



Knowledge Co-Creation Program (Group & Region Focus)

General information on

**Stabilizing Power Systems to Introduce Various Kinds
of Renewable Energy (A)**

**課題別研修「多様な再生可能エネルギー導入時の系統安定化 (A)」
JFY 2026**

Course No.: 202515110J001

Course Period in Japan: From October 6, 2026 to October 31, 2026

This information pertains to one of the JICA Knowledge Co-Creation Programs (Group & Region Focus) of the Japan International Cooperation Agency (JICA) implemented as part of the Official Development Assistance of the Government of Japan based on bilateral agreement between both Governments.

JICA Knowledge Co-Creation Program (KCCP)

The Japanese Cabinet released the Development Cooperation Charter in June 2023, which stated, *"In its development cooperation, Japan has maintained the spirit of jointly creating things that suit partner countries while respecting ownership, intentions and intrinsic characteristics of the country concerned based on a field-oriented approach through dialogue and collaboration. It has also maintained the approach of building reciprocal relationships with developing countries in which both sides learn from each other and grow and develop together."* JICA believes that this 'Knowledge Co-Creation Program' will serve as a foundation of mutual learning process.

I. Concept

Background

Recently, as a result of dramatic decline of cost of variable renewable energy (hereinafter referred to as "VRE") and against the backdrop of global initiative to limit carbon emissions, many countries are starting to accelerate VRE development. However, in many countries, the electric power system is not ready to accommodate large amounts of VRE. This program will introduce the impact of VRE on the stability of the power system and the specific measures to stabilize the power system.

For what?

This program aims to formulate an Action Plan on planning and designing of the electric power system that can accommodate large amounts of VRE by understanding the characteristics of VRE and electric power system in each country.

For whom?

1. Engineers in charge of planning /designing electric power system (transmission and substation facilities)
2. At least 5 years' working experience in the relevant field

How?

The detailed contents as follows;

1. Country report presentation and discussion
2. Lectures and site visits regarding,
 - (1) Challenges and measures with the expansion of VRE
 - (2) Technology of renewable energy systems
 - (3) Introduction of rechargeable battery and pumped storage generation as the measures for the equilibrium of supply and demand.
3. Action Plan formulation, presentation and discussion

II. Description

1. **Title (Course No.: 202515110J001)**
Stabilizing Power Systems to Introduce Various Kinds of Renewable Energy (A)
2. **Course Duration in Japan**
October 6, 2026, to October 31, 2026
3. **Target Regions or Countries**
Bangladesh, Belize, Brazil, Cambodia, Dominican Republic, Egypt, India, Indonesia, Iran, Jordan, Pakistan, Philippines, Samoa, Senegal, Sri Lanka, Tonga
4. **Eligible / Target Organization**
Leading organizations in charge of electric power systems
5. **Capacity**
16 participants
6. **Language**
English
7. **Objective(s)**
To formulate an Action Plan on planning and designing of the electric power system that can accommodate large amounts of VRE by understanding the characteristics of VRE and electric power system
8. **Overall Goal**
Introduction of VRE in the target countries is enhanced.

9. Output and Contents

This course consists of the following components. Details on each component are given below.

(1) Preparatory Phase

Formulation of Inception Report

The format of Inception Report will be sent to accepted participants after Notice of Acceptance. Accepted participants are required to prepare the report in accordance with the format. In addition, in order for the implementing partner to gain a deep understanding of each country's power industry and ensure a more effective program, accepted participants are required to submit the English version of their Power Development Plan (PDP) and Annual Report.

> PDP is a comprehensive long-term roadmap that outlines the future of the electric power industry, including such as demand forecasts, generation mix, grid expansion, and environmental targets.

> An Annual Report is a comprehensive summary of the organization's performance, technical achievements, and financial status over the past fiscal year.

(2) Program Phase

Lectures, short movies on mechanisms and characteristics of power generation using RE.

Expected Output	Module	Subjects/Agendas	Methodology
1. Participants are able to understand the impacts and difficulties when various kinds of VRE are massively introduced.		1-1. Policy, institutional arrangements and organization for introducing RE 1-2. Basic technology and equipment for RE power generation system 1-3. Challenges on introducing high penetration VRE	Presentation Lectures Discussion
2. Participants are able to understand Japan's situation of the electric industry, as well as its experience in introduction of RE and the measures for stabilization of power systems.		2-1. Power system planning and operation 2-2. Challenges on introducing high penetration VRE	Presentation Lectures Discussion

3. Participants are able to identify the technology of Battery Energy Storage System (BESS) and hydro (pumped storage) generation as measures for system operation (supply & demand balance, grid operation).	3-1. Power system planning and operation 3-2. Challenges on introducing high penetration VRE	Presentation Lectures Discussion Site Visit
4. Participants are able to understand the know-how of power system planning and operation to keep quality and reliability of power supply when various kinds of VRE are massively introduced.	4-1. Grid stabilization measures for RE interconnection such as mitigation for voltage /frequency fluctuation, excess energy, insufficient grid capacity	Presentation Lectures Discussion Site Visit
5. Participants are able to formulate an Action Plan describing measures to share the knowledge acquired during this program.	5-1. Policy, institutional arrangements and organization for introducing RE 5-2. Basic technology and equipment for RE power generation system 5-3. Power system planning and operation 5-4. Challenges on introducing high penetration VRE 5-5. Grid stabilization measures for RE interconnection such as mitigation for voltage /frequency fluctuation, excess energy, insufficient grid capacity	Presentation Lectures Discussion Site Visit

(3) Finalization Phase

Sharing acquired knowledge with colleagues and other stakeholders and having discussion on the issues to be tackled with priorities.

III. Eligibility and Procedures

1. Expectations to the Applying Organizations

- (1) This course is designed primarily for organizations that intend to address specific issues or problems identified in their operation. Applying organizations are expected to use the program for those specific purposes.
- (2) This course is enriched with contents and facilitation schemes specially developed in collaboration with relevant prominent organizations in Japan. These special features enable the course to meet specific requirements of applying organizations and effectively facilitate them toward solutions for the issues and problems.

2. Nominee Qualifications

Applying organizations are expected to select nominees who meet the following qualifications.

【 Remarks 】 Each Organizations is requested to strongly encourage female candidates to apply for the course to accelerate the realization of gender equality and women's empowerment.

(1) Essential Qualifications

- 1) Electrical engineers in charge of planning / designing electric power systems (transmission and substation facilities etc.) at middle management level
- 2) At least 5 years of experience in the power system field
- 3) Educational Background: Graduated from a technical higher educational institution or have equivalent knowledge
- 4) Language Proficiency: have a competent command of spoken and written English proficiency equivalent to TOEFL iBT 100 or above (This workshop includes active participation in discussions, action plan development, which requires high competence in English. Please attach an official certificate for English ability such as TOEFL, TOEIC etc, if possible)
- 5) Computer skills: to be proficient in Microsoft Excel and Power Point
- 6) Health: must be in good health to participate in the program in Japan. To reduce the risk of worsening symptoms associated with respiratory tract infection, please be honest to declare in the Medical History (QUESTIONNAIRE ON MEDICAL STATUS RESTRICTION of the application form) if you have been a patient of following illnesses; Hypertension / Diabetes / Cardiovascular illness / Heart failure / Chronic respiratory illness.

(2) Recommended Qualifications

- 1) Age: between the ages of twenty-five (25) and forty-five (45) years
- 2) Gender Equality and Women's Empowerment: JICA seeks more female applicants due to the past records of fewer applications from women. JICA is committed to promoting gender equality and women's empowerment and provides equal opportunities for all applicants regardless of their sexual

orientation or gender identity.

3. Required Documents for Application

(1) Application Form:

The Application Form is available at **the JICA overseas office (or the Embassy of Japan)**. Please submit a type-written application form.

(2) Photocopy of Passport:

You should submit it with the application form if you possess your passport which you will carry when entering Japan for this program. If not, you are requested to submit its photocopy as soon as you obtain it.

*The following information should be included in the photocopy:

Name, Date of Birth, Nationality, Sex, Passport Number and Expiry Date

*It is recommended that your passport be valid for more than 6 months after the last day of the program.

(3) English Score Sheet:

To be submitted with the application form, if the nominees have any official English examination scores. (e.g., TOEFL, TOEIC, IELTS)

4. Procedures for Application and Selection

(1) Submission of the Application Documents

Closing date for applications: **Please confirm the local deadline with the JICA overseas office (or the Embassy of Japan).**

After receiving applications, the JICA office (or the Embassy of Japan) will send them to the JICA Chubu in JAPAN by August 21, 2026.

(2) Selection

Primary screening is conducted at the JICA overseas office (or the embassy of Japan) after receiving official documents from your government. JICA Chubu will consult with concerned organizations in Japan in the process of final selection. Applying organizations with the best intentions to utilize the opportunity will be highly valued.

The Government of Japan will examine applicants who belong to the military or other military-related organizations and/or who are enlisted in the military, taking into consideration of their duties, positions in the organization and other relevant information in a comprehensive manner to be consistent with the Development Cooperation Charter of Japan.

(3) Notice of Acceptance

The JICA overseas office (or the Embassy of Japan) will notify the results **not later than August 31, 2026.**

5. Additional Document(s) to be Submitted by Accepted Candidates

Inception Report (The format of Inception Report will be sent to accepted candidates after notice of acceptance.)

-- To be submitted by September 28, 2026, to JICA Chubu in Japan.

Accepted candidates are required to prepare an Inception Report. The Inception Report should be sent to JICA by September 28, 2026, preferably by e-mail to Kanazawa.Takuma@jica.go.jp and cbictp1@jica.go.jp

6. Conditions for Participation

The participants of KCCP are required

- (1) to strictly observe the course schedule,
- (2) not to change the air ticket (and flight class and flight schedule arranged by JICA) and lodging by the participants themselves,
- (3) to understand that leaving Japan during the course period (to return to home country, etc.) is not allowed (except for programs longer than one year),
- (4) not to bring or invite any family members (except for programs longer than one year),
- (5) to carry out such instructions and abide by such conditions as may be stipulated by both the nominating Government and the Japanese Government in respect of the course,
- (6) to observe the rules and regulations of the program implementing partners to provide the program or establishments,
- (7) not to engage in political activities, or any form of employment for profit,
- (8) to discontinue the program, should the participants violate the Japanese laws or JICA's regulations, or the participants commit illegal or immoral conduct, or get critical illness or serious injury and be considered unable to continue the course. The participants shall be responsible for paying any cost for treatment of the said health conditions except for the medical care stipulated in (3) of "5. Expenses", "IV. Administrative Arrangements",
- (9) to return the total amount or a part of the expenditure for the KCCP depending on the severity of such violation, should the participants violate the laws and ordinances,
- (10) not to drive a car or motorbike, regardless of an international driving license possessed,
- (11) to observe the rules and regulations at the place of the participants' accommodation, and
- (12) to refund allowances or other benefits paid by JICA in the case of a change in schedule.

IV. Administrative Arrangements

1. Organizer

- (1) **Center:** JICA Chubu Center (JICA CHUBU)
- (2) **Program Officer:** Mr. KANAZAWA Takuma (Email to: cbictp1@jica.go.jp AND Kanazawa.Takuma@jica.go.jp)

2. Implementing Partner

- (1) **Name:** JAPAN ELECTRIC POWER INFORMATION CENTER, INC.
(JEPIC)
URL: <https://www.jepic.or.jp/en/>
- (2) **Name:** CHUBU ELECTRIC POWER CO., INC.
(CEPCO)
URL: <https://www.chuden.co.jp/english/>

3. Travel to Japan

- (1) **Air Ticket:** In principle, JICA will arrange an economy-class round-trip ticket between an international airport designated by JICA and Japan.
- (2) **Travel Insurance:** Coverage is from time of arrival up to departure in Japan. Thus, traveling time outside Japan (include damaged baggage during the arrival flight to Japan) will not be covered.

3. Accommodation in Japan

Basically, JICA will arrange the following accommodation(s) for the participants in Japan:

JICA Chubu Center, (JICA CHUBU),
Address: 4-60-7 Hiraike-cho, Nakamura-ku, Nagoya 453-0872, JAPAN
Phone: +81-52-533-0220
(where "81" is the country code for Japan, and "52" is the local area code)
<Location> Located at the center of Nagoya-city. The Nagoya main station, the regional hub of various transport, is 15 minutes' walk from JICA Chubu Center. Please refer to facility guide of JICA CHUBU:
<https://www.jica.go.jp/chubu/english/office/index.html>

If there is no vacancy at JICA CHUBU, JICA will arrange alternative accommodation for the participants.

5. Expenses

The following expenses in Japan will be provided by JICA:

- (1) Allowances for meals, living expenses, and stopovers.
- (2) Expenses for study tours (basically in the form of train tickets).
- (3) Medical care for participants who become ill after arriving in Japan (the costs related to pre-existing illness, pregnancy, or dental treatment are not included).
- (4) Expenses for program implementation, including materials.
- (5) For more details, please see "III. ALLOWANCES" of "KENSU-IN GUIDE BOOK," (English/French/Spanish/Russian).

*Link to the Website:
https://www.jica.go.jp/english/our_work/types_of_assistance/tech/acceptance/training/index.html or
<https://jica-van-cms.jica.go.jp/custom/kccp/kccp01.html>

6. Pre-departure Orientation:

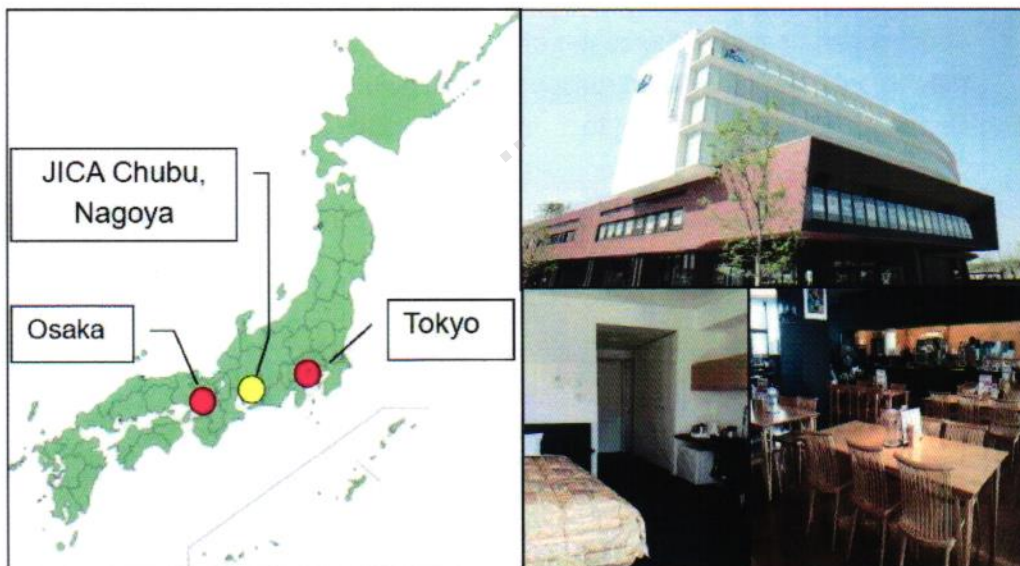
A pre-departure orientation will be held at respective country's JICA office (or the Japanese Embassy), to provide Participants with details on travel to Japan, conditions of the course, and other matters.

*YouTube of "Knowledge Co-Creation Program and Life in Japan" and "Introduction of JICA Center" are viewable from the link below.

Image videos of 'Introduction of JICA Center (YouTube)' show the following information of JICA Centers: Location, Building, Entrance, Reception(Front desk), Lobby, Office, Accommodation(Room), Amenities(Hand dryer), Bathroom(Shower and Toilet), Toiletries, Restaurant, Laundry Room(Washing machine, Iron), ICT Room(Computer for participants), Clinic, Cash dispenser, Gym, Neighborhood

Part I: Knowledge Co-Creation Program and Life in Japan	
English ver.	https://www.youtube.com/watch?v=SLurfKugrEw
Part II: Introduction of JICA Centers in Japan	
JICA Chubu	https://www.jica.go.jp/chubu/english/office/index.html

JICA CHUBU



V. Other Information

1. Personal Computer

It is highly recommended that participants should bring their own personal computer (laptop/notebook) and conversion adapters available in preparing their Action Plan, presentation slides, etc. as well as communicating through E-mail and using internet during your stay in Japan. The electrical current in Japan is 100volts and plug shape is A type.

2. Development Education Program

For the promotion of mutual friendship, JICA Chubu encourages international exchange between JICA participants and local communities, including school and university students as a part of development education program. JICA participants are expected to contribute by attending such activities and may be asked to make presentations on the society, economy, and culture of their home countries.

3. Important date and Closing date for submission

Application Form	August 21, 2026
Notice of Acceptance	August 31, 2026
Presentation material of Inception Report (Accepted participants only)	September 28, 2026
Presentation (Summary of Inception Report)	October 8, 2026 * Please note that the schedule is subject to change.

For Your Reference

JICA and Capacity Development

Technical cooperation is people-to-people cooperation that supports partner countries in enhancing their comprehensive capacities to address development challenges by their own efforts. Instead of applying Japanese technology per se to partner countries, JICA's technical cooperation provides solutions that best fit their needs by working with people living there. In the process, consideration is given to factors such as their regional characteristics, historical background, and languages. JICA does not limit its technical cooperation to human resources development; it offers multi-tiered assistance that also involves organizational strengthening, policy formulation, and institution building.

Implementation methods of JICA's technical cooperation can be divided into two approaches. One is overseas cooperation by dispatching experts and volunteers in various development sectors to partner countries; the other is domestic cooperation by inviting participants from developing countries to Japan. The latter method is the Knowledge Co-Creation Program, formerly called Training Program, and it is one of the core programs carried out in Japan. By inviting officials from partner countries and with cooperation from domestic partners, the Knowledge Co-Creation Program provides technical knowledge and practical solutions for development issues in participating countries.

The Knowledge Co-Creation Program (Group & Region Focus) has long occupied an important place in JICA operations. About 400 pre-organized courses cover a wide range of professional fields, ranging from education, health, infrastructure, energy, trade and finance, to agriculture, rural development, gender mainstreaming, and environmental protection. A variety of programs are being customized by the different target organizations to address the specific needs, such as policy-making organizations, service provision organizations, as well as research and academic institutions. Some programs are organized to target a certain group of countries with similar developmental challenges.

Japanese Development Experience

Japan, as the first non-Western nation to become a developed country, built itself into a country that is free, peaceful, prosperous and democratic while preserving its tradition. Japan will serve as one of the best examples for our partner countries to follow in their own development.

From engineering technology to production management methods, most of the know-how that has enabled Japan to become what it is today has emanated from a process of adoption and adaptation, of course, has been accompanied by countless failures and

errors behind the success stories.

Through Japan's progressive adaptation and application of systems, methods and technologies from the West in a way that is suited to its own circumstances, Japan has developed a storehouse of knowledge not found elsewhere from unique systems of organization, administration and personnel management to such social systems as the livelihood improvement approach and governmental organization. It is not easy to apply such experiences to other countries where the circumstances differ, but the experiences can provide useful ideas and clues when devising measures to solve problems.

JICA, therefore, would like to invite as many leaders of partner countries as possible to come and visit us, to mingle with the Japanese people, and witness the advantages as well as the disadvantages of Japanese systems, so that integration of their findings might help them reach their developmental objectives.



Contact Information for Inquiries

For inquiries and further information, please contact the JICA overseas office or the Embassy of Japan. Further, address correspondence to:

JICA Chubu Center (JICA CHUBU)