

Minutes of the First Meeting of the Governing Council of National Institute of Solar Energy

First Meeting of the Governing Council of National Institute of Solar Energy was held at 12.00 Noon on 15th January, 2014 under the Chairmanship of Dr. S.B. Agnihotri, Secretary, MNRE and President, NISE at the office of Ministry of New and Renewable Energy, Block # 14 C.G.O. Complex, Lodi Road, New Delhi.

2. Following were present in the Meeting:

1. Dr. Satish B Agnihotri, Secretary, MNRE and President, NISE -- in Chair
Members

2. Shri Tarun Kapoor, Joint secretary (JNNSM), MNRE.
3. Prof. R.C. Budhani, Director, National Physical Laboratory, New Delhi.
4. Prof. J. Vasi, Director (NCPV), IIT Bombay.
5. Shri Balor Singh, Director, Punjab Renewable Energy Development Agency, Chandigarh.
6. Shri Rajendra Nimje, Managing Director, Solar Energy Corporation of India, New Delhi.
7. Shri N. Murugesan, Director General, Central Power Research Institute, Bangalore.
8. Shri Vineet Mittal, Managing Director, Welspun Energy Ltd., Bombay.
9. Shri H.R. Gupta, Managing Director, Indosolar, Delhi.
10. Dr. Ashvini Kumar, Director, Solar Energy Corporation of India, New Delhi.
11. Dr. P. Saxena, Director General, National Institute of Solar Energy, Gurgaon.
12. Dr. O.S. Sastry, Scientist F MNRE & NISE.
13. Er. S.K. Singh, Scientist F MNRE & NISE

Representing Members

14. Shri B.K. Makhija, Director (Technical), Rajasthan Renewable Energy Corporation Ltd, Jaipur.
(Principal Secretary Energy, Govt. Of Rajasthan)
15. Shri R.P. Batra Deputy Secretary, IFD MNRE.
(Representing JS&FA, MNRE)

Special Invitees

16. Dr. S. Gomathinayagam, Executive Director, C-WET, Chennai.
17. Prof. Yogender Kumar Yadav, Director, National Institute of Renewable Energy, Jalandhar.
18. Er. K.C. Vaghri K.C. Vaghri, Scientist F MNRE & NISE
19. Er. S.S. Bedi, Scientist F MNRE & NISE. — Member Secretary

The Chairman welcomed the members. There was a round of introduction.
The Meeting commenced its proceedings with the approval of the Chairman.

3. Dr. P. Saxena, Director General, National Institute of Solar Energy (NISE) gave a brief background of creation of the Institute. He informed that the Cabinet in its meeting held on 3rd September, 2013 had approved setting up of an autonomous institution with the name "National Institute of Solar Energy" by converting the existing Solar Energy Centre of the Ministry. The Institute would be an apex National Centre for Solar Energy as a part of the Jawaharlal Nehru National Solar Mission. The Institute has been registered as a society

under Ministry registration and regulation of societies Act, 1962. For the purpose of NISE, the Ministry has constituted its Governing Council on 26th December, 2013.

4. Dr. Saxena presented to the members Roles and Responsibilities of NISE. He mentioned that main objective of setting up the NISE is to assist the Ministry in R&D activities of JNNSM and function as the National Centre for research and technology development in the area of solar energy technologies in the country. The institute would also coordinate various S&T related tasks under the Mission. It would bridge the gap between existing R&D institutions and industry, and get the Industry on board, through partnership programmes and projects.

5. A brief presentation was made by Er. S.K. Singh on Solar Thermal activities at the Solar Energy Centre. Dr. O.S. Sastry informed the members about the Solar Photovoltaic facilities and activities at SEC. It was mentioned that the SEC has been mainly involved in demonstration, standardization, interactive research, training and testing solar technologies and systems.

6. The Chairman mentioned that the Ministry has conceived NISE with a vision to develop it as a world class institute. It is recognized that if this institute has to acquire the envisaged stature, reorientation of the present management system, better infrastructure and highly skilled manpower would be required. Public-private partnership with future investment coming from both Government and private sector would be important so that the activities in NISE can be expanded. The autonomous status will give adequate flexibility for organizational structure and activities. He suggested that the Institute must plan its activities to have regular revenue stream and work in niche areas. Human resource development and training in renewable energy must be focus area of the institute. He further mentioned that concurrent audit must be planned from the very beginning. The Chairman invited members for their initial remarks on the proposed activities of the institute.

7. Shri Vineet Mittal, MD, Welspun Energy Ltd stressed on the need for a deeper interaction between institute and industry. He mentioned that his company has set up 55 MW power plant based on different PV technologies in Rajasthan. These projects can be studied as reference. While the Institute has good facilities for testing of PV Modules, there is a need to develop adequate facilities for testing and certification BOS components. He suggested that the institute should support innovative ideas and work on concept like mini, micro and smart grids to achieve 24X7 power from renewables. He said that country wide reliable radiation data is very critical for large scale development of this sector and NISE should develop adequate facility to meet this requirement.

8. Prof. R.C. Budhani, Director, NPL said that trained and adequate man power would be most critical to make this institute successful and to achieve the stated objectives. He suggested that the institute should also start basic research on materials and devices, high

efficiency solar cells, thin film solar cells and solar cells with quantum dot concepts etc. He mentioned that NPL and NISE can work together on development of standards. NPL has the mandate of developing standards and can work on primary standard solar cells. NISE should concentrate on secondary reference cell or modules. NPL has already developed photometric standards for LED, CFLs and tube lights. They may be used at NISE for the calibration lighting system test facilities. He also suggested that NISE should focus on Solar energy research and may not divert its attention on other areas.

9. Prof. J. V. Vasi of IIT Bombay mentioned that trained man power will be a major constraint and the institute should collaborate with other organisations, IITs, IISc etc. It would be important to develop collaboration with BHEL R&D facility to function as industrial R&D in the area of solar cells. As a premier organization NISE should look into the activities beyond JNNSM and take up fundamental research in new research areas. Important areas of power electronics and inverters development should also be given priority and for this NISE should collaborate with others. He mentioned that NISE should look at roof top solutions and provide technology & policy interface.

10. Shri Balour Singh, Director, PEDA mentioned that steam cooking is becoming very popular and focussed attention should be paid to develop this technology. System integration is an important area where electronics is a weak link. There should be standardization of electronics used in SPV lighting, Stand-alone power Plants and rooftop installations. The Institute should also pay attention on decentralised small applications.

11. Dr H.R. Gupta, Indo Solar mentioned that out-door testing activity should also be given importance to identify dominant PV technology for power generation as per Indian conditions. He said that collaboration with international institutions like University of Tokyo, Japan should also be considered.

12. Shri B.K. Makhija, RREC mentioned that radiation data information is very important for optimum performance of solar power projects. There are large number of projects and radiation data should also be collected from these projects. Some time there is a vast difference in radiation data and information. A tool has to be developed to collect this information. NISE should develop State Specific renewable energy potential maps. He said that there are about 4000 SPV pumps installed in Rajasthan. Training on SPV water pumping systems on issues like selection, installation and operation and maintenance may be planned.

13. Dr. Ashvini Kumar Director, SECI clarified that some time difference observed in the radiation data could be due to tool adopted and time for which data is collected. Therefore, tools are required to be developed to get user specific data. He informed that SECI and SEC are jointly executing a project for calibration laboratory and radiation data system through which NISE would be able to acquire radiation data from all the monitoring stations under SRRRA project.

14. Chairman mentioned that collection of accurate data on solar radiation is very critical and this should be collected from all projects set up on ground. This exercise should be taken up without further loss of time. He said that suggestions made by members have been extremely useful and NISE would structure its activities along these lines. NISE would start its operations after the present meeting of the Governing Council. It will take over technical activities of SEC and re-organize to undertake roles and responsibilities assigned to it by the Ministry.

15. The Chairman asked the DG, NISE to present the Agenda items for consideration of the Governing Council.

Agenda Item No. 1.1 Technical Divisions and Proposed Activities

1.1.1 DG, NISE presented proposed technical structure of the institute. He informed that keeping in view the technical responsibilities assigned to NISE and requirements of JNNSM, it is proposed to organize NISE in following three Technical Verticals.

- Solar Photovoltaic Division
- Solar Thermal Division
- Resource Assessment and Information Technology Division

1.1.2 Explaining the structure he said, each division will be headed by Deputy Director General (DDG) (Scientist 'F') and will be supported by two Directors (Scientist 'E') heading two Groups. Further, each group will be divided into three laboratories with Deputy Director (Scientist 'C') as in-charge. Each technical laboratory will be assigned to a Technician officer to look after the day to day requirements of the Laboratory. He will be assisted by a Technician Assistant. Depending on the requirement of research activities, scientific staff such as Research Associates, project fellows, JRF/ SRF and students will be posted in the labs, reporting to Deputy Directors. These will be purely temporary positions of the NISE, project, DST, CSIR fellow ships leading to a degree. Normally, this number would be nine. However, this may vary as per requirement of technical divisions. Each Programme Division would be assisted by Secretary and two Executive Assistants. This would be the administrative / secretarial assistance, which will be for the entire division.

1.1.3 Members deliberated on the proposed designations of posts. Some members were of the opinion that these should same as that in other scientific laboratories like Scientist B, C etc. DG, NISE clarified that these designations were indicated in the Cabinet note on the subject and hence may be adopted. A suggestion was made that MNRE may adopt uniform designations for its all three institutions. Chairman mentioned that this can be separately looked into.

1.1.4 Dr. Saxena presented details of activities and division specific structure for the three technical divisions and mentioned that these technical activities would evolve as per requirements. He requested the Governing Council to approve the proposal as outlined in the Agenda papers.

1.1.5 The Governing Council approved Broad structure of Technical Divisions and creating three technical Divisions in NISE to start its activities.

Agenda Item No.1.2: Opening of Bank Accounts for NISE

1.2.1 DG, NISE informed that the revenue stream of NISE will primarily come from three sources viz. Grant in Aid from the MNRE, G-I-A from other sources and from its activities such as testing, providing consultancy, designing and developing projects and products etc. In view of this, it is proposed to open three separate accounts in Nationalized Banks:

- I. For receiving grant from the MNRE
- II. Grant from any other Government, public sector, International and any other sources.
- III. Revenue from activities related to testing, training, technology transfer, consultancy etc. and any other sources

1.2.2 It was suggested by GC that the accounts be jointly operated by at least two officers out of three authorized signatory. NISE should also examine Haryana Society Act and Receipt and payment Rules 1983 of C&AG

1.2.3 The Governing Council approved:

- a. Opening of three separate accounts in Nationalized Banks in the name of "National Institute of Solar Energy"/NISE.
- b. Directed that these accounts should be jointly operated by at least two officers out of three authorized signatory. Authorize signatory to be Director General, NISE and Secretary NISE and one senior officer.
- c. Granted Permission to adopt electronic transfer of funds and adopt modern methods of financial transactions for its activities

Agenda Item No.1.3: Constitution of Functional Committees

1.3.1 It was informed that as per NISE Bye-laws Rule No. 10 (c), the Governing Council may form and authorize following Standing Committees consisting of three officers to examine and take decisions, on behalf of the Governing Council in respect of matters which are not within the delegation of powers to the President, the Director General, or any other officers of the Society subject to the condition that such decisions would be reported to the Governing Council at its next meeting.

- i) Finance & Accounts Committee
- ii) Research Advisory Committee

1.3.2. As per NISE Bye-laws Rule No.14 and 49, the Governing Council may also constitute an Executive Committee headed by Director General. Governing Council shall delegate powers to the Executive Committee necessary for day to day functioning of the Society. These powers would be other than the powers to Director General. Executive Committee will consist of five members three of which will also be the member of Governing Council and balance two amongst Senior Officers of NISE.

1.3.3 In keeping with the provisions of the bye-laws of the society, composition of these committees were presented to the Governing Council for approval. The GC suggested that convener / member secretaries of each committee be designated. It was also suggested that the Research Advisory Committee may have some outside experts also. It was clarified that this RAC is internal committee and there is MNRE RAC with much wider representation of experts.

1.3.4 The GC approved composition of the committees and TOR as follows:

Finance & Accounts Committee

- I. JS& FA, MNRE - Chairman
- II. Joint Secretary, JNNSM, MNRE - Member
- III. Director General, NISE -Member (Convener)

Terms of Reference

To examine and take decisions, on behalf of the Governing Council in respect of Annual Budget of the Society, budget to start any major activity or any matter referred by GC etc.

Research Advisory Committee (Internal)

- I. Dr.P.Saxena, DG, NISE - Chairman
- II. Dr.A.K.Dhusa, Advisor (R&D) MNRE
- III. Dr.Ashvini Kumar, Director, SECI
- IV. Dr.O.S.Sastry, Deputy Director General, NISE
- V. Er. S.K. Singh, Deputy Director General, NISE- Member (Convener)

Terms of Reference

To examine and take decisions, on behalf of the Governing Council in respect of Annual research activities of the Society, financial requirements to start new major R&D activity or any matter referred by GC etc.

Executive Committee

Director General, NISE - Chairman
Dr. O.S. Sastry, - Member, GC
Er. S.K.Singh, - Member, GC
DDG, (Adm.) NISE
Director (Finance), NISE - Member Convener

Terms of Reference

The Executive Committee would address issues of the Institute, both technical and financial, referred by the DG, NISE about day to day functioning of the Society.

Agenda Item No.1.4: Delegation of Administrative and Financial Powers

1.4.1 DG, NISE presented the agenda item and mentioned that the Governing Council have the authority to exercise all the powers of the Society. As per NISE Bye-laws Rule No.40 (b) The Governing Council may by a resolution delegate to the President, the Director General, or any other officer of the society, such of its powers for the conduct of the business as they may deem fit, subject to the condition that the action taken by the President, the Director General or any other officer of the Society under the powers delegated by this Rule shall be reported at the next meeting of the Governing Council. Accordingly, delegation of powers has been worked out and circulated in the Agenda papers.

1.4.2 The GC discussed delegation of powers in detail and felt that these should be in some more details and there should be some financial limits. Shri N.Murugesan, Director General, CPRI informed that C-DAC has very exhaustive description of delegation of powers and the same may be studied and adopted with suitably modifications. He further mentioned that CPRI is also examining these for adoption.

1.4.3 The Governing Council decided that C-DAC delegation of powers may be studied and revised delegation of powers for NISE may be put up to the President for approval. The GC authorised the President, NISE to approve the delegation of powers. Till such time the DG, NISE was given financial powers up to Rupees One Crore.

Agenda Item No.1.5: Creation of 'Corpus Fund' for NISE

1.5.1 DG, NISE steered the agenda item. He mentioned that the NISE has been set up with the long term vision to develop this as a world class institute. The institute has to re-orient and to restructure its activities and manpower. Public private partnership with future investment coming from both Government and private sector is envisaged. The Government shall continue to provide budgetary support or grant for Plan; non-Plan and capital expenditure of the institute for about next 10 years. However, It has also been decided that the expenses of NISE be restricted to the budgetary allocation made for SEC for the 12th Five Year Plan.

1.5.2 Dr. Saxena informed that MNRE has made a provision of Rs.120 Crore for the Solar Energy Center during 12th Plan. Out of this, a sum of Rs.15.50 crore was allocated to SEC during 2012-13 and Rs.30 Crore during 2013-14. This leaves a balance of Rs.74.50 crore for the remaining period of the 12th Plan (2014-17), subject to availability of funds in the Annual Plans of MNRE. He further mentioned that the objective is that the NISE should ultimately become a self-sustaining organization, say after 10 years or so. In order to achieve this, it would be necessary to step up revenue generating activities in NISE. However, it may also be necessary and desirable to develop a corpus of fund in next few years by securing grants from the Government. He requested the Governing Council to consider creating a corpus of about Rs.100 crore over a period of next 10 years.

1.5.3 The Governing Council was also requested to approve start of activities such as testing (in lab & out door), training, designing of projects, consultancy and take up external projects (National & International) with a view to generate revenue and contribute towards building the Corpus. It was also proposed to start "Entrepreneur Incubation Centre in Renewable Energy" on the lines of IIM Ahmadabad. It was also proposed to revise the testing and training fee.

1.5.4 The matter was discussed by the Governing Council. It was felt that if NISE has to become a self-sustaining organization, it should build its corpus of funds for security of staff and long term sustainability. After some discussions, the Governing Council approved the proposal to create a corpus of about Rs.100 crore for NISE over a period of next 10 years. The Chairman was of the opinion that surplus revenue generated by NISE at the end of the year should also be deposited in the corpus. It was also agreed that MNRE may be requested to release grant to NISE for meeting its day to day activities, develop facilities and separately also to develop a 'Corpus Fund' in a phased manner. The proposal at 1.5.3 above was also approved.

Agenda Item No.1.6:	Structure of Administrative and Finance Division
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1.6.1 DG NISE explained the proposed structure of Administrative and Finance Division of NISE. He mentioned that the division is proposed to be headed by Deputy Director General and will be supported by three Directors heading Groups of Administration - I (HRD + Hindi + Training Activity); Administration -II (PRO + Services + Planning & Coordination, Parliament) and Finance (Accounts + Internal Finance + Budget). These Directors would be supported by one Deputy Director as in-charge of each activity. Each Deputy Director would be supported by an Executive officer and an Executive Assistant. Each group will be supported by one Office Secretary and two Section Attendants. The Security services and Cleaning and Maintenance will be out sourced. Any additional man power requirement would be met by appointing consultants on contract or hiring man power from out-sourcing agencies.

1.6.2 The Governing Council, while approving the proposal presented under the agenda item mentioned that this division should be as lean as possible and most of the work should be out sourced. NISE should also appoint Internal Auditors, Statutory Auditors and some Consultants to deploy "latest accounting methods". The chairman said there should be concurrent audit in NISE and such a system should be developed from the beginning.

Agenda Item No.1.7: Man Power Requirement of NISE

1.7.1 DG, NISE presented the following consolidated requirements of posts of various Technical groups, Administrative & Finance group and the office of the Director General:

S.No	Name of Post	Pay Band & Grade Pay	Numbers
1	Director General	PB 4 GP 10,000	1
2	Deputy Director General	PB 4 GP 8,700	4
3	Director	PB 3 GP 7,600	9
4	Deputy Director	PB 3 GP 6,600	27
5	Technical officers	PB,3 GP 5,400	18
6	Office Secretary	PB 2 GP 5,400 PB 2 GP 4,800	8
7	Executive Officer	PB 2 GP 4,800	10
8	Executive Assistant I	PB 2 GP 4,600	10
9	Executive Assistant II	PB 2 GP 4,200	8
10	Technical Assistant	PB 1 GP 2,800	18
11	Drivers D I	PB 1 GP 2,800	2
12	Drivers D II	PB 1 GP 2,400	2
13	Section Attendant I	PB 1 GP 1,900	7
14	Section Attendant II	PB 1 GP 1,800	9
	Total		133
Contractual Posts			
i	Research Associate	Rs.40,000	10
ii	Senior Research Fellow/ Project fellow	Rs.25,000	9
iii	Junior Research Fellow	Rs.20,000	9
iv	Administrative Consultants	Up to Rs. 75,000 PM	6

1.7.2 DG, NISE requested for approval of the above structure and creation of 133 posts. However, these posts will be filled in a phased manner as and when funds are made available.

1.7.3 DG, NISE informed the GC that it is mentioned in the Cabinet Note that NISE will commence its activities with the existing posts of Scientist & Administrative Staff. Hence, it is proposed to start activities of NISE with the existing posts of SEC. He informed that there are 10 scientific officers and 54 administrative, technical and supportive Posts sanctioned in SEC of which 46 are filled up. It is proposed to send a proposal to the Ministry to create

posts equivalent to these posts. To start with, the existing posts designated as per structure proposed above.

1.7.4 After detailed deliberations, the Governing council approved the following:

- (i) The structure and creation of above mentioned 133 posts. These posts to be filled in a phased manner as and when funds are made available. However, NISE would commence its activities with the existing posts of scientists and administrative staff existing in SEC.
- (ii) Rework on the posts required to be created equivalent to the existing posts in SEC and send proposal to the Ministry for creation of posts as approved by the cabinet.
- (iii) Request the Ministry to re-designated (as additional work) the existing scientific, administrative, technical and supportive staff as per structure of NISE to start the work of NISE, till regular posts are created and filled. They may continue to be MNRE employees and draw salary as being done now.
- (iv) Filling up of contractual posts mentioned above. The GC suggested that RAs may be given higher remunerations up to Rs. 60,000/- per month depending upon their qualification and experience. The RA/SRF/JRF at present working in SEC will be given chance to continue in NISE
- (v) To appoint Internal Auditors, Statutory Auditors and some Consultants. The consultants may also be retired experienced Government servants

Agenda Item No.1.8: Broad Principle of the Recruitment Rules

1.8.1 DG, NISE mentioned that NISE would start formulating Recruitment Rules for each post. However, before starting that he requested the Governing Council to consider following broad principle of the Recruitment Rules.

1. All posts would be governed by Govt. of India pay scales and associated benefits as decided by the Govt. of India from time to time.
2. The Scientific posts would be governed by the Modified Flexible Complementing Scheme (MFCS) announced by the Government and modified from time to time.
3. The non-technical posts would be governed by the MACP announced by the Government and modified from time to time.
4. In order to attract better talent and to take advantage of experienced manpower, the age for superannuation in the Society could be 2 years more than that in Government, extendable to 5 years, as applicable in academic institutions.

1.8.2 The Governing Council was of the opinion that NISE may have its own promotion policy which can be more attractive than MFCS or MNCP. All posts would be governed by

Govt. of India pay scales and associated benefits as decided by the Govt. of India from time to time.

The Governing Council approved age for superannuation for the scientific officers and technical staff working in the Society as 2 years more than that in Government, extendable to 5 years as applicable in academic institutions.

Agenda Item No.1.9:	Scheme for taking up Consultancy by NISE
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1.9.1 DG, NISE requested the GC consider and encourage its members to undertake research and consultancy work as a measure of scientific/technical collaboration with outside agencies. The members of NISE would get an opportunity to apply their ideas for finding out the solutions to the problems in emerging areas. Furthermore, the consultancy work also provides incentives for their contributions to all categories of staff.

1.9.2 He mentioned that the present Scheme implemented in various IITs and Engineering Institutions would be studied and a comprehensive Scheme would be developed keeping in view the benefit of all members and the Institution. The guiding Scheme would be the one implemented by IIT Roorkee for Sponsored Research & Industrial Consultancy issued in January, 2013.

1.9.3 The Governing Council approved adoption of the policy of taking up consultancy by the members of NISE.

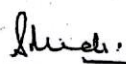
Agenda Item No.1.10:	Any other item with the permission of the Chair
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1.10.1 A few logos for NISE were shown to the Governing Council, it was decided that the logo can be finalised with the approval of the President, GC.

The Chairman thanked all the members for their concrete and valuable suggestions.

It was decided that the next meeting of the Governing Council will be held at NISE, Gurgaon.

The meeting ended with vote of thanks to the Chair.


(Er. S.S. Bedi)
Member Secretary