Developing the strategy for policy oriented energy research modeling at USPCAS-E, NUST

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BACKGROUND

• Previous attempts for IEP in Pakistan were based on LEAP and Markel/Times and funded by different international development agencies
• Poor resource management for the development and application of the proposed models faded the impacts
• Recent attempts for IEP under USAID intend to help energy policy by overcoming the previous shortcomings
• Collaboration with educational research institutions an important aspect of the sustainability of the ongoing energy policy modeling

IEP OVERSIGHT

METHODOLOGY

• An overview of the types and kinds of energy sector/systems models applied globally and that are of potential value for Pakistan
• Inputs from researchers, industry, the government and other relevant stakeholders on the requirement of establishing the research capacity in integrated energy modeling for Pakistan
• Development of a roadmap for energy modeling research priorities and plans for USPCAS-E, NUST, in collaboration with NUST leaders, researchers, industry and policy stakeholders
• Priorities and plans for the training programs required for the maintenance and up-gradation of the modeling capabilities
• An assessment of the data required for different time periods to support model development and maintenance
• Additional information of relevance (e.g., software requirements) to support the roadmap

PROJECT ESSENCE

• The project aim is to provide continuous support in form of academic research on integrated energy planning to the planning institutions
• In connection to that, the development of a strategic vision and plan for energy research within USPCASE-E, NUST to support IEP in Pakistan
• The establishment of a research group within USPCAS-E, NUST to work on energy planning in Pakistan in synchronization with the government, industry and international stakeholders
• The development of a strong capability to develop, test and deploy energy planning models and to train researchers, students, industry and govt. employees in their development and use
• Accumulation and maintenance of necessary resources such as data, human resource, technology and finance to overcome the barriers to the sustainability of the project

RESEARCH IMPACT

• Project will establish a dedicated research group to work on energy planning in Pakistan
• The group will regularly conduct research on the establishment and improvement of integrated energy model for the country as well as provinces and different sectors of energy.
• The research will originate from the modelling and planning requirements of the government, regulators, industry and other energy sector players.
• The research will provide research input to the policy institutions on energy matters.
• The research group established in USPCAS-E, NUST will help and train the students, industry and government in energy modelling.
• This research will highlight different levels of coordination among different stakeholders to ensure the sustainability of the program.

POTENTIAL STAKEHOLDERS

• Planning commission
• Energy regulators
• Ministry of Energy
• Ministry of finance
• IPPs
• Small power plants
• Industry related to co-generation
• National Energy Efficiency and Conservation Authority
• Alternative Energy Development Board
• Pakistan Power and Infrastructure Board
• Distribution companies
• Transmission companies
• Generation companies
• Relevant provincial ministries
• International development partners e.g. USAID, ADB, etc.