

**REPUBLIC OF MOLDOVA**

**ENERGY SETTLEMENT CENTER**

**Regulatory Development  
and  
Power Market Operations**

**Moldova Energy Sector Reform  
Contract No. LAG-I-00-98-00005-00  
Task Order No. OUT-LAG-I-806-98-00005-00**

*Final Report*

*Prepared for:*

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Office of Economic Restructuring  
USAID/Ukraine

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March 1999

# ENERGY SETTLEMENT CENTER

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### ANNEX 1

#### Organization Chart for Settlement Center

## **1. INTRODUCTION**

The Settlement Center is the second major area in the proposed System Operations Division within the corporate organization of Moldtranselectro. The Settlement Center will perform the power market settlement function which means accounting for all energy flows within the Moldova power system and reporting these data to all Participants and ANRE. Participants then will use this information to settle bilateral contract arrangements with generators or other suppliers. In addition, the Settlement Center will supply information to the Market Funds Administrator that will administer certain financial settlements, particularly those relating to compensation due from, or to, those participants who purchased, or sold, power into the balancing market..

The Settlement Center also provides participants with services and training support, and monitors the marketplace to ensure compliance with Market Rules and, therefor, fair treatment for all market participants. The Settlement Center will also be responsible for the development of recommendations to improve or update Market Rules and Procedures, power exchange computer applications and support services related to its functions.

The management team of the System Operator, Moldtranselectro, will institute appropriate internal controls to insure clear, transparent, and correct settlements for the Moldovan Power Market.

## **2. RESPONSIBILITIES**

The main responsibilities of the Settlement Center are:

- Actual energy flow accounting - based on the collection and verification of metering information;
- The identification of billing quantities required to facilitate financial settlements between participants and third party suppliers as a result of actual market operations; and
- The preparation on a timely basis of power market settlement reports and participants invoices with respect to services provided by the System Operator.

The Settlements Center function involves the collection and verification of metering information needed by participants for billing purposes, including;

- The production of generation companies;
- Import and export;
- Interconnection point energy flows; and
- Energy delivered to Suppliers.

### **3. STRUCTURE**

The Settlement Center as a department in the System Operations Division is directly linked to the General Director of the System Operator, Moldtranselectro.

The Settlement Center consist of these functional units:

- Database Management
- Calculation of Settlements
- Dispute Resolution
- Settlement Reporting

### **4. STAFFING**

The Settlement Center requires power sector personnel with basic knowledge and experience from:

- Power supply operations including contracts administration;
- Transmission service costs, transmission contracts administration;
- Short term energy transactions;
- Information systems and data collection, analysis and reporting;
- Management and verification processes to comply with participants' contract terms

The professionals in this department should possess the ability to do comprehensive, thorough and detailed work that will comply with all policies and procedures established by the System Operator pursuant to Market Rules and Operating Procedures. The typical educational background could be mix of engineering and/or economic education with at least five years of electric utility experience related to the above skills.

### **5. OPERATIONS**

#### **5.1 The Energy Settlement Process**

The energy settlement process shall consist of two parts:

1. Daily settlement calculations on an hourly basis.
  - Preliminary settlements describe daily information made available for each participant by the System Operator. The participants verify this settlements information for accuracy and confirm it with the System Operator.
2. Monthly settlement statement calculations on an hourly basis.

- Calculation of the month end settlement adjustments needed to conform the cumulative monthly energy transactions during the prior month to the actual end-of-month meter readings.
- Determine system transmission losses and make appropriate allocations to Suppliers.
- Prepare and submit to participants and ANRE detailed statements of all energy transactions in the power market.
- Provide information to the Market Funds Administrator to calculate participants' obligation to pay for balancing power, ancillary or other services provided by the System Operator in accordance with Market rules and Procedures approved by ANRE.

## **5.2 Recommendation for Procedures for Transparency of Information Flow**

- The function of the Settlements Center will be completely separate from the functions and services of the Central Dispatch Service Division. The Settlements Center of the Center Dispatch will develop a set of draft initial procedures.
- The Settlements Center can propose further modifications to the Settlement Procedures under the Market Rules; however, any such proposed modifications will require approval by the market members and ANRE's approval. The Settlement Center will provide written notice to all power market participants of the proposed modifications at the same time that the Settlements Center files the information with the ANRE.
- The Settlement Center Department of the System Operator shall collect and verify all information pertaining to participants' resources and obligations, transmission losses, and also on the interflows between Moldova control area and neighboring control areas.
- Based on the information collected the settlement department shall calculate participants' Adjusted Net Interchange (Balancing power) and Electrical Load.
- The balancing power energy obligation (positive or negative) will be calculated on an hourly basis for each participant. In addition to this payments for this service, the load serving entities are responsible for payments pursuant to transmission, dispatch services, and such other tariffs, which are approved by ANRE and are in effect at the time of the settlement.
- The Settlement Center shall produce a statement of month-end adjustments required to reconcile the metering data used in Preliminary statements to actual meter readings.
- Power Market Participants must review their preliminary settlement statements to verify the accuracy of the data contained within the statement.
- If a participants or the System Operator finds that inaccurate data was used for Settlement of a scheduled dispatch period then the party shall notify the other parties (involved in the inaccurate report) as soon as possible and follow the System Operator's instructions for resubmitting the correct data.

- The System Operator will notify all involved parties and state a date or month when the corrections will be shown as an Adjustment to the participants' energy statements.
- The service organizations and the power market participants must provide all relevant information to the Settlements Center on a timely basis.
- Licensed power sector entities and any other entities that deliver or receive energy on the electric network must report to the Settlements Center the relevant information in the time frame as specified in the Settlement Procedures.
- All required information to be provided monthly to the Settlements Center must be submitted in written form and signed by a responsible company representative. An electronic copy should be sent with the hard copy.
- The Settlement Center will provide data required by the Market Funds Administrator to prepare billing statements for balancing power, ancillary services or other charges based on approved tariffs for regulated services or prices determined pursuant to applicable Market Rules.
- The Staff of ANRE will initially provide all relevant tariffs to the Market Funds Administrator. When a new tariff has been approved for any power sector Licensee, ANRE will supply a timely copy of the new tariff.

### **5.3 Distribution of Operational Data to All System Participants**

#### Settlement Center required information:

- Balancing market information
- Ancillary service data
- Transmission and/or distribution losses
- Meter readings
- Operation data –contract flows, balancing energy flows
- Bilateral contracts required data

#### List of suggested reports:

- Actual net interchange (ANI) –settled by hours as a net of bilateral contracts in negative or positive exchange energy values;
- Bilateral contracts: bilateral contract availability, contract identifiers, contract number, reference ID;
- Contract description, available amount, scheduled on predetermined conditions;
- Generation: operating limits, reserves, entitlements, payments;

- System reports: Electrical load, Electric Clearing Price, system requirements, operation status;
- Energy report: provides specific participant obligation, entitlement, electric clearing price in balancing market, settlements (including losses) for the power market for the 24 hours period, week period and monthly summary;
- Special reports: monthly meter adjustment report –list of participants energy adjustments occurring as a result of meter reconciliation in the month;
- Load reports: specific monthly load calculation details, broken down by hour;
- Entitlements report: detailed entitlement calculations for participant owned entitlements;
- Operations forecast: system forecasts –provides a forecast of the control area hourly MW load and energy clearing price for today and tomorrow;
- Unit forecast report: a forecast of unit commitment for the generating units for today and tomorrow;

The independent Market Funds Administrator will provide regular reports to participants regarding the amounts billed to each participant associated with the energy reports produced by the Settlement Center.

Both the Settlement Center and Market Funds Administrator shall be subject to such confidentiality codes as may be adopted by market participants with ANRE approval where the release of specific information would be detrimental to the legitimate commercial interests of participants, would operate as a disincentive to the establishment or operation of competitive electricity markets or otherwise would not be in the public interest as determined by ANRE.

**ORGANIZATIONAL CHART  
FOR SETTLEMENT CENTER**

