Energy Sector Governance Program Grant

“Smart Development” Initiative

QUARTERLY PERFORMANCE REPORT
August - October, 2004

Prepared for:
Energy Division—Energy Sector Governance Program
Office of Energy and Information Technology
Bureau for Economic Growth, Agriculture and Trade

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December 22, 2004
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OBJECTIVES

USAID Strategic Objective and Intermediate Results

The strategic objective of the Energy Division is to improve the quality of life, increase economic growth, and promote sustainable communities by increasing access to environmentally sound energy and improving environmental management. And the intermediate result is increased production and use of environmentally sustainable energy. Areas of special interest include:

- Improving policy, legal, and regulatory frameworks to establish necessary conditions of energy service delivery;
- Increasing institutional ability to provide or deliver energy management services; and
- Increasing public understanding of, and participation in, decisions regarding delivery of energy services.

UH IELE Smart Development Initiative

The UH IELE Smart Development Initiative fits well with the USAID objectives. We believe that enhanced public education on the basic principles inherent in the energy value chains and associated economics and technologies, as delivered through our New Era in Oil, Gas and Power Value Creation platform, can contribute greatly to improved energy sector performance worldwide.

Our initiative is designed to improve the capability of local educational and development institutions in emerging markets to address public education and participation, as well as transparency needs for effective energy sector governance. Through this Initiative, the UH IELE is working to provide a Local Education Partner in Ghana with the tailored training, focused on energy value chain economics and supporting commercial frameworks, tools and ongoing mentoring necessary to develop its own community-based initiatives. These initiatives will help develop the stabilizing infrastructure necessary to increase local community access to environmentally sound energy. All program activities will be directed by local needs to ensure program appropriateness. The intended results may include an increased number of people across a number of disciplines and occupations (journalists, educators, private sector and general public) and within the ranks of the government with a better understanding of energy industry issues; and ongoing delivery of education and information dissemination through a local source developed with our assistance in order to multiply the number of "informed" citizens.

Project Specific Activities

Our proposal included the following four general activities to achieve our common goals:

1. Selection of a Local Education Partner.
2. Training the Trainers.
3. Transferring Knowledge.
The next session of this report will address the progress in the implementation of these activities.

**OUTPUT**

Significant progress has been achieved in the implementation of the goals in this quarter.

**Selection of a Local Education Partner**

Following the May visit of four delegates\(^1\) from Ghana to attend the *New Era* session in Houston and to discuss establishment of a Resource Center (the LEP) in Ghana, a draft Conceptual Framework for the LEP was put together.\(^2\) The Framework proposed the mission of the Resource Center, its structure and core activities, work plan and deliverables. In August, the UH IELE and its Ghanaian colleagues reached an agreement on the Conceptual Framework for the Resource Center (Attachment 1); finalized the Scope of Work outlining the deliverables and due dates (Attachment 2).

The Resource Center held its first joint Advisory Board and Steering Committee meeting on August 19 in Accra. The center will be called *Resource Center for Energy Economics and Regulation, ISSER*. The kick-off meeting was held on September 24, 2004 (Attachment 3). A newspaper article and a TV news report covered the opening of the Resource Center.

**Training the Trainers**

The four delegates from Ghana who attended all sessions and field trips of the *New Era* program in Houston are back in Ghana. The Resource Center is established and one of the New Era delegates is the coordinator of the Center. Starting with its kick-off meeting, the Center started to disseminate some the knowledge gathered in Houston to its supporters. New researchers employed by the Center and other staff of ISSER will be the most immediate beneficiaries of the improved understanding of energy value chain economics. Through its natural gas and electricity guides and seminars, the Resource Center will develop local material to support its teaching and training activities in the future.

**Transferring Knowledge**

The Energy Ministry already commissioned the Resource Center to undertake a study on the socio-economic impacts of the petroleum sector reform in Ghana. UH IELE staff has provided some background material and is helping with editing the final report. Clearly, this study is a good opportunity to implement some of the “smart development” concepts. As imagined, the Resource Center was able to produce quality surveys complemented with solid analytical work to identify parts of the society that would be most directly impacted by the rationalization of petroleum product prices. The most challenging part of the report is developing mitigation strategies.

UH IELE will also help with all proposed activities of the Resource Center and transfer all knowledge and expertise necessary to produce a natural gas primer, a guide for electric power and a full energy value chain analysis. Work on the natural gas primer has already started with transfer of reference material by UH IELE to the Resource Center. As the primer develops, cooperation will intensify.

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1 Mr. Stephen Adu, Commissioner and Executive Secretary, Public Utilities Regulatory Commission (PURC) of Ghana; Ms. Ama Jantuah Banful, Chief State Attorney, Ministry of Justice and Attorney-General Department; Dr. Felix Asante, Institute of Statistical, Social and Economic Research (ISSER), University of Ghana at Legon, Ghana; and Mr. Ishmael Edjekumhene, Projects Manager, Kumasi Institute of Technology and Environment (KITE).

2 For details, see previous quarterly performance report.
General

UH IELE is housing a page for the grant within its website in order to publicly disseminate grant developments: http://www.energy.uh.edu/IDA/USAID.asp.

**IMPACT**

**Achieved Impact**

A number of definable impacts have been achieved at this early stage in the grant.

- **The Resource Center has been launched fairly quickly with widespread support by energy sector stakeholders in Ghana.** Launching the Center served as an additional impetus for the various interests among energy sector leaders in Ghana to converge and cooperate.

- **The Energy Minister and PURC Chairman were present in the kick-off meeting and their speeches were clear indication of the high importance attached to as well as high expectations from the Center.** From the beginning, we felt that high level support of the Center was crucial for long term success. The Center has to be viewed as a credible source of information and research in order for energy sector governance benefits to be realized. Early and strong support from energy sector leadership was achieved through persuasion and commitment. Leadership support includes taking a direct “stake” and responsibility (and therefore accountability) in the outcomes through participation in the organizational structure of the Center.

- **The Energy Minister followed through with his offer to commission the Center for a study made at the kick-off meeting, and the Center is about to finish this first study.** The support for the Center also comes from the Energy Commission, Energy Foundation, VRA, and ECG as well. The milestone of a commissioned study suggests that long term financial support of the Center is attainable. We have much more to do on this front in order to ensure sustainability of the education initiative (a high priority metric in our grant) but, again, early support and strong performance by the Center will make sustainability that much easier to realize.

The kick-off meeting was covered heavily by the media, which allowed the Resource Center to receive an early introduction to the Ghanaian energy industry and public as a resource for information on energy value chain economics, regulation and policy. The study for the Ministry will likely help further expose the Center, already achieved to a certain extent through the process of surveying.

**Expected Impact**

Our expectations remain the same as before.

- **We expect that the activities of the Resource Center will continue to help the Center become a valuable resource for the Ghanaian energy industry as well as the public.** In particular, the production and widespread distribution of the Natural Gas Primer and the Guide to Electric Power in Ghana along with associated education forums are expected to increase public understanding of the energy business and the role of different entities in it. We plan to have as wide media coverage as possible for these forums to increase public awareness. Energy journalists will be invited to forums and other events even more often to improve their understanding of the energy industry and their reporting on it. We expect that news media involvement will increase the probability of “multiplier effects” (see Attachment 1) around the Center and its activities. Our hope is that
additional, similar efforts evolve even though they may appear to compete with the Center. We feel that multiple efforts would serve both as a sign of increased access and transparency and to force additional access and transparency into the energy sector.

- **These efforts should also help those making decisions impacting investment in energy projects and delivery of energy services (e.g., state or private companies, ministries, and regulatory agencies).** The Advisory Board and the Steering Committee for the Resource Center are envisioned to guide the Center to tailor its research, outreach and training activities in order to enhance this institutional capacity so that the appropriate commercial frameworks for energy development can be created and sustained. Metrics for this expected outcome will be difficult to devise, but we are striving to identify appropriate ones.

- **Finally, we expect that the Resource Center will be able to incorporate smart development concepts covered during the New Era program in its efforts.** One of our delegates, Ishmael Edjekuhene is with Kumasi Institute of Technology and Environment (KITE), which has already undertaken research activities on energy use patterns in Ghana, energy sector reform and impact on the poor, use of alternative fuels, impact on environment among other smart development related issues. Through KITE’s involvement in the Center, and with the steering of USAID and UH IELE, we anticipate that the Center will maintain focus on these issues.
Background
In late 2003, The Institute for Energy, Law & Enterprise at University Houston Law Center (IELE) won the Energy Sector Governance Program Grant of the U.S. Agency for International Development (AID) with its proposal to create a “Smart Development” initiative through its annual training program, New Era in Oil, Gas & Power Value Creation. The IELE initiative is designed to improve the capability of local educational and development institutions in emerging markets to address public education and participation, as well as transparency needs for effective energy sector governance. Through this Initiative, IELE intends to provide a Local Education Partner in Ghana, Africa with the tailored training, focused on energy value chain economics and supporting commercial frameworks (the New Era platform) as well as new tools and ongoing mentoring necessary to develop its own community-based initiatives. The following graphic illustrates how the Initiative will work.

The intended results include an increased number of people across a number of disciplines and occupations (journalists, educators, private sector and general public) and within the ranks of the government with a better understanding of energy industry issues; and ongoing delivery of education and information dissemination through a local source developed with our assistance in order to multiply the number of "informed" citizens.

An IELE team consisting of Dr. Michelle Michot Foss, Executive Director, Dr. Gürcan Gülen, Research Associate and Ms. Anna Dragsbaek, Researcher visited Ghana in late March 2004 for grant scoping. They were accompanied by Dr. Kevin Warr, technical officer for the grant.
from USAID, in most of their meetings. The Public Utilities Regulatory Commission (PURC) has been a major supporter of the effort and facilitated many of the meetings for the IELE team. During this visit, they developed in-depth understanding of the energy sector in Ghana via numerous meetings with different stakeholders in the sector and, with input from PURC, identified the Institute of Statistical, Social and Economic Research (ISSER) at the University of Ghana, Legon as the most likely LEP. It was clear, however, that a strong linkage to Kumasi National University of Science and Technology (KNUST) was highly desirable for most professionals in the Ghanaian energy sector, and that linkages to various stakeholders, such as Kumasi Institute of Technology and Environment (KITE) and the Energy Foundation, would be vital for success.

In May 2004, four delegates from Ghana representing ISSER, PURC, Ministry of Justice and KITE attended the New Era program in Houston. The delegates observed and experienced the platform to be adopted in Ghana. In addition, the IELE team and Ghanaian delegates had two meetings, one attended by advisors of the Institute who are knowledgeable about West Africa and capacity building programs in general. As a result, both sides agreed to pursue the establishment of a “resource center” at ISSER, with explicit participation of KNUST (most likely through the school of engineering), to construct the appropriate LEP for this experimental grant. The following serves as the draft conceptual outline for the center/LEP.

**The Mission of the “Resource Center”**

The mission of the Resource Center is to become an independent resource for data, research, policy analysis, training and public education on energy and utility economics, regulation, and energy sector policy and development in Ghana and, ultimately, the greater region of West Africa.

**The Core Activities of the “Resource Center”**

The goals of the Resource Center are to:

- Collect, store, process and disseminate energy and utility sector data and knowledge;
- Conduct research to support energy and utility sector development and governance;
- Develop energy and utility economics curriculum for both university and professional audiences; and
- Educate the public on energy economics, energy policy, energy and socioeconomic development issues by publishing reports and holding educational outreach activities.

**Proposed Organizational Structure for the Resource Center**

The Resource Center will be organized to draw upon the expertise of energy sector specialists from various organizations, including universities, public institutions, NGOs and industry. The initial structure of the Resource Center is expected to have the following components: an Advisory Board, four members of which will form a steering committee, Center Coordinator, and Center Assistant.
Advisory Board

An Advisory Board will be formed of the representatives of the key institutions (stakeholders) in Ghana’s energy sector. Eventually, the Board may include up to 10 representatives from energy and environmental ministries, universities, non-governmental organizations, and national/international industry. In the beginning, however, representation from the Energy Ministry, Public Utilities Regulatory Commission (PURC), Volta River Authority (VRA), Energy Commission (EC) and/or Energy Foundation (EF) should be sufficient.

The Board will provide high-level supervision and direction to the Resource Center initiatives to ensure the Center’s relevance for the energy sector. The Board will review and approve the Resource Center strategic plan, annual work plan and budget developed by the Steering Committee. A member of the Advisory Board will be selected to serve as Chairperson. The UH IELE will be a part of the Advisory Board for the duration of the USAID grant and its possible continuation and for any follow up sponsored activities as independent funding for the center begins to evolve.

The Advisory Board will hold quarterly meetings to review the progress of the Resource Center activities. The first meeting of the Advisory Board will be held in August, 2004. During the first meeting, the Advisory Board will review the Conceptual Plan and make any suggestions regarding the Resource Center structure, work plan and preliminary budget proposed by the Steering Committee.

Outside Advisors

To implement its data collection, research, training and outreach activities, the Resource Center will work with advisors from public institutions, non-governmental institutions, ministries, and universities.
Steering Committee

Advisory Board members from PURC, ISSER, KNUST, USAID and UH IELE will form a Steering Committee. The UH IELE will be a part of the Steering Committee for the duration of the USAID grant and any follow up sponsored activities. The Steering Committee will oversee the quality and effectiveness of the Resource Center day-to-day operations in accordance with the general guidelines of the Advisory Board. The Steering Committee will:

- Develop a strategic plan defining short- and long-term goals of the Resource Center and strategy towards achievement of these goals. The strategic plan will be submitted to the Advisory Board for review and approval.
- Develop annual work plans and budgets which will be submitted to the Advisory Board for review and approval.
- Nominate a Resource Center Coordinator. As the Resource Center is hosted at ISSER, Resource Center Coordinator will be an ISSER staff member and will act as the secretary of the Steering Committee.
- Ensure spending of allocated funds in accordance with the approved budget.
- Guide the Resource Center Coordinator in carrying out the responsibilities.
- If necessary, propose changes in the work plan, organizational structure and budget to the Advisory Board for approval.
- Report to the Advisory Board on the progress of activities. Evaluate program effectiveness and develop recommendations on research and program needs.
- Develop public participation strategies to ensure adequate outreach and publicity of the project activities.
- Develop a sustainability plan which will define activities to attract support from potential donors (national and international industry, donor agencies) and plans to establish partnerships with similar centers or associations worldwide.

Resource Center Coordinator

The Resource Center Coordinator will coordinate the Resource Center activities. Under general direction of the Steering Committee, the Coordinator will:

- Work with the Steering Committee members to develop a strategic plan, work plans and budget.
- Organize and coordinate Advisory Board meetings, workshops, trainings, and public outreach activities.
- Develop and implement public participation strategies; coordinate dissemination of information about the Resource Center and its activities to media and Resource Center counterparts through press releases, articles, interviews; serve as main contact for media, community and other groups.
- Prepare progress reports and submit them monthly to the Steering Committee and quarterly to the Advisory Board.
- Maintain records and submit monthly financial reports to the Steering Committee and quarterly reports the Advisory Board.
- Serve as a liaison between agencies and advisors involved in the project implementation.
➢ Coordinate the work of advisors to ensure timely and proper implementation of the projects.
➢ Direct work of Program Assistant.

Center Assistant
➢ Collect energy and utility sector data and information.
➢ Develop a database for structured access of this data and information.
➢ Act as research assistant in Center publications and workshops.
➢ Maintain database of contacts.
➢ Any other activity/work as directed by the Center Coordinator.

Outside Advisors
Many similar centers around the world, including the UH IELE, have a group of outside advisors, or senior fellows, who are interested in these centers and willing to help in center activities. They may write or edit parts of reports, participate in workshops, and provide guest lectures in classes or seminars among many other activities. Ghana certainly has a wealth of experienced professionals in different parts of the energy sector. Among the organizations that could be tapped for these individuals are:
➢ Ministry of Energy
➢ Public Utilities Regulatory Commission of Ghana
➢ Energy Commission of Ghana
➢ Volta River Authority (VRA)
➢ Electricity Company of Ghana (ECG)
➢ Ghana National Petroleum Company
➢ NGOs such as the Energy Foundation, Kumasi Institute of Technology and Environment (KITE), Institute for Economic Affairs, Center for Economic Policy Analysis, and Council for Scientific and Industrial Research.
“Resource Center” for Resource Economics and Utility Regulation at ISSER

SCOPE OF WORK

This scope of work outlines main activities and deliverables to be implemented at the Resource Center for the duration of the USAID grant. A payment schedule based on deliverables is also attached.

In addition to deliverables outlined in this plan, the Resource Center coordinator will prepare brief monthly reports on the Resource Center activities to monitor the implementation of the tasks, at a minimum for the duration of the USAID contract activities.

Activities Summary

<table>
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<tr>
<th>Activities</th>
<th>Completion Date</th>
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<tbody>
<tr>
<td>1. Kick-off Meeting of the Resource Center</td>
<td>August 31, 2004</td>
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<td>2. Preparation of a “Natural Gas Primer”</td>
<td>October 31, 2004</td>
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<td>3. Educational Forum on Natural Gas (upon completion of the</td>
<td>November 2004</td>
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<td>“Natural Gas Primer”)</td>
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<tr>
<td>5. Educational Forum “Electric Power in Ghana” (upon completion of the “Guide to Electric Power in Ghana”)</td>
<td>February 2005</td>
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<tr>
<td>6. Develop a sustainability plan and proposals for funding</td>
<td>March 31, 2005</td>
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<tr>
<td>7. Develop energy and utility economics curriculum</td>
<td>March 31, 2005</td>
</tr>
<tr>
<td>8. Develop an energy industry database</td>
<td>March 31, 2005</td>
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Activity 1  Kick-off Meeting of the Resource Center

Task Description

The goal of the kick-off meeting will be to make a formal public announcement about the Resource Center opening. It will attract main stakeholders in Ghana’s energy industry such as the PURC, Energy Ministry, Energy Foundation, Energy Commission, Volta River Authority, as well as representatives of the local and international energy companies working in Ghana and donor agencies. The participants will be invited to participate in the Resource Center activities by providing support, promoting the Center at various levels, supplying energy industry expertise for Center research and participating in the Center activities.

The Resource Center Steering Committee will work to develop the meeting agenda, send out meeting announcements, and prepare necessary presentations and handout materials. Topics to be covered will include: introduction to the Resource Center, its goals and activities, an overview of natural gas and electric power value chains and an overview of main issues in the energy sector in Ghana.

Deliverables

1. Meeting agenda
2. List of attendees with contact information
3. Prospectuses (one-pagers) on each planned activity
4. Results of the meeting/summary of the comments
5. Coverage in local media (if any)
6. Presentation slides and/or handouts

Timeline
August 1 - August 31, 2004

Activity 2  Natural Gas Project

Task Description
Natural gas will be playing a bigger role in the Ghana’s energy sector when the West African Gas Pipeline (WAGP) is completed. However, there is currently scant information about the natural gas business and regulation, and a limited number of knowledgeable experts in Ghana. Therefore, there is a great need for building basic understanding of the natural gas business among energy industry professionals as well as the general public in Ghana. One of the first Resource Center products will be a Natural Gas Primer that will address this need. The outline of the Primer will include but not be limited to the following:

➢ Natural gas industry overview
   • Background, sources, uses, history;
   • Value chain overview (from exploration and production to end-use); and
   • Markets overview - supply and demand, regulation;

➢ Natural gas in Ghana - Brief overview of the natural gas issues in Ghana

UH IELE will provide significant resources in the form of background materials, editing and guest lecturing in the educational forum or other outreach activities. UH IELE expertise in natural gas includes *The Case for Natural Gas*, a guide to the industry in the U.S., a series of public education publications on LNG and natural gas markets, and materials used in UH IELE courses. The transfer of this information to the Resource Center in electronic format and any other assistance by UH IELE will expedite work and help the Center manage costs.

The Primer will serve as an information source for Ghana’s industry, government, educational institutions, media and public. At the completion of the Primer, the Center will organize an educational forum. The goal is to secure the participation by all stakeholders in Ghana’s energy sector and as wide coverage as possible by the media (TV, radio, papers and industry publications). Hard and/or electronic copies will be distributed to media representatives, including those who do not attend the forum. The Primer will also be made available at UH IELE, and Resource Center/ISSER web sites. In addition, the possibility of making it available at the web sites of PURC, KNUST, Energy Ministry, VRA and any other interested player in the Ghanaian energy sector will be explored.

For successful dissemination of the Primer and other related information, the Resource Center Steering Committee will develop an information dissemination plan. The plan will identify the goals and objectives of the public awareness activities, define the most applicable methods and media for information dissemination, and determine criteria to measure success of information dissemination. The plan will also address determine how dissemination will continue after the end of the USAID grant and define strategies to promote information availability and access.
Deliverables
1. Natural Gas Primer
2. Educational Forum information
   a. Forum agenda
   b. List of attendees with contact information
   c. Results of the meeting/summary of the comments
   d. Coverage in local media
   e. Presentation slides and/or handouts
   f. Feedback questionnaires

Timeline
August - November 2004

Activity 3 “Guide to Electric Power in Ghana” Project

Task Description
The Resource Center will prepare a “Guide to Electric Power in Ghana,” modeled after the UH IELE’s “Guide to Electric Power in Texas.” Development of the Guide in Ghana will provide the opportunity to the Resource Center to collaborate with stakeholders, collect data from various sources and be a first reference source for everyone.

The Guide will provide the information on:
- Facts on the Ghanaian electric power sector;
- The basics and history of electric power;
- Energy regulations and policies in Ghana that affect electric power;
- Major industry challenges/issues – economic development, consumers, financing, and other;
- Future industry development issues.

Again, UH IELE will provide significant support to this effort (background materials in electronic format, consulting, editing and guest lecturing in the educational forum or other outreach activities).

The Guide will serve as an information source for Ghana’s industry, government, educational institutions, media and public. At the completion of the Guide, the Center will organize an educational forum. The goal is to secure the participation by all stakeholders in Ghana's energy sector and as wide coverage as possible by the media (TV, radio, papers and industry publications if any). Hard and/or electronic copies will be distributed to media representatives, including those who do not attend the forum. The Guide will also be made available at UH IELE and Resource Center (or ISSER?) web sites. In addition, the possibility of making it available at the web sites of PURC, KNUST, Energy Ministry, VRA and any other interested player in the Ghanaian energy sector will be explored.
For successful dissemination of the Guide and other related information, the Resource Center Steering Committee will develop an information dissemination plan. The plan will identify the goals and objectives of the public awareness activities, define the most applicable methods and media for information dissemination, and determine criteria to measure success of information dissemination. The plan will also address determine how dissemination will continue after the end of the USAID grant and define strategies to promote information availability and access.

**Deliverables**

1. First Draft (due to December 15)
2. “Guide to Electric Power in Ghana”
3. Educational Forum information
   a. Forum agenda
   b. List of attendees with contact information
   c. Results of the meeting/summary of the comments
   d. Coverage in local media (if any)
   e. Presentation slides and/or handouts
   f. feedback questionnaires

**Timeline**

February 2005

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**Activity 4 Resource Center Sustainability Plan**

**Task Description**

The USAID funding for the Resource Center establishment is limited and will expire at the end of the grant. Provisions will need to be made to continue the Resource Center activities beyond this grant. Therefore, the Advisory Board and Steering Committee will work to develop a “Resource Center Sustainability Plan.” The plan may address the following issues:

- **Scope of activities/tasks for post-grant period**
  - areas of interest for industry stakeholders and other potential sponsors
  - revenue generating activities such as training programs and database access
  - Plan for dissemination of information
- **Budget.** Determine resource requirements for the Resource Center to continue its operations and undertake the activities identified under the first bullet
- **Sources of funding**
  - a list of potential funding organizations including local and foreign companies, and international development agencies
- **Action plan**
o A strategy to develop and market revenue generating programs (e.g., replication around the country and the greater region of West Africa)

o A strategy to attract different sponsors while keeping the Center’s independence and credibility

o Preliminary proposals to grant-issuing entities

o Preliminary proposals to potential sponsors

o A plan for long-term partnerships with similar institutions in or outside Ghana

Deliverables

1. Sustainability Plan

Timeline

March 31, 2005

Activity 5  Energy and Utility Economics Curriculum Development

Task Description

The Resource Center and UH IELE will work to develop energy and utility economics curriculum for training programs. Such programs may be developed for both regular university-level and short-term focused training for professionals. If approved by the university administrations, the courses will be offered by the Resource Center at UG-Legon and KNUST, and other locations where there may be a need for such programs. UH IELE is currently helping the Petroleum and Mineral Resources Engineering department at Bangladesh University of Engineering and Technology to add energy economics courses into its curriculum under a separate grant. A new course is developed and will be offered in the fall 2004 semester. In addition, UH IELE staff has been teaching energy courses at UH for over five years. This experience will be used to help the Center develop its own curriculum.

Deliverables

1. List of energy economics courses and syllabi for courses developed.

2. Proposals submitted to UG-Legon and KNUST to adopt new proposed courses.

Timeline

March 31, 2005

Activity 6  Energy Industry Database Development

Task Description

The Resource Center will collect comprehensive energy industry data in the process of fulfilling activities such as the Natural Gas Primer and the Guide to Electric Power in Ghana. A natural extension of this data collection activity is the establishment of a database that the Center would make available to interested parties in an easily accessible way (online
subscriptions/web-based, etc). The Resource Center will obtain such information from all agencies involved in the development and operation of the Resource Center. ISSER already maintains a large database to keep track of economic developments and to publish its annual report on the state of the Ghanaian economy. The database will be very useful in completing a spreadsheet developed by UH IELE for its New Era in Oil, Gas & Power Value Creation program (attended by four delegates from Ghana who will remain involved with the Center). Once the spreadsheet is completed, the Center will be able to provide a synopsis of any issues that may be present across the energy value chain in Ghana. This quick analysis will also be very useful in helping the Center fulfill its Sustainability Plan.

**Deliverables**

1. Database developed.
2. Database usage guidelines (who gets access, how, price, etc)
3. Plan for database management developed (how to keep it current)

**Timeline**

March 31, 2005
The Launching of the Resource Center for Energy Economics at ISSER

Kick-off Meeting
September 24, 2004
Accra, Ghana

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1. Kick-off Meeting Programme
2. Attendance List
3. Statement by Kwame Pianim, Chairman of the Public Utilities and Regulatory Commission of Ghana
4. Keynote Address Made By Dr. P Kwesi Nduom, Minister of Energy of Ghana
Programme

Launching of the "Resource Center for Energy Economics & Regulation"
24th September, 2004

8.00 – 8.30: Arrival and Registration of Participants
8.30 – 8.40: Welcome Address and Introduction of Chairman – Director of ISSER
8.40 – 8.50: Chairman’s remarks – Prof. A. K. Addae, Member, Energy Commission
8.50 – 9.10: Overview of “Resource Center” – Coordinator of Resource Center
9.10 – 9.25: Comment by Chairman, Advisory Board of Resource Center
9.25 – 9.45: Keynote Address & Launch of Resource Center – Minister for Energy
9.45 – 10.15: Cocoa/Tea Break
10.15 – 10.45: Overview of the Energy Sector
  Mr. Michael Opam, Ministry of Energy
10.45 – 11.15: General Discussions
11.15 – 11.45: Overview of Natural Gas and Electric Power Value Chain
  Dr. Gurcan Gulen, UHIELE, Texas, USA.
11.45 – 12.15: Overview of the West African Gas Pipeline
  Mr. Quaye-Foli, Ministry of Energy
12.15 – 12.45: General Discussions
13.15 – 13.30: Work Programme of Center – Mr. Adu, Executive Secretary,
  Public Utilities and Regulatory Commission.
13.30 – 13.45: Chairman’s closing remarks
13.45 – 14.00: Vote of Thanks
14.00: Closure/Lunch
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<th>Position &amp; Institution</th>
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<tbody>
<tr>
<td>Kwabena Appenteng</td>
<td>Private Sector Officer, USAID</td>
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<tr>
<td>Dr. Ofosu-Ahenkorah</td>
<td>Energy Foundation</td>
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<tr>
<td>Dr. Jay Mariyapan</td>
<td>IT Power, UK</td>
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<tr>
<td>Isaac Osei-Akoto</td>
<td>ISSER</td>
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<td>E. B. D. Ayertey</td>
<td>ISSER</td>
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<tr>
<td>David Wiredu</td>
<td>Engineer, AGI</td>
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<td>Kofi Kwarko</td>
<td>AITI</td>
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<td>Alex Prempeh Kwarteng</td>
<td>Petroleum Engineer, GNPC</td>
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<td>Ahmed Nantogmah</td>
<td>Chamber of Mines</td>
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<td>Peter Quartey</td>
<td>Fellow, ISSER</td>
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<td>Nii Adjei Akpue</td>
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THE LAUNCHING OF THE RESOURCE CENTER FOR ENERGY ECONOMICS AND 
REGULATION 

Statement by Kwame Pianim, Chairman, PURC. 

We in Ghana are used to the traditional system where state owned utility companies supply 
public utility services to the Ghanaian public. Over the past two decades the received 
wisdom has been a shift from public sector models to private sector entities or market-
oriented systems for the delivery of utility services. With this shift has come the need for 
the establishment of credible regulatory institutions with transparent regulatory framework 
and processes for protecting the interest of stakeholders who sometimes appear to have 
irreconcilable interest. 

The PURC for example is charged with protecting the interest of disparate groups ensuring; 
• Reasonable tariffs for utility companies so that they not only recover their 
operational cost but have enough left over to replace their equipment, improve 
quality and expand the service to the majority who are yet to be connected. 
• That consumers face tariffs that give value for money spent. 
• The poor and marginalized are protected in terms of access to service by putting in 
place pro-poor programmes. 
• That the tariff setting process and their outcomes do not cause tension for the 
government. 
• That way the services provided does not impact adversely on the environment, are 
inter-generationally neutral, and environmentally sound. 

For the PURC to achieve its objectives it has to independent not just legally but in reality 
and especially in the perception of stakeholders. Operational independence should not be 
conceived as a right to formulate policy, which is the responsibility of politicians who are the 
elected representatives of the sovereign people of Ghana. Our independence relates to the 
making of operational judgment in implementing and interpreting the responsibilities 
assigned to us in the enabling regulations or legislation that established the regulatory 
institutions. Operational independence should not be construed as excluding the need to 
consult those whom our processes impact and especially those who formulate the policies 
we are supposed to implement. 

For us at PURC to be in apposition to discharge our responsibilities effectively we need 
professionally competent, skilled and dedicated staff. The tendency has been to rely on 
outside consultants to advise us on certain operational areas. Sometimes advisory services 
tend to assume line-duty functions. Even to be able to use consultants efficiently demands 
in-house capabilities that include ability to discern good from bad advice. This is why the 
establishment of the Resource Center with its skills training, education and research can be 
of tremendous value to the PURC. 

The existence of such a generation might have provided a place for storing all the various 
documents and information on the WAGP together with best practices on the structure of 
funding such projects and acceptable rates of return. Such a reference point might have 
Improved the quality of debate and shortened the time it has taken to move to the 
implementation stage on such a strategic national project with potential to shape the 
efficiency of the energy sector and the overall international competitiveness of the national 
economy for decades to come. 

The center as we have been told intends to be:
a) A source reference on energy economics and development in energy regulation.
   • Keeping up-to-date data on energy projects
   • Best country practices on energy matters including best country and next generation practices on project funding structures, acceptable rates of return on investments, and optimal tariff setting, and on environmental concerns
   • On-line storage of research funding and general information that can be assessed by researchers and regulatory operators and policy makers such as Parliamentarians and their supporters such as public servants.

b) A source for skills training for utility regulatory and licensing authorities. Often staff are well educated and only require a sharpening of their analytical capabilities and access to up-to-date skills and tools to perform their task better and cost effectively.

c) A center for research and dissemination of information and knowledge in energy economics and regulation through maintaining curriculum that keeps students abreast of energy economics and regulation. It will provide a pool of human resources to man our regulatory institutions.

d) Be a forum for the exchange of ideas with overseas counterparts such as University of Houston Institute and others around the world in the areas of education, research, and evolutions in regulatory and energy economics.

The Minister, the Honourable Dr. Paa Kwesi Ndoum, broached the need for Ghanaians to come to view regulatory institutions creatures of IMF and donor conditionalities. But to accept them as essential ingredients for managing a market oriented national economy. We in the regulatory institutions such as the Energy Commission and the PURC have a responsibility to help create a national constituency in support of regulatory functions by demonstrating that we task add value to the quality of life of the average citizen by ensuring reliable supply, improved access and good quality utility services. If these institutions are a necessary and useful part of sound management of the national economy then we should ensure that the new Center becomes viable and sustainable. This is the issue I want us to focus on at its very inception. Fortunately, we have in our midst the man who can facilitate making this a reality.

It is our view that we should start today in identifying sources of domestic funding for the Center. The PURC, the Energy Commission, The Energy Foundation and the Ministry of Energy should join forces in the search. We cannot allow such a critical function to be left to donor funding as the main source. Outsiders can and should supplement our efforts but their kindness should not be a substitute for own efforts.

May I suggest for the consideration of the Minister and all of us sponsoring organizations, the following sources of funding for the Center:
• Permitting the PURC to collect and put aside 10% of any windfall revenues collected by Utility Companies in any quarter. For example, our tariff for VRA for the past two quarters was based on lower assumptions of hydro-component of energy mix that generated windfall revenues for VRA. Our suggestion is that 10% of such windfall be collected and lodged in a Regulatory Education and Information Fund that could be used in part to fund the Center.
• In the rationalization and re-alignment of the energy prices in February 2005, that a levy of say 50 cedis be put on each liter of petroleum sold in Ghana.
• That the PURC, the Energy Commission, and the Energy Foundation and other sponsoring institutions make and an annual contribution equivalent to 5% of their annual budget and /or inflows into a fund to finance the Center. This could be a budgetary item for all of us to negotiate with our funders during our annual budgetary sessions.
• The seeking of donor supplementary support for the Center.
• Internally generated resources such as training fees for refresher courses for our staff, fees for accessing data from our database, etc.

In conclusion, may I express my gratitude to USAID for its support to the PURC and especially for its support for the birth of the Center. Our thanks also go to the IELE of Houston University for their conception and pioneering work that is giving birth to the Center today. It is our hope that you will continue to support the institution to grow into a Center of Excellence not only for Ghana but also most importantly for the sub-region. This may be the beginning of transforming Ghana into a center of learning and research for the sub-region in Energy and Regulatory Economics. This goal may go to supplement the Ministry’s vision of making Ghana an energy product exporting nation though itself is devoid of energy resources in a region awash with energy exporting countries.

The Center is initially being housed at ISSER. It is our hope that part of it will be housed later at the PURC offices under construction or at the permanent office of the Energy Commission. We are grateful to Prof. Ernest Aryeetey and his colleagues at ISSER for agreeing to be part of the sponsorship for this initiative and to house and man it during its formative stage.

Mr. Chairman, it is our fervent hope that the Energy Commission will join the PURC in taking up the challenge of fathering and nurturing this institution into maturity under the patronage of the Ministry of Energy and the Universities of Ghana and Science and Technology. We are committed in creating a world class institution from which shall radiate information and insight for improving decision-making in the energy sectors of the economies of the member states of the sub-region. Some may think this is an impossible task, a mere dream. But as a friend of mine said, in this world people achieve impossible goals against all odds because nobody told them they were impossible. They just did not know. And nobody told them so.

I hope we achieve our goal. There will be difficulties. But these should be viewed as challenges to be faced and overcome. I wish all of us steadfastness, commitment, and single-mindedness in our support for the establishment and flowering of the Center for Energy and Regulatory Economics based at ISSER.
SPEECH MADE BY DR. P KWESI NDUOM, MINISTER OF ENERGY, AT THE LAUNCHING OF THE RESOURCE CENTER FOR ENERGY & REGULATION ON FRIDAY, SEPTEMBER 24, 2004

I appreciate this opportunity to be here today as it gives me the chance to present briefly our energy vision and how it applies to the petroleum sector. On the occasion of the launching of the Resource Center for Energy Economics & Regulation, it is appropriate to provide a perspective of our policy direction and how we are implementing it.

An important test of progress in the world today is the extent of energy- petroleum and electricity used per capita in any country. The higher the energy resource used particularly when used efficiently, the more developed the country tends to be. My personal goal when I went to the Ministry of Energy last year was to give the energy sector a firm vision and quickly move to ensure that a road map is put into place for its implementation considering its importance for national development.

Our vision in the energy sector ties our productivity to the national vision. President Kufuor’s Coordinated Social & Economic programmes presented to Parliament included a goal for Ghana to become a middle-income country with a per capita income of at least $1000. The nation’s ability to meet and exceed this goal will depend largely on the performance of the energy sector.

It is only abundant and relatively cheap energy that will provide the fuel to power the private sector engine. My point is that the public and private sectors in Ghana must pay particular attention to the energy sector if the Ghanaian economy is to grow to the extent that will allow the average Ghanaian to achieve an appreciable level of micro level prosperity. Mechanised agriculture requires fuel to work. ICT and any kind of advanced technology depend on sustained and reliable electricity and other energy resources. Industry needs appropriately cost effective fuel and power to be profitable. The internet revolution was developed on the back of abundant, cost-effective, reliable energy. With all this in mind, the Ministry of Energy has carefully crafted an aggressive vision to overcome our challenges, supply the domestic demand and lead Ghana to become a net exporter of power and fuel in five years.
Aggressive as this may sound, it can be achieved. Two actions are needed.

1. Make the present refinery more efficient and expand it’s capacity; and
2. Build an export-oriented refinery

The Tema Oil Refinery (TOR) today refines 45,000 barrels of crude oil per day and produces roughly 70 percent of the country’s requirements. An investment of about $250 million is what is needed to expand the finery to process about 60,000 barrels of crude oil per day to produce more than what we need in Ghana and put us into the net exporter category. Perhaps it may cost us a little bit more than that eventually. But this is the kind of investment needed to put us on the way firmly to becoming a net exporter of fuel.

We have launched a study to firm up our plans and produce a strategy to be completed in October. This strategy will be presented to Cabinet for consideration. If our strategy for TOR’s expansion is approved, implemented of it can begin next year and completed within three years.

Let me give you a rough idea of what I am talking about in money terms. Today, Tor’s turnover is about $600 million. This amount can be raised to $800 million with about $80 million in efficiency improvements. If the expansion is done, TOR can raise its turnover past the billion dollar mark. The efficiency improvements will also produce profits and enough cash flow to repay the additional investments if debt is used.

We are also carrying out an initial study into the construction of an additional export oriented refinery with capacity up to 150,000 barrels of crude oil per day. This will need investment of about $1.2 - $1.5 billion and would produce when built in four years an annual turnover of about $2 billion. These two refinery projects even when they are underway, will spawn additional investment in infrastructure and we hope related petrochemical companies.

I should add that a change in regulatory framework is needed to promote private sector participation in the sector. That is why government will certainly implement its deregulation agenda next year to make the market more predictable and more profitable.

Briefly, this I hope gives you an idea of what we want to accomplish in the petroleum sector to help make our national vision real and to boost our individual and national prosperity. I have chosen to talk about this here because to implement our vision in a timely manner needs analysis, more professional thought, promotion and good information. The Resource
Centre can help in many ways to make our aggressive plans practical and very real. You can help us by making meaningful comparisons with what is happening in countries like South Korea, Thailand, Singapore and others. That is why I am extremely pleased to be here to launch the Center.

I am honoured to have this opportunity to declare the Resource Center for Energy Economics and Regulation launched.

Thank you for your attention.