

Overview of the Financing Programme for JCM Model Projects

September 30, 2020

Global Environment Centre Foundation (GEC)



1. Overview of the Financing Programme for JCM Model Projects

2. Introduction of Business Matching Platform "JCM Global Match"

Basic concepts of JCM

Facilitating diffusion of advanced low-carbon or decarbonizing technologies, products, system, services and infrastructure as well as implementation of mitigation actions, and contributing to sustainable development of developing country.

Appropriately evaluating contributions from Japan to GHG emission reductions or removals in a guantitative manner and use them to achieve Japan's emission reduction target.

Contributing to the ultimate objective of the UNFCCC by facilitating global actions for GHG emission reductions or removals.



*measurement, reporting and verification

Basic concept of JCM Model Projects @ Global Environment Centre Foundation





What kind of projects are supported by this financing programme?



- Reduce energy-related CO2 emissions with leading low carbon or decarbonizing technologies in partner countries
- Contribute to the sustainable development in partner countries.
- Reduction of GHG emissions achieved by the projects can be quantitatively calculated and verified.
- Facilities installed by the projects do not receive any other subsidy by the Government of Japan.

Guideline

for Submitting JCM model project proposal in FY2020

Structure of International Consortium Global Environment Centre Foundation



- (a) A representative participant of the model project shall be a Japanese entity of an international consortium.
- (b) A participant shall have capability for the implementation, such as technical capacity to appropriately implement the eligible project.
- (c) A participant shall have a financial basis to bear the costs necessary to appropriately implement the eligible project.
- (d) A participant shall have adequate management structures and handling capacity for accounting and other administrative work related to the eligible project;
- (e) A participant shall explain the contents, effect on GHG emission reductions, details of the cost, investment plan, etc. of the eligible project.

Guideline for Submitting JCM model project proposal in FY2020



What kind of cost is covered or not covered in this program?

✓ COVERED

- Facilities and Equipment
- Monitoring Equipment
- Main construction work
- Surveying and Testing
- Administrative Work
- Other necessary costs approved by GEC

NOT COVERED

- Removal work for existing facilities and equipment
- Civil engineering work
- Consumable supplies and materials
- Spare parts
- Emergency facilities and equipment
- Cost related to restoration of function
- Cost related to land acquisition
- Forward exchange contract and remittance charge

Guideline

for Submitting JCM model project proposal in FY2020

Amount of JCM Financial Support

- Budget in FY 2020: 9 billion yen (Approx. USD 85million)
- Max. financial support per project: Approx. 2 billion yen
- All the eligible costs for financing will be supported by the certain percentage of the support.

Percentage of JCM Financing Support

 According to the number of already selected project(s) using a similar technology in each partner country within the JCM programme.

the number of similar technology in each partner country.	Zero (the first project)	One or more and less than 4	4 or more
Maximum percentage of the financial support	50 %	40 %	30 %

Cost-effectiveness of GHG Emission Reductions obal Environment Centre Foundation

What is the criteria of cost-effectiveness?

ЈРҮ4,000 / tCO2-e

Amount of financial support[JPY]

Emission reductions of GHG [tCO2equivalent/y] × legal durable years[y]

Legal durable years of the facilities is stipulated by the Japanese law, and are dependent on the industry classification.

JPY3,000 / tCO2-е

In case the number of similar technological projects in a partner country is 5 or more ("Solar Power" projects in Mongolia, Palau and Philippine and "Hydropower" projects in Indonesia)

JPY2,500 / tCO2-e

In case the number of similar technological projects in a partner country is 10 or more ("Solar Power" projects in Thailand)

Guideline

for Submitting JCM model project proposal in FY2020

Appropriateness of Project Plan

- ✓ Project schedule
- ✓ Land acquisition
- ✓ Concession and license for the project implementation
- Power Purchase Agreement in case of a power generation project
- ✓ Financial plan including financing resources other than JCM

Profitability of Project

- ✓ Cash flow and payback period of the project
 - Payback period should be 3 years or longer with JCM financial support.

JCM ECO Lease Scheme

- "JCM Eco Lease" scheme is financial support for leasing businesses.
- Financial support is uniformly 10% of total leasing charge including leasing interest.
- Leasing period is at least 5 years.



<Merit>

- Shorter MRV period
 - Equivalent to leasing period (At least 5years)
- Simplified process
 - Less documents for application
 - No need to develop new methodology
 (Only applicable to approved methodology)

<Examples of eligible facilities/equipment>





Global Environment Centre Foundation

High Efficiency equipment

JCM Model Projects Schedule in FY2020 Global Environment Centre Foundation



Guideline

for Submitting JCM model project proposal in FY2020

List of JCM Model Projects Selected in Indonesia (1) bal Environment Centre Foundation

Year	Entity	Project Title	Sector	Expected GHG Emission Reductions (tCO2/y)
2013	EBARA REFRIGERATION EQUIPMENT & SYSTEMS CO., LTD.	Energy Saving for Air-conditioning and Process Cooling at Textile Factory 1	Energy Efficiency	117
2013	Lawson, Inc.	Installation of Inverter-type Air Conditioning System LED Lighting and Separate Type Fridge Freezer Showcase to Grocery Stores in Republic of Indonesia	Energy Efficiency	141
2013	Mayekawa Manufacturing Co., Ltd.	Energy Efficient Refrigerants to Cold Chain Industry	Energy Efficiency	165
2013	Toyota Tsusho Corporation	Energy Saving by Installation of Double Bundle- type Heat Pump	Energy Efficiency	175
2013	EBARA REFRIGERATION EQUIPMENT & SYSTEMS CO., LTD.	Energy Saving for Air-conditioning and Process Cooling at Textile Factory 2	Energy Efficiency	152
2014	JFE Engineering Corporation	Power Generation by Waste-heat Recovery in Cement Industry	Effective Use of Energy	149,063
2014	Itochu Corporation	Installation of Solar Power System and Storage Battery to Commercial Facility	Renewable Energy	385
2014	Toyotsu Machinery Corporation	Energy Saving through Introduction of Regenerative Burners to the Aluminum Holding Furnace of the Automotive Components Manufacturer	Energy Efficiency	98
2014	EBARA REFRIGERATION EQUIPMENT & SYSTEMS CO., LTD.	Energy Saving for Textile Factory Facility Cooling by High Efficiency Centrifugal Chiller	Energy Efficiency	205

List of JCM Model Projects Selected in Indonesia (2) bal Environment Centre Foundation

2014	KANEMATSU CORPORATION	Introduction of high efficient Old Corrugated Cartons Process at Paper Factory	Energy Efficiency	19,011
2014	Toray Industries, Inc.	Reducing GHG emission at textile factories by upgrading to air-saving loom	Energy Efficiency	742
2015	NTT FACILITIES, INC.	Energy Saving for Air-Conditioning at Shopping Mall with High Efficiency Centrifugal Chiller	Energy Efficiency	398
2015	NTT FACILITIES, INC.	Energy Saving for Industrial Park with Smart LED Street Lighting System	Energy Efficiency	543
2015	Mitsubishi Chemical Corporation	Introduction of High Efficiency Once-through Boiler System in Film Factory	Energy Efficiency	816
2015	Toyota Tsusho Corporation	Installation of Gas Co-generation System for Automobile Manufacturing Plant	Effective Use of Energy	21,793
2015	Sharp Corporation	1.6MW Solar PV Power Plant Project in Jakabaring Sport City	Renewable Energy	917
2015	Sumitomo Rubber Industries, Ltd.	Introduction of High Efficiency Once-through Boiler in Golf Ball Factory	Energy Efficiency	148
2016	Toyo Energy Farm Co., Ltd.	10MW Mini Hydro Power Plant Project in North Sumatra	Renewable Energy	47,182
2016	FAST RETAILING CO., LTD.	Introduction of LED Lighting to Sales Stores	Energy Efficiency	2,583
2016	Nisshinbo Textile Inc.	Introduction High Efficiency Looms in Weaving Mill	Energy Efficiency	430
2016	EMATEC:Environmental Management and Technology Center	Energy Saving in Industrial Wastewater Treatment System for Rubber Industry	Energy Efficiency	403
2016	Next Energy & Resources Co., Ltd.	Introduction of 0.5MW Solar Power System to Aroma and Food Ingredients Factory	Renewable Energy	369

List of JCM Model Projects Selected in Indonesia (3) bal Environment Centre Foundation

DENSO CORPORATION	Introduction of Gas Co-generation System and Absorption Chiller to Motor Parts Factory	Energy Efficiency / Effective Use of Energy	4,629
Tokyo Century Corporation	Introduction of Absorption Chiller to Chemical Factory	Energy Efficiency	712
Otsuka Pharmaceutical Factory, Inc.	Energy Saving by Introducing High Efficiency Autoclave to Infusion Manufacturing Factory	Energy Efficiency	1,949
Hokusan Co., Ltd.	Introduction of CNG-Diesel Hybrid Equipment to Public Bus in Semarang	Transportation	2,667
Voith Fuji Hydro K. K.	Rehabilitation Project of Power Generation System at Karai 7 Mini Hydro Power Plant	Renewable Energy	1,133
Aura Green Energy Co., Ltd.	12MW Biomass Power Plant Project in Aceh Province, Sumatera	Renewable Energy	31,322
Tokyo Century Corporation	Introduction of High Efficiency Injection Molding Machine to Plastic Parts Factory	Energy Efficiency	4,462
Aura Green Energy Co., Ltd	2MW Mini Hydro Power Plant Project in East Nusa Tenggara Province	Renewable Energy	6,839
Japan Pulp and Paper Company Limited	Introduction of High Efficiency Boiler System to Carton Box Factory	Energy Efficiency	975
Voith Fuji Hydro K.K.	10MW Hydro Power Project in Bengkulu Province	Renewable Energy	35,950
Voith Fuji Hydro K.K.	6MW Hydro Power Project in West Sumatera Province	Renewable Energy	17,242
NiX Co., Ltd.	6MW Mini Hydro Power Plant Project in West Pasaman, West Sumatra	Renewable Energy	18,319
	DENSO CORPORATION Tokyo Century Corporation Otsuka Pharmaceutical Factory, Inc. Hokusan Co., Ltd. Voith Fuji Hydro K. K. Aura Green Energy Co., Ltd. Tokyo Century Corporation Aura Green Energy Co., Ltd Japan Pulp and Paper Company Limited Voith Fuji Hydro K.K. Voith Fuji Hydro K.K.	DENSO CORPORATIONIntroduction of Gas Co-generation System and Absorption Chiller to Motor Parts FactoryTokyo Century CorporationIntroduction of Absorption Chiller to Chemical FactoryOtsuka Pharmaceutical Factory, Inc.Energy Saving by Introducing High Efficiency Autoclave to Infusion Manufacturing FactoryHokusan Co., Ltd.Introduction of CNG-Diesel Hybrid Equipment to Public Bus in SemarangVoith Fuji Hydro K. K.Rehabilitation Project of Power Generation System at Karai 7 Mini Hydro Power PlantAura Green Energy Co., Ltd.Introduction of High Efficiency Injection Molding Machine to Plastic Parts FactoryAura Green Energy Co., Ltd.Introduction of High Efficiency Inject in East Nusa Tenggara ProvinceJapan Pulp and Paper Company LimitedIntroduction of High Efficiency Boiler System to Carton Box FactoryVoith Fuji Hydro K.K.0MW Hydro Power Project in Bengkulu ProvinceVoith Fuji Hydro K.K.6MW Hydro Power Plant Project in West Sumatera ProvinceNiX Co., Ltd.6MW Mini Hydro Power Plant Project in West Pasaman, West Sumatra	DENSO CORPORATIONIntroduction of Gas Co-generation System and Absorption Chiller to Motor Parts FactoryEnergy Efficiency / Effective Use of EnergyTokyo Century CorporationIntroduction of Absorption Chiller to Chemical FactoryEnergy EfficiencyOtsuka Pharmaceutical Factory, Inc.Energy Saving by Introducing High Efficiency Autoclave to Infusion Manufacturing FactoryEnergy EfficiencyHokusan Co., Ltd.Introduction of CNG-Diesel Hybrid Equipment to Public Bus in SemarangRenewable EnergyVoith Fuji Hydro K. K.Rehabilitation Project of Power Generation System at Karai 7 Mini Hydro Power PlantRenewable EnergyTokyo Century CorporationIntroduction of High Efficiency Injection Molding Machine to Plastic Parts FactoryRenewable EnergyAura Green Energy Co., Ltd.2MW Mini Hydro Power Plant Project in East Nusa Tenggara ProvinceRenewable EnergyJapan Pulp and Paper Company LimitedIntroduction of High Efficiency Boiler System to ProvinceEnergy EfficiencyVoith Fuji Hydro K.K.10MW Hydro Power Project in Bengkulu ProvinceRenewable EnergyVoith Fuji Hydro K.K.6MW Hydro Power Project in West SumateraRenewable EnergyNiX Co., Ltd.6MW Mini Hydro Power Plant Project in West SumateraRenewable EnergyNiX Co., Ltd.6MW Mini Hydro Power Project in West SumateraRenewable Energy

Total 34 ProjectsEnergy Efficiency: 21 ProjectsRenewEffective Use of Energy: 3 ProjectsTransp

Renewable Energy: 10 Projects Transportation 1

Trends in the JCM Model Projects







It is expected to propose a project that will achieve greater GHG emission reductions and cost effectiveness.

JCM Investment Scale by Technology Type (2013-2020) t Centre Foundation

Sector	Technology	Number of Project*	Total Project Costs
Renewable	Solar Power Plant	52	¥97.1bil
Energy	Small Hydropower Plant	10	¥30.2bil
	Biomass	13	¥20.9bil
	Other Renewable Energy (Wind Power, Geothermal)	2	¥20.3bil
	Renewable Energy Subtotal	77	¥168.5bil
Energy	Air Conditioning, Chiller	34	¥11.4bil
Efficiency	Transformer	5	¥7.3bil
	LED Lighting	5	¥3.4bil
	Boiler	11	¥1.6bil
	Other Energy Efficiency	27	¥21.1bil
	Energy Efficiency Subtotal	82	¥44.7bil
Effective	Power Generation by Waste Heat Recovery	2	¥7.6bil
Use of Energy	Waste Heat Recovery	6	¥2.5bil
	Co-generation	5	¥3.8bil
	Effective Use of Energy Subtotal	13	¥14.0bil
Waste	Waste-to-Energy Plant, Power Generation by Methane Recovery	2	¥4.0bil
Transportation	CNG-Diesel Hybrid Bus, Reefer Container, etc.	3	¥0.5bil
	Grand Total	177	¥231.7bil

*Projects with multiple technologies are counted multiple times.

JCM Investment Scale by Country (2013-2020) bal Environment Centre Foundation

Partner Country	Number of Project (Number of Technology)	Total Project Costs
Mongolia	7 (8)	¥14.0bil
Bangladesh	4 (4)	¥0.9bil
Ethiopia	1 (1)	¥10.7bil
Kenya	2 (2)	¥4.1bil
Maldives	1 (1)	¥0.03bil
Viet Nam	26 (29)	¥28.2bil
Lao PDR	4 (4)	¥5.0bil
Indonesia	34 (37)	¥26.7bil
Costa Rica	2 (3)	¥1.2bil
Palau	5 (5)	¥0.6bil
Cambodia	6 (8)	¥3.9bil
Mexico	6 (6)	¥13.2bil
Saudi Arabia	2 (2)	¥22.4bil
Chile	4 (4)	¥2.3bil
Myanmar	7 (10)	¥5.9bil
Thailand	32 (40)	¥47.6bil
Philippine	13 (13)	¥45.0bil
Grand Total	156 (177)	¥231.7bil



During the COVID-19 Period,

>"New Normal" is required in our society.

- ✓ Digital Transformation
- ✓ Remote Control, Smart Factory
- ✓ Digital Supply Chain
- \checkmark Resilience in the community, etc.



➤"Green Recovery" is needed for decarbonization.

 Recovery from the pandemic of COVID-19 is a good opportunity to accelerate decarbonization.

"Financing Programme for JCM Model Projects" can contribute to tackling with these issues.

Consultation by GEC



Consultation by GEC

GEC provides application consultation in order to assist project formation for entities interested in JCM Model Project. Please feel free to contact us. Please send an e-mail to jcm-info@gec.jp. Subject of e-mail should be "Consultation on application for JCM Model Project (Your company name)".



Suitable for Getting advice on your proposal at various phases.

■ Contact:

Takeyama, Tango Global Environment Centre Foundation (GEC) Tokyo Office E-mail : jcm-info@gec.jp

Currently, due to COVID-19, we are partially doing telework, and provide application consultation at web conference. Please send an e-mail to contact us.

■ Webinar

%All events will be held as webinars in FY2020.

- Thailand : August 25
- Indonesia : September 30 (15:00-17:40, GMT+7)
- > Tokyo : November
- Costa Rica : November
- > Chile : December
- Mexico : January 2021
- Vietnam : January

GEC's Website on JCM

http://gec.jp/jcm/

■ GEC's JCM Twitter

https://twitter.com/GEC_JCM_Info



Webinar for Thailand (August 2020)



Global Environment Centre Foundation

Seminar in Indonesia (October 2019)





Terima kasih! Thank you!

Global Environment Centre Foundation(GEC) Tokyo Office E-mail :jcm-info@gec.jp URL : http://gec.jp/

