





INSTITUTIONAL, REGULATORY AND COOPERATIVE FRAMEWORK MODEL FOR THE NILE BASIN POWER TRADE

ANNEX 6: DELIVERABLE 6 - "INSTITUTIONAL AND REGULATORY REGIME CHANGES NEEDED".

PREPARED FOR:



Prepared by:

MERCADOS ENERGY MARKETS INTERNATIONAL

Together with:

NORD POOL CONSULTING AND CEEST

November, 2007



INSTITUTIONAL, REGULATORY AND COOPERATIVE FRAMEWORK MODEL FOR THE NILE BASIN POWER TRADE

TABLE OF CONTENTS

I LIS	ST	OF ACRONYMS4	
II FO	DRI	EWORD6	
III E	BAC	CKGROUND AND CONTEXT OF THIS PROJECT6	
IV II	NTI	RODUCTION8	
v cc	NC	CEPTUAL APPROACH AND RATIONALE8	
VI R	EQ	UIREMENTS OF THE MODEL PHASES9	
	1.	GENERAL REQUIREMENTS	ç
2	2.	SPECIFIC ASPECTS OF THE PROPOSED EVOLUTION IN STAGES	. 11
3	3.	Phase I: Preparatory Stage	. 11
4	1.	PHASE II: BILATERAL CROSS BORDER TRADING	. 12
Ę	5.	PHASE III: MULTI – PARTY TRANSACTIONS	. 13
6	ó.	SUMMARY OF REQUIREMENTS FOR EACH PHASE	. 16

LIST OF FIGURES

Figure 1: Interconnections in the region	10
LIST OF TABLES	
Table 1: Acronyms	5
Table 2: Summary of Requirement for each Phase	20

I LIST OF ACRONYMS

MO		
MISO	Mid-West Independent System Operator Market Operator	
MER	Regional Electricity Market of SIEPAC	
MCE	Ministerial Council on Energy (Australia)	
LTTR	Long Term Transmission Rights	
LSE	Load Serving Entities	
LOLE	Loss of Load Expectation	
LMP	Locational Marginal Price	
LIP	Locational Imbalance Prices (in SPP)	
JOA	Joint Operation Agreement	
IPSCIS	Interconnected Power System of Commonwealth of Independent States	
IPP	Independent Power Producers/Project	
IGA	Inter–Governmental Agreement on Power Trade in the Greater Mekong Sub–Region	
IDC	Interchange Distribution Calculator	
ICT	Independent Coordinator of Transmission (SPP)	
ICE	Intercontinental Exchange (US)	
ICC	Information and Coordination Center (in WAPP)	
GMS	Greater Mekong Sub Region	
FTR	Financial Transmission Rights	
FERC	Federal Energy Regulatory Commission (US)	
FCM	Forward Capacity Market	
ESAA	Energy Supply Association of Australia	
EPC	Electricity Power Council (in CIS)	
EOR	Independent system and market operator (SIEPAC)	
EIS	Energy Imbalance Service	
EGL	Energie des Grands Lacs	
EECI	Energie Electrique de la Côte d'Ivoire	
ECOWAS	Economic Community of Western African States	
EAC	East African Community	
EAPP	Eastern African Power Pool	
DAM	Day Ahead Market	
CVT	Variable Transmission Charges (SIEPAC)	
CRIE	Regional Regulatory Agency (SIEPAC)	
CR	Congetion Rights (SIEPAC)	
CoAG	Council of Australian Governments	
CIS	Commonwealth of Independent States	
CIE	Compagnie Ivoirienne d'Electricité	
CEM	Common Energy Market	
CEB	Communauté Electrique du Benin	
CAT	Curtailment Adjustment Tool (in SPP)	
BA	Balancing Authority	
ARR	Auction Revenue Rights	
AFC	Available Flowgate Capability	
AER	Australian Energy Market Commission Australian Energy Regulator	
AEMC		

MOI	Momorandum Of interest
NBI	Memorandum Of interest Nile Basin Initiative
NBPTF	Nile Basin Fower Trade Framework
NE - ISO	
NEM	New England Independent System Operator National Electricity Market (Australia)
NEMMCO	National Electricity Market (Australia) National Electricity Market Management Company
	· · · · · · · · · · · · · · · · · · ·
NERC NSI	National Electricity Reliability Council
	Net Scheduled Interchange
OMVS	Organisation pour la Mise en Valeur du fleuve Sénégal
PAC	Participant Advisory Committee (Australia)
PJM	Regional Market of Pennsylvania, New Jersey and Maryland
PMU	Project Management Unit
PPA	Power Purchase Agreement
PRSG	Planned Reserve Sharing Group (in MISO)
PTC	Power Technical Committee
PTOA	Regional Power Trade Operating Agreement (in GMS)
RPM	Reliability Pricing Model in PJM
RPTCC	Regional Power Trade Coordination Committee (in GMS)
RPTP	Regional Power Trade Project
RRO	Regional Reliability Organization
RSC	Regional State Committee (in SPP)
RTEPP	Regional Transmission Expansion Planning Process in PJM
RTN	Regional Transmission Network (in GMS)
RTO	Regional Transmission Organization (US)
RTR	Regional Transmission Grid (SIEPAC)
SADC	Southern African Development Community
SADCC	Southern African Development Co-ordination Conference
SAP	Subsidiary Action Program
SAPP	Southern African Power Pool
SCED	Security-Constrained Economic Dispatch
SCUC	Security-Constrained Unit Commitment
SERC	Southeastern Reliability Council (US)
SIEPAC	Central American Regional Electricity Market
SMD	Standard Market Design (NE-ISO)
SONABEL	Société Nationale Burkinabè d'Electricité
SPP	Southwest Power Pool
SRMC	Short Run Marginal Cost
STEM	Short Term Energy Market (in SAPP)
SVP	Shared Vision Program
TSO	Transmission System Operator
TUOS	Transmission Use of System
UES	Unified Energy System
UPS	Unified Power System (in CIS)
USSR	Union of Soviet Socialist Republics
VOLL	Value of Lost Load
VRA	Volta River Authority
WAPP	Western African Power Pool
WSPP	Western Systems Power Pool
l	,

Table 1: Acronyms

II FOREWORD

The purpose of this report, named "INSTITUTIONAL AND REGULATORY REGIME CHANGES NEEDED", is to present an analysis of modifications required (if any) in the institutional and regulatory framework of the NBI countries necessary for setting up power trade.

This report is Deliverable 6 and corresponds to part of Activity 5+: "Proposal of Trading Framework for the NBI" of the project's revised terms of reference agreed during the inception mission in Dar es Salaam.

III BACKGROUND AND CONTEXT OF THIS PROJECT

The Nile Basin Initiative (NBI): Formally launched in February 1999 by the Council of Ministers of Water Affairs of the Nile Basin States, the NBI provides a forum for the countries of the Nile to move forward, towards a cooperative process

in order to achieve tangible benefits in the Basin and to build a solid foundation of trust and confidence.

The NBI has two primary areas:

- Basin-wide projects "Shared Vision Program" (SVP), to help create an enabling environment for action on the ground
- Sub-basin projects "Subsidiary Action Program" (SAP), aimed at the delivery of actual development projects involving two or more countries

The Regional Power Trade Project (RPTP) is one of the thematic projects to be implemented basin-wide, to help establish a foundation for trans-boundary regional cooperation

and create an enabling environment conducive for investment and action on the ground, within an agreed basin-wide framework.

The RPTP aims to establish the institutional means for coordinating the development of regional power markets (such as a Power Pool) among the Nile Basin countries, through the creation of a power trade framework which can contribute to achieve poverty reduction, including expanding access to reliable and low-cost power supply, in an environmentally sustainable manner.

The broad benefits envisaged from the NBI are poverty alleviation through improved, sustainable management and development of the shared Nile waters, and enhanced regional stability through increased cooperation and integration among the Nile states.

Project activities are coordinated by the Project Management Unit (PMU) at the regional level and by the PTC's members at the country level. Activities include the establishment and operation of a power trade framework, the conduct of a comprehensive basin-wide analysis of long-term power supply, demand and trade opportunities, the identification of potential development projects within the NBI SAPs, the preparation of a public participation plan and stakeholder analysis, and the development of knowledge management tools. These activities are carried out

through studies, consultations, workshops, seminars and other modalities, for which the project may seek assistance from national and regional research and training institutions, NGOs, consultants and other public or private organizations from the Nile basin region.

The current project: "CONSULTANCY TO DEVELOP AN INSTITUTIONAL, REGULATORY AND COOPERATIVE FRAMEWORK MODEL FOR THE NILE BASIN POWER TRADE" falls within the RPTP's framework. Key project objectives include:

- 1. Assisting the RPTP and the NBI Power Technical Committee (PTC) in reviewing institutional arrangements adopted by regional power trade organisations, and submitting discussion papers to the RPTP, comparing and contrasting the different arrangements.
- 2. Conducting an information gathering tour so as to collect basic information of the countries in the region which will permit developing in the future recommendations and performing an informed decision making process.
- 3. Proposing a model for developing Regional Power Trade at the Nile subbasin and basin levels.
- 4. Drafting Memoranda and legal documents as required.

IV INTRODUCTION

This document analyses the requirements from the institutional and regulatory point of view in the Nile Basin countries to make possible power trade <u>under the proposed NBI Power Trade Framework model</u> (Deliverable 7). Power trade can be carried out in different manners or under different "models"; some models may require more changes in the countries than others. As established in other documents, our proposal minimises the changes that countries need to make in their internal frameworks. This document will discuss the minimum requirements to implement the proposed model.

V CONCEPTUAL APPROACH AND RATIONALE

The proposed general approach for the NBI Power Trade (Detailed in Deliverable 7) is based on experiences quite successfully used in other regional initiatives, and consists in the following:

- The regional regulation, perceived as the rules for cross border trading, should not
 interfere with national legal/regulatory frameworks, and if necessary, limit this
 interference only to unavoidable issues (so, is the proposed approach rejects the
 alternative of introducing deep reforms to the national legal/regulatory frameworks or
 of moving towards uniform national legal/regulatory frameworks that would form the
 basis of the regional trading system).
- Therefore, there will be a cross border trading regulation, which will apply only to the
 interconnection points between countries. From those points towards the countries'
 interior the only valid legal/regulation framework will be the one ruling each country's
 power sector.
- The NBI Power Trade's Regulation will only rule over transactions that require systematic treatment (such as "day ahead market" for example), because of the benefits that the former brings to the member countries' common interests. It would be neither efficient nor possible to be discussing / agreeing on each transaction that is being carried out permanently in a periodic and permanent way. It is therefore more convenient to "regulate" it ("standardize" it). However, for other activities whose benefits can only be measured in terms of the perception individual countries have of them (for example bilateral medium/long term contracts or investments of regional reach, etc.), it is left to the parties to make decisions and rules under which these activities will be decided and/or implemented. The benefits a country sees in one of these opportunities is subjective; elements that have a certain weight in a country's decision making process can be different for another country, since policy objectives differ between countries. Therefore, no "regulation" on the decision process can be established for these cases.

The proposed model foresees three different stages for developing power trade:

- 1. Phase I: preparatory stage
- 2. Phase II: country to country trade (neighboring countries)
- 3. Phase III: trading between two countries with transits through third countries

Each phase has its requirements which will be analyzed in this document, while it will be identified whether a modification in the countries' institutions / regulations is needed.

VI REQUIREMENTS OF THE MODEL PHASES

1. GENERAL REQUIREMENTS

A basic requirement in the region is that regulations and legal aspects do not prevent cross border trading or introduce strict barriers to this trade. This condition is obviously fulfilled since there are already available several experiences or projects in the region of cross border trading, involving all the countries. As an example, the following interconnections (planned or existing) can be mentioned:

- Ruzizi: Rwanda Burundi DRC to share the hydro power plant of 36 MW.
- Burundi Rwanda (through SINELAC)
- Uganda Kenya
- Uganda Rwanda
- Uganda Tanzania
- Kenya Tanzania
- Kenya Ethiopia (Interconnection planned, which will be coordinated by the EAPP)
- Tanzania Rwanda Burundi (Interconnection planned, also involving a generation plant)
- Ethiopia Sudan (Expected to trade 100 MW)
- Uganda Eastern DRC (Planned)

The following figure provides details on the above mentioned interconnections.

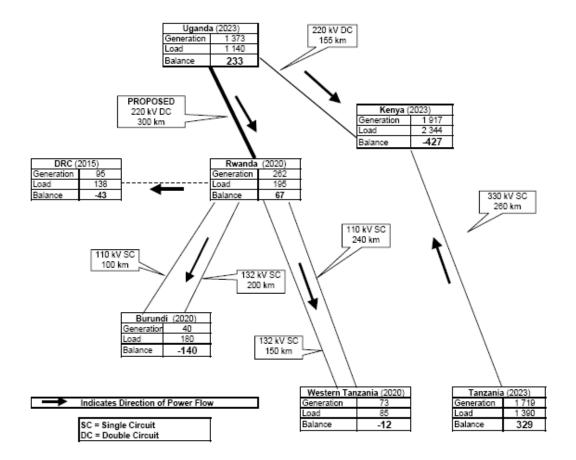


Figure 1: Interconnections in the region

The case of the Nile region differs from other experiences in the world where a region pretends to establish a regional market but at the initial stage countries have no interconnection between their systems. This situation is more difficult since it may imply that deep modifications in the frameworks may be necessary, since cross border trading had never been foreseen previously, and there is no experience in this activity.

This is not the case of the NBI countries; moreover, most of the countries have already established provisions for import / export of electricity, which consist basically of licenses issued by the regulatory authority (in those cases where a regulatory authority exists in the country). So, the point of departure in the case of the NBI countries is simpler than in other cases, from the point of view that there already exists in the countries an experience of cross border trading, regardless of how simple this may be.

It can be concluded then that the NBI countries do not have currently serious impediments to cross border trading because there is no provision in their legal frameworks or institutions preventing cross border trading, since this is an activity that it is either already being carried out or established in the strategic views of policy makers.

The point is then, to discuss if each phase has any special requirement regarding the countries' regulations or institutions.

2. SPECIFIC ASPECTS OF THE PROPOSED EVOLUTION IN STAGES

- 1. A development of trade in different stages has been proposed; it is not necessary that all the countries of the region are ready to pass from one stage to the following, just for the sake of doing so. It is necessary that rules and regulations for the next phase are ready and approved by the countries to evolve, if not all countries at the same time at least those complying with the rules and regulations. Different phases of the model can coexist in a certain moment in the region, and countries will have access to the next phase once they have met the minimum conditions for doing so, as established in the approved rules and regulations.
- 2. This aspect of the model is the one that allows "development of sub-regions"; if a group of countries in a sub-region is ready to pass to the next stage, they can do it and advance in the process even if other countries are not ready to do so, provided that the rules and regulations for that phase have been approved and these countries comply with them.
- 3. The following sections provide a detailed description of the conditions, activities and milestones that must be met to pass from one phase to the next. If one country or group of countries can advance faster and meet conditions of subsequent phases there is no reason for not doing so nor for facing impediments to process these advances as soon as it can be done.
- 4. Presently, there is on going trade between the region's agents; this is no impediment to the development of the trading model. Any trading model should recognize on going contracts, and the one proposed here obviously does so.

3. PHASE I: PREPARATORY STAGE

The first stage of the proposed model is dedicated to processing adjustments both in the countries and at regional level, which will allow an organized and standardized cross border trading activity in the region. Key targets to be achieved in this stage, according to the proposed model, are:

- 1. Have the NBI Power Trade Treaty signed by all member countries
- 2. Technical standards unification, aimed at having standards consistent with system interconnection requirements
- 3. Capacity building, based on programs developed commonly by the countries, with the double purpose of leveling the knowledge base in the region and also contributing to the development of trust among experts in the region
- 4. Regional Data Base development, based on the regular data gathering started through this consultancy, and the updating procedures to be implemented shortly. This data base is important for creating the basis for cooperation in terms of expansion planning and operation strategies and other policies that could jointly be implemented
- 5. As a consequence of information exchange among the countries and the creation of the Regional Data Base, the countries will prepare reports with a critical analysis of their own regulatory framework and the impediments those frameworks would impose to the development of next phases of the NBI Power Trade
- 6. As part of the NBI Power Trade Treaty, the countries will prepare their positions with regard to identifying enforcement mechanisms required to carry out regional trade

and dispute resolution mechanisms in case of dispute between member countries with regards to regional power trade (particularly long term)

This means that **at country level**, the following activities need to be carried out:

- 1. Technical standards: unification of technical standards is seen as a key element to allow fluid cross border trading. Obviously, it is not possible to achieve this unification immediately, but is necessary to establish as soon as possible the objectives (or targets) in terms of the value of standards and the transition until those standards are accepted by all countries and systems adapted to them. It is therefore needed that the countries designate the technical team that will participate at regional level in the establishment of regional standards and the transition to them.
- 2. **Capacity building**: the objective is to obtain capacity building programs coordinated in the region so as to achieve, not only development of new capacities, but the leveling of the human resources' capacities in the different countries. It is therefore needed that the countries designate the focal person / institution to work at the regional level coordination with regard to this issue.
- 3. **Data base development**: information gathering on a regular basis is an element that fosters and facilitates both planning and trading (transparent information is a requirement for market development). It is therefore necessary that the countries designate the focal person / institution that will be the responsible of providing the countries' information to the regional data base and represent the country in regional data base related activities.
- 4. **NBI Power Trade Treaty**: it is foreseen that a Treaty will be signed by the countries to provide the region with a sound legal basis for trading according to the agreed model. It is therefore necessary that countries designate the persons / institutions that will represent the countries in these negotiations.
- 5. Licenses: countries require licenses to import / export electricity. The conditions of licenses were identified as a possible barrier for cross border trading, or at least as an element that may introduce difficulties for a fluid cross border trading. Deliverable 4 "Barriers to Cross Border Trading", recommended a standardization of the conditions of licenses, as well as a minimization of these conditions. Therefore, it would be appropriate to establish a group to study the standardization of import / export licenses.

CONCLUSION: there are no modifications needed in the countries' regulations / institutional frameworks for Phase I. There are activities to be carried out, which will require focal persons / institutions designated in each country to ensure that these activities are actually being implemented.

4. PHASE II: BILATERAL CROSS BORDER TRADING

This phase will be ready to start once countries have signed the Treaty; it is not necessary to wait for all countries to do so, but it would be appropriate that the majority have signed before actually moving to phase II.

The main features proposed for this phase are:

Transactions take place bilateral between contiguous countries. During this
phase transactions between not contiguous countries using the transmission
system of third parties are not yet foreseen

• The participants in the transactions are countries, not individual agents from each country, and system operators (or equivalents) are the acting party for the transaction in each country

Since transaction are bilateral between two neighboring countries, and the responsible for the operation are the system operators (or equivalent), there is no need to develop any regulation or institutional framework.

At regional level, working groups on the issues established in the previous point will keep working on the same issues, therefore the focal person / institution in each country will continue to perform the same tasks as in phase I.

However, during this phase another activity is added and can be considered as the main target of the phase: the development of the trading regulation to be approved by the countries, and which will be enforced for phase III.

According to the proposed model, this regulation will deal with the following main topics:

- 1. standard type of transactions
 - a. bilateral transactions between countries
 - b. Short term transactions
 - c. support in emergencies
- 2. day ahead market based on daily bids (pairs of quantities and prices)
- 3. deviation settlements/compensations
- 4. allocation of the available transmission capacity
- 5. system operators' coordination mechanisms
- 6. dispute resolution mechanisms

It will be necessary for the countries to designate their technical teams to participate in the development and negotiation of this regulation.

CONCLUSION: there are no modifications needed in the countries' regulations / institutional frameworks for Phase II. Activities that were carried out during phase I will continue to be carried out during phase II. Additionally, countries will have to develop and agree on the trading rules for phase III.

5. PHASE III: MULTI – PARTY TRANSACTIONS

The characteristics of phase III are:

- Regional Regulation for trading is ready. Transactions are possible between national power sector agents therefore transactions are not any more restricted, only to transactions between countries.
- There is potential for multilateral transactions, involving more than contiguous countries.

- There is potential of having countries providing transmission services (through national networks) to third countries trading electricity.
- More efforts are made towards promoting regional investments.

The targets for phase III are:

- 1. Expand the NBI Power Trade Regulation to make possible the participation of national power sector agents and countries.
- 2. Expand regulation to allow required provisions for power transits through third countries.
- 3. Replace the practice used during Phases I and II for system expansion coordination among countries, by a new regulation related to identification of centralized regional investment opportunities. The results of these activities will be indicative (non mandatory).

This means that <u>at country level</u>, the following activities / modifications need to be processed:

- Participation of national power sector agents in power trade: this means that power trade in this phase can be performed not only on a "country to country" basis, but also on an "agent to agent" one. This does not mean that it is mandatory for trade to be performed on an agent to agent basis, but countries that have processed reforms and their regulations allow "agents" to participate in a domestic market, they are now allowed to participate in the regional trade. Countries that allow agents to participate in regional power trade can coexist with countries that don't do so since they are not in a reform process. However, to approach as much as possible a "market situation" the more agents participate the better, therefore it is desirable that countries at least allow IPPs to participate in regional trade (even if reform has not been carried out in the country). In this phase it is desirable (but not indispensable) that countries process in their regulations, the changes needed, so that more agents can participate in regional power trade.
- Power transit through third countries: since this phase foresees trading
 with transit through third countries, it is necessary at least to agree on a
 mechanism to determine the cross border trading transmission capacity, and
 a mechanism to allocate this capacity. The countries will have to agree on
 these mechanisms and accept to allow transits, making available the
 capacity determined by the agreed mechanism.
- Regional System Operator: in this phase, the sophistication of trade will
 require a Regional System Operator (SO) (that can be one of the already
 existing system operators in the region, at least in the initial period). This
 will require that the countries comply with the SO's requirements in terms of
 providing information, infrastructure (basically metering and
 communications equipment) and standards. In terms of technical standards,
 during this phase the region will have to achieve some minimum objectives.

 ${f CONCLUSION}$: key modifications / activities required in the countries during phase III are:

- Allow power sectors agents to participate in regional power trade (desirable, not mandatory).
- Agree on a mechanism to determine cross border trading transmission capacity and its allocation.
- Comply with the Regional System Operator's requirements in terms of providing information, adaptation of infrastructure.
- Compliance with regional technical standards.

6. SUMMARY OF REQUIREMENTS FOR EACH PHASE

The following table summarizes the requirements in terms of key activities or modifications required at country level, to make possible the development of each of the foreseen phases of the proposed trading model.

PHASE	Activities / Institutional Regulatory Changes Needed	Action / Responsible for Action	Expected Result
Phase I: Preparatory stage	 Countries designate the focal person / institution for coordination and communication with regional planning group. Designate the technical team that will participate at regional level in the establishment of regional standards, and the transition to them. Countries designate the focal person / institution to work at the regional level for coordination and communication with regional training group. Countries designate the focal person / institution that will be the responsible for providing the countries' information to the regional data base and represent the country in the regional data base related activities. Countries designate the persons / institutions that will represent the countries during Treaty negotiations. 	 Ministry responsible for energy sector designates a person or institution. If it is an institution, the institution designates a person. TSO proposes technical staff to the Ministry. Ministry approves a team which may incorporate technical staff from Ministry or other institution. The Regulator (if exists) should be represented in this team. Ministry designates a person which may be from Ministry or from other institution, but who will report to the Ministry. 	 Name of a person and deputy with their coordinates communicated to the Secretariat ¹ List of integrants of the technical team with names and coordinates. Definition of team leader and deputy team leader. Name of a person and deputy with their coordinates communicated to the Secretariat. Name of a person and deputy with their coordinates communicated to the Secretariat.

⁻

¹ Secretariat: In Deliverable 7 it is proposed that a regional institution, the "NBI Power Trade Secretariat", is created with the objective (among others) to coordinate and foster the process. In this table, the word "Secretariat" is used as an abbreviation to refer to this institution.

PHASE	Activities / Institutional Regulatory Changes Needed	Action / Responsible for Action	Expected Result
	 Standardization of import / export licenses. NO REGULATORY OR INSTITUTIONAL CHANGES NEEDED. 	 4. Ministry designates a person, either from the Ministry or the Regulator. 5. Ministry designates a team for negotiations. The team reports to the Ministry. 6. Ministry designates a team together with the Regulator. 	Secretariat. 5. List of integrants of the technical team with names and coordinates. Definition of team leader and deputy team leader. 6. List of integrants of the technical team with names and coordinates. Definition of team leader and deputy team leader.
Phase II: Bilateral cross border trading	 Activities dealing with regional planning continue as in Phase I. Transition stage for technical standards is initiated. Activities dealing with regional capacity building continue as in Phase I. Activities dealing with regional data base and permanent information gathering continue as in Phase I. NO REGULATORY OR INSTITUTIONAL CHANGES NEEDED 	 Appointed person performs its coordinating activities. TSO begins implementing changes to achieve objectives agreed in terms of technical standards. Agreed capacity building activities are carried out coordinated in each country by the responsible of this area designated by Ministry during Phase I. Permanent activity carried out regularly with responsible designated in 	 Activities of regional planning are carried out and country coordinator reports to Ministry. Improvements in the technical standards that are met. Transfer of knowledge and training of technical staff in the countries. Regional data base available for member countries. Regular reports.

PHASE	Activities / Institutional Regulatory Changes Needed	Action / Responsible for Action	Expected Result
		Phase I.	
Phase III: Multi - party transactions	 Countries allow their agents to participate in the regional market (desirable, not mandatory). Corresponding modification in the regulation is made, if needed. Agreement on a mechanism to determine cross border trading transmission capacity and its allocation. Accept transits through domestic grids making available the capacity determined by the agreed mechanism. Cooperation with the centralized regional planning (though the results of this planning are indicative and not enforceable). Comply with the SO's requirements in terms of providing information and infrastructure (basically metering and communications equipment). Regional technical standards are met (enforced). 	1. Internal regulation is modified so as to explicitly allow agents to participate in regional market. Conditions and procedures for doing so are clearly and transparently established. Regulator proposes the corresponding regulation and Ministry approves it. If there does not exist a Regulator, the Ministry carries out all above mentioned activities. 2. Designate a technical team to negotiate the agreement. This team should incorporate at least staff from the Regulator, the TSO and the Ministry. 3. Appointed person performs its coordinating activities. 4. TSOs implement (internally) the procedures to provide the	1. Agents from countries participating in regional market making it more competitive due to increased number of actors. 2. Mechanism to determine cross border trading transmission capacity and the procedure to allocate it. 3. Activities of regional planning are carried out and country coordinator reports to Ministry. 4. Process of providing information to regional SO is in place. The required infrastructure in terms of metering and communications is installed and put in operation. 5. Objectives regarding technical standards are met.
		required information to the regional SO.	

PHASE	Activities / Institutional Regulatory Changes Needed	Action / Responsible for Action	Expected Result
		Investments in metering and communication infrastructure are made according to requirements. 5. TSO concludes implementation of changes to achieve objectives agreed in terms of technical	
		standards.	
CONCLUSION	 Phases I and II do not require regulatory or institutional changes to the countries' current framework. This is a property of the proposed model to make it realistic and easily applicable. Phase III requires minimum changes in the countries, in terms of regulation, namely: Allow agents of domestic power sector participate in regional trading. Accept transits of third countries determined by the agreed mechanism on assessment of cross border trading transmission capacity and its allocation. 		
	 Comply with the SO's requirements in terms of providing information 		

PHASE	Activities / Institutional Regulatory Changes Needed	Action / Responsible for Action	Expected Result
	and infrastructure. o Enforcement of regional standards.		
	 No institutional modifications are required within the countries. 		

Table 2: Summary of Requirement for each Phase