p>During our conversation at the Planning Commission, when asked if a sectoral allocation of funds could be possible, we received positive feedback on the idea although it was not being carried out at the moment. However, MoF representatives expressed that they do not think that the Fund should allocate resources between categories given the drawback that even if the Fund does not receive good proposals in the future, it might need to provide funding to mediocre proposals to meet targets. One way of addressing this concern is to introduce a cut-off percentage of marks that proposals need to obtain to be able to qualify for funding during the detailed appraisal stage (the detailed appraisal stage is a recommendation and is not part of the original guidelines). Currently, the guidelines only delineate basic eligibility criteria which apply to a wide range of projects, varying in quality and potential. This change would ensure that only proposals of the desired level of quality qualify for funding, irrespective of the overall quantum of allocation decided for a particular category.</p>
<p>Applicability</p> <p><i>‘Guidelines for appraisal and approval of projects/schemes eligible for financing under the National Clean Energy Fund’ (paragraph 1.5)</i></p>	<p>There is no categorisation of projects in the original guideline. This is a recommendation.</p>	<p>‘Optionally, apart from these categories of projects/schemes mentioned, a portion of the fund could also be earmarked for ‘other’ clean energy projects/schemes not specifically targeting innovation, but considered urgent and necessary by the IMG and Secretariat at the beginning of each allocation cycle’.</p>	<p>This option has been provided to impart legitimacy to provision of funds for urgent activities not covered under recommended definitions. So far, there have been many activities that have received NCEF funding that may not qualify as innovative. One of the indicative projects in the original guidelines was, ‘mission projects identified in the National Action Plan on Climate Change (NAPCC)’. Projects like this can be retained under an optional category of projects, if considered necessary at the time of devising the allocation strategy.</p>
<p>Applicability</p>	<p><i>This statement is not present in the original</i></p>	<p>‘The IMG may choose to select a financial institution to manage all or some portion</p>	<p>It is unlikely for NCEF, on its own, to be able to finance projects through varying financial instruments apart from grants, because that would necessitate</p>

Aspect and reference	Original statement	Modified statement (suggested)	Justification
<p><i>‘Guidelines for appraisal and approval of projects/schemes eligible for financing under the National Clean Energy Fund’ (paragraph 3.2 and 3.3 )</i></p>	<p><i>guideline. This is a recommendation.</i></p>	<p>of the fund on behalf of the NCEF. In this case, the financial institution would manage the financial resources and processes (including evaluation of financial aspects), with the NCEF retaining technical and administrative control.</p> <p>The IMG may choose to allocate a portion of the fund to a financial institution, which could in turn independently disperse funds through agreed upon financial instruments to support projects which comply with the eligibility criteria of NCEF. A separate set of guidelines and procedures would need to be prepared in this situation to be included in the agreement between the NCEF and the financial institution.’</p>	<p>extensive expertise within the Fund, incur additional administrative expenditure, and demand additional financial arrangements and manpower. To be able to offer other instruments, either having the status and resources of a financial institution is necessary or the presence of a financial intermediary is warranted. During our conversation, MoF agreed that in its current capacity, the NCEF is not equipped to efficiently deal with loan disbursement and recovery, and would prefer that a financial intermediary handles the same. BEE had also advised that the Fund could rope in an external financial institution such as IREDA (Indian Renewable Energy Development Agency) or EESL (Energy Efficiency Service Limited) to assist in financial matters including; technical appraisal and funding activities.</p> <p>Engaging financial intermediaries is a common practice for the government and several examples of successful arrangements are available. For example, SIDBI has been identified as a nodal agency for assistance, monitoring, interface and coordination with financial institutions, banks and the government for:</p> <ul style="list-style-type: none"> <li>• Technology Upgradation Fund Scheme for The Textile Industries (TUFS)</li> <li>• Credit Linked Capital Subsidy Scheme (CLCSS)</li> <li>• Integrated Development of Leather Sector Scheme (IDLSS)</li> <li>• FPTUFS – Scheme for Food Processing Industries</li> <li>• Technology and Quality Upgradation Support to Micro, Small and Medium Enterprises</li> </ul> <p>On an experimental basis, the NCEF has already signed an agreement with IREDA i.e. IREDA-NCEF refinance scheme in March 2014 – ‘refinance scheme for promotion of renewable energy supported by the National Clean Energy Fund’. The scheme mentions- ‘loans for renewable energy projects such as wind, solar, bio-mass, small hydro, waste-to-energy, etc. and covering activities such as manufacturing, generation of power, both electrical and thermal,</p>

Aspect and reference	Original statement	Modified statement (suggested)	Justification
			<p>infrastructure for evacuation, etc. would be eligible to be covered under the Scheme.’ As can be seen, the focus on innovation is missing, which is the primary objective of the NCEF. To address this issue, our recommendation is, projects that are funded by the financial intermediaries through NCEF should comply with the eligibility criteria set by NCEF at minimum. A separate set of guidelines should be developed by NCEF for the purpose of directing the financial intermediaries to set funding criteria in line with NCEF's objectives.</p> <p>One case study which is particularly helpful in this regard is the TIFAC- SIDBI Revolving Fund for Technology Innovation-(SRIJAN Scheme)<sup>1</sup>. TIFAC created a revolving fund of INR30 crore for technology innovation and placed it with SIDBI to provide assistance to MSMEs for development, up-scaling, demonstration, and commercialisation of innovative technology based projects. Assistance is given in the form of early stage ‘debt’ funding on softer terms for development, demonstration, and commercialisation of new innovations in emerging technological areas, un-proven technologies, new products, process, etc. which have not been successfully commercialised so far. MSMEs seeking financial assistance from the Fund for technology innovation projects can send detailed project proposals either to TIFAC or SIDBI. The technical evaluation of the project proposals is carried out by TIFAC and financial appraisal is done by SIDBI. The proposals that are recommended both technically and financially are considered for sanction towards implementation by a Project Approval Committee (PAC) consisting of SIDBI and TIFAC officials. SIDBI manages the Fund on behalf of TIFAC.</p> <p>A similar model of operation could be adopted by the NCEF as well. NCEF could handle the technical appraisal/evaluation (in consultation with the line ministry) and the financial intermediaries employed could handle financial evaluation and ongoing funding activities. This could be another means of</p>

<sup>1</sup> <http://www.sidbi.com/?q=tifac-sidbi-revolving-fund-technology-innovation-srijan-scheme>

Aspect and reference	Original statement	Modified statement (suggested)	Justification
			aligning technical applicability during fund disbursement.
<p>Mode of appraisal</p> <p><i>'Guidelines for appraisal and approval of projects/schemes eligible for financing under the National Clean Energy Fund' (paragraph 4)</i></p>	<p><i>The guidelines are brief on this aspect. The composition of the approving body i.e. IMG is provided and it is mentioned that a standard format for submission and evaluation will be made available to receive proposals from various ministries of Government of India and there will be a time frame specified under the scheme for processing of applications at each stage.</i></p>	<p><i>'Proposals will be invited from eligible parties on specific dates in the beginning of the year through a call for proposals. Each proposal will undergo a two-stage evaluation: Basic eligibility check and detailed appraisal. The proposals will be assessed on a point-grade system which allows for ranking of projects within each funding category based on the detailed appraisal criteria. Only projects which receive marks that exceed the cut-off criteria specified under each category will qualify for funding. Funds will be distributed on the basis of ranking, until available funds for a given category of projects for the call period are exhausted.'</i> <i>Both these stages of the appraisal process have been described in greater detail in the revised version of the guidelines, and the appraisal criteria has been detailed in a separate document.</i></p>	<p>Inviting proposals through a call at fixed times in a year would make the approval process more systematic and also enable comparison of proposals. The call would need to highlight the strategic priorities for the allocation period and the system of marking, so that applicants are able to gauge their eligibility prior to submission of proposals. There are several funds which invite proposals through calls, in India and internationally. For example, the All India Council for Technical Education (AICTE) invites fresh proposals annually from AICTE approved technical institutions: University departments, government institutions, grant-in-aid institutions and accredited institutions in the private sector for financial assistance for schemes operated by the RID bureau. Similarly the Department of Atomic Energy (DAE) - R&amp;D Project Scheme does the same. Internationally, the NAMA facility calls for proposals are opened once a year. The Renewable Energy and Energy Efficiency Partnership (REEEP) funds clean energy projects and issues a call for new project proposals every 12 to 18 months. The ADB Clean Energy Financing Partnership Facility (CEFPF) reviews applications in six batches throughout the year. Similarly, the Energy and Environment Partnership (EEP), Canada Fund for African Climate Resilience, International Renewable Energy Agency (IRENA) issue call for proposals.</p> <p>Many of these funds have phased evaluation processes. For example, the NAMA facility has an eligibility criteria check followed by a feasibility plus ambition criteria check. The Renewable Energy Energy Efficiency Partnership Projects are first shortlisted and then invited to submit full proposals. For the Sustainable Energy Fund for Africa, all proposals received are screened and pre-assessed against the basic eligibility criteria by the SEFA Secretariat, housed in the Energy, Environment and Climate Change Department (ONEC) of ADB. For the ADB Climate Change Fund (CCF), the Fund Manager reviews</p>

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			<p>the applications to ensure that they comply with the implementation guidelines for the use of funds and the eligibility criteria. If the application complies, the Fund Manager includes it in the batch for circulation to the appropriate working group for review, comment, and endorsement. Once completed, the Fund Manager forwards the batch to the Climate Change Steering Committee to approve the allocation of resources from the CCF. International Renewable Energy Agency (IRENA) mandates applicants to initially submit project summaries, after which IRENA invites full length proposals.</p> <p>In certain allocation periods, it might be expected that the number of proposals having met the funding criteria of NCEF would not exceed the volume of financing available, so every project or scheme which satisfies the relevant criteria and exceeds cut-off marks should receive funding in this case (which is the current situation, and is also the case in many of the R&amp;D funds in India). However, this comparison process is necessary in case the pipeline of proposals grows in the future, especially when annual disbursement strategies are formulated with budget distributed between different categories. A formal process of sifting through projects is necessary in that situation. MoF also mentioned that the number of proposals are expected to grow considerably in the future, necessitating a formal process of proposal comparison and selection.</p>
<p>Basic eligibility check</p> <p><i>Process document (paragraph 7)</i></p>	<p>‘The proposal should be sponsored by a ministry/department of the government</p> <p>The proposals for loan or viability gap funding by</p>	<p>‘In case the proposal is sponsored or submitted by a line ministry itself, it will be treated as a “ministry sponsored proposal” and the fund disbursement and M&amp;E modalities will differ as explained in the process document. Apart from proposals submitted by a line ministry itself, all other “ministry sponsored proposals” need to</p>	<p>It is suggested that the proposals be classified into two categories; ministry sponsored proposals and other proposals, thus eliminating the need for every proposal to be routed through a line ministry. This requirement in the original guidelines was one of the reasons for delay in proposals reaching the NCEF, thus dissuading potential applicants from approaching the Fund.</p> <p>If this requirement is not eliminated, given that proposals can be routed through numerous line ministries, it is necessary to ensure greater standardisation for the approval process to be systematic, fair, and transparent. Relevant line</p>

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	<p>individuals/consortiums are to be submitted to the concerned line ministry first, which, after due consideration, shall bring them before the IMG. In no case, shall the IMG be receiving proposals directly from individuals/consortiums for funding.'</p>	<p>clearly demonstrate the potential outcome(s) of the project align with and contributes towards advancing the objectives of one or more line ministries of the government. A letter of support from the relevant line ministry should be submitted as justification during proposal submission. An explanatory note, including reference to official documents or supporting web links could also be provided as additional justification.'</p>	<p>ministries may include:</p> <ul style="list-style-type: none"> <li>- Ministry of Agriculture</li> <li>- Ministry of Coal</li> <li>- Ministry of Commerce and Industry</li> <li>- Ministry of Environment and Forests</li> <li>- Ministry of Heavy Industries and Public Enterprises</li> <li>- Ministry of Micro, Small and Medium Enterprises</li> <li>- Ministry of New and Renewable Energy</li> <li>- Ministry of Petroleum and Natural Gas</li> <li>- Ministry of Power</li> <li>- Ministry of Science and Technology</li> <li>- Ministry of Steel</li> <li>- Ministry of Textiles</li> <li>- Ministry of Urban Development</li> </ul> <p>If each of the line ministries frame their own approval criteria and processes, the proposals submitted would most likely not receive equal treatment. Hence, it is suggested that the NCEF should act as the nodal point of submission for applications and should frame a common set of appraisal criteria applicable to all proposals. The NCEF can subsequently take help of the line ministries to technically evaluate proposals against each of the criteria.</p> <p>However, an option has been provided for an applicant to apply to a line ministry and seek approval prior to application to the NCEF, if desired. This would qualify the proposal to be a ministry sponsored proposal, altering their fund disbursement and M&amp;E modalities.</p> <p>In our conversation with MoF, it was agreed that greater standardisation was a necessity. It was mentioned that the standard process of the MoF for approving all government funding i.e. through the Department of Expenditure (Plan Finance-II Division) might be useful to look at. Although the size of projects</p>



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			<p>applying under the NCEF is considerably smaller in comparison, it was suggested that the NCEF could adopt a similar process of soliciting comments from experts, other ministries, and NGOs. The involvement of other ministries during the inter-ministerial consultations is an important aspect of the evaluation process of the Expenditure Finance Committee. The Committee guideline says that 'the final DPR should be circulated along with draft EFC/PIB memo to the Department of Expenditure, Planning Commission and any other concerned ministries for seeking comments before official level appraisal'. The NCEF may want to incorporate this aspect of appraisal into the guidelines as well by building a system of wider stakeholder review.</p>
<p>Basic eligibility check</p> <p><i>Process document (paragraph 7)</i></p>	<p>'Funds would be available for specific projects relating to innovative methods to adopt clean energy technology and research &amp; development:</p> <p>(a) Sponsored by a ministry/department of the government; and</p> <p>(b) Submitted by individual/consortium of organisations in the government/public sector/private sector in the form of loan or viability gap funding, as</p>	<p>'The proposal should specify support requested in the form of concessional loans or viability gap funding (a grant one-time or deferred, provided with the objective of making a project commercially viable). Proposals for any other form of assistance may be considered by the empowered committee and sanctioned with the approval of the IMG on a case-to-case basis. The maximum percentage of funding differs for different categories of participating organisations. For any proposal from academic institutions, government/non-profit research organisations, and NGOs, NCEF may provide assistance up to 100% of the total project cost. For all other organisations,</p>	<p>In most of the R&amp;D funds within the country where both industry and institutions can participate, the treatment of institutions and industry is different. Some examples below:</p> <p><b>R&amp;D funded by Technology Systems Development (TSD) programme</b></p> <p>Forms of DST grants:</p> <ul style="list-style-type: none"> <li>• For institutions: Project staff salaries, equipment, supplies and consumables, contingency expenditure, patent filing charges, outsourcing charges, internal travel, fabrication costs, testing charges, overheads, etc.</li> <li>• For industry: Only cost of consumables upto 50%</li> <li>• For institution/industry joint programmes: Support to the industry upto 50% of the cost of consumables.</li> </ul> <p><b>MNRE policy guidelines of Research, Design, Development, Demonstration (RDD&amp;D) and manufacture of new and renewable energy</b></p> <p>Financial assistance for RD&amp;D projects including the technology validation and demonstration projects that involve partnership with industry/civil society organisations should normally be restricted to 50% of the project cost. However, for any proposal from academic institutions, government/non-profit research organizations and NGOs, the ministry may provide up to 100%</p>



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	<p>the IMG deems fit on case to case basis. However, the participating organisations will have to put in a minimum financial commitment of 40%. The government assistance under the NCEF shall in no case exceed 40% of the total project cost.'</p>	<p>the participating organisations will have to put in a minimum financial commitment to ensure that government assistance under the NCEF does not exceed 40% of the total project cost.'</p>	<p>funding.</p> <p><b>R&amp;D funded by Ministry of Food Processing Industries (MFPI)</b>  'Grant-in-aid will be provided at 100% of the capital cost to Central/State Government, IITs, and universities. To all other implementing agencies the grant-in-aid will be provided at 33% of the capital cost for general areas and 50% of the capital cost for difficult areas'  Hence, we have recommended differential treatment of applicant categories in the guideline, in line with funding norms of other ministries.</p> <p>The other aspect to be explored in clause 2.6.1 (b) of the original guidelines is the cut-off funding limit. Initially, an RTI application had been filed enquiring about the basis for arriving at the limit of 40% for government assistance in clause 2.6.1 of the NCEF guidelines. In response to the query, the MoF provided a copy of minutes of the first IMG meeting held on 21 July 2010, which did not shed sufficient light on the issue. When we spoke to the DST, they mentioned that their beneficiaries were primarily institutions, and grants were usually provided at 100% of the cost. Thereafter, we compiled and analysed R&amp;D funds within the country to observe that other funds had similar guidelines. Hence, we believe it is prudent to raise the funding ceiling for institutions and government/non-profit research organisations.</p> <p>With respect to private sector organisations, research revealed that the Ministry of Finance, Department of Economic Affairs, has a scheme to provide financial support to bridge the viability gap of infrastructure projects undertaken through Public Private Partnerships<sup>2</sup>. It states that- 'the Government of India recognises that infrastructure projects may not always be financially viable because of long gestation periods and limited financial returns, and that financial viability of such projects can be improved through government support. This is similar in</p>

<sup>2</sup> <http://www.pppinindia.com/pdf/PPPGuidelines.pdf>

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			<p>some ways to the NCEF's objective of supporting clean energy R&amp;D (with long gestation periods and uncertain financial returns). Clause 4.1 of the PPP guideline states that: 'the total viability gap funding under this scheme shall not exceed twenty per cent of the total project cost; provided that the government or statutory entity that owns the project may, if it so decides, provide additional grants out of its budget, but not exceeding a further twenty per cent of the total project cost'. Since the NCEF is also offering only loans and VGF, 40% seems to be a reasonable assumption. The MoF in our conversation also referenced these guidelines in response to our query on this aspect. When BEE was asked about this, concern was expressed that increasing the funding to even 50% would render the same a co-funding arrangement, and bulk of the projects would be funded by the government, which is not the intention. He expressed that the NCEF was formed to act as a catalyst and not to fund projects entirely.</p> <p>The PPP guidelines define 'viability gap funding or grant as a grant one-time or deferred, provided under this Scheme with the objective of making a project commercially viable'. The guidelines also state that- 'viability gap funding under this scheme will normally be in the form of a capital grant at the stage of project construction. Proposals for any other form of assistance may be considered by the Empowered Committee and sanctioned with the approval of the Finance Minister on a case-to-case basis'. For this particular aspect, we have aligned our recommendations in the report with these guidelines.</p>
<p>Basic eligibility check <i>Process document (paragraph 7)</i></p>	<p>Projects which are being funded by any other arm of the Government of India or have received grants from any other national/international body will be ineligible for</p>	<p>Projects which are being funded by any other arm of the Government of India or have received grants from any other national/international body will have to submit a strong case to demonstrate why they need additional funding under NCEF.</p>	<p>Jointly funded projects have greater chances of implementation, and also support scalability and lead to larger impacts. MNRE also highlighted the need to involve international funds and maximise impact. The PPP guidelines highlighted above contain similar provisions. 'In cases where financial support is available from any other ministry of the Central Government under an on-going scheme for assistance to PPPs, the proposal would be sent to such a ministry for consideration. In case the ministry recommends that the proposal</p>

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	applying/funding under NCEF.		be considered for additional assistance under this scheme, the same shall be submitted to the Empowered Committee for consideration'. We recommend that in case a proposal contains a strong justification for availing funding from other sources, it may be put forward to be considered by the IMG.
Intellectual property rights  <i>Report</i>	Intellectual property right (IPR) issues will be taken on board with the aim to benefit the project proponents before funding is approved for any project.	<p>While the statement in the original guidelines has been retained, a set of recommendations has been outlined below:</p> <p>Detailed IPR guidelines need to be framed by the NCEF in consultation with the line ministries and the IMG, which should be made publically available. Potential governing principles of the IPR guidelines are highlighted below:</p> <p><i>Responsibility to seek protection and ownership of IP</i></p> <ul style="list-style-type: none"> <li>- The project developer (institute/industry) should be required to seek protection of intellectual property rights for the results/output of the sanctioned project. The ownership should also lie with the developer. In</li> </ul>	<p>In order to make recommendations on guidelines for handling of intellectual property rights for NCEF funded projects, we first tried to understand more about the existing guidelines being followed. An RTI application was filed to enquire about the current rules for protection and handling of Intellectual property right arising from projects financed under NCEF. The response received stated that the required information is not available in any material form which indicates that currently there are no rules in place for handling of intellectual property rights for NCEF funded projects. Hence, we turned to providing our own set of recommendations and spoke to a leading expert in IPR. He mentioned that each government ministry/department has its own set of IPR guidelines based on the type and objective of funding. We studied the RTI guidelines of various government departments including:</p> <p><i>Guidelines for Implementing Research Projects, Department of Science &amp; Technology</i></p> <p>The Department of Science &amp; Technology has a booklet on 'Guidelines for Implementing Research Projects' that contains "guidelines/instructions for technology transfer and intellectual property rights'.</p> <p><i>Council of Scientific and Industrial Research (CSIR)</i></p> <p>The Council of Scientific and Industrial Research (CSIR) is an ensemble of 37 state-of-the-art institutes and among the foremost scientific and industrial</p>

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		<p>case of more than one developer, joint ownership can be undertaken.</p> <ul style="list-style-type: none"> <li>- In case the project developer (institute/industry) is unable to take up the protection of intellectual property rights, the same may be taken up by the IMG/sponsor ministry and the ownership would lie with it.</li> </ul> <p><i>Commercial exploitation of IP</i></p> <ul style="list-style-type: none"> <li>- In case of projects solely supporting institutes, any earnings arising out of commercial exploitation of IPR can be retained by the institute.</li> <li>- In case of projects jointly supporting the institute and industry, earnings can be shared jointly between the institute and industry, based on a ratio of their individual shares of the project cost or a mutually agreed basis.</li> <li>- In case of projects solely supporting industry, earnings arising out of sale/transfer of IPR can be shared between the 'MoF/sponsor ministry' and the industry in the ratio of their individual shares of the project cost or could be done on mutually agreed</li> </ul>	<p>research organisations<sup>3</sup>. It takes up research that may be sponsored by a client, or as a collaborative effort or a grant-in-aid project. It has its own set of IPR rules that we studied.</p> <p><i>Technology Systems Development (TSD) Programme, Department of Science &amp; Technology</i></p> <p>Technology Systems Development Programme Guidelines for submission of proposals, state that project implementer should follow the 'Guidelines/Instructions for Technology Transfer and Intellectual Property Rights' provided in the Guidelines for Implementing Research Projects booklet issued by DST<sup>4</sup>.</p> <p><i>Research, Design, Development, Demonstration (RDD&amp;D) and Manufacture of New and Renewable Energy, Ministry of New and Renewable Energy</i> MNRE has Policy Guidelines of Research, Design, Development, Demonstration (RDD&amp;D) and Manufacture of New and Renewable Energy include clauses dealing with IPR and technology transfer issues.</p> <p><i>Guidelines for Support to Environmental Research, MoEF</i> MoEF has a separate set of guidelines for funding environmental R&amp;D, which we studied for understanding its treatment of IPR.</p> <p>MoF clarified that IPR has not come into play as yet because projects on technology development have not been funded till now. For the first few technological innovations, the MoF plans to adhere to rules being followed by TSD and CSIR. Based on these discussions and our research, we have</p>

<sup>3</sup> <http://csirhrdg.res.in/csirnehrupdf2010.pdf>

<sup>4</sup> [www.dst.gov.in/whats\\_new/whats\\_new07/tsd-guidelines.doc.doc](http://www.dst.gov.in/whats_new/whats_new07/tsd-guidelines.doc.doc)

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		<p>basis.</p> <ul style="list-style-type: none"> <li>- In case the IP is licenced to a third party to market the innovation, it must manufacture the product in India.</li> </ul> <p><i>Government use of IP</i></p> <ul style="list-style-type: none"> <li>- The government should have a royalty-free licence for the use of the intellectual property, where it so desires, in the national interest.</li> </ul> <p><i>Reporting on IPR</i></p> <ul style="list-style-type: none"> <li>- The project developer should submit information relating to the details of the intellectual property rights obtained, the benefits and earnings arising out of IPR and the turnover of the products periodically to the IMG and sponsor ministry.</li> </ul> <p><i>Miscellaneous</i></p> <ul style="list-style-type: none"> <li>- Other terms and conditions regarding IPR issues should be in accordance with the guidelines contained in the DST circular issued with the concurrence of Ministry of Finance, Department of Expenditure vide their</li> </ul>	<p>provided these recommendations.</p>

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		O.M. No. 33(5) PF-II99, dated 22 February, 2000 or subsequent circulars which may be issued by DST/MOF on the subject.	
<p>Collaborative projects</p> <p><i>'Guidelines for appraisal and approval of projects/schemes eligible for financing under the National Clean Energy Fund' (Paragraph 5.2)</i></p>	<p><i>This statement is not present in the original guideline. This is a recommendation.</i></p>	<p>'In a collaborative project, only one entity can apply for funding and the eligibility criteria will only apply to the applicant entity, i.e. the lead applicant. If the application is successful, only the applicant will enter into a funding agreement. The lead applicant will be responsible for the performance of the entire project, even if it subcontracts the performance of any part.'</p>	<p>This statement has been suggested for administrative ease during proposal evaluation as well as on-going M&amp;E stages.</p>
<p>Process document</p>	<p><i>A separate process document has been created providing details of operational processes so as to keep the basic guidelines concise.</i></p>	<p><i>The process document provides an overview of the suggested governance structure of the Fund and the basic underlying operational policies and processes. It includes:</i></p> <ul style="list-style-type: none"> <li>- <i>Objective and guiding principles</i></li> <li>- <i>Governance structure</i></li> <li>- <i>Strategy formulation for the Fund</i></li> <li>- <i>Project approval process</i></li> <li>- <i>Intellectual property rights</i></li> </ul>	<p>A separate process document has been created which provides an overview of the suggested governance structure of the Fund and the basic underlying operational policies and processes. One of the primary criticisms of the Fund presented in the NFPIP report was the fact that the present governance structure and operational processes do not seem adequate and most appropriate for meeting the objectives. The review of the NCEF in the report concluded that 'its present structure and framework for operation, needs to be sharpened and strengthened to improve its effectiveness and performance'. This document suggests an alternative governance and procedural framework that addresses these gaps, as well as other pertinent issues revealed during the course of our study.</p>

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Monitoring and evaluation	<p><i>The original guidelines do not detail the M&amp;E arrangements of the Fund. A separate document has been suggested.</i></p>	<p>Monitoring and Evaluation (M&amp;E) will take place both at the level of the specific projects funded under the NCEF as well as the overall fund. The programmes and projects funded by the NCEF and the processes followed by the Fund will be regularly monitored for impact, efficiency, and effectiveness. This document establishes the M&amp;E procedures and processes for the Fund including:</p> <ol style="list-style-type: none"> <li>1. Annual project/programme review</li> <li>2. Annual Fund review</li> <li>3. External review</li> </ol>	<p>During our conversation at the Planning Commission, it was expressed that a clear monitoring and evaluation process needs to be framed for the NCEF. At the moment, M&amp;E is only carried out at IMG meetings when a progress report is asked for. But as the project pipeline grows, the current system would become inefficient. Hence, a separate theoretical M&amp;E framework has been suggested, which is largely based on the log-frame model since it is the most widespread standard for results-based project planning in development funds.</p>

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