

DEVELOPMENT WORK FOR UPSCALING OF MULTI EFFECT DISTILLATION (MED) SYSTEM

Expression of Interest (EoI) Call

Text of Newspaper Advertisement

**INDIAN INSTITUTE OF TECHNOLOGY DELHI
NEW DELHI-110016
Industrial Research & Development Unit
Expression of Interest (EoI) Call**

This is a call for “Expression of Interest” for “Development work for upscaling of Multi Effect Distillation (MED) System”, based on I.I.T. Delhi design at small scale, which is available as published papers in the Desalination Journal. Only reputed large-scale boiler manufacturing firms need apply. Qualifying firms may send in their EoI letter. For all details, terms and conditions, and reply address, go to website <http://www.iitd.ac.in/tenders>, and look for “Development work for upscaling of MED system”.

DETAILS AND INSTRUCTIONS:

- 1) This is a call for “Expression of Interest” for “Development work for upscaling of Multi Effect Distillation (MED) System”, based on I.I.T. Delhi design at small scale, which is available as published papers in the Desalination Journal:
 - i. P.K. Sen, Padma Vasudevan Sen, Anurag Mudgal, S.N. Singh, S.K. Vyas and Philip Davies (2010). A small scale multi-effect distillation (MED) unit for rural micro enterprises: Part I- Design and fabrication. J. of Desalination (doi:10.1016/j.desal.2010.11.003). Now published in Volume 279, Issues 1-3, 15 September 2011, Pages 15-26.
 - ii. P.K. Sen, Padma Vasudevan Sen, Anurag Mudgal, S.N. Singh, (2010). A small scale multi-effect distillation (MED) unit for rural micro enterprises: Part II-Parametric studies and performance analysis J. of Desalination (doi:10.1016/j.desal.2010.11.005). Now published in Volume 279, Issues 1-3, 15 September 2011, Pages 27-37.
 - iii. P.K. Sen, Padma Vasudevan Sen, Anurag Mudgal, S.N. Singh, (2010). A small scale multi-effect distillation (MED) unit for rural micro enterprises: Part III-Heat transfer aspects J. of Desalination (doi:10.1016/j.desal.2010.11.006). Now published in Volume 279, Issues 1-3, 15 September 2011, Pages 38-46.
- 2) The system described in the papers above, is for 30 kg/hr of input system. The functional prototype system to be developed will have the following features:
 - i. It will use 500 kg/hr input steam at maximum 2.5 barg pressure.

- ii. It will be a triple effect system plus condenser.
- iii. The system will need a steam source delivering at least 600 kg/hr steam at 7-10 barg pressure.

3) I.I.T. Delhi will provide guidance and assistance at every stage of development.

Kindly send in your “Expression of Interest” stating the basis of development with the possible choices below:

- i. Development will be done free of cost.
- ii. Only cost of materials plus labour will be charged.
- iii. Full costing as per norms of the firm (expressing interest).

If your choice is (i) or (ii) under main para (3) above, exclusive rights will be given to you for manufacture and sale of MED units, based on the upscaled design developed.

4) Please also supply the following details:

- i. General credentials of your firm with all commercial and governmental registration details.
- ii. Your general credentials for supplying biomass based boilers.
- iii. **Please do not quote any prices.**

5) Only reputed large-scale boiler manufacturing firms, having continuous source of steam as above, need apply.

6) Successful development of the upscaled functional prototype unit will make the firm eligible to supply full scale units, each unit containing 6 to 9 effects, for a rural micro-industry, on a proprietary basis, at a negotiated price.

7) If a new biomass boiler of 600 kg/hr of steam capacity, at 7-10 barg pressure is readily available and dedicated to the development, this item could, at a later stage, be also purchased for the micro-industry, again at a negotiated price.

- 8) Send in your “Expression of Interest” letter, along with other documents asked for, under sealed cover, to reach by 21 days of publication of the newspaper advertisement as above, to the following address, and with the words “EoI for DEVELOPMENT OF MED, RP02260”, prominently written on the outer cover. **Do not send any document by email.**

Address of Submission:

PRINCIPAL INVESTIGATOR (RP02260)
Head’s Office, Room No. IV-236
Department of Applied Mechanics
Indian Institute of Technology, Delhi
New Delhi-110016

- 9) Based on “Expression of Interest”, a list of firms will be shortlisted. The shortlisted firms will be sent the tender call with details of the equipment to be purchased and they will have to submit the technical and the financial bid as given in the tender call.