# Guidelines on Procedures for Inviting Entities to Apply for a Project Subsidy under the Fiscal 2013 Supplementary Budget Project: "Project for Decommissioning and Contaminated Water Management (Development of Criticality Control Technologies of Fuel Debris)"

# Date: August 6, 2014 Management Office of the Project for Decommissioning and Contaminated Water Management

The Management Office of the Project for Decommissioning and Contaminated Water Management invites entities to apply for a project subsidy under the Fiscal 2013 Supplementary Budget Project, "Project for Decommissioning and Contaminated Water Management (Development of Criticality Control Technologies of Fuel Debris)" as outlined below. When applying for a project subsidy, please refer also to the Subsidy Granting Rules ("Grant Policy for Subsidy for the Project for Decommissioning and Contaminated Water Management").

### 1. Purpose of Project

The purpose of this Project is to improve the standard of Japan's science and technology and to smoothly carry out measures for decommissioning and contaminated water management by implementing projects that support the developing technology for decommissioning and contaminated water management.

#### 2. Contents of Project

This project shall be implemented based on "Mid- and Long-term Road Map for Decommissioning Measures etc. of TEPCO Fukushima Daiichi Nuclear Power Plant Unit No. 1 to 4."

In decommissioning Fukushima Daiichi Nuclear Power Plant, for the purpose of preventing the re-criticality of fuel debris in the event that a change occurs in debris shape and water level during fuel debris retriveval work, it is essential to determine the conditions under which criticality is reached and reflect these conditions in each work process. Also, we need to evaluate the influence of any occurrence of criticality and detect and control it immediately upon its occurrence. Thus, we must establish an appropriate criticality control method so as not to cause excessive exposure to workers and the general public. While paying attention to these, the following technological development shall be implemented.

#### (1) Criticality evaluation

[1] Formulation of a criticality scenario

A scenario with a high criticality risk shall be formulated on the basis of the latest data on in-core conditions, the composition of fuel debris, and in-core uncertainties about such factors as deposition locations and water level.

In order to prevent criticality that can arise during fuel debris removal work and also to prevent excessive exposure of workers and the general public at the time of criticality, a criticality control method shall be established by integrating monitoring technology and criticality prevention technology, on the basis of the scenario formulated. As part of the efforts, it is required to study the applicability of a soluble neutron absorber as the criticality control system.

[2] Evaluation of behaviors at criticality

Based on the criticality scenario formulated, behaviors at criticality shall be evaluated by analysis code considering fuel debris of complicated shapes, such as non-molten fuel, with the aim of using the evaluation results for the investigation of the criticality prevention technology and the criticality control technology. In addition, data obtained from on-site survey, etc. shall be used to improve the accuracy.

## (2) In-core criticality detection technology

[1] Gas-sampling criticality detection system

For the purpose of multilayered criticality control, a detection system shall be developed to monitor the subcriticality of fuel debris by installing a detector in the gas sampling system at the primary containment vessel, for monitoring fission product. In order to evaluate the effectiveness of the actual system, it is required to improve algorithms, the monitoring method or so forth, thus enhancing subcriticality estimation precision and reducing detection time.

[2] In-core near-critical point detection system

For the purpose of direct criticality control, an in-core near-critical point detection system shall be developed to detect any critical point early enough and issue an alarm by monitoring neutron beams with a detector installed inside the primary containment vessel. In addition, domestic and overseas cases shall be studied to identify near-critical point detection methods and candidates for detectors to be used. Furthermore, a test method shall be developed to confirm the effectiveness of the system.

- (3) Criticality prevention technology
  - [1] Insoluble neutron absorber

For the purpose of preventing criticality in debris retrieval work, an insoluble neutron absorber shall be produced on a trial basis, their basic physical properties shall be evaluated, and their radiation resistance performance shall be confirmed. Also, a test method shall be developed for evaluating the influence of insoluble neutron absorbers on the in-core structures and fuel debris storage container, and a method shall be developed for evenly coating them with the absorbers.

[2] Soluble neutron absorber

For the purpose of preventing criticality in supplying work of circulating cooling water and full submersion work, soluble neutron absorbers shall be studied on the basis of the results of the evaluation of behaviors at criticality and other relevant data, with respect tothe absorbers optimum amount for preventing and controlling criticality and an appropriate absorber injecting considering water quality adjustment with a rust inhibitor or any other agent. In addition, the absorbers shall be investigated to determine their applicability by evaluating their impacts on in-core structures and fuel debris storage canister and by taking into consideration their effect on corrosion and other phenomena and the impacts of their external leakage.

- (4) Managing research and development activities
  - [1] Developing human resources from a medium- to long-term perspective

Cooperative measures such as joint research projects with universities and research institutions shall be strengthened with a view to developing human resources required from mid- and long-term perspectives.

[2] Mobilizing domestic and foreign knowledge

Projects shall be implemented by making the best use of data from domestic and overseas sources. In particular, the introduction of necessary technologies from domestic and overseas sources shall be widely considered

[3] Setting indicators to determine the achievement of goals

Easily understandable performance indexes serving as criteria for appraising goals achieved shall be developed, and such indexes, to be provided in numerical terms, shall be used to verify whether or not goals have been achieved at the time of project termination.

[4] Using external professionals

Where deemed necessary to ensure smooth progress of the Project, opinions shall

be collected from external professionals with respect to the implementation plan and other matters.

[5] Cooperating with decommissioning operations and other research and development projects

Any contribution of the results obtained to decommissioning operations and other research and development activities shall be verified. Also, cooperative efforts with other research and development projects towards decommissioning shall be pursued.

[6] Delivering project reports

As a rule, a quarterly report shall be prepared and submitted to external professionals selected by the Management Office concerning project implementation plans, progress of projects, and project outcomes. At the time of project termination, a project implementation report shall be prepared and submitted.

[7] Improving information disclosure

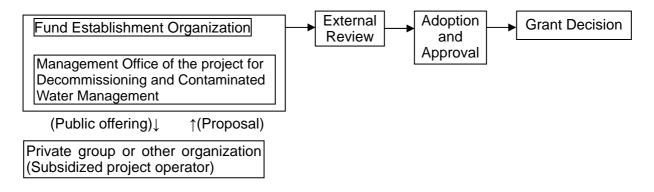
More efforts shall be made to improve explanations and briefings on the details of project implementation and its results, in order to make them more understandable to the general public.

- \*A strategic meetings is scheduled to discuss fuel debris retrieval at the initiative of the Organization for Nuclear Damages Compensation and Decommissioning Support, which will be started in the near future. In implementing the project, the subsidized operator shall collect and provide relevant information for the strategic meeting. Also, the subsidized operator shall develop a flexible implementation system that reflects discussions on the Medium- and Long-term Road Map and discussions at meetings of the Management Office of the Project for Decommissioning and Contaminated Water Management.
- 3. Project Term: Date of grant decision through March 31, 2015

This Project envisages implementation of research and development up to the end of fiscal 2015. Accordingly, in preparing application documents, the applicant is required to provide a project implementation plan for the period up to the end of March 2015 as covered by the current subsidized project, on the assumption that research and development will be carried out up to the end of fiscal 2015. The applicant must also provide an implementation plan for the period from April 2015 through the end of March 2016, when this Project is to be completed.

\* It is to be noted that any subsidized project may cease to receive a subsidy for the following fiscal year, depending upon the results of the project, policy considerations, the management conditions of the fund, and any other reason.

#### 4. Project Scheme



## 5. Application Requirements

Private groups and other organizations who are entitled to apply for this grant shall comply with all of the following conditions (1) to (7). Applications from consortiums are also acceptable, in which case the managing corporation shall be responsible for submitting a project plan (the managing corporation may not transfer all of its duties to another corporation). The applicant must

- (1) have a framework competent enough to properly carry out the subsidized project;
- (2) have skills, knowledge and experience necessary to carry out the subsidized project;
- (3) have a management infrastructure necessary to smoothly carry out the subsidized project and have adequate fund management capability;
- (4) execute the project in accordance with Japanese laws and regulations;
- (5) have the ability of implementing appropriate accounting practices based on "METI Subsidized Project Processing Manual (\*)";
  - (\*) http://www.meti.go.jp/information\_2/downloadfiles/jimusyori\_manual.pdf
- (6) not fall under the provisions of Article 70 and Article 71 of the Cabinet Order concerning the Budget Settlement and Accounting;
- (7) not fall under any of the action requirements listed in column 1 of Appendix 2 to the Measures for Suspension of Nominations concerning Suspension of and Contracts on Subsidy Grants from the Ministry of Economy, Trade and Industry (No. 01, January 29,

2003);

- (9) have participated in a public offering briefing session or have directly received an explanation upon receiving a copy of these guidelines;
- (10) agree that the results obtained by the subsidized project operator shall be provided for use in decommissioning and waste water management at the Fukushima Daiichi Nuclear Power Plant. The intellectual property rights and other rights obtained by the subsidized project operator will belong to the subsidized project operator. The terms and conditions of such use shall be determined separately through consultation between the Ministry of Economy, Trade and Industry and the subsidized project operator.
- 6. Requirement Conditions for Grant Decision
- (1) Scheduled to be adopted: 1 project
- (2) Subsidy rate / subsidy amount

Up to 50% of the applicable expenses;

Maximum: 100,000,000 yen (Project amount: 200,000,000 yen)

The contents of the project, amount of the subsidy, etc. will ultimately be settled only after coordination with PMO.

(3) Time of Payment

In principle, the subsidies are paid after the project is completed.

\*Please note that cases where the payment (i.e. the payment by estimate) before the completion of the project is permitted are limited.

(4) Confirmation of the amount of payment

The amount to be paid is decided based on the result report which is submitted by the operating entities after the project is complete as well as the results of the survey at the verification site and/or the office.

The amount to be paid will be the total of the expenses to be covered by the subsidies, which do not exceed the granted subsidy amount. For this reason, the account ledgers, receipts and other documents are necessary for supporting all the expenses. All the expenses will be strictly inspected and the expenses are strictly evaluated. Thus, the expenses not meeting the conditions mentioned above may be rejected.

7. Application Procedure

(1) Application Period

Commencement: August 6, 2014

Deadline: September 11, 2014, Friday, 10:00

(2) Briefing session

Date: August 22, 2014, Friday, 13:00 to 14:00

Location: Mitsubishi Research Institute, 4<sup>th</sup> floor, Meeting Room C at Capital Hotel Tokyu, Office Building, 2-10-3, Nagatacho, Chiyoda-ku, Tokyo

Map: http://www.mri.co.jp/company/info/office/headoffice\_map.html

Those who wish to participate in the briefing session should contact us by e-mail at "12. Contact Information", by 10:00, August 21 (Thursday).

When contacting us, be sure to refer in the subject (title) of the mail to "Participation in the briefing session on the Project Subsidy under the Fiscal 2013 Supplementary Budget Project for Decommissioning and Contaminated Water Management (Development of Criticality Control Technologies of Fuel Debris)". Also specify "Name of organization", "Name of participant" "Name of department", "Telephone number", "Fax number" and "e-mail address".

Up to two persons may attend the briefing session for one application (including a joint application with other organizations). The venue of the briefing session will be notified to your "E-mail address". Please note that, if there are more participants than scheduled, participants may be divided into multiple sessions, with the time schedule changed.

(3) Application form and other documents to be submitted

- [1] Submit the following documents collectively in a single file. Describe the title of the file as "Subsidy Application for the Project for Decommissioning and Contaminated Water Management (Development of Criticality Control Technologies of Fuel Debris)".
  - Application form (Form 1)
  - Project Proposal (Form 2)
    - Project plan, a description of activities carried out under the subsidized project and the method for carrying those activities;
    - Description of the results of past projects similar to the subsidized project and an explanation of the technical ability (availability of relevant knowledge and abilities) to perform the subsidized project;
    - Description of the accounting basis to be used in the subsidized project (including accounting processing capacity, a retention and management framework for expenditure- related evidence, and financial conditions);
    - Total amount of subsidy application (including a description of individual expense items), and as necessary, a financial plan.
  - Other materials
    - -Company / organization outline (name / address, date of establishment, main

business operations, organizational chart, number of workers)

- -Financial report and the statement of receipts and disbursements (for the last year)
- -Articles of association or the articles of endowment
- -Other supplementary materials
- \*An application shall be submitted in fifteen A4-size copies written in Japanese or English. The paper application shall be accompanied by a CD-R storing relevant electronic data. Such data shall be provided in the Ichitaro, MZ-Word, MS-Power point or MS-Excel format. (If these formats are not available, please contact the Management Office of the Project for Decommissioning and Contaminated Water Management.)
- [2] All the application documents submitted will not be used for any purposes other than the evaluation in the course of the selection process. Please note that the application documents submitted will not be returned. We take the utmost care to preserve confidentiality. However, if your proposal is adopted, the information except the non-disclosure information (i.e. the personal information, the information detrimental to the legitimate interests of legal entities) may be disclosed under the "Act on Access to Information held by Administrative Organs" (Act No. 42 enacted on May 14, 1999).
- [3] The costs spent for issuing the application documents and other documents will not be included in the expenses. Also, the costs spent for issuing those documents will not be compensated for regardless of whether the proposal is adopted or not.
- [4] The matters described in your proposal are considered to be the fundamental policies which should be observed during the project. Consequently, please be sure to describe only the matters which are feasible within the budget. Also, please note that even if your proposal is adopted, it may be rejected later on if you make a significant change to it at your discretion.
- (4) Submission of application documents
  - Send the application documents by post or by any other means to the following address:
    Shinbashi JB Building 5F, 6-9-5, Shinbashi, Minato-ku, Tokyo 105-0004
    Mitsubishi Research Institute, Inc., Management Office of the Project for
    Decommissioning and Contaminated Water Management
    Contact: Matsumoto, Sugiyama, or Kawai
    - \*Fax and e-mail submissions are not acceptable. Any application document lacking required information will not be reviewed. Prepare the application documents with extreme care in accordance with the application procedure.
    - \*Submission after the deadline will not be accepted. When sending the application

documents by post, allow for sufficient time to permit its timely arrival. .

#### 8. Evaluation and Adoption

(1) Review procedure

In the review, application documents are examined, and in addition, the applicant is required to make a presentation at the Review and Evaluation Committee on the Decommissioning and Waste Water Management Project (within one week of the application deadline). Up to four persons are permitted to participate in the presentation for each application. In addition, where necessary, a hearing or field survey may be conducted, and the applicant may be requested to provide additional documents.

(2) Review criteria

A comprehensive evaluation will be conducted on the basis of the following criteria. However, any proposed project failing to meet criteria [3] and [4] will not be adopted, regardless of the results of evaluation of other items.

[1] Objective, contents, implementation method, and applicability to countermeasures for decommissioning (Including applicability to the work site)

Whether or not the Project purpose corresponds to the project purpose described in the "Guidelines for applying" is to be evaluated.

Judgment is made as to whether the contents of the project conform to the project objective and are provided specifically taking into account the applicability to countermeasures for decommissioning (including applicability of the project to the work site).

Whether the implementation method of the project is consistent with the purpose and details of the project is to be evaluated.

[2] Project Implementation Schedule

Whether or not the project implementation plan (timeline) is appropriate to the purpose and details of the project, etc. is to be evaluated.

- [3] Project Implementation Scheme
  - A review will be made to confirm the project implementation framework, the expertise of the organization, the expertise of workers, the past results of similar projects, and other factors.
- [4] Financial Basis and Management System for Implementation of Project

Whether or not the applicant organization has a financial basis and a management system enabling them to implement the project is to be evaluated.

(3) Decision and Announcement of Results

When a subsidy application is adopted, the relevant applicant will receive an adoption notice, and the adoption will be publicized on the website of Management Office of the Project for Decommissioning and Contaminated Water Management.

#### 9. Granting of Subsidy

The adopted applicant submits a subsidy-granting application to the Management Office of the Project for Decommissioning and Contaminated Water Management. In response, the Management Office will serve a subsidy-granting decision notice to the applicant. Then the project will be initiated. During the period between the adoption decision and the granting decision, there may be any change in content and configuration, size, or amount of the project, subject to consultation with the Ministry of Economy, Trade and Industry. In addition, a granting decision may not be made if the terms and conditions of the grant are not satisfied.

Upon the granting decision, the subsidized project operator may be provided with information necessary to implement the project. The subsidized project operator may be required to comply with the confidentiality obligation with respect to some of such information.

#### 10. Recognition of Subsidized Expenses

#### (1) Classification of subsidized expenses

The expenses covered by this project are expenses directly necessary for the execution of the project, specifically as follows. The subsidized expenses will be finalized upon coordination with the Ministry of Economy, Trade and Industry.

Items of Expense	Description
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(1) Labor Costs	Expenses for	personnel	required	to ir	mplement	the	subsidized
	project.						

(2) Operating Costs
 facility/equipment, goods
 purchase, research, outsourcing, travel, remunerations, rent/depreciation and other necessities.

(2) Expenses not to be Included in Expenses Covered by Subsidy

 Office supply equipment (furniture such as desks, chairs and bookshelves, office machinery and so forth) with which the applicants should already be provided when considering the nature of the project.

- Expenses for handling accidents and disasters that occurred during the project. (However, cancellation fees incurred by reasons not attributable to subsidized project operating entities may be directly included as an expense. Please consult the person in charge on this matter.)
- Expenses unrelated to the project
- (3) Exclusion of Consumption Tax from Expenses Covered by Subsidy

If general and local consumption taxes (hereafter referred to as "consumption tax") are included in the subsidy amount, the applicants shall be requested to submit a report after the settlement of tax amount, according to the granting guidelines.

This is so specified as to demand, at the time of filing an income tax return, that subsidized project operating entities should report and return the amount to which the subsidy has been applied, out of the amount of deduction for taxable purchase, so that the amount for which the subsidy has been allocated out of the amount of deduction for taxable purchase shall not be detained.

However, because the report mentioned above is based on an income tax return that will be filed after the settlement of the subsidy, occasional delinquency in reporting due to lapse of memory has been found. Also, in order to avoid the complicated office procedures that need to be followed by subsidized project operating entities, the consumption tax shall be handled as follows.

When determining the amount of subsidy applied for in the grant application, the consumption tax must be excluded from the expenses covered by the subsidy before calculating the subsidy amount and submitting the application.

However, to avoid hindrance to the implementation of the subsidized project, such subsidized project operating entities as those listed below shall be permitted to include the consumption tax in the expenses covered by the subsidy when calculating the amount of subsidy.

- [1] Subsidized project operating entities who are not classified as taxpayers under the Consumption Tax Act
- [2] Subsidized project operating entities who are tax-exempt business entities
- [3] Subsidized project operating entities who are business providers subject to simplified tax
- [4] National or local governments (limited to cases when project is conducted with a special account), or subsidized project operating entities who are corporations listed in the attached Table 3.
- [5] Subsidized project operating entities who are using the general account of a national or

local government

- [6] Subsidized project operating entities who are taxable business providers that choose a refund of consumption tax, following confirmation of consumption tax and purchase tax deductions, for instance due to a low amount of taxable sales
- 11. Miscellaneous
- (1) Any expenses incurred before the date when the decision on grant of the subsidy is made (including expenses for order placement) shall not be covered by the subsidy program.
- (2) In the event that the subsidized project operating entity desires to make a purchase or other contract related to material procurement or involving an occurrence of cost, it shall invite open competitive bidding, as a general rule, from the viewpoint of cost effectiveness. If the subsidized project operating entity desires to outsource part of the subsidized project to a third party or conduct the project in partnership with a third party, it shall in advance make a contract on the implementation and report this to PMO.
- (3) Once informed that the decision on grant of the subsidy is made, the subsidized project operating entity shall not change the subsidy budget distribution or the details of the subsidized project nor interrupt or terminate the project without prior approval from PMO.
- (4) The subsidized project operating entity shall promptly report the progress of the subsidized project and so on whenever required to do so by PMO.
- (5) After the subsidized project is completed (or the project termination is approved), the subsidized project operating entity shall submit a project result report to the management office.
- (6) The subsidized project operating entity shall keep accounts on any expenditures for the subsidized project with dedicated account books accompanied by all written evidences in a way that is clearly differentiated from the other accounting to ensure that all incomes and expenditures are meticulously accounted for. The entity shall maintain the account books at least five years after the fiscal year in which the date of completion (or the date of approval for termination) is included so that they can be accessible whenever requested by METI, fund establishment organization and PMO.
- (7) With respect to the assets acquired or the utility of which has increased through the subsidized project (hereinafter referred to as "the Acquired Assets, etc."), the subsidized project operating entity shall manage them with due care of a prudent manager even after the completion of the subsidized project, and strive to effectively make use of them in accordance with the purpose of the grant of the subsidy. All applicable Acquired Assets, etc. shall be properly controlled using an Acquired Asset Ledger during the asset disposal

restriction period, which will be separately set forth.

- (8) If the subsidized project operating entity needs to dispose of (i.e., use, transfer, loan or offer as collateral assets contrary to the purpose of the grant of the subsidy) any Acquired Asset having a unit price equal to or higher than 500 thousand yen (tax excluded) during the asset disposal restriction period separately set forth, they must obtain prior approval. In this case, the entity shall pay part of or the entire subsidy amount as a general rule. (The maximum payment does not exceed the subsidy amount for the appropriate asset to be disposed of).
- (9) After the completion of the subsidized project, the Board of Audit may visit the premises of the subsidized project operating entity for inspection.

### 12. Contact Information

5F, Shinbashi JB Bldg., 9-5, Shinbashi 6-chome, Minato-ku Tokyo 105-0004 Mitsubishi Research Institute, Inc., Management Office of the Project for Decommissioning and Contaminated Water Management Contact: Matsumoto, Sugiyama, or Kawai Phone: 03-5425-2871 Fax: 03-3578-7025 E-mail: hairo-second@mri.co.jp Please contact us by e-mail or fax. Inquiries by telephone are not accepted. (Form 1)

No.	
*Leave blank.	

To: Management Office of the Project for Decommissioning and Contaminated Water Management

Project Subsidy under the Fiscal 2013 Supplementary Budget Project: "Project for Decommissioning and Contaminated Water Management (Development of Criticality Control Technologies of Fuel Debris)

# Application

	Company/Organization Name	
	Representative (Full Name and Title)	Seal or Signature
Applicant	Address	
	Contact Person (Full Name)	
	Section/Department	
	Title	
	Telephone (Extension, if any)	
Contact	E-mail	

# (Form 2)

No. \*Leave blank.

Project Subsidy under the Fiscal 2013 Supplementary Budget Project: "Project for Decommissioning and Contaminated Water Management (Development of Criticality Control Technologies of Fuel Debris)

**Project Proposal** 

1. Purpose, details and implementation method of the project

\*Describe the background and the purpose of the proposed project.

\*Provide a specific description of the implementation method for each item in "2. Project Details" of these Guidelines.

\*Provide specific suggestions for enhancing the outcome of this project.

2. Project schedule

\*Provide a monthly implementation schedule for each item in "2. Project Details" of these Guidelines.

\* Describe concrete steps for implementation.

\* Establish and describe concrete goals as milestones to achieve the purpose of implementation.

\* List quarterly progress report meetings (for intermediate and final report) in the implementation schedule.

3. Project implementation framework

- \* Provide a chart of the implementation framework of the project and the number and roles of workers.
- \* Describe the brief personal history, specialty field, past records of similar projects, concerning the project leaders and person responsible for project implementation.
  - \* If any operation is planned to be outsourced, provide its details.

4. Past project results

*Describe the results of similar business carried out in the past by the organization. Include
the following information in the description.
- Project name, project outline, year of implementation, orderers, and other relevant
information (indicated if a project was a voluntary one).
* Describe the field of expertise of the main staff of this project and a record of similar projects
carried out in the past (excluding staff addressed in item 3 above)
* In the case of a consortium, clarify which company or organization represents which results.
5. Management base and management framework
* Provide specific grounds for claiming that there is an appropriate management basis
necessary to ensure smooth implementation of the proposed project.
* Provide specific grounds for claiming that funds can be managed in an appropriate manner
(including maintenance of expenditure-related documentary evidence). Also describe the fund
management system (staff and their roles).
* For a consortium, describe the above with respect to all companies or organizations.
6. Total project cost (in thousands of yen)
*Indicate necessary expenses in accordance with 10 (1) "Classification of subsidized
expenses" in these Guidelines. Add other expense items where necessary.
* For a consortium, clarify personnel expenses and project costs for each company or
organization.
* The amount for each expense item shall exclude consumption tax and local consumption
tax.
I Labor Cost
II Project Cost
[1] Design, manufacture, and processing
[2] Consumables
[3] Travel
[4] Gratuity
[5] Outsourcing
Total: thousand yen (*Total amount must not exceed the maximum amount of
subsidy.)

Note: Respond to all items 1 to 6 above. The form will not be reviewed if any item is left unanswered.

## (Other materials)

- [1] Company / organization outline (name / address, date of establishment, main business operations, organizational chart, and number of workers)
- [2] Financial report and the statement of receipts and disbursement (for the last year)
- [3] Articles of association or the articles of endowment
- [4] Other supplementary materials (as necessary)