# Ministry of Trade, Industry and Energy of the Republic of Korea 2016-45

# Call for FY 2016 MOTIE International Energy Joint R&D Project Proposals

The Ministry of Trade, Industry and Energy (MOTIE) hereby announces the launch of the FY 2016 International Energy Joint Research and Development(R&D) Program that is designed to support R&D cooperation among domestic companies, universities and research institutes and their foreign partners. Organizations that intend to participate in this Program are expected to submit their proposals according to the procedures set forth below:

\*\* Notice : This English version of public notice is made to provide useful information to foreign organizations who want to submit application. The Korean version of project call is the legally valid document.

## 1. Overview

#### 1-1. Purpose

• This program aims to enhance competitiveness of energy technology and create new market for energy industry by utilizing overseas technical resources, thereby timely securing advanced technologies and facilitating technologies' penetration into markets.

#### 1-2. Funding areas

- Enhancing energy efficiency(building energy, industrial energy, electric vehicle, heat pump, clean fuel, and other technologies that increase energy efficiency)
- Capture, storage and usage of Greenhouse gas(CCUS)
- Energy storage system
- Natural Resources development
- New and Renewable energy(photovoltaics, wind power, hydrogen, fuel cells, bio energy, waste to energy, hydropower, ocean energy, solar thermal energy, geothermal energy)
- Electric power(smart grid, power transmission and distribution, clean coal power)
- Nuclear power(nuclear power plant system, nuclear safety)

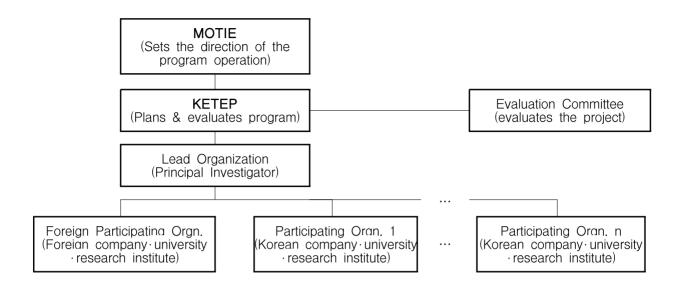
# 1-3. Funding availability

Classification	type	Summary	Anticipated number of awards
Joint R&D for securing advanced technology <sup>1)</sup>	Bottom–up Approach <sup>3)</sup>	<ul> <li>Funding size : approx. 700 mil. KRW per year</li> <li>Duration : 3 years</li> <li>Lead Organization : domestic company, university or research institute</li> <li>Participation of foreign organization(company, university, research institute) is mandatory</li> <li>* co-funding by foreign participating organization is strongly recommended</li> </ul>	Approv. 2
Joint R&D for penetration into overseas markets <sup>2)</sup>		<ul> <li>Funding size : approx. 700 mil. KRW per year</li> <li>Duration : 3 years</li> <li>Lead Organization : domestic SMEs or mid-tier company</li> <li>Participation of foreign organization(company, university, research institute) is mandatory</li> <li>* co-funding by foreign participating organization is recommended</li> </ul>	Approx. 3

- 1) 'Joint R&D for securing advanced technology' refers to a project that has an objective to secure advanced technology needed to increase technical competitiveness through Joint R&D.
- 2) 'Joint R&D for penetration into overseas markets' refers to a project that has an objective to make energy technology penetrate and expand into overseas market through joint R&D.
- 3) 'Bottom-up Approach' refers to a project that applicants propose freely technology or product to develop. R&D subject should remain within the funding areas listed on page 1.

# 2. Project Structure

- The project is proposed and performed cooperatively by consortium of lead and participating organizations
  - Lead Organization(LO) (includes company) : conducts a research at the leading position and manages the overall project.
  - Participating Organization(PO) (includes company) : joins the project and performs a research in cooperation with the lead organization.
    - \* Notice : Foreign entity(company, university or research institute) should join the project as a participating organization.
  - Principal investigator(PI) in LO means the person in charge of the management of overall project.



# 3. Guideline for Funding

# 3-1. Funding Requirements

## ① The project budget

• The project budget is comprised of government contributions and civilian dues (in cash and in-kind).

# ② The government contributions

 The amount of government contributions will vary depending on the type of executing organizations and project in accordance with Article 24 (Funding Criteria) and Article 25 (Civilian Dues) of the Common Operational Regulations for the Industrial Technology Innovation Programs.

Type of executing organization	Share of government contributions in executing organization's project budget <sup>1)</sup>		
organization	Securing advanced technology	Penetration into overseas markets	
Large company <sup>2)</sup>	50% or less	33% or less	
Mid-tier company <sup>3)</sup>	70% or less	50% or less	
SME <sup>4)</sup>	75% or less	67% or less	
Other	100% or less	100% or less	

1) 'Executing organization' refers to a LO or PO that has been selected as project awardee.

- 2) 'Large company' refers to a company that does not fall under SMEs under Article 2(1) and (3) of the 「Framework Act on Small and Medium Enterprises」 or mid-tier company under Article 2(1) of the 「Special Act on Promoting the Growth of Mid-Tier Companies and Strengthening the Competitiveness thereof」
- 3) 'Mid-tier company' refers to a company under Article 2(1) of the Special Act on Promoting the Growth of Mid-Tier Companies and Strengthening the Competitiveness thereof.
- 4) 'SME' refers to a company under Article 2(1) and (3) of the Framework Act on Small and Medium Enterprises\_ and Article 3 (Scope of SME) of the Enforcement Decree of the same Act.

## ③ Civilian dues in cash

• A party that participates in a project shall carry out its project using the government contributions allocated to it, and for-profit organizations shall individually bear the cash portion of civilian dues.

Type of executing	Share of cash in executing organization's civilian dues		
organization	Securing advanced technology	Penetration into overseas markets	
Large company	60% or more		
Mid-tier company	50% or more		
SME	40% or more		
Other	To be borne if necessary		

- Foreign organization(company, university or research institute) is classified as 'Other' in the above Tables.
- It is recommended that the project is co-funded by foreign PO.
  - 'Co-fund' refers to budget(cash) funded by foreign organization or overseas country. If necessary, fund in-kind can be added.
  - In the case of developing country, if co-fund in cash were impossible, share of cash can be replaced with in-kind.
  - In application evaluation process, additional merit points will be graded according to the ratio of co-funding(cash only) to government contribution.

# 3-2. Guideline for Labor Costs

• To expand investment for human resources, the proportion of labor costs should exceed the proposed minimum share in the below table.

Research Area	<ul> <li>Enhancing energy efficiency</li> <li>Capture, storage and usage of Greenhouse gas</li> <li>Energy storage system</li> <li>Resources development</li> </ul>	<ul> <li>New and Renewable energy</li> <li>Electric power</li> <li>Nuclear power</li> </ul>
Minimum Share	42% of total project budget	43% of total project budget

\* 'The proportion of labor costs' refers to the ratio of the sum of labor costs and student labor costs(includes cash and in-kind) to the total project budget.

# 4. Funding Areas and Applicant Eligibility

# 4-1. Funding Areas

Classifi- cation	Funding Areas	Lead Org.	Funding size	Royalty*
Joint R&D for securing advanced technology Joint R&D for penetration into overseas markets	<ul> <li>energy, electric vehicle, heat pump, clean fuel, and other technology that increase energy efficiency)</li> <li>Capture, storage and usage of Greenhouse gas(CCUS)</li> <li>Energy storage system</li> <li>Natural Resources development</li> <li>New and Renewable energy (photovoltaics, wind power, hydrogen and fuel cells, bio energy, waste to energy, hydropower, ocean energy, solar thermal energy, geothermal energy)</li> </ul>	domestic org. domestic SME or mid-tier company	Approx. 700 mil. KRW per year and per project (3 yrs)	collection

\* not applicable to foreign entities

# 4-2. Applicant Eligibility

## □ Lead Organization

- Korean company, university, research institute, association, etc. in accordance with article 12(1) of the 「Energy Act」 and Article 8-2 of the Enforcement Decree thereof, Article 11(2) of the 「Industrial Technology Innovation Promotion Act」 and Article 11 of the Enforcement Decree thereof, Article 2(1)-3, 2(1)-4, 2(1)-4-2, 9-2 and 9-4 of the Common Operational Regulations for the Industrial Technology Innovation Programs.
  - (Securing advanced technology) Korean company, university or research institute.
  - (Penetration into overseas markets) Korean SME or mid-tier company.

## □ Participating Organization

- Korean or foreign company, university, research institute, association, etc. in accordance with article 12(1) of the 「Energy Act」 and Article 8-2 of the Enforcement Decree thereof, Article 11(2) of the 「Industrial Technology Innovation Promotion Act」 and Article 11 of the Enforcement Decree thereof, Article 2(1)-3, 2(1)-4, 2(1)-4-2, 9-2 and 9-4 of the Common Operational Regulations for the Industrial Technology Innovation Programs.
  - Every consortium should have at least one foreign organization.

## 4-3. Other

## □ What is mentioned below will be disqualified.

- In a case where as of the due date of submission, an LO, PO, the head of an LO, representative of a PO, or a PI of a proposed project is placed under any restrictions on participation in national research and development programs.
- In a case where as of the due date of submission, proposal and related documents are not submitted or not written using the form provided.
- In a case where a submitted proposal or document is false, fictitious or fraudulent;
- In a case where SME or mid-tier company does not participates the project as LO in the Collabortive R&D for penetration into overseas markets;

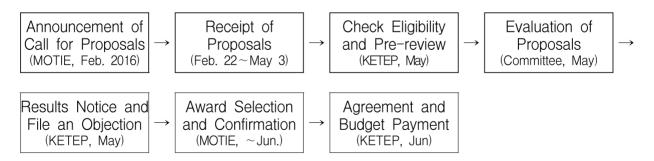
• In a case where no company participates the project

## $\Box$ What is mentioned below can be disqualified.

- In a case where a LO fails to meet the eligibility requirements or details of the proposed project are found inappropriate in terms of purposes, R&D characteristics, or requirements set forth in this Call for Proposals;
- In a case where the target technology of the proposed project is found to be 'already-developed', or identical or similar to the already-funded project of the applicant organization;
  - To check redundancy in advance, please visit <u>www.ntis.go.kr</u> (Home) > R&D Information Search > Projects.
- In a case where as of the due date of submission, amy of the participants of the proposed project (LO, POs or PI) fails to fulfill their obligations (that is, submission of various required reports, payment of royalties, submission of a report on royalties payment plan, a closing balance of government contributions and payment of a budget subject to restitution);
- The proportion of labor costs do not exceed the minimum share proposed in this Call for Proposals.

# 5. Evaluation Procedure and Criteria

# 5-1. Evaluation Procedure



- File an Objection : KETEP objection system allows applicant(LO) to make an objection once, only if there were critical fault in the process of evaluation.
- Proposals will be evaluation with a presentation by PI of the project. Powerpoint

can be used for presentation and use of other S/W to be inquired before the presentation.

- The aforementioned schedule is subject to change.

## 5-2. Evaluation Method

#### □ Evaluation criteria

- Evaluation criteria for proposals are "technology level and research capabilities" and "economic feasibility and Possibility of commercialization".
- Proposal receiving 70 points or above is candidate for award. Final selection of awardee depends on the government's budget available.

## Criteria regarding Additional Merit Points

- Additional merit points cannot exceed 10.
- (Case-1) Not applicable to foreign PO
- (Case-2) The ratio of co-funding\*

The ratio of co-funding(%)	>10 & ≤50	>50 & ≤80	> 80
merit points	3	4	5

\* 'The ratio of co-funding' refers to the ratio of overseas fund to the sum of Korean governmental contribution to foreign PO(%). The resources of fund includes government, public or private sector.

## 6. Applicable law and regulations

- □ Legal grounds : Articles 12 and 13 of the 「Energy Act」 and Articles 9 ~ 11 of the Enforcement Decree thereof, Articles 27 and 29 of the 「Industrial Technology Innovation Promotion Act」 and Article 39 of the Enforcement Decree thereof.
- □ Relevant regulations (visit www.ketep.re.kr for regulations and forms)
  - The Common Operational Regulations for the Industrial Technology Innovation Programs (MOTIE Public Notice No. 2015-259)

- The Comprehensive Regulations on Collection, Use and Management of Royalties (MOTIE Public Notice No. 2015-264)
- The Regulations on Appropriation, Use and Management, and Settlement of Project Budget (MOTIE Public Notice No. 2015-260)
- The Regulations on Management of Project Security (MOTIE Public Notice No. 2015-261)
- The Regulations on Research Integrity and Ethics (MOTIE Public Notice No. 2015-262)
- The Guideline for Evaluation of International Collaborative Research and Development Programs (International R&D Collaborative Program - MOTIE Rules No. 36)

## 7. Application and Submission Information

- To apply to this call, applicants\* should register online through GENIE system at <a href="http://genie.ketep.re.kr">http://genie.ketep.re.kr</a>, KETEP's project management system. A submission number will be issued after online registration(including up-loading files of full proposals). Full proposals that is same with up-loaded files should be submitted with printed online filing receipt. Proposals with required documents shall be submitted by a person or by post until 18:00 KST on the due date listed above to be eligible to submit Full Proposals.
  - \* Only LO shall register online and submit full proposals on behalf of consortium.
- Where to get the form : download the attached file of this announcement at <a href="http://www.ketep.re.kr">http://www.ketep.re.kr</a> or <a href="http://genie.ketep.re.kr">http://genie.ketep.re.kr</a>
- Where to register online and upload files : <u>http://genie.ketep.re.kr</u>(by only LO)
  - \* PI of LO log-in the GENIE system(<u>http://genie.ketep.re.kr</u>) and register online. PI shall sign up the GENIE system before online registration.
  - \* KETEP evaluate the up-loaded proposals. No modification is permitted after online registration.
  - \* KETEP strongly encourages to register online at least 24 hours before deadline(May 2 18:00). Because GENIE system will be very busy and cause network problem on the due date.
- Where to submit : International Cooperation Division, KETEP, Teheran-ro 114-gil 14,

#### Gangnam-gu, Seoul 06175, Rep. of Korea

- \* In case that online registration is not finished or filing receipt is not printed, the submission of full proposals is not eligible.
- \* KETEP can cancel the selection or the agreement if submitted proposal or document were not written honestly in the way of falsity, forgery, falsification or others.
- \* All submitted documents will not be returned.

# 8. Required Documents

No	Documents	Remarks
1	Online filing receipt	LO
2	A proposal in Korean	LO
3	A Proposal in English	foreign PO
4	Evidentiary documents demonstrating qualifications to be given merit points as of the due date of submission	LO
5	Confirmation note for application eligibility	LO, PO
6	Agreement or MOU signed between LO and domestic/foreign PO or a copy of Consortium Agreement or a letter of confirmation on participation in the Consortium (In the form of LOI)	LO, PO
7	A Letter of Consent to Use of Personal Information of a PI and participating organization's officer in charge	LO, PO
8	Certificate for business registration or National tax registration	LO, PO
9	A copy of the Certificate for Industrial R&D Center (applicable in a Korean enterprise)	LO
10	Proof of employment for PI	LO, PO
11	Accounting audit report of the past 2 years (only applicable to company)	LO, PO

# 9. Notes

## $\Box$ Notes for application

- In a case where the project is "not royalty collection", share of government contributions can be 100% of the project budget and deliverable generated from this Program shall be open to the public.
- In a case where the project is "royalty collection", for-profit organization shall take part in the project as LO or PO.

- In a case where large company is LO, PO shall be participated in the project.
- Budget or period of the selected project can be adjusted by evaluation and the government's budget.
- The project in execution may terminate by annual evaluation, and the amount of project budget to be disbursed to them may vary by government's policy, budget, project evaluation or etc.
- KETEP may conduct on-the-spot inspection of candidates for award. KETEP can rescind the selection through "re-evaluation".

#### $\Box$ Notes for proposal

- The applicant should clearly identify the quantitative objectives since these are used as an evaluation criteria.
  - "Quantitative Technical Objectives" : The applicant should provide a explicit, quantitative target to the baseline technology and qualification process.
  - "Quantitative Outcome Objectives" : The applicant should quantitatively provide the expected outcomes in accordance with performance indices of the Program.
- Foreign organization should submit the proposal in English respectively.
  - Cover page of the proposal should include the signature or official seal of representative and the signature of a PI of a foreign organization.
- For Collaborative R&D for "securing advanced technology", it is recommended that the project should include personal exchange program that Korean and foreign investigators of consortium stay in cooperated country at least a month every year.
- For Collaborative R&D for "penetration into overseas markets", it is recommended that the project should include PR plan such as business conference, exchange meeting for commercialization of R&D products.

## □ Cost appropriation and settlement for budget of foreign organization

- The criteria established by foreign organization and country can be applied to cost appropriation for the budget of foreign organization.
- The settlement for the budget of foreign organization can apply settlement method of governmental R&D fund in its own country or can be substituted with

self-settlement.

- The representative of foreign organization should immediately submit report on self-settlement to LO or KETEP after settling its own projects.
- If necessary, LO or KETEP may additionally request accountant's report by external CPA of its own country or written evidence using separate form.

## 10. Contacts and Information Sessions

## □ Contacts : International Cooperation Division, KETEP

 Informations related to this Call for Proposals are posted on KETEP homepage (www.ketep.re.kr) or GENIE system(http://genie.ketep.re.kr). If you have any question about this Call for Proposals, you can contact with KETEP by phone or e-mail. It may easier to communicate with KETEP through emails or through Korea LO.

• Phone : +82-2-3469-8342~3

• e-mail : international@ketep.re.kr

## □ Information Sessions

• Information sessions for this Call for Proposals are scheduled to be held on the dates below. We look forwards to your interest and participation.

Date	City	Venue	Time
Feb. 23 (Tue)	Seoul	COEX, Conference Room(South) No. 327	14:00~16:00
Feb. 23 (Wed)	Daejeon	Innopolis Foundation(Daedeok), Conference hall(Room No. 203)	14:00~16:00