

9. Natural Resources and Energy

Energy Policy エネルギー政策		1684584 Updated
Target Countries : XXXXXXXXXX		30 participants
Course No. : J1604152/J1604154		
Sector : Natural Resources and Energy/Energy Supply		
Sub-Sector :		
Language : English		
Outline		
To understand the energy policy and situation in the world and Japan, and to support policy making based on the supply and demand assumption and energy balance.		
Objective/Outcome		Target Organization / Group
【Objective】 A Policy plan contributing to the formulation of energy policy based on each country's characteristics and issues will be formulated, and then shared and studied in the participating organization. 【Outcome】 1. Energy situation and issues in each country are shared among the participants and priority issues are examined. 2. Challenges in energy policy in each country are clarified through understanding and comparing changes and current status of energy situation/energy policies in Japan and the rest of the world. 3. Concepts and methods of energy supply-demand forecasting, energy balance and energy best mix are understood and their applicability in each country is examined. 4. A draft Policy Plan of specific countermeasures which contribute to solving challenges in each country is formulated. 5. Contents of Draft Policy Plan is shared and examined in the participating organization and the plan is submitted as the final report.		【Target Organization】 Governmental agencies such as Ministry of Energy or Industry, which are engaged in energy policy formulation. 【Target Group】 1. Be a managerial level official or its equivalent of governmental agency such as Ministry of Energy or Industry, which is engaged in energy policy formulation 2. Have a minimum of 3 years practical experience in the field of energy policy planning.
Contents		Course Period 2016/05/29 ~ 2016/06/25
1. Country Report Presentation 2. Energy demand & supply in the world, Energy Policy in Japan (Oil/Gas/Coal/Renewable Energy/Electric Power), Changes in lifestyle and energy demand-supply in Japan, Energy Conservation in Japan, Climate Change, Site Visit : Power Plant, etc. 3. Survey technique for energy statistics data, Energy Data Base Construction, Energy Balance Table, Workshop Energy demand forecasting, etc. 4. Draft and Presentation of Policy Plan 5. Formulation and submission of Final Report	Implementing Partner	The Institute of Energy Economics, Japan
	Department in Charge	Industrial Development and Public Policy Department
	JICA Center	JICA Tokyo (Industry&Public)
	Cooperation Period	2016~2018
	Remarks and Website	(A) 2016/05/29-2016/06/25 (English:Tokyo) (B) 2016/06/26-2016/07/23 (English:Tokyo)

High Efficient & Clean Thermal Power -for Executives- 高効率クリーン火力発電の推進		1684586
		Continuing
		20 participants
Target Countries : Countries to introduce advanced technology of coal-fired power generation.		
Course No. : J1604141/J1604142		
Sector : Natural Resources and Energy/Energy Supply		
Sub-Sector :		
Language : English		
Outline		
The course introduces Japanese advanced technology of high efficiency thermal power generation, such as ultra supercritical coal-fired power generation(USC) technology, gas combined cycle power generation(CCGP) or Integrated Gasification Combined Cycle(IGCC) Technology. It also focuses on the environmental measures. Participants will be advised on how they can promote those technology in their countries.		
Objective/Outcome		Target Organization / Group
【Objective】 The participants understand Japanese advanced technology of high efficiency thermal power generation, such as USC, CCGP or IGCC Technology. They will be able to plan to promote those technology in their countries. 【Outcome】 1. To understand technology of USC, CCGP and IGCC 2. To understand the facilities for high efficiency thermal power generation and environmental measures 3. To understand the necessary skill and cost on the installation, operation and maintenance of those high efficiency thermal plant. 4. To formulate action plan by applying knowledge gained by the training course.		【Target Organization】 Governmental ministries/agencies in charge of power and energy policy planning and implementation or generation development. 【Target Group】 Managerial official or equivalent. Bachelor or equivalent. Fluent in English.
Contents		Course Period
1. Job report presentation 2. Lectures & site visits: high efficient coal and gas fired thermal power generation, IGCC technology 3. Lectures & site visits: manufacturer of high efficiency gas turbine and gas boiler • Lectures on installation, operation and maintenance 4. Status of energy sector in participants' countries and problems for coal fired thermal power generation and high efficient standardization. 5. Group discussions 6. Preparation and presentation of action plan		2016/08/21 ~ 2016/09/10
		Implementing Partner
		Kitakyushu International Techno-cooperative Association (KITA)
		Department in Charge
		Industrial Development and Public Policy Department
		JICA Center
		JICA Kyushu
		Cooperation Period
		2015~2017
		Remarks and Website
		(A) 2016/08/21-2016/09/10 (English:Kyushu) (B) 2017/01/29-2017/02/18 (English:Kyushu)

Improvement of Maintenance Skills for Gas Turbine and Coal Fired Steam Turbine Power Engineering ガスタービン・石炭火力発電のメンテナンス技術向上		1684588 Updated
Target Countries :		16 participants
Course No. :J1604253/J1604445		
Sector :Natural Resources and Energy/Energy Supply		
Sub-Sector :		
Language :English		
Outline		
This program is designed for engineer working at thermal power station to share and promote knowledge and skills for management, operations and maintenance.		
Objective/Outcome		Target Organization / Group
【Objective】 Knowledge and skills for management, operations, maintenance and environmental conservation which are the outputs of this program will be shared and promoted among his/her organization. Participants prepare and make presentation of the Action Plan as a learned knowledge and their dissemination plan. 【Outcome】 1.Preliminary training program 2.Participants will be able to analyze and assess similarities and/or differences between electric power industry in Japan and in their country. 3.Participants analyze knowledge and information on effective techniques of operation, maintenance and troubleshooting by thermal power plants according to the prepared issue analysis. 4.Participants make an action plan on dissemination activities of skills and knowledge gained from the training program in Japan. 5.The Action plans made by the participants will be shared in their organizations. The Action plans will be discussed and promoted in their organizations..		【Target Organization】 The government agencies or electricpower utilities which are responsible for power development 【Target Group】 Leader of management, operations or maintenance section in thermal power plant <Experience> More than 3 years
Contents		Course Period
(Before training)		2016/05/09 ~ 2016/06/29
1. Preparation of Job and Country Reports and Presentation of Job and Country Reports.		Implementing Partner Japan Electric Power Information Center, INC. (JEPIC), Power Engineering and Training Services, Incorporated (PET)
(Training in Japan)		
2. Lecture about outline of the electric power industry in Japan		Department in Charge Industrial Development and Public Policy Department
3. Lecture and practice about the operation of thermal power plant		JICA Center JICA Chugoku
4. Lecture and practice about the maintenance of thermal power plant		Cooperation Period 2016～2018
5. Lecture and observation of manufacturing techniques power plant		Remarks and Website (A) 2016/05/09-2016/06/29 (English:Chugoku) (B) 2016/08/24-2016/10/21 (English:Chugoku)
6. Lecture about the environmental conservation technology for thermal power plant		
7. Drawing up an action plan, its presentation and discussion		
(After training)		
8. Drawing up a progress report on the sharing, discussion and promoting the action plan		

Power Distribution Grid 配電網整備		1684590
		Continuing
		32 participants
Target Countries : XXXXXXXXXX		
Course No. : J1604325/J1604066		
Sector : Natural Resources and Energy/Energy Supply		
Sub-Sector :		
Language : English		
Outline		
Participants can learn not only knowledge but also how to operate and maintain distribution system through lectures by electrical company staff and site visit in Okinawa, Japan whose distribution system is said to be the top of the world and tackles island's and typhoon issues. The participants are also expected to build relationship with Japanese experts and other participants in a position of management/leadership as well as to carry out and expand the experience acquired in this training in their countries.		
Objective/Outcome		Target Organization / Group
【Objective】 Comprehensive knowledge for development of power distribution system will be promoted in participating organizations.		【Target Organization】 Government agencies or private companies related to electric power sector
【Outcome】 1. To find issues and causes concerning the distribution grid in their countries, and to explain them 2. To understand the actual situation of distribution loss and the measures against it in Japan, and to explain the difference from their countries 3. To understand the actual situation of reliability of distribution grid and the measures to improve the reliability and to explain the difference from their countries 4. To make a plan of efficient and stable electric supply with clear priority and to explain the plan		【Target Group】 1. Be electrical engineers in the position of management, leader, or training colleagues (or expected to be in near future) with 5 years' experience in distribution field 2. Technical college graduates or equivalent 3. English (TOEFL iBT 79 or better)
		【Recommending Qualification】 Age: 30 to 40 years of age
Contents		Course Period 2016/05/14 ~ 2016/06/13
【Preliminary Phase in home country】 Formulation of the Country Report and the Issue Analysis Sheet		Implementing Partner Japan Electric Power Information Center, The Okinawa Electric Company
【Core Phase in Japan】 Lecture, exercise, site visit, discussion and etc. on following contents are provided for each output mentioned above: 1. Outline of electric power industry in Japan, Outline of transmission/distribution systems 2. Planning/designing of distribution systems, Electrification and correspondence to isolated island, Distribution equipment factories 3. Outline of quality management in Japan, Operation/maintenance of distribution systems, measures to damage by salt-air & typhoons 4. Drawing up an action plan and presentation		Department in Charge Industrial Development and Public Policy Department
		JICA Center JICA Okinawa/JICA Kansai (I)
		Cooperation Period 2014~2016
【Finalization Phase in home country】 Within 3 months of the end of the program in Japan, participants/organizations are expected to implement the action with utilization of acquired knowledge in Japan, and submit the final report to JICA.		Remarks and Website (A) 2016/05/14-2016/06/13 (English:Okinawa) (B) 2016/05/15-2016/06/04 (English:Kansai)
【Website】 ●Electric Power Information Japan Center Inc. (JEPIC) http://www.jepic.or.jp/en/index.html ●The Okinawa Electric Power Company, Inc. (OPAC) http://www.okiden.co.jp/english/index.html		

Power Grid System Planning & Operation –for Executives– 系統運用事業者幹部職員研修		1684591
		Continuing
		12 participants
Target Countries : Countries which operates electric power system not lower than 66kV		
Course No. : J1604404		
Sector : Natural Resources and Energy/Energy Supply		
Sub-Sector :		
Language : English		
Outline		
Regardless of scheme, grid operator in each country is a key counterpart in JICA's energy sector project and also is a key organization in light of infrastructure system export promotion. Hence this training course focuses on the promotion for young executives to understand power system engineering and related equipment in Japan and also focuses on the reinforcement of relationship with such key players.		
Objective/Outcome		Target Organization / Group
【Objective】 Young executives from each grid operators obtain knowledge about the Japanese practice of power grid operations and related Japanese manufactures, which results in smooth implementation of JICA's energy sector project and in promotion of infrastructure system export. 【Outcome】 1. Being able to find issues and causes concerning the electric power system in their countries and explain them. 2. Deepen the knowledge about the grid system and operation practice in Japan. 3. Deepen the knowledge about the electric equipment used in Japanese Power Grid. 4. Develop an improvement plan to address the issues in their power grid		【Target Organization】 National Grid Operators 【Target Group】 1. Senior officer (ex. Department Head of each section) 2. Graduates of engineering faculty of university or equivalent, 40-55 years old, smooth communication in English 3. Be in good health physically and mentally to participate in the Program
Contents		Course Period 2016/10/02 ~ 2016/10/29
1. General Information about Japanese Electric Business (1) Overview of system operation in Japan (including power system reform) (2) Total Quality Management in Japan 2. Lecture on practical system operation (1) System planning (ex. transition of power system expansion in Japanese electric company) (2) System reliability (ex. supply-demand control, voltage regulation, mitigation of cascading blackout, trans-regional operation) (3) Function of engineering department and system operation department (including demarcation between power company and manufactures) (4) Quality control of equipment (procurement, testing, inspection) (5) Challenges on interconnection of renewable energy 3. Observation of system operation facility (1) Substations (2) Load dispatching center (3) (Adjustable speed) pumped storage power plant 4. Observation of manufactures	Implementing Partner	Under Planning
	Department in Charge	Industrial Development and Public Policy Department
	JICA Center	JICA Kansai (I)
	Cooperation Period	2015~2017
	Remarks and Website	Examining suitable upgrading for a flight, hotel etc.

Hydropower Planning & Operation 水力開発の促進		1684592 Updated
Target Countries : Countries where hydro-power plants are expected to construct steadily		16 participants
Course No. : J1604139		
Sector : Natural Resources and Energy/Energy Supply		
Sub-Sector :		
Language : English		
Outline		
This program is prepared in order that developing counties could obtain now-how and information required for steady implementation of hydropower development.		
Objective/Outcome		Target Organization / Group
【Objective】 Trainees will obtain comprehensive knowledge for steady implementation of hydropower development, and will develop action plans to solve their facing issues related to their hydropower development. After coming back to their home countries, they will discuss their applicability in their belonging organizations. They will prepare some policies or plans(draft) contributing to steady promotion of hydropower development.		【Target Organization】 The government agencies or electric power utilities which are responsible for hydropower development
【Outcome】 1. To recognize the issues related to hydropower development in the home country / organization based on the situation of other participating countries that face similar challenges. 2. To understand about hydropower development procedures including schemes of IPP Project and CDM in the power sector, and consider these applicability to the home country. 3. To understand differences of required hydropower development technology (planning, design, financial analysis, O&M, etc.) between the home country and Japan. 4. Participants make an action plan on dissemination activities of skills and knowledge gained from the training program in Japan. 5. The Action plans made by the participants will be shared in their organizations. The Action plans will be discussed and promoted in their organizations. 6. Trainees will recognize possible problems and difficulties facing at each stage of feasibility study, designing, construction, and operation of hydropower stations in their own country and will consider how to deal with them.		【Target Group】 1. Be responsible for hydropower development and those currently posted to the managerial position in the government agencies or electric power utilities. 2. Have a minimum of 5 yeas practical experience in the field of hydropower development. 3. Be a graduate of university and be proficient in spoken and written English. Preferable to mechanical, electrical and civil engineering majors.
Contents		Course Period 2016/09/13 ~ 2016/10/15
1. Preparation of Job and Country reports by the end of preparatory phase 2. Presentation of Job Report 3. Outline of Electric Power Industry in Japan 4. Execution procedure of hydropower development in Japan 5. Environmental impact assessment of hydropower projects 6. Global warming measures(CDM) and environmental problems of hydropower projects 7. Development of hydropower projects with ODA 8. Hydropower projects by IPP 9. Decision software for electric power development plan 10. Design and construction of hydro-PP 11. Optimum Operation Planning for Dam Control 12. Economic evaluation, dam cost allocation and redevelopment of hydro-PP 13. Operation and maintenance of hydroelectric power plant 14. Tours of hydro-PP etc. 15. Drawing up an action plan 16. Discussion about an action plan between participants and experts 17. Action plan presentation 18. Sharing training outcomes, such as an action plan, in participant's organizations 19. Discussion and Promotion of an action plan in participant's countries/organizations 20. Examples of solution to a problem & lessons learned of the past of hydro-PP in Japan		Implementing Partner Under Planning
		Department in Charge Industrial Development and Public Policy Department
		JICA Center JICA Tokyo(Industry&Public)
		Cooperation Period 2016~2018
		Remarks and Website

Electric Power Transmission Engineering (Africa and Asia Region) 電力系統技術		1684593
		Continuing
		9 participants
Target Countries : Countries planning or operating electric system 33kV and over		
Course No. : J1604423		
Sector : Natural Resources and Energy/Energy Supply		
Sub-Sector :		
Language : English		
Outline		
This training course that inclusively acquires the technology related to the electric power system has contents which can efficiently acquire the technology on planning, construction, operation and maintenance of its system for developing countries. The synergistic effects with Japanese ODA Loan/ Grant Aid Projects would be expected.		
Objective/Outcome		Target Organization / Group
【Objective】 To be able to propose the Action Plan on power system planning and operation and regional interconnected power system. 【Outcome】 1. Participants can explain power industry and the system in Japan 2. Participants can explain their acquired knowledge and technique on power system planning 3. Participants can explain Japanese advanced power system (stability, installation into narrow space) 3. Participants can explain their acquired knowledge and technique on power system operation 4. Participants can explain their acquired knowledge and technique on the maintenance of power facilities		【Target Organization】 Competent government agencies or utilities which own and operate electric power system. 【Target Group】 1. Electric power engineers planning or operating electric system 33 kV and over with 5 years' experience 2. University graduates or equivalent, 27 to 40 years old and be proficient in spoken and written English
Contents		Course Period 2016/11/15 ~ 2016/12/10
【Preliminary Phase in the participant's home country】 1. Preparation of inception report on own power industry, power system and current problems 【Core Phase in Japan】 1. Power industry and power system in Japan 2. Formulation of power system plan 3. Power system analysis 4. Power system operation 5. Power system interconnection 6. Field trip of power facilities 7. Maintenance of power facilities 8. Field trip of power facilities 【Finalization Phase in the participant's home country】 1. Progress report writing on power system improvement within three months		Implementing Partner Japan electric power information center (JEPIC)
		Department in Charge Industrial Development and Public Policy Department
		JICA Center JICA Chubu
		Cooperation Period 2015~2017
		Remarks and Website

Advanced Natural Gas Utilization Technology –for Executives– 先進天然ガス利用技術		1684850 New
Target Countries : XXXXXXXXXX		14 participants
Course No. : J1604406		
Sector : Natural Resources and Energy/Energy Supply		
Sub-Sector :		
Language : English		
Outline		
<p>Japan's advanced technology for natural gas utilization including high efficient thermal power generation, other industrial usage and gas transportation & storage system (LNG, etc), and natural gas sales contract knowledge will be introduced to participants. Obtained knowledge is expected to contribute further development of natural gas utilization in developing countries and better partnership with Japan.</p>		
Objective/Outcome		Target Organization / Group
<p>【Objective】 Participants will establish an action plan on comprehensive development of natural gas including gas utilization technology. The action plan should be shared and further examined in their organization and the authority in the country. The course is also expected to enhance the partnership between the participating country and gas users of Japan.</p> <p>【Outcome】 <ul style="list-style-type: none"> • To understand energy consumption portfolio, policy on energy resource, development strategy of natural gas utilization in Japan • To visit the high efficient thermal power plants and fuel storage facilities and other energy user including gas, chemical and steel industries and to understand advanced technology of natural gas utilization. • To acquire basic knowledge of natural gas sales contract. • To enhance the understanding for the gas exporting country on the technology of power generation and natural gas management in Japan and facilitate the better partnership for technical exchanges. </p>		<p>【Target Organization】 Government authority or public company in charge of resource(gas) exporting/utilising in the resource (gas) exporting/utilizing developing country</p> <p>【Target Group】 Executive officer/staff who are involved in decision making on gas exporting/utilizing policy</p>
Contents		Course Period 2016/10/02 ~ 2016/11/05
<p>1 Presentation of country report by the participants</p> <p>2 Introduction on energy consumption portfolio, policy on energy resource, development strategy of natural gas utilization in Japan</p> <p>3 Site visit and introduction on high efficient thermal power plants and fuel storage facilities and other energy user including gas, chemical and steel industries and to understand advanced technology of natural gas utilization.</p> <p>4 To acquire basic knowledge of natural gas sales contract.</p> <p>5 Compiling and submission of final report by the participants based on the lecture and site visit</p>	Implementing Partner	Under Planning
	Department in Charge	Industrial Development and Public Policy Department
	JICA Center	JICA Kansai (I)
	Cooperation Period	2016~2018
	Remarks and Website	

Energy Efficiency and Conservation & Governmental Promotion 省エネ技術と技術普及のための行政の取り組み		1684594
		Continuing
		30 participants
Target Countries : Countries which JICA's program on energy-saving are implemented or expected.		
Course No. : J1604429/J1604405		
Sector : Natural Resources and Energy/Energy Conservation		
Sub-Sector : Private Sector Development/Industrial Technology		
Language : English		
Outline		
The purpose of this training course is to support the energy-saving activities of the participant's home country through introducing technology and promotion activities for energy saving in Japan. The participants are expected to learn how private enterprises make energy-saving promotion compatible with profit maximization and productivity improvement in collaboration with the government.		
Objective/Outcome		Target Organization / Group
【Objective】 Participants will clarify necessary actions for applying appropriate energy-saving policy to their countries.		【Target Organization】 1. Governmental and public agencies involved in policy, promotion and audit of energy-saving. 2. Manufacturing association.
【Outcome】 1. Understanding environmental policy, its background of participants' country and energy saving activity in the companies. 2. Grasping idea of measures taken in Japan and participants' countries for environmental protection, energy saving both in public sector and private sector. 3. Understanding current business situation and challenges, and the relationship between energy saving and productivity improvement which is achieved in industrial sector by utilizing environmental and energy technology, both in Japan and participants' countries. 4. Setting an action plan for environmental protection and energy saving based on Japanese cases and participants' countries' experience.		【Target Group】 1. At least three years' experiences in the field of environmental technology promotion.
Contents		Course Period 2016/07/02 ~ 2016/07/31
【Preliminary Phase】 1. Making Country Report for the current situation of energy-saving activities.		Implementing Partner Pacific Resource Exchange Center
【Phase in Japan】 1. Country Report Presentation and discussion. 2. Japanese laws and Regulations about energy-saving. 3. Activities of Japanese manufacturing industry about energy-saving. (e.g. Lighting, Air conditioning, Smart-grid, Embedded system, Building and Energy Management System (BEMS), Factory Energy Management System (FEMS), etc. 4. Introduction of technologies and know-how of Japanese companies(*1), and operative example in public infrastructure, such as waste incineration plant, Eco-Town (a corporate part which aims at recycle-oriented society), efforts in Eco-City ("Next-Generation Energy and Social System Demonstration Areas" selected by the Japanese Ministry of Economy, Trade and Industry), and so on.		Department in Charge Industrial Development and Public Policy Department
		JICA Center JICA Kansai (I)
		Cooperation Period 2014~2016
(*1: Countries, which have already started energy-saving activities, and are capable of installing technologies of Japanese companies, are desirable.)		
【Remarks and Website】 (A) 2016/07/02~2016/07/31 (English:Kansai) (B) 2016/09/02~2016/09/30 (English:Kansai) This training course will be conducted in cooperation with Kansai Economic Federation (kankeiren), which proposes "Kansai: an Environmentally Advanced Region". http://www.kankeiren.or.jp/kankyoku/img/en_sensin.pdf		Remarks and Website

Energy Efficiency and Conservation in Commercial and Residential Sector 民生部門の省エネルギー技術		1684595
		Continuing
		25 participants
Target Countries : Potential and incentive in energy efficiency and conservation are observed		
Course No. : J1604229/J1604230		
Sector : Natural Resources and Energy/Energy Conservation		
Sub-Sector : Private Sector Development/Industrial Technology		
Language : English/Spanish		
Outline		
This is a comprehensive and practical training program focused on energy efficiency and conservation (EE&C) policies and fundamental technologies in commercial and residential sector, which includes a series of lectures and field trips on relevant technologies such as air conditioning, lighting and smart grid. The expected candidates are technical officials or engineers involved in EE&C in the above sector.		
Objective/Outcome		Target Organization / Group
【Objective】 Action plan of policies and activities on EE&C in commercial and residential sector is proposed. 【Outcome】 1. To understand EE&C policies, especially those in commercial and residential sector, in Japan, to utilize the knowledge for proposing policies and activities on EE&C in commercial and residential sector in the trainees' own countries. 2. To acquire EE&C technologies for buildings and houses, to consider applicable technologies for their own countries. 3. To propose action plan for promoting EE&C in commercial and residential sector, utilizing the knowledge acquired from the training. 4. To consider the action plan in respective organizations after returning home.		【Target Organization】 Governmental/non-governmental/public organization engaged in policy or promotion of EE&C in commercial and residential sector 【Target Group】 Technical officials or engineers in charge of EE&C in the target organization, who has at least 5 years' experience
Contents		Course Period
1. [LECTURE]global environment and EE&C, system and history of promotion of EE&C, laws and policies of EE&C (especially in commercial and residential sector) in Japan, EE&C in small and middle enterprises, basic strategy of EE&C policy planning, etc [FIELD TRIP]Eco-museum, Eco-town 2. [LECTURE]basics of EE&C technologies (heat, fluid machinery, Air conditioning, Lighting, etc.) [FIELD TRIP]models of EE&C in buildings and supermarkets, Visualized management of energy, Eco-house, ESCO, [PRACTICE]Energy Auditing in building 3. Discussion and preparation of action plan 4. Submission of report to the trainees' organizations		2017/01/22 ~ 2017/03/10
		Implementing Partner
		Kitakyushu International Techno-cooperative Association (KITA)
		Department in Charge
		Industrial Development and Public Policy Department
		JICA Center
		JICA Kyushu
		Cooperation Period
		2015~2017
		Remarks and Website
		(A) 2017/01/22-2017/03/10 (English:Kyushu) (B) 2016/10/30-2016/12/17 (Spanish:Kyushu)

Policy Planning for Energy Efficiency and Conservation 省エネルギー政策立案		1684597
		Continuing
		36 participants
Target Countries : XXXXXXXXXX		
Course No. : J1604327/J1604231/J1604045		
Sector : Natural Resources and Energy/Energy Conservation		
Sub-Sector :		
Language : English/Spanish		
Outline		
The participants with limited experiences and knowledge in making policies for energy efficiency and conservation make policy proposals while attending to the lectures on Japanese policies, policy planning method, energy audit, and others. After participating in the training, participants are expected to make reports that match to their realities.		
Objective/Outcome		Target Organization / Group
【Objective】 The participants make policy proposals that matches the reality in their countries, which may help them improve their ability in planning and practicing their policy in energy efficiency and conservation.		【Target Organization】 Governmental organization with jurisdiction over energy efficiency and conservation policy planning and implementing
【Outcome】 1. Figure out the current energy situation/problems on and policy for energy efficiency and conservation in their respective country and become able to explain them. 2. Understand Japan's policies, law and the current status of energy efficiency and its promotion. Participants compare it with those in their respective country and study their possible application to the case in their country. 3. Observe good models of energy efficiency and conservation through current business situation and challenges in Japan. They become able to study the possibility to apply the model of Japan to the case in their country. 4. Become able to analyze the problems faced and propose the way to solve them through group work, discussion, and so on. 5. Make a Policy Proposal for energy saving that matches to the reality of the participants' country and is feasible to put into practice.		【Target Group】 Those responsible for policy planning on energy efficiency and conservation (ex. director-general, director, deputy director)
Contents		Course Period
1. Comparative study Understand the energy situation and policy for energy efficiency and conservation in the participants' country through the presentation of Country Report they prepare in advance. The information is shared among the participants and lecturers.		2016/05/15 ~ 2016/06/11
2. Lecture Lecture is composed of the following three modules. a. Japan's policies and law for energy efficiency b. Promotion activities for energy efficiency and conservation c. Energy efficiency for industry, building, and residential sectors, and others		Implementing Partner
3. Observation Visit factories and office buildings (good model) with excellent activities in energy saving practices		Department in Charge
4. Report Make policy proposals that will be practiced by the participants and their organizations.		JICA Center
		Cooperation Period
		Remarks and Website

Sustainable Rural Development by Biomass バイオマスの活用による持続可能な地域開発		1684601 Updated
Target Countries : <input type="text"/>		10 participants
Course No. : J1604436		
Sector : Natural Resources and Energy/Renewable Energy		
Sub-Sector :		
Language : English		
Outline		
This program aims to promote biomass and bio-fuel utilization through introducing their features, cultivation plan, effective utilization as well as participants' formulating and sharing the utilization plans fitted to their country in their organizations.		
Objective/Outcome		Target Organization / Group
【Objective】 Participants understand the features, cultivation plan, and effective utilization of biomass and bio-fuel as well as formulate and share the utilization plans fitted to their country in their organizations. 【Outcome】 (1) To be able to understand feature of biomass (2) To be sorted out the current situations and issues on the utilization of biomass in the home country. (3) To be able to estimate the amount of the biomass resources. (4) To be able to understand individual technologies for the planning of biomass utilization. (5) To be able to make a plan for effective utilization of biomass based on above mentioned (1) to (3)		【Target Organization】 Staffs engaged in planning and/or operation of Biomass and/or Bio-Fuel utilization in public organizations 【Target Group】 3 years related work experience. Bachelor or technical higher education degrees in agri/forestry/chemical/mechanical engineering. Enough English. Healthy in physically&mentally. Not be served in military.
Contents		Course Period 2016/09/21 ~ 2016/12/03
(1) Feature of Biomass (2) Estimation of the total amount and usable biomass (3) Production and collection of unused Biomass. Energy Conversion technologies, Measurement, monitoring and evaluation. (4) PDCA of biomass utilization system. Formulation and presentation of action plan. (5) <Finalization phase in home country> Share and discuss, modify the action plan in respective organizations.		Implementing Partner Under Planning
		Department in Charge Industrial Development and Public Policy Department
		JICA Center JICA Okinawa
		Cooperation Period 2016~2018
		Remarks and Website

Training for Planners to Promote Renewable Energy in Micro Grid マイクログリッドにおける再生可能エネルギー導入のための計画担当者研修		1684602
		Continuing
Target Countries : _____		10 participants
Course No. : J1604283		
Sector : Natural Resources and Energy/Renewable Energy		
Sub-Sector : Natural Resources and Energy/Energy Supply		
Language : English		
Outline		
<Only this year for high-level persons by short-term training> For mainly diesel power generation in island or remote areas, renewable energy reduce fuel and environmental load but need the related policies, guideline and technique to stable supply connecting with diesel and renewable energy in micro-grid system. Participants can learn the experiences and skills of Okinawa, where are a lot of islands and micro-grid (especially connecting PV power generation to multiple diesel generators in small size hybrid).		
Objective/Outcome		Target Organization / Group
【Objective】 To understand the issues to be considered issues when introducing renewable energy in micro-grid systems, and acquire basic knowledge necessary for designing micro-grid utilizing renewable energy such as PV and wind (especially, connecting photovoltaic power generation to multiple diesel generators in small size hybrid system). 【Outcome】 <Preparatory Phase> Comprehend the situation of power distribution and introduction of renewable energy especially in remote areas in each country. <Core Phase in Japan>Participants will be able to explain: 1. to understand policies and regulations in Japan to promote introduction of renewable energy 2. to understand technical characteristics of PV and other renewable energy economic/accounting issues necessary for introducing PV generation 3. to understand the issues when introducing renewable energy to micro grid 4. to clarify the issues when participants introduce acquired knowledge in each home country and make action plan <Finalization Phase> To share the acquired knowledge with relevant people and clarify the issues to be tackled with priorities		【Target Organization】 Ministry or agency in charge of planning of introduction of renewable energy in micro-grid to island or remote areas. 【Target Group】 High-level personnel doing the decision-making of the introduction of the hybrid power generation system (renewable energy connecting with diesel: especially renewable energies are photovoltaic and wind power generation) in governmental or semi-governmental organizations/companies such as the top of the administration or high-level director of the related department in the ministry or electric power company
Contents		Course Period 2016/04/02 ~ 2017/03/31
【Preparatory Phase】 Formulation of Country Report 【Core Phase in Japan】 Lectures, site visits on 1. policies, regulations & organizations in Japan relevant to introduction of renewable energy 2. mechanism and characteristics of power generation using PV and other renewable energy in micro-grid (including the issues of diesel) Presentation on each country's power supply and renewable energy in Pacific Islands Leaders Meeting (PALM) 【Finalization Phase】 Sharing acquired knowledge with colleagues and other stakeholders and have discussion on the issues to be tackled with priorities.		Implementing Partner Okinawa Enetech
		Department in Charge Industrial Development and Public Policy Department
		JICA Center JICA Okinawa
		Cooperation Period 2014~2016
		Remarks and Website http://www.o-enetech.co.jp/en/index.html

Renewable Energy in Grid –Mainly on Photovoltaic– 再生可能エネルギー導入計画 -太陽光発電を例として-		1684603 Updated
Target Countries :All countries (except island states).		24 participants
Course No. :J1604335/J1604336		
Sector :Natural Resources and Energy/Renewable Energy		
Sub-Sector :		
Language :English		
Outline		
This training course aims to promote, develop and effective usage of Renewable Energy (mainly focus on Photovoltaic power generation) in the countries which have already introduced and/or plan to introduce Renewable Energy.		
Objective/Outcome		Target Organization / Group
【Objective】 Participants will be able to understand the theory and practice of renewabl energy, and policy/planning/roadmap for the introduce of renewable energy is proposed. 【Outcome】 1. To be able to explain basics of Renewable Energy and apply its technology 2. To be able to explain grid system technology 3. To be able to explain policy and operation of renewable energy, especially photovoltaic generation 4. To be able to make action plan and improve skills of policy planning		【Target Organization】 Central/Rural governmental organization of energy development, Electric power generation public corporation. 【Target Group】 Policy makers working in the renewable energy field and have more than 5 years of experience. Intend to work in the same organization continuously after finishing the training. Bachelor or equivalent. Fluent in English.
Contents		Course Period 2016/07/10 ~ 2016/08/20
1. Demand and issues related to renewable energy, assessment strategy of related equipment (life cycle cost, assessment etc.) 2. On-grid theory, case study and practical training (practices for power system, outlines and practices of grid-interconnection code, new electric power network, smart community concept etc.) 3. Method of development (cost down, policy making, introduction for usage, example of off-grid), economic efficiency of project, system for introduction of renewable energy and relationship between government and local municipality 4. Guidance for making action plan, presentation		Implementing Partner Under Planning
		Department in Charge Industrial Development and Public Policy Department
		JICA Center JICA Kyushu
		Cooperation Period 2016~2018
		Remarks and Website (A) 2016/07/10-2016/08/20 (English:Kyushu) (B) 2017/03/21-2017/05/03 (English:Kyushu)

Intensive Training for Geothermal Resource Engineers 地熱資源エンジニア		1684851 New
Target Countries : Countries with geothermal resources		18 participants
Course No. : J1604258		
Sector : Natural Resources and Energy/Renewable Energy		
Sub-Sector :		
Language : English		
Outline		
JICA has revived and renovated the geothermal engineer program at Kyushu University from 1970 to 2001. This program focuses on practical training. Trainees will attend classes for 3 months, then conduct research on issues from their home countries for 3 months and present their findings. Trainees will learn project evaluation and outsourcing as owner's engineers.		
Objective/Outcome		Target Organization / Group
【Objective】 This program will train engineers leading reliability improvement of national geothermal resources data.		【Target Organization】 Governmental organization in charge of geothermal development
【Outcome】 1.To acquire theory and analytical method of exploration 2.To understand the fundamental knowledge about development management 3.To understand the status of geothermal development of participating countries and Japan		【Target Group】 1. Over 3 years' experience in this field. 2. University graduates or equivalent level, preferably with a background of engineering or science. 3. Under 40 years old 4. Fluent in English 5. Must be in good health, both physically and mentally, to participate in the program for prolonged stay.
Contents		Course Period 2016/06/05 ~ 2016/12/17
【Preliminary Phase in home country】 1. Preparation of the country report about geothermal development 2. Consideration of research theme		Implementing Partner Kyushu University
【Core phase in Japan】 1. Lecture on theory and analytical method of geology, geochemistry, geophysics and reservoir engineering, etc. 2. Lecture on project evaluation, social acceptance, outsourcing of research, etc. 3. Site visits on manufacturer of turbine 4. Country report presentation 5. Research on issues from home countries 6. Poster presentation at a conference of the Geothermal Research Society of Japan 7. Action plan making and presentation		Department in Charge Industrial Development and Public Policy Department
		JICA Center JICA Kyushu
		Cooperation Period 2016~2018
【Finalization Phase in home country】 Practice of the action plan (JICA will provide technical advice)		Remarks and Website High achievers will be assisted master degree program and doctor degree program. And Japanese engineer will join the program and do networking.

Geothermal Drilling Management 掘削マネージメント		1684852 New	
Target Countries :Countries with geothermal resources		8 participants	
Course No. :J1604262			
Sector :Natural Resources and Energy/Renewable Energy			
Sub-Sector :			
Language :English			
Outline			
This program will train drilling managers (NOT drillers) of owner side in 6 weeks. Trainees will learn drilling technology, logistics, contract and case study, finally exercise drilling planning. In case study, countermeasures and lessons from failure drilling in Japan will be introduced.			
Objective/Outcome		Target Organization / Group	
【Objective】 Action plan will be formulated to strengthen the capacities for drilling planning and operation. For countries which outsource drilling, action plan will be formulated to strengthen the capacities for ordering and monitoring of drilling contractor. 【Outcome】 1. To understand the knowledge about drilling technology, logistics, etc. 2. To understand the knowledge about drilling planning and ordering contractor 3. To understand the knowledge about operation management and monitoring contractor		【Target Organization】 Governmental organization in charge of geothermal development 【Target Group】 Over 3 years' experience in this field. Fluent in English.	
Contents		Course Period	
【Preliminary Phase in home country】 Preparation of the country report about geothermal drilling 【Core phase in Japan】 1. Lecture on drilling technology, equipment, parameter, logging, contract and HSE 2. Lecture on monitoring of contractor, failure case study 3. Drilling site visit 4. Exercise drilling planning 5. Action plan making and presentation 【Finalization Phase in home country】 Practice of the action plan (JICA will provide technical advise)		2016/07/10 ~ 2016/08/11	
		Implementing Partner	Under Planning
		Department in Charge	Industrial Development and Public Policy Department
		JICA Center	JICA Kyushu
		Cooperation Period	2016～2018
Remarks and Website	Japanese engineer will join the program and do networking.		

Geothermal Development Policy –for Executives– 地熱エグゼクティブプログラム		1684853 New
Target Countries : Countries with geothermal resources		16 participants
Course No. : J1604264		
Sector : Natural Resources and Energy/Renewable Energy		
Sub-Sector :		
Language : English		
Outline		
This program is for executive partners to reconsider geothermal policy and strategy for about a week. Partners will discuss the role of public and private sectors, the climate attracting private investment, etc. based on the country reports from partners and the latest research by JICA. Japanese executives of industry, government and academia will join the discussion and do networking with partners.		
Objective/Outcome		Target Organization / Group
【Objective】 Action plan will be formulated to improve the geothermal policy and strategy. 【Outcome】 1. To reconsider geothermal policy, climate for private investment and plant investment 2. To understand the current status and issues of geothermal policy and strategy of participating countries and Japan 3. To do networking with executives participating countries and Japan		【Target Organization】 Governmental organization in charge of geothermal development 【Target Group】 Managerial official or equivalent. Fluent in English.
Contents		Course Period 2016/10/16 ~ 2016/10/28
【Preliminary Phase in home country】 Preparation of the country report about current status and issues of geothermal policy and strategy 【Core phase in Japan】 1. Lecture on economical evaluation of public/private/PPP investment, economical evaluation of deferent plant investment models, climate for private investment, etc. 2. Exercise economical evaluation model for geothermal development project 3. Site visit on manufacturer of turbine 4. Discussion with Japanese policy maker 5. Action plan making and presentation 【Finalization Phase in home country】 Practice of the action plan (JICA will provide technical advise)		Implementing Partner Department in Charge JICA Center Cooperation Period 2016~2018 Remarks and Website

ASEAN Web-based Mineral Resources Database ASEAN鉱物資源データベース運用能力向上		1684606
		Continuing
		16 participants
Target Countries : ASEAN Countries excluding Singapore and Brunei		
Course No. : J1604075		
Sector : Natural Resources and Energy/Mining		
Sub-Sector :		
Language : English		
Outline		
<p>This training course has been programed in response to a request by the ASEAN Senior Officials Meeting on Minerals (ASOMM)' s working group on Mineral Database. The training aims to deepen participants' understanding on data integration methods for the ASEAN Mineral Database. Participants will enhance skills and techniques for maintenance and development of the database through lectures and site visits conducted in Japan and Myanmar.</p>		
Objective/Outcome		Target Organization / Group
<p>【Objective】 This program aims to enhance participants' capability of utilizing the ASEAN Mineral Database in their countries.</p> <p>【Outcome】 1. Participants understand outline of ASEAN Mineral Resources Database 2. Participants understand what kind of information/data should be on the DB 3. Participants understand how to maintain the DB 4. Participants find the needed contents to enhance the DB 5. Participants create an action plan for enhancing and utilizing the DB</p>		<p>【Target Organization】 Min. of Mine/Natural Resources, other gov. body related to geological/mining issues.</p> <p>【Target Group】 1. Officers in-charge of maintaining or utilizing the DB 2. 3 years or more working experience in the relevant field 3. Preferably between the ages of 25 and 50 years</p>
Contents		Course Period
<p>1. Understand outline of ASEAN Mineral Resources Database (1)outline of the DB (2)how to use the DB (3)case study on how to utilize the DB (4)other kinds of DBs</p> <p>2. Understand what kind of information/data should be on the DB (1)basic information on the contents of the DB (GIS, seamless geological map, remote sensing etc. (2)how to collect and do a screening the contents information (3)Field Survey, Exercise on Remote Sensing techniques</p> <p>3. Understand how to maintain the DB (1)Structure of the DB (2)how to maintain the DB</p> <p>4. Find the needed contents to enhance the DB (1)share the case study on how to enhance and utilize the DB in your counties (2)find the needed contents to enhance the DB</p> <p>5. Create an action plan for enhancing and utilizing the DB</p>		2016/07/24 ~ 2016/08/13
		Implementing Partner
		Department in Charge
		JICA Center
		Cooperation Period
		Remarks and Website

Metal-Mining Development Administration 鉱物資源開発行政		1684607 Continuing 30 participants
Target Countries : All countries (particularly resource-rich countries).		
Course No. : J1604416		
Sector : Natural Resources and Energy/Mining		
Sub-Sector :		
Language : English		
Outline		
This training course will offer basic knowledge and skills on promotion of exploration and exploitation of non-ferrous metals. Appropriate and advanced measures for environmental protection are also provided from Japanese long experience of mine pollution. This course is designed for mid-level technical officers who are in-charged of mining policy.		
Objective/Outcome		Target Organization / Group
【Objective】 The objective of the Course is to equip and enhance the participants' capacity on policy development, planning, and implementation of promotion of exploration and exploitation of nonferrous metals and environmental pollution control by providing basic knowledge and skills through lectures and site visits on Japanese mining experience. 【Outcome】 1. To understand relation between metal mining and global economy, 2. To understand mineral exploration and related technologies, 3. To understand necessary measures of mine pollution control, and 4. To enhance the capacity on policy development, planning, and implementation of mining development.		【Target Organization】 Government Ministry of mining / mineral resources development 【Target Group】 1. Officers in-charge of mining policy in the Ministry with 3 years or more working experience. 2. College / university educated or equivalent 3. English speaking/writing and operating PC
Contents		Course Period 2016/09/25 ~ 2016/12/09
1. Lectures on history of mining, global economy and supply and demand of metals, case study of mine development in developing countries, 2. Lectures on Resource Geology, practices on image processing, and geological excursion to learn exploration technologies, 3. Lectures on countermeasures of mine pollution and site visits to mine wastewater treatment facilities, 4. Lectures and visits to the Ministry of Economy, Trade and Industry (METI), JOGMEC, AIST, etc. on mining development measures and policies.		Implementing Partner International Institute for Mining Technology, JMEC
		Department in Charge Industrial Development and Public Policy Department
		JICA Center JICA Tohoku
		Cooperation Period 2015~2017
		Remarks and Website

Geological Information Management for Mineral Exploration in Africa アフリカ地域 資源探査のための地質情報マネジメント		1684608
		Continuing
Target Countries : XXXXXXXXXX		17 participants
Course No. : J1604418		
Sector : Natural Resources and Energy/Mining		
Sub-Sector :		
Language : English		
Outline		
This training course will offer comprehensive knowledge and skills for mineral exploration particularly on non-ferrous metals. This training course will cover remote sensing technics such as satellite image processing, geophysical survey, geochemical survey, and geological investigation for comprehensive understanding of geological setting and mineral resource potential.		
Objective/Outcome		Target Organization / Group
【Objective】 The objective of the Course is to equip and enhance the participants' capacity on satellite image processing, geophysical and geochemical survey, and geological investigation for mineral exploration. 【Outcome】 1. To understand satellite image processing geophysical survey, and geochemical survey, 2. to understand interpretation of geological data, 3. to enhance the capacity on planning of further geological study based on the analysis, 4. to enhance the capacity on estimation of mineral potential and economical evaluation, and 5. to enhance the capacity on integration of geological information for further mineral exploration.		【Target Organization】 The responsible Ministry of natural resources, national geological survey/research institutes. 【Target Group】 1. Senior Geologist or equivalent Working experience in geological field for approx. 5 to 10 yrs. 2. having degree on science/engineering in geology/mining field. with a good command of PC and English 3. giving favorable treatment to JOGMEC RS ex-participants
Contents		Course Period 2017/02/28 ~ 2017/04/16
1. Lectures on satellite image processing, geophysical survey, geochemical survey, etc., 2. practices on image processing, and other geological data to learn exploration technologies, 3. geological excursion, and 4. Lectures on economic evaluation of mineral potential.		Implementing Partner International Institute for Mining Technology, JMEC
		Department in Charge Industrial Development and Public Policy Department
		JICA Center JICA Tohoku
		Cooperation Period 2015~2017
		Remarks and Website