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POWER POOLING PLAN

**NIS Institutional Based Services Under the Energy
Efficiency and Market Reform Project
Contract No CCN-Q-11-93-00152-00**

**CAR Regional Energy Trade,
Electricity Contracting and Pricing Reform
Delivery Order No 11**

Final Report

Prepared for

U S Agency for International Development
Bureau for Europe and NIS
Office of Environment, Energy and Urban Development
Energy and Infrastructure Division

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The following document was prepared in June of 1998, in response to a request from the USAID Mission in Almaty Kazakhstan. The information contained herein satisfies the requirement for a Mod 2 Deliverable "Summary Report on Power Pooling Plan"

PROGRAM PLAN FOR DO11
CAR ELECTRICITY CONTRACTING AND PRICING REFORM

TASK PLAN

Project CAR Electricity Contracting and Pricing Reform

Task Tariff Methodologies

Background

The five countries of Central Asia formed an Electricity Working Group in March of 1997 to work with USAID and its contractor in developing western-style contracts which would become the basis for international trading in electricity. One of the first stated objectives of the Working Group was to take steps which would move toward the formation of a Central Asia Power Pool. The representatives of the five countries recognized that many of the existing problems they experience could be alleviated through the structure and discipline which would be realized from their joining into such a pool.

A key to the international trading of wholesale electricity is the development and application of an appropriate wheeling tariff for the use of intermediate parties' electrical transmission systems for the movement of energy from the seller to the buyer. Presently, an arbitrary adder of \$0.005/kWh is placed on the energy charge. This charge is arbitrary, is non-transparent to the parties, and does not reflect actual usage costs of the parties providing wheeling service. A key task for USAID, therefore, is to provide technical assistance in developing an appropriate model for a wheeling tariff, achieve an understanding of the methodology for the tariff in sub-group meetings with specialists in the nations' electric power sectors, and finally to gain full acceptance of the methodology at the Electricity Working Group level.

Task Description

The wheeling tariff methodology will be based upon the costs of operating the high-voltage transmission networks in Central Asia, a methodology applicable either to individual systems (bilateral transactions) or to the multilateral transactions of a power pool. Thus, the operators of individual systems should adopt such a methodology for the pricing of wheeling services in the anticipation of pool operation in the future. In Central Asia there is no consistent basis for determining the annual cost of operating the transmission systems due to inconsistencies in the entities' accounting practices. Therefore, the starting point for developing the tariffs shall be to use internationally-accepted cost data with the expectation that nascent regulatory bodies in the countries will require movement toward international accounting standards and actual cost-based tariffs. The interim tariffs will be developed through the use of data from the five countries related to their transmission networks and their peak system loading.

Schedule

Methodology for Wheeling tariff

Presentation to Sub-Group specialists	by 7 August 1998
Redrafting of Methodology	by 10 August 1998
Presentation to Working Group	by 14 August 1998
Acceptance by Working Group	by 14 August 1998

TASK PLAN

Project CAR Electricity Contracting and Pricing Reform

Task Model Contracts and Agreements

Background

The five countries of Central Asia formed an Electricity Working Group in March of 1997 to work with USAID and its contractor in developing western-style contracts which would become the basis for international trading in electricity. Although the Working Group is actively pursuing a goal of developing a Central Asia Power Pool, much of their electricity trading is, and will continue to be, bilateral in nature in accordance with agreements and contracts developed among trading partners. Presently the practice and art of negotiating international-quality contracts to facilitate trade and to protect the traders' rights in poorly developed in Central Asia. As a result, important techniques such as dispute resolution procedures are not defined, resulting in protracted disputes between traders with threats of trade cessation altogether.

The development of high-quality contracting documents will ease the uncertainties of international trading in electricity and therefore encourage the expansion of such trade. Through a more rational system of wholesale electricity trading, least-cost regional energy sources will be exploited, bringing benefit to the economies of the trading partners.

Task Description

The contracts and agreements most in need for the Central Asian countries are model contracts for the purchase and sale of electrical energy, and agreements for the compensation for energy wheeling services. Based on international experience, these documents will be drafted and first presented to specialists in the nations through sub-group, where the particular national problems and their relevance to the documents can be considered. Following the sub-group discussions, redrafted agreements and contracts will be brought to the full Electricity Working Group for discussion and acceptance. This procedure has been endorsed by the Working Group as most effective for the development of such documents.

Schedule

1	Model Contract for Sale and Purchase of Energy	
	Presentation to Sub-Group specialists	accomplished April 1998
	Redrafting of contract	done
	Presentation to Working Group	accomplished June 13, 1998
	Acceptance by Working Group	accomplished June 13, 1998
2	Multilateral Wheeling Agreement	
	Presentation to Sub-Group specialists	accomplished April 1998
	Redrafting of Agreement	by 10 August 1998
	Presentation to Working Group	by 14 August 1998
	Acceptance by Working Group	by 14 August 1998
3	Bilateral Wheeling Agreement	
	Presentation to Sub-Group specialists	by 7 August 1998
	Redrafting of Agreement	by 10 August 1998
	Presentation to Working Group	by 14 August 1998
	Acceptance by Working Group	by 14 August 1998

TASK PLAN

Project CAR Electricity Contracting and Pricing Reform

Task Governance Documents

Background

The regional electricity market in Central Asia is currently plagued by non-payments, continuous disputes, uneconomic decisions, and conflicts of interest. In order to form a regional Power Pool, as the five countries of Central Asia are now discussing, it will be necessary to work out a series of documents that set forth a governance structure of the pool. This governance structure must meet the needs of the Governments as they perceive them, address the fundamental problems, and give comfort to the Governments and their technical experts that the results of creating a power pool will be improved system reliability at lower cost together with the equitable sharing of additional benefits that accrue from increased cooperation and energy trading.

Task Description

Draft a set of documents that would lay out the basic governance structure of a regional Power Pool that meets the following needs:

- Allows the Governments to delegate to their state-owned power systems or power companies the authority to enter into an international agreement to create a Central Asia Power Pool. (Setting up an intergovernmental agreement in this manner is intended to avoid the issue of "who signs" on behalf of the Government when the power sectors of the five countries are at different stages of restructuring and privatization.)
- Relates appropriately to existing intergovernmental power sector coordination and "control" structures (such as the Interstate Electric Power Council) in order to give comfort to the Governments that they are still able to set and enforce policy for the power sectors' development and international activities.
- Requires the founding members of the Pool (the state-owned power systems and companies) to agree on organizational structure, decision methods, and budgets, among other knotty topics.
- Sets forth a realistic and perceived-to-be-fair dispute resolution mechanism.

- Enables private-sector companies to join the Pool as members on the condition that they will abide by the Members' Agreements and pool rules
- Creates a system operator that is a truly independent entity having the appropriate incentive structure to act independently, and be perceived as acting independently, from all power systems and power companies

Schedule

Five interrelated documents will be developed and reviewed by the Sub-Groups and the Regional Working Group between now and the September 30 end of contract. These will be drafted and presented in tandem so that the counterparts can see "the whole picture" at one time. ONLY IF there is sufficient agreement and interest in this set of "nested" governance documents would additional documents (such as the more voluminous Members' Agreement and the Pool's Operating Guidelines) be drafted under the next contract.

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|---|---|------------------------|
| 1 | Intergovernmental Agreement on Creation of CAMP | |
| | - First Draft Prepared by Hagler Bailly | July 10, 1998 |
| | - Review by Cameron McKenna | July 10-13, 1998 |
| | - Presentation to Sub-Groups | July 16-August 7, 1998 |
| | - Revisions based on Sub-Group comments | August 12, 1998 |
| | - Review by Cameron McKenna | August 13-17, 1998 |
| | - Presentation to Working Group | August 25, 1998 |
| | - Revisions based on Working Group comments | September 1-10, 1998 |
| | - Submission to USAID as contract deliverable | September 30, 1998 |

2 Memorandum of Understanding Among Power Systems and Power Companies on Formation of CAMP

(Same Schedule as above)

3 System Operator Agreement (A contract between the Pool and the entity that will serve as system operator)

(Same Schedule as above)

4 Founders' Agreement on incorporation of Independent International Dispatch Center as open Joint Stock Company

(Same Schedule as above)

5 Charter of the JSC Independent International Dispatch Center

(Same Schedule as above)

1998 WORK PLAN - SCHEDULE

Dates/Topics	Discussion	Review First Draft	Review Revised Drafts	Approval
February 9-11 Working Group Tashkent	<ul style="list-style-type: none"> • Contracts • Tariffs 			Parallel Operation Agreement
April 6-21 Sub Groups	<ul style="list-style-type: none"> • Tariffs • Governance 	<ul style="list-style-type: none"> • Bilateral Contract • Transit Agreement 		
June 15-16 Working Groups Ashgabad (Firusa)	<ul style="list-style-type: none"> • Governance • Tariff Examples • Model Contracts <ul style="list-style-type: none"> - Bilateral Sales - Bilateral Transit 			
July 13-28 Sub Groups		<ul style="list-style-type: none"> • Tariff Methods • Governance Documents 	<ul style="list-style-type: none"> • Multilateral Transit Agreement • Bilateral Contract 	
August 10-14 Working Group (Samarkand)			<ul style="list-style-type: none"> • Model Contracts <ul style="list-style-type: none"> - Multilateral Transit Agreement • Governance Documents • Tariff Methods 	<ul style="list-style-type: none"> • Model Contracts <ul style="list-style-type: none"> - Multilateral Transit Agreement • Governance Documents • Tariff Methods
September ?				

Hagler Bailly