Supplier of Last Resort: An Overview of Its Implementation in ERRA Member States and Representative Countries in the EU

13 December 2005

Produced for ERRA by Pierce Atwood

Isabel M. Bjork · Catherine R. Connors · Pierce Atwood LLP

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INTRODUCTION

This Paper examines the concept of an energy Supplier of Last Resort ("SLR"). In particular, it looks at the definitions of SLR and how the SLR concept is being recognized by the EU and across various states of ERRA Members, the European Union and United States.[1] In this context, the Paper explores how issues surrounding market liberalization and security of supply are implicated by the SLR concept, and offers potential avenues for addressing these implications.

A. Background

This Paper is the culmination of ERRA's three-phase examination of the SLR concept.

In Phase 1, a presentation and discussion in the Licensing/Competition Committee meeting in Turkey in February 2005 offered an overview of SLR issues and sample treatments across jurisdictions in Europe and the United States.[2]

In Phase 2, preliminary information on SLR treatment in ERRA jurisdictions was gathered through a questionnaire circulated to ERRA members. That preliminary information was then presented at the next Licensing/Competition Committee meeting in St. Petersburg in September 2005.[3] After the September 2005 meeting, the Members'

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1 ERRA Members responding to the questionnaire on SLR are: Albania, Armenia, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kosovo, Kyrgyzstan, Latvia, Lithuania, Macedonia, Moldova, Mongolia, Montenegro, Romania, Slovakia, Turkey and Ukraine. Many EU countries are ERRA Members as well and include some of the newer EU countries, specifically, Hungary, Latvia, Slovakia, Czech Republic, Lithuania and Estonia.

2 The PowerPoint slides from this SLR presentation and discussion are available at the ERRA website at http://www.erranet.org/Events/ERRA/2005/Licensing_Turkey. They include *The Supplier of Last Resort: Definitions, Guiding Principles, Issues, Appointment and Examples* presented by John W. Gulliver of Pierce Atwood and *Elements of Last Resort Supply and Procedures for the Appointment of Last Resort Supplier – US Examples of RFP vs. Auction Approach* presented by Jeffrey V. Conopask, Ph.D., of D.C. Public Service Commission.

3 The PowerPoint slides from this SLR presentation and discussion are available at the ERRA website at http://www.erranet.org/Events/ERRA/2005/Licensing_Russia. The presentations include slides presented by Laura van den Ouden of the Dutch Regulator, Office of Energy Regulation, who provided a case study of the SLR experience in the Netherlands and *The Supplier of Last Resort – Benchmarking of ERRA Members* presented by Catherine R. Connors of Pierce Atwood.

questionnaire answers were amended in accordance with follow up discussions and correspondence.

The final Phase 3 consists of the preparation of this Paper, which analyzes the Data collected from ERRA Members in the context of the international development of the SLR concept.

B. Summary of Contents

This Paper consists of: (1) this Introduction; (2) an Analysis; (3) Tables summarizing the Answers to the questionnaire; and (4) a copy of the questionnaire (attached as Appendix 1).

The Analysis discusses:

- various definitions of SLR;
- how the concepts that fall into these definitions are currently addressed in general, *e.g.*, in the EU and United States;
- how these concepts are currently addressed among ERRA Member states, based on the information provided in the questionnaires; and
- issues surrounding how the SLR concept is defined and implemented, and suggestions as to how to address these issues going forward.

ANALYSIS

A. Definitions

The issue of supply of last resort arises when competition is introduced into the market and customers can choose their own suppliers. Treatment of SLR, whether defined broadly or narrowly, involves the balancing of security of supply with development and maintenance of a competitive market.

1. The Broad v. Narrow Model of SLR

Countries treat the general subject of SLR differently. The SLR concept can be broadly defined, often in the United States, to encompass both emergency situations in which the supplier chosen by the eligible customer abruptly can no longer supply the customer (*e.g.*, when the supplier goes bankrupt); and default supply, *i.e.*, supply to a customer who by law can choose its own supplier, but does not. This broad SLR model

envisions servicing all customers who do not choose their supplier, for whatever reason. Under this model, the SLR may effectively end up supplying most household customers.

While EU Directive 2003/54/EC does not define SLR *per se*, it and related documents offer guidance as to the definition. The SLR concept in the EU is more often used to include only the first context in the broad model, emergency situations. Sometimes, the concept is expanded to incorporate supply to vulnerable customers, including both those who have the legal right to choose their own supplier, but because of economic circumstances cannot afford to pay market prices, and customers who may be able to pay, but because of their physical circumstances, *e.g.*, age or illness, must have access to continuous supply, with no disruptions, or suffer potentially severe consequences. Finally, related to these general issues is supply to customers who may be legally entitled to universal service, but who, absent subsidies, may not be attractive to suppliers in a liberalized market environment, *e.g.*, remote customers.[4]

In a recently issued Report on Customer Protection, ERGEG defines SLR as *"a tool which protects those customers who might otherwise be unable to obtain energy with reasonable terms and conditions."*[5] Within the boundaries of this broad definition, ERGEG follows this definition with a note that clarifying the application among its members is difficult as the term *SLR* appears to be understood in different ways.

The questionnaire used for this SLR study (attached as Appendix 1) defines SLR narrowly, as *"the supplier of electricity who provides electricity to eligible customers in emergency situations when the supplier chosen by the eligible customers cannot serve, e.g., because it has gone bankrupt."* The questionnaire goes on, however, to ask various questions related to the broader concepts, such as how vulnerable customers are supplied, and how the default supplier, if any, is chosen. In this way, the questionnaire seeks to capture information applicable to both the broad and narrow model of SLR.

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4 This Paper, consistent with ERGEG definitions, *see* ERGEG Report on Customer Protection, Ref: E05-CFG-02-05, p. 40 (Sept. 2005), defines *vulnerable customers* as those customers protected by national legislation in their relationship with energy suppliers due to disability, chronic illness, pensioner status or age, and low-income. The ERGEG Guidebook on Definitions also includes "living in rural areas" – we deem this to apply to remote customers and have therefore not included this example under the definition of vulnerable customers. *Remote customers* are defined by ERGEG as those customers in areas of the country that are expensive to serve with electricity because, for example, they are located in sparsely populated islands, peninsulas, or remote valleys.

5 See ERGEG Report on Customer Protection, Ref: E05-CFG-02-05, p. 2 (Sept. 2005).

2. *Concepts Common to the Various SLR Definitions*

However defined, SLR issues arise from the special nature of energy. Energy is a commodity, and it is generally accepted that it should be supplied through a competitive market to the extent reasonable. Energy is also a basic need, both on micro (individual human) and macro (economic well-being of the country) levels, and most jurisdictions recognize universal service as a legal right.[6] Certainly, universality of service is a concept fundamental to the second Electricity Directive, Directive 2003/54/EC of the European Parliament and of the Council (see Article 3(3)).[7] With respect to electricity in particular, the need is further characterized by the fact that it cannot be stored. For these reasons, security of supply is critical, and security must be balanced with the goals of free choice of supply and open competition.

Drawing from CEER: "Security of supply means that customers have access to electricity at the time they need it with the defined quality and at a transparent and cost-oriented price. It is obvious that this definition implies dependencies between security of supply, technical quality of supply, commercial (service) quality, and reliability."[8] In considering the role of an SLR, a key question is how to ensure security of supply while establishing, then maintaining, a competitive market.

In a liberalized environment, customers choose their own suppliers through freely negotiated contracts that are, in a healthy market, reflective of a fair market price. Where the market is not open, captive customers are supplied from one or a limited number of regulated suppliers (or regulated distribution companies where supply and distribution are not unbundled). Transitional markets can present real challenges of reliability of supply and service quality, as independent suppliers may be fewer in number and have less financial security and access than the bigger incumbents. An SLR is meant to fill the gaps in supply that may occur as markets liberalize, or even after liberalization, the temporary gaps suffered in the ordinary course of economic activity.

In sum, electricity supply cannot be completely left to free market choice. Regulation of supply, however, should be geared to encourage such choice. Hence, regulation should

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[6] While SLR is sometimes applied to Gas, this paper focuses on electricity and most common use of SLR is in the context of electricity.

[7] *See* C. Jones, EU ENERGY LAW, Vol. 1, *The Internal Energy Market*, Section 6.1: ("Electricity in particular and, to a lesser extent, gas are essential goods. We can no longer live without them.")

[8] CEER, Security of Electricity Supply, Report 2004, September 2004, p. 3.

encourage and protect market mechanisms (*e.g.*, facilitate choosing and switching suppliers), while defining public service obligations (PSOs) in such a way that security of supply is protected. Finally, because it is in everyone's interests that regional electricity markets develop, these PSOs and regulations should be established in a way that does not produce imbalances from country to country that impede supply across borders.

The EU Directives and various discussions of their meaning, such as contained in The DGTREN Interpretive Note on Public Service Obligations and in *EU Energy Law* by Christopher Jones, offer some guiding principles relevant to the SLR concept drawn, primarily, from the concept of universal service.

- Universal service is a right of all household customers and may extend to small customers[9] and in particular, to vulnerable customers and final customers in remote areas.[10]

- Appointment of an SLR is not mandatory, but is a mechanism that may be used to ensure universal service[11] and is deemed to be in the general economic interest.[12]

- The real impact of a universal service obligation includes the need to establish a safety net in the event that a small business or household customer's supplier fails to meet its contractual obligation. "It is in this context that Article 3(3) of the Directive provides that Member States may appoint a SLR … to acquire adequate

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[9] *See* EU Directive 2003/54/EC, Article 3(3): "Member States shall ensure that all household customers, and where Member States deem it appropriate, small enterprises … enjoy universal service, that is, the right to be supplied with electricity of a specified quality within their territory at reasonable, easily and clearly comparable and transparent prices."

[10] *See* EU Directive 2003/54/EC, Article 3(5): "Member States shall take appropriate measures to protect final customers, and shall in particular ensure that there are adequate safeguards to protect vulnerable customers…. In this context, Member States may take measures to protect final customers in remote areas."

[11] *See* EU Directive 2003/54/EC, Article 3(3): "to ensure the provision of universal service, Member States may appoint a supplier of last resort."

[12] *See* DGTREN Interpretive Note, Section 2.1.2: Supply of Last Resort, a PSO, imposes an "obligation to supply all consumers throughout the territory" and is deemed a service of general economic interest.

reserves capacity to meet short term increases in demand from customers at prices fixed in the agreement appointing the supplier"[13]

- Compensation and rights related to these duties must be assigned in a non-discriminatory and transparent manner[14] and structured so as not to impede development of borderless competitive markets.[15]

- PSOs – including supply of last resort – can be imposed by regulation or assisted by bid, with a strong suggestion that a tender process is optimal to maximize competition and ensure non-discrimination.[16]

Applying these general principles, aside from establishing regulations that encourage a competitive market with multiple, reliable, licensed suppliers participating, the avenue for appointing an SLR should itself be competitive, *e.g.,* a tender,[17] or the obligation should be shared by the market suppliers in a fair and non-discriminatory manner.[18] The fewer suppliers in the market, and the broader the SLR definition, *e.g.*, default supplier, the more important it is to promote approaches that do not simply leave an incumbent in place.

B. Issues and Representative Treatment in the EU and US

1. Issues

SLR can present a challenge to competition because it offers a regulated mechanism for supply when competitive forces either fail to supply or are not sought out by customers.

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[13] *See* C. Jones, EU ENERGY LAW, Vol. 1, *The Internal Energy Market*, Section 6.29.

[14] *See* EU Directive 2003/54/EC, Article 3(4): "When financial compensation, other forms of compensation and exclusive rights which a Member States grants for the fulfillment of obligations … are provided, this shall be done in a non-discriminatory way."

[15] *See* EU Directive 2003/54/EC, Article 3(3): Universal service, including SLR, "shall be implemented in a transparent, non-discriminatory way and shall not impede the opening of the market provided for in Article 21."

[16] *See* DGTREN Interpretive Note, Section 2.2, 2.3; *see also*, C. Jones, EU ENERGY LAW, Vol. 1, *Internal Energy Market*, Section 6.32.

[17] This method is often used in the United States, *e.g.*, Maine (Me. Pub. Utils. Comm'n, 65 407 CMR 301); Texas (Tex. P.U.C. Subst. R. 25.43).

[18] Dutch legislation provides an example of this approach. *See* discussion *infra*, Netherlands, pp. 8-9.

This tension is of particular importance in the current climate of energy sector reform, as many countries transition toward liberalization. EU countries are bound to the acquis communautaire, and South East European countries are bound to reforms and the acquis communautaire via the Treaty establishing an Energy Community, signed October 2005. Other ERRA countries are looking toward the EU Directives, regulations, and other documents from the European Commission for guidance.

The European Commission favors competitive approaches. But at the same time, the protection of customers is forefront in the consideration of how to best approach energy reforms.

The conundrum presented by SLR is articulated by Christopher Jones, in *EU Energy Law*, Vol. II, EU Competition Law & Energy Markets, Ch. 4.63:

> *Where a company has been appointed as the official supplier of last resort or as the officially appointed regulated tariff supplier, this gives it a significant commercial advantage. First, it provides a minimum guaranteed market share as some customers will always purchase from an officially recognized supplier, believing that this implies a greater level of security of supply. Second, the supplier of last resort often acts as the supplier to customers not choosing to switch. Third, the 'official' status provides an important marketing advantage.*

Jones cites to the case of ECS/Sibelga (December 2003), Case M. 3318 of 19.12.2003, in which a merger was found to be anti-competitive. This finding was due in large part to the extent of holdings of ECS parent Electrabel, the competitive effect of which, in combination with appointment of Electrabel as SLR by most Belgian regional distribution companies, resulted in a temporary monopoly over non-eligible customers. It was found that, as a result, Electrabel would continue to benefit from customers who choose not to switch.

Under a narrow interpretation of SLR, which appears to be the direction of EU treatment of SLR, what happens to eligible customers who do not choose their supplier? In theory, such customers may be forced to choose or lose – in other words, receive no supply if they fail to choose a supplier. At a practical policy matter, however, such a result conflicts with the basic concept of serving the general economic interest and universal service to small business and household customers. Also, from a technical perspective, in some areas, supply simply cannot be cut off and customers will continue to draw from the grid, irrespective of whether they have failed to choose a supplier.

A jurisdiction may permit the continuation of the *status quo* to avoid the harsh remedy of simple cessation of service when a customer fails to affirmatively select a market supplier. When the eligible customer fails to choose, the existing supplier remains in place unless or until the customer chooses an independent supplier. This manner of addressing the issue of default supply could be viewed as inaction, if nothing else. It is also true, however, in a nascent market, no supplier other than the incumbent, formerly monopoly provider, may appear to be in a position to supply customers who cannot or will not choose their own supplier. Often the *status quo* supplier consists of the distributor remnant of the old vertically integrated monopoly.

The approach of leaving default supply to the incumbent, however, may impede development of both internal and borderless regional competitive markets, in violation of EU Directives. In sum, the issue sometimes becomes a "chicken and egg" dilemma in a transitional market, with a reluctance to sacrifice security of supply from the incumbent in favor of encouragement of entry of other suppliers.

Other factors may also come into play in leaving the incumbent in place as the default supplier. Smaller countries, for example, eyeing their position in a regional market, may want to ensure that their domestic supplier has a sufficient market base to compete in the larger market. Finally, in some countries, market opening may not be realistic in the immediate term. In developing countries that do not yet have universal service, for example, the priority goal may be to encourage infrastructure investment through monopoly franchises.

The introduction of competition, however slowly, makes the SLR concept relevant. Accompanying the question of how to choose the SLR is the question of what the SLR should be paid. The key is to provide a mechanism that adheres to universal service and security concepts, providing adequate safeguards particularly for vulnerable and remote customers, while not impeding or distorting the market.

When viewed from the lens of protecting competition, the question is whether social mechanisms such as lifeline rates or other governmental subsidies are preferable to last resort supply as a method of social security for vulnerable customers. Certainly, energy enterprises may resist carrying too much of the burden for social protection[19], and it

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[19] *See, e.g.*, Eurelectric Report on Public Service Obligations, 24 Feb. 2004 Ref: 2004-360-0002I, noting that current European approaches reflect tendency "to burden companies with too many social policy functions and to neglect market-based solutions for ensuring security of supply and environmental protection. This tendency will potentially lead to inconsistencies

may be that, in practice, the protection of certain customers lies mostly outside the competitive market. For remote customers, competitive forces may not materialize, given the cost and burden of supply to certain areas.

These are dilemmas with which countries are currently struggling.

2. Representative Treatment

Currently one of the most competitive market environments, at least in Europe, is presented in the United Kingdom. Ofgem, Britain's electricity regulator, applies a competitive approach to SLR, and employs it only when an independent supplier fails to provide contracted supply. The terms and conditions of supply licenses require all licensees to agree to provide SLR services, upon Ofgem selection, in the event of emergency failure of supply. Ofgem selects the SLR based on evidence showing that the assignee can supply additional customers without significantly prejudicing that entity's ability to fulfill its contractual obligations to its own customers. Ofgem provides information about a failing supplier's portfolio to potential SLRs and obtains information from each regarding how they could assume the responsibility. It then selects the SLR for no longer than six months; thereafter, the SLR remains the default supplier, but rates change to its normal rates. Vulnerable customer issues are addressed through other mechanisms, including direct support from the general public budget and special services.

The Netherlands presents an interesting case for SLR, as the current structure emerged after problems with the former structure materialized in the wake of the bankruptcy of a green supplier in 2003. The Electricity Law now directly addresses SLR, seeking to balance the protection of customers in cases of emergency and bankruptcy against the fundamental underpinning of freedom of choice.[20] In emergencies or bankruptcies that result in failure to supply customers, customers are allocated to an instant back-up supplier, and after a 10-day freeze period, the customers are auctioned off and any remaining customers are divided among existing suppliers *pro rata* to the share of supply. The customer then stays with the new supplier for 80 days at a special rate and,

(footnote continued)

and conflict with the functioning of the liberalized market as envisaged in the new Directive."

[20] The Dutch energy market is now made up of 3 large incumbent companies, which together have 82% of the market share; new suppliers have a market share of 9%, and, as of 2005, 10% of Dutch households (all of which are eligible as the market is fully opened) have switched suppliers.

after 80 days, receives energy at a regular, non-SLR rate; the customer may choose to leave the supplier at any time. The 2003 bankruptcy of a green energy supplier with 30 household customers and 600 large customers resulted in reports of double billing, transfer of customer data and mass-switching; the changes in legislation and the current SLR structure were designed in response.

The recent ERGEG Report on Customer Protection provides guidance on how SLR is addressed in other EU countries. In many, the SLR is the supplier arm of the entity providing distribution services (*e.g.,* Spain, France, Sweden) or the incumbent (*e.g.,* Finland, Portugal, Slovenia) – and the terms of this service are typically regulated, with prices set at acceptable rates but not necessarily the lowest market price. Finland, Italy and Slovenia have specific provisions for vulnerable customers relating to when cut-off is permissible and when impermissible; and in France, the incumbent supplier is obliged to supply pursuant to social tariffs. Of these countries, only in France must eligible customers choose a supplier before being supplied; in the other countries named in this paragraph, eligible customers who do not choose a supplier will be supplied automatically by the incumbent supplier or the supplier arm of the local distributor. In all these countries, other than Sweden, the territories are divided into distribution areas, with one SLR in each area. France and Poland select their SLR *via* tender, but Poland permits the regulatory authority to select the SLR if there is no winner of the tender. In Slovenia, a government ordinance selects the SLR; Portugal does not use a tender (with the SLR identified in law), nor does Finland, where the SLR is appointed by the regulatory authority, nor Sweden, where it is selected by the local distributor.[21]

In the United States, less than half the states have deregulated their generation sectors, and SLR is most often used as a transition mechanism to provide default service to customers who either cannot or choose not to obtain their supply from competitive suppliers.[22] In almost all of these states, SLR has been priced at or below then-current prices to allow residential customers to become accustomed to the competitive marketplace.[23] The SLR is typically the incumbent distribution company, and customers who do not choose a competitive supplier are automatically supplied

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[21] *See* ERGEG Report on Customer Protection, Ref: E05-CFG-02-05, p. 40-44 (Sept. 2005).

[22] Depending on the state, the term "Provider of Last Resort (POLR)," "default service," "standard offer service," or even "Price to Beat" is used to describe the broad SLR model of default supplier to customers who for whatever reason do not contract for competitive supply. *See* J. Oppenheim, *Assuring Electricity Service for All Residential Customers After Electricity Industry Restructuring,* Edison Elec. Inst. (2001).

[23] See *id.*

through their distribution company.[24] The rules that define the duties of SLRs are in various stages of development and implementation, and in some states have been determined by settlement agreements with the incumbent utilities.[25]

C. SLR in ERRA Countries

1. Legislative Provisions on SLR

A minority of countries has explicit provisions on SLR in its legislation. The energy or electricity laws of Latvia, Lithuania, Slovakia, Turkey and Kazakhstan refer to SLR or its concept directly (as does the new Electricity Law in Romania). A more tenuous reference to the concept of SLR is contained in the laws of Hungary, Ukraine, and Bulgaria; the last has more extensive reference in secondary legislation; for Bosnia and Herzegovina, explicit reference is also made in the secondary legislation; Romania plans to issue Rules for the Electricity Supplier of Last Resort by 2006.

Even for these countries, definitions differ across jurisdictions. For example, in Slovakia, the SLR is defined as the final household supplier who provides universal service; for Turkey, the law provides that the distribution licensees must enter into last resort agreements with their current suppliers to cover customers unable (for technical or legal reasons) to purchase electricity and/or capacity from another supplier in the region.[26]

2. Degree of Market Opening Across ERRA Respondents

Inconsistent treatment of SLR can be attributed, at least in part, to the different stages of liberalization among ERRA countries. Many ERRA countries have 100% captive customers, either in law or in practice (*e.g.*, Albania, Armenia, Bosnia and Herzegovina, Georgia, Kosovo, Kyrgyzstan, Latvia, Macedonia, Montenegro, Slovakia and Montenegro). For most others, where the numbers are not 100%, they are close: for example, Lithuania reports that 74% of total annual consumption is captive in theory

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[24] Exceptions exists, such as in Maine, where the incumbent in the disaggregation process was no longer allowed to own generation. There, the public utility commission uses a periodic tender process to choose the SLR, broadly defined to include default supply. 35-A M.R.S.A. § 3212.

[25] *See, e.g.*, Maryland Pub. Serv. Comm'n, Case No. 8908, *In re Inquiry into Competitive Selection of Elec. Supplier/Standard Offer Serv.*, Order No. 78400 (Apr. 29, 2003).

[26] See Table 1 for description of provisions addressing SLR in the laws (or secondary legislation) of ERRA members.

but that in practice 85% of total annual consumption is supplied by the public electricity suppliers; for Turkey, 70% of annual consumption is captive; for Kazakhstan, 60-70% of all customers are captive; Bulgaria reports that 75% of total annual consumption is captive; Hungary reports that while 33% may be captive by law, in actuality, 80% remain captive as few eligible customers exercise choice; Croatia reports that 80% of customers are captive, but in practice customers do not exercise choice and it would be difficult to do so. The Czech Republic reports that 75% of the market is open; Romania reports 80% of the market is open, Ukraine reports 100% open, as does Moldova, but the eligible customers who, as a practical matter, can or are exercising choice realistically results in a lower actual figure.[27]

For all ERRA members, the supplier to captive customers is also the incumbent (for many, this is in the form of the *de facto* incumbent, *i.e.*, the company that has been unbundled from the incumbent, as in Georgia,[28] Hungary, Kazakhstan, Macedonia, Montenegro and Slovakia). For many, such as Armenia, Bulgaria, Georgia, and Mongolia, while transmission, generation and distribution have been unbundled, supply and distribution remain together. In Hungary, public supply and distribution may be carried out by the same company, but separate accounting and some management unbundling is required. In Romania, eight incumbent companies supply eligible customers who prefer to stay captive (the companies perform the distribution and supply activities (with account separation) and derive from the previously vertically integrated company, restructured in 1998).

3. *Selection Process*

For most ERRA countries, the incumbent became the supplier to captive customers without an identified competitive selection process, and the same is true for those countries with eligible customers who do not choose an independent supplier.[29]

In Ukraine, for instance, the power sector restructuring process, which took place in 1996, resulted in the unbundling of generation, transmission and supply of electricity – and a *de facto* SLR framework (within the broad definition discussed above) evolved

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[27] See Table 2.

[28] Georgia, however, currently has a pool model, which can mitigate if not eliminate the narrowly defined SLR issue – since all supply to eligible (direct) customers is jointly pooled, if a particular supplier should go bankrupt, the result would not have the same consequences as in models in which customers choose a particular supplier. The bankruptcy simply eliminates one source of shared supply.

[29] See Tables 2-4.

from this restructuring. Ukraine describes energy suppliers that supply electricity in designated territories as Suppliers of Last Resort, explaining that, pursuant to the restructuring, these suppliers are issued a license for supply specific to an identified territory at regulated tariffs. These suppliers supply electricity in designated territories to 95% of customers; all of these customers are theoretically eligible, but in practice do not exercise choice.

For a handful of other countries, the SLR is set up by legislation. In Lithuania, where the incumbent supplies 85% of total annual consumption, the Law on Electricity specifically provides that where no other entity has been issued a public supply license in the territory specified in the electricity distribution license, the distribution system undertaking shall be obliged to act as a public supplier of electricity in its territory, requiring it to conclude contracts and supply electricity upon request to all customers who have not selected an independent supplier.

In Croatia, the Law on Electricity Market places the incumbent (HEP) in charge of providing the public service obligation to customers when a contracted supplier stops providing its service, and to customers who do not select an alternative supplier. Also a practical matter, currently HEP is the only supplier in Croatia.

In Turkey, the Electricity Market Law and the Electricity Market Licensing Regulation, together require that distribution companies in specified territories supply electricity to customers in that territory when customers are unable purchase from an independent supplier, for example, where independent suppliers do not operate in remote areas; or when a supplier is temporarily suspended for technical or legal reasons.

Changes in the market can be expected to impact the selection process. Montenegro, for instance, where all customers are captive in practice but in law may be considered eligible, notes that no selection procedure is in place at present. Montenegro goes on to state that when more suppliers appear on the market, customers should be able to select suppliers among themselves. This begs the question of whether – and how – an SLR will need to be appointed to cover circumstances when, in an expanded market, supply, for whatever reason, does not reach all customers.

None of the respondents indicated that a tendering process is used to select the SLR.

4. Supply to Vulnerable Customers

Some of the countries have provisions in their energy legislation regarding vulnerable customers, *e.g.,* Romania, Albania, Hungary and Bulgaria; and in Montenegro, a

government decree addresses subsidies. In Bulgaria, two-step (incremental block) tariffs are in effect; and Romania has a social tariff.

For most other ERRA countries, prices for vulnerable customers are set no differently than for other customers; instead, the state budget may provide assistance to the customer *via* social allowances from the government, as reported, for example, in Kazakhstan, Kyrgyzstan, Montenegro, Moldova, and under consideration in Bosnia and Herzegovina.[30]

5. Supply to Remote Customers

Answers from ERRA respondents on questions relating to supply to remote customers reveal that such supply is addressed no differently in the law than is supply to other categories of customers. Provisions relating to supply of other customers apply, including how the price is regulated, even though actual costs for supply to remote customers is often higher than to other categories of customers.[31]

6. Default Supplier to Newly Eligible Customers Who Do Not Exercise Choice

For those countries with some eligible customers, for the most part, the incumbent is the default supplier when the customer fails to choose an independent supplier (these countries also have identified processes by which the customers must apply for independent supply, *see, e.g.,* Estonia, Hungary, Czech Republic, Kazakhstan, Lithuania, Macedonia, Romania, Moldova, Turkey and Ukraine). For some countries, the procedures for changing supplier include time restrictions that could delay choice, *see, e.g.,* Kazakhstan, where customers may be switched only at the beginning of the billing period in electricity supply to avoid interruption in supply, and the representatives of the new and former supplier must read the meters together and document the reading with the customer signing for verification to effect official transfer and acceptance of the new contract.

7. Supplier to Customers Whose Independent Supplier Fails To Provide Supply

Again, for those countries with eligible customers, the incumbent is the default supplier in most cases. In Hungary, when the contracted supplier fails to supply, the customer may sign a contract with another supplier, or may enter into an agreement with the public supplier, which has the SLR obligation. Only Romania (subject to enactment of

[30] See Table 5.

[31] See Table 6.

draft legislation on SLR) reports placing a time limit on appointment of the SLR, envisioning SLR as a temporary measure only (using the United Kingdom Ofgem structure as a model).[32]

8. Provisions to Minimize Abrupt Cessation of Supply

Most respondent regulatory authorities require suppliers to ensure financial stability before issuing a supply license to an entity. In Armenia, suppliers have a right to cease supplying customers in the event of non-payment only after taking precautionary measures set by the regulatory authority. Legislation in Macedonia provides for fines where supply is not provided within certain standards of continuity and quality. But for many ERRA countries, as is the case for example in Ukraine, abrupt interruption is unlikely, as the supplier is also the owner of the distribution network, and as such is a natural monopolist in the territory.[33]

9. Role of the Regulatory Authority in Monitoring Supply

For most respondents, the regulatory authorities monitor supply *via* existing reporting mechanisms. Thus, for example, in Bulgaria, under the terms and conditions of the licenses issued to the public provider and the public suppliers, electricity generators and traders, the regulatory authority requires licensees to submit quarterly, semi-annual and annual reports on financial and technical activities. These documents allow a certain level of monitoring, and this type of system is also used by regulatory authorities of most respondents. In Kazakhstan, such monitoring is not in the scope of the regulatory authority, belonging instead to the Ministry. Turkey reports minimal monitoring of suppliers by the regulatory authority.[34]

D. Summary and Suggestions

The fundamental issue presented by the SLR concept – balancing the protection of customers and supply against the promotion of competition – is particularly acute in transitional markets. Because these markets are characterized by absence of real competition and strong incumbents, the newer, smaller (and therefore, weaker) independent suppliers may find survival difficult. As a result, customers may find

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[32] See Table 8.

[33] See Table 9.

[34] See Table 9.

supply threatened; or, to avoid inconsistent supply, may choose the incumbent or, as is most often the case (as ERRA countries reveal) simply choose not to exercise choice.

Mechanisms to encourage competition while protecting customers in the case of failure of an independent supplier can be divided into two categories.

The first, and perhaps most important, strategy focuses on implementing a market design that promotes the entry of multiple, reliable suppliers. As a threshold matter, a pool market design can mitigate the SLR issue. Beyond adoption of a pool structure, security requirements imposed upon market suppliers in the licensing process can reduce the need for an SLR. Such requirements should not only ensure that the supplier has the initial resources to provide service, but that a mechanism is in place to monitor those resources and to give the relevant authorities the opportunity to step in to provide a transition should the supplier fail. If a supplier goes bankrupt or otherwise fails to supply customers, regulations, such as financial guarantees, should enable authorities to draw on those guarantee mechanisms to bridge supply until a new supplier can be put into place. License revocation would result if the supplier's financial guarantee falls below the required levels.

This strategy includes ensuring ease and speed of switching suppliers and other consumer protection mechanisms regarding supply.[35] Actions to introduce competing suppliers and to protect a competitive market can include all those measures needed to encourage suppliers to enter the market and thus give consumers choice -- strict unbundling rules and enforcement, imposition of transparent and equal access to publicity and implementation of cross-border rules, and tariffs and congestion management that facilitate sales across borders and signal to new entrants that the playing field is level.

A second strategy is to introduce competition in the specific area of SLR choice by using a bid process to select the SLR, auctioning the customers served by a defaulting supplier, and/or dividing supply of last resort among multiple market suppliers.

Approaches used to address last resort supply must necessarily take into account the specific circumstances of individual countries and the regional markets of which they may be – or want to be – part. It is fundamental to the development of these markets and the protection of customers within these markets that the different strategies and variations on their implementation are carefully considered.

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[35] *See* EU Directive 2003/54/EC, Annex B and Commission Recommendation 98/257/EC(3).

Table 1 – LAW ADDRESSING SUPPLIER OF LAST RESORT		
ERRA MEMBERS	**APPLICABLE LEGISLATION**	**DESCRIPTION OF PROVISIONS THAT ADDRESS SLR**
ALBANIA	SLR not addressed in law	N/A
ARMENIA	SLR not addressed in law	N/A
BOSNIA AND HERZEGOVINA	• Electricity Law of the Federation, Art. 14, 15 (supports concept but does not refer specifically to SLR); licensing rule Art. 44 • Rule for Issuance of Licenses and Permissions of the Regulatory Commission for Electricity of Republic of Srpska	• Art. 44 of the Federation Licensing Rules reads: If there are concerns regarding the guarantee of the security of supply, as for example financial insolvency, FERK on its own initiative starts license transfer proceeding in order to assure transfer to another entity with the ability to provide regular security of supply to customers • RS Licensing Rule defines SLR as supplier determined in a non-discriminatory and transparent manner by RSERC to assume responsibility for supplying electricity to certain groups of customers when their primary supplier does not fulfill contracted obligations and ceases to supply that group of customers with electricity
BULGARIA	Energy Act, Art. 97 (3)	Electricity supply is treated as a universal service provided on equal terms. Method of supplying eligible customers in extraordinary situations is set forth in Chapter 3 of the Rules for Trading with Electricity
CROATIA	Law on Electricity Market (Art. 41)	Places HEP in charge of providing public service obligation to customers for whom the supplier stops providing its services or who do not want to change their supplier/make no selection of another supplier
CZECH REPUBLIC	No answer provided	SLR can apply to the regulatory authority for payment of demonstrable financial losses; the regulatory authority may finance through a savings fund
ESTONIA	SLR not addressed in law	N/A
GEORGIA	SLR not addressed in law	N/A
HUNGARY	Hungarian Electricity Act – Art. 43-44 (refer to public utility wholesaler); 45 (public utility supplier) and 46 (eligible customers)	Does not refer to SLR specifically, but the concept of SLR can be gleaned from relevant provisions, which are remnants of previous (pre-liberalisation) period of electricity sector regulation and are not fully adjusted to reflect the liberalized market structure
KAZAKHSTAN	Energy Law of Kazakhstan, subparagraph 6, Art. 1	Provides that at initial stage of electricity retail market, SLR obligations are placed on the incumbent energy supplying organizations (ESO), as part of regional electricity networking companies (RENC)
KOSOVO	SLR not addressed in law; expected that will be included in secondary legislation	N/A
KYRGYZSTAN	SLR not addressed in law	N/A
LATVIA	Electricity Law (in force from June 2005)	Provides for one public electricity supplier with SLR obligation
LITHUANIA	Law on Electricity, Art. 24, 25, 26	Provides that if no other person has been issued public supply license in the territory specified in the electricity distribution license held by the distribution system undertaking, that undertaking shall also be obliged to act as public supplier of electricity in its territory, requiring it to conclude contracts and supply electricity upon request to all customers who have not selected an independent supplier. *(This means that Public Supplier in case of emergency should fulfill the function of SLR.)* (Requirements not binding if public supplier prevented from implementing provision by circumstances beyond its control.)

Table 1 – LAW ADDRESSING SUPPLIER OF LAST RESORT		
ERRA MEMBERS	APPLICABLE LEGISLATION	DESCRIPTION OF PROVISIONS THAT ADDRESS SLR
MACEDONIA	SLR not addressed in law; new Energy Law planned for 2005 but unclear whether will include provisions for SLR	N/A
MOLDOVA	SLR not addressed in law	N/A
MONGOLIA	SLR not addressed in law	N/A
MONTENEGRO	Law does not specifically refer to SLR but Energy Law, Art. 20(4) addresses concept	Article 20(4) provides: In the event that the Agency temporarily releases a Licensee from its License obligations, or in the event that the Agency revokes a License, the Agency shall be entitled to appoint a legal or natural person to carry out the Licensee's operations on the Licensee's premises and facilities with appropriate compensation as determined by the Agency
ROMANIA	Not addressed in present Electricity Law, but draft under review proposes provisions related to SLR; in addition, issuance of Rules for Electricity (which are intended to include provisions on SLR) anticipated for end of 2005	N/A
SLOVAKIA	Act on Energy	SLR is defined as the final household supplier who provides a universal service on terms specified in this Act. Terms for connecting SLR pursuant to terms/price and methodology set by the regulatory authority
TURKEY	Electricity Market Law and Electricity Market Licensing Regulation	• Law provides that electricity distribution activities are performed by distribution companies in areas covered by licenses. Where consumers are unable to purchase electricity and/or capacity from another supplier in the region, then the distribution company serving that region is obliged to obtain a retail sale license and engage in electricity sales to such consumers on a retail basis and/or provide retail sale services • Licensing rules provide if a distribution licensee operates in a region where consumers cannot obtain electricity and/or capacity from another supplier, or where the supplier is temporarily suspended due to legal or technical reasons, the distribution licensees shall be obligated to obtain a retail license and provide retail electricity sale and/or retail service to such consumers • Distribution licensees must enter into last resort agreements with their current supplier and/or other suppliers to fulfill these obligations
UKRAINE	SLR is not mentioned by name in law, but the idea is touched upon in Art. 24 of the Law of Ukraine on Electricity	Energy suppliers that supply electricity in designated areas have no right to refuse to enter into a supply agreement with customers located in that territory; therefore, energy suppliers that supply electricity in designated territories are, in fact, "suppliers of last resort" for all consumers located in their respective territories of licensed activities

Table 2 – CAPTIVE CUSTOMERS			
ERRA MEMBERS	% OF CAPTIVE CUSTOMERS	SUPPLIER TO CAPTIVE CUSTOMERS	HOW BECAME SUPPLIER TO CAPTIVE CUSTOMERS
ALBANIA	~100% (there are only 2 eligible customers who as a practical matter have not exercised choice)	Incumbent: vertically integrated utility	Happened over time without an identified selection process
ARMENIA	100%	Incumbent: ZAO "Electricity Networks of Armenia;" electricity distribution	Happened over time without an identified selection process
BOSNIA AND HERZEGOVINA	100% at present (when all necessary regulations in effect, percentage is expected to decrease)	Incumbent: 3 vertically integrated power companies (licensing and unbundling process in development)	It is "inherited" practice that supply function performed by vertically integrated state company
BULGARIA	~75% of total annual consumption (only those customers with annual consumption of at least 20 GWh are eligible)	Incumbent: public provider and public suppliers (functions are set forth in Chapter 9, Energy Act)	SEWRC identified the entity to supply captive customers; no specific selection procedure
CROATIA	80% (until 1 July 2006)	Incumbent utility (HEP): activities are legally unbundled (generation, transmission, distribution, supply)	The entity is identified by the electricity law
CZECH REPUBLIC	All households (about 25% of customers) until end of 2005	Incumbent: regional distributor is holder of trade license	The entity is identified by law
ESTONIA	~90%	Incumbent: company with applicable license in region (under law, participant may only purchase and/or consume electricity sold to it by the network operator to which connected or by network operator's designated supplier)	Regulatory authority selects among 41 distribution companies, which cover different territories; selection based on region
GEORGIA	100%	Incumbent: pursuant to unbundling: 9 distribution companies that have distribution networks	No selection process; selection based on region
HUNGARY	In theory, every non-household customer eligible ~67% of total electricity consumption; in practice, few exercise choice and ~80% customers are captive; (All electricity consumption of captive customers on regulated market is covered by the wholesale activity of MVM)	Incumbent: distribution companies, which, before liberalization, were distribution arms of vertically integrated monopoly MVM. Privatized in mid 90s, they now cover only distribution and supply of electricity	By law; no selection procedure, instead natural outcome of pre-liberalization period, when every customer was "captive" and served by local distribution branches of MVM; after privatization distribution branches granted right to serve public electricity customers

Table 2 – CAPTIVE CUSTOMERS			
ERRA MEMBERS	% OF CAPTIVE CUSTOMERS	SUPPLIER TO CAPTIVE CUSTOMERS	HOW BECAME SUPPLIER TO CAPTIVE CUSTOMERS
KAZAKHSTAN	60-70% of customers (all household); Kazakh law has no specific reference to captive customers. Competition on energy market is in the initial stages	Incumbent: household consumers are supplied by ESO (used to be part of electricity distribution network companies (DNC), unbundled per Law on Electricity, Art. 25, and separated into ESOs	The entity is identified by law
KOSOVO	100%	Incumbent: Vertically integrated enterprise (KEK)	Happened over time; no selection procedure
KYRGYZSTAN	100%	Incumbent: Natural monopolies with distribution and retail functions	Happened over time; no selection procedure
LATVIA	Officially, 78% of customers; in practice, 100% as no eligible customers have exercised choice	Incumbent	Law provides that largest operator in Latvia should be entity supplying captive customers; regulator sets tariffs for captive customers and determines the agreement for captive customers
LITHUANIA	In theory 26%, but in practice 85% of total annual consumption is supplied by the public electricity suppliers	Incumbent: Public electricity supplier (distribution and supply) (Rytų Skirstomieji Tinklai AB and VST AB)	Regulatory authority issues license for public supply in specified territory, based on technical, financial and managerial ability of undertaking
MACEDONIA	In practice, 100%, but recent amendment of Energy Law sets eligibility threshold at 20 GWh total annual consumption (meaning that there are 8 potential eligible customers or 26% of total demand)	Incumbent: for those connected to transmission system: wholesale supplier (part of AD MEPSO (owner/operator of transmission network, electric power system operator, market operator, wholesale supplier for tariff customers)); for those connected to distribution system: retail supplier (part of AD ESM (generation, distribution, DSO, retail supplier for tariff customers))	Entity identified by Law for restructuring and privatization of Elektrostopanstvo na Makedonija and 2005 amendment to Energy Law (pursuant to which, vertically integrated utility separated into 2 joint stock companies in 2004, one of which, AD ESM, is current supplier; but will be separated in September 2005 so that one company covers distribution system operator and retail supply and another, generation
MOLDOVA	Per Electricity Act as of March 10, 2005, electricity market is 100% open	Incumbent: Distribution company licensed to supply electricity as per regulated tariffs	Regulatory body – identifies the companies that operated before as distribution companies
MONGOLIA	Regulatory authority determines eligibility based on level of consumption	Incumbent: Regulated supply licensees	No procedure; the entity is owner of distribution network

Table 2 – CAPTIVE CUSTOMERS			
ERRA MEMBERS	% OF CAPTIVE CUSTOMERS	SUPPLIER TO CAPTIVE CUSTOMERS	HOW BECAME SUPPLIER TO CAPTIVE CUSTOMERS
MONTENEGRO	In practice ~ 100%. (law (Art. 24) provides that regulator could exempt a customer from tariff system if latter could prove that it provides better conditions for supply)	Incumbent: functionally unbundled part of the Energy Company of Montenegro (ECM)	At present, no selection procedure; (when more suppliers appear on the market, customers would be able to select among themselves)
ROMANIA	As of 1 July 2005, 80% of the market is opened - 20% (all households) do not have the right to choose; by 1 July 2007 all the consumers will become eligible	Incumbent: suppliers who also hold distribution license in the area (8 distribution companies, one in each of the historical provinces)	Regulatory authority – licenses mandate that incumbent companies supply captive consumers in their area
SLOVAKIA	All household customers are captive customers until 1 July 2007 (all will be eligible customers from 1 July 2007 per Act on Energy)	Incumbents: DSO in the respective area (3 in total in Slovakia) (vertically integrated energy company unbundled in 2001 to 1 generation company, 1 TSO, 3 DSOs (latter partly privatized)	Ministry of Economy may bind electricity suppliers with obligation to ensure protection of household electricity customers. General obligations of electricity supplier per Act on Energy and Ordinance of government on Market Rules
TURKEY	30% open; market opened only to large customers (or those aggregating consumption to threshold levels) (representing 30% of consumption)	Incumbent: Distribution companies holding retail sale licenses (companies perform distribution, supply and retail sale services activities)	Per Electricity Market Law; no selection procedure in place
UKRAINE	By law 100% eligible, but in practice, household consumers are not eligible as electricity tariff for population lower than market price	Incumbent: Economic entities that own distribution electricity networks supply electricity in designated territories	No selection procedure; obtained functions of SLR prior to market opening, without any defined selection process; licensed by NERC to carry out activities related to transmission and supply of electricity at regulated tariffs

Table 3 – PRICES PAID BY CAPTIVE CUSTOMERS FOR SUPPLY		
ERRA MEMBERS	REGULATED?	PRICING METHOD
ALBANIA	Yes	Price cap method. For 2006 ERE has approved performance based rates - productivity factor (X) and revenue requirement
ARMENIA	Yes	Rate of return based approach
BOSNIA	Yes	Prices regulated by state, on the basis of actual costs presented by the state owned power company; new tariff system in development
BULGARIA	Yes	Cost plus; set pursuant to Ordinance on Regulating Prices of Electric Power
CROATIA	Yes	Methodologies in development; at the moment, all inclusive final price used for captive customers – set by the Government
CZECH REPUBLIC	Yes	ERO issues tariffs for supply for captive customers
ESTONIA	Yes	Price-cap method
GEORGIA	N/A	N/A
HUNGARY	Yes	Price level determined several years ahead: after setting allowed costs and rate of return, price set for year 1, then adjusted to inflation and expected efficiency growth
KAZAKHSTAN	Yes	Supply surcharge is a component of final electricity sale price; services provided by market players (monopolists) regulated in accordance with legislation on protection of competition; if supplier has monopoly position on particular market (*e.g.* region, district, town), a supply surcharge as well as electricity price for end-users calculated by antimonopoly body (Agency for Regulation of Natural Monopolies, Protection of Competition was divided and competition protecting functions were shifted to the Committee on protection of competition, Ministry of Industry and Trade)
KOSOVO	Not at present	N/A; tariff methodologies in development
KYRGYZSTAN	Yes	Cost based pricing method
LATVIA	Yes	Regulator sets exact electricity prices for captive customers by evaluating tariff proposal of electricity supply company and setting 3 parameters: (1) price cap, (2) binding price for customers and (3) base tariff; where changes in the market result in a higher price but still under the price cap, the company submits a new proposal but with fewer substantiating documents; if the price goes up above price cap, the company should submit a detailed proposal and explanation for the grounds for a new tariff; the base tariff parameter is used for monitoring the tariff; anticipated that "softer" regulation that does not set exact prices will be instituted in the near future
LITHUANIA	Yes	Price cap (set by the regulatory authority for one-year regulatory period); methodology approved by regulatory authority; price cap for public electricity shall be sum of producers' forecasted electricity selling price, transmission service, distribution service and public supply service
MACEDONIA	Yes	Per ERC's 2004 Rulebook on the method and conditions for regulating electricity prices, the first regulated period is 3 years and methodology is incentive based: • Revenue cap for generation of electricity • Revenue cap for transmission of electricity • Hybrid (revenue cap method/price cap method) for distribution of electricity
MOLDOVA	Yes	So far, there is one effective tariff which includes distribution services. Provision is made for introduction of differentiated tariffs depending on the voltage level
MONGOLIA	Yes	"Cost plus RoR" method is used
MONTENEGRO	Yes	Pricing method – cost coverage, including amortization and profit, pursuant to Agency's Rule on electricity tariffs

Table 3 – PRICES PAID BY CAPTIVE CUSTOMERS FOR SUPPLY		
ERRA MEMBERS	REGULATED?	PRICING METHOD
ROMANIA	Yes	End-user price = Generation price (cost plus pricing method) + Transmission Tariff (revenue cap) + Distribution Tariff (price cap) + System Services (cost plus) + Supply Service (profit margin)
SLOVAKIA	Yes	Price/methodology of price calculation of electricity supply to households determined by regulatory authority
TURKEY	Yes	Price cap. Components of average retail price cap are (a) average wholesale price of state owned trading company, (b) target for losses, thefts ratio and gross profit margin
UKRAINE	Yes	No answer provided

Table 4 – INCUMBENT		
ERRA MEMBERS	% OF ELIGIBLE CUSTOMERS IT SUPPLIES	NATURE OF UNBUNDLING
ALBANIA	None, except in cases of emergency	TSO is a separate legal entity; asset evaluation in process
ARMENIA	N/A – no eligible customers	Transmission, generation, distribution unbundled; supply with distribution
BOSNIA AND HERZEGOVINA	N/A – no eligible customers	Supply not unbundled from other functions; all part of vertically integrated companies. Law envisages unbundling of accounts, plan for restructuring envisages corporatisation of state-owned power companies
BULGARIA	100%. Incumbent supplies all eligible customers that are joined to transmission/ distribution network	Unbundling is underway, with current accounting and management unbundling of transmission, generation and distribution in effect. Complete legal unbundling of activities for transmission (Public Provider) and distribution (Public Suppliers) will be effected no later than when Bulgaria becoming an EU member; distribution and supply remain together
CROATIA	100%	Activities of incumbent utility (HEP) are legally unbundled (generation, transmission, distribution, supply)
CZECH REPUBLIC	None	Former regional distributor separated its activities; new trade companies established
ESTONIA	12%	Legal unbundling required by Electricity Market Act; DSO shall be strictly separated from generation facilitates, but does serve as supplier with public service obligation; if DSO has less than 100,000 customers, legal unbundling is not required; only account unbundling is required
GEORGIA	N/A – no eligible customers	Transmission, generation, distribution unbundled; supply with distribution
HUNGARY	~ 16% of eligible customers served by trader subsidiary of (former) incumbent MVM. If distribution companies classified as incumbents, free market share of incumbents amount to 65-70%	For MVM: power generation and trading (supplying eligible customers on the free market) activities must be carried out by legally separated entities (subsidiaries); transmission and public wholesale activities can be carried out together, but separate accounting required For public electricity suppliers: trading (supplying eligible customers on the free market) must be carried out by separate company (legal unbundling); public supply and distribution may be carried out by same company, but separate accounting and some management unbundling are required
KAZAKHSTAN	N/A	Account unbundling required; pursuant to the law: as a result of unbundling process distribution network companies have been carrying out activities related transmission and distribution since 1st October 2004, and ESOs newly established
KOSOVO	No eligible customers yet	No
KYRGYZSTAN	63 % of total no. of customers	Energy system separated into generation, transmission and distribution parts; but supplier has not been changed
LATVIA	100%	The Incumbent supplier has: • account separation and management separation, and ownership separation from transmission • account separation and management separation from generation • account separation and management separation from distribution; also serves as DSO

Table 4 – INCUMBENT		
ERRA MEMBERS	% OF ELIGIBLE CUSTOMERS IT SUPPLIES	NATURE OF UNBUNDLING
LITHUANIA	59 % of total annual consumption	Electricity undertakings shall record, group and aggregate their transactions relating to transmission, distribution, supply and other non-electricity activities in separate accounts and registers of accounting; TSO, DSO and public suppliers, fulfilling public service obligations shall keep separate accounts specifying expenditure and income relating to activities connected with fulfillment of this obligation
MACEDONIA	None at present; pursuant to recent amendment of the Energy Law, eligible customers may conclude contracts with electricity generators (not including the regulated generator) and with the electricity traders. Eligible Customers required to register these contracts for purchasing electricity on the electricity market operator	Transmission has been unbundled from generation, distribution and supply. AD ESM, which is a state owned company for generation, distribution and supply, will be separated in September 2005, into 2 companies: • "Elektrani na Makedonija" performing function generation of electricity • "AD ESM" performing the functions: distribution of electricity, distribution system operator and retail supplier for tariff customers
MOLDOVA	10%	Energy sector demonopolized in 1997 by governmental regulation; established 4 generation, 5 distribution entities and a transmission company functioning as system operator; these are market entities performing specific duties and owning necessary assets
MONGOLIA	None	The supplier has account, management and ownership separation from other energy activities such as transmission, generation and system operation. Supply activity is not separated from distribution
MONTENEGRO	Currently, none	All energy activity has been provided by only one company, the state energy company (ECM); currently, functionally unbundled entities having own accounts, management and information in place, but until legal unbundling occurs, they remain part of ECM
ROMANIA	51 out of 2000 eligible consumers have switched supplier. % of eligible consumers preferring to stay with incumbent represents 25% of total consumption, while % of consumers that switched is 31%	8 incumbent companies supply eligible consumers that prefer to stay captive – these derive from the previous vertically integrated company CONEL, which has been restructured in 1998; each of the companies performs the distribution and supply activities but has separated accounts
SLOVAKIA	No answer provided	Ownership separation of generation and transmission. Accounting separation from distribution under preparation to accordance with EU Directive 54/2003/EC
TURKEY	N/A, in light of March 2005 reorganization of incumbent to create 20 new distribution regions	Incumbent supplier previously part of vertically integrated state owned enterprise, which was divided into 4 state owned entities: 1 state owned entity for electricity generation, 1 state entity for wholesale trading, 1 state entity for transmission, balancing & settlement, 1 for distribution, retail sale, retail sale services activities (and then March 2005 reorganization)

Table 4 – INCUMBENT		
ERRA MEMBERS	% OF ELIGIBLE CUSTOMERS IT SUPPLIES	NATURE OF UNBUNDLING
UKRAINE	As of today, energy suppliers that supply electricity in designated territories supply electricity to 95% of consumers; all theoretically eligible but in practice not	In 1996, power sector was restructured, resulting in unbundling of generation, transmission and supply of electricity. At present energy suppliers that supply electricity in designated territories, *i.e.* SLR, have licenses and carry out activities related to transmission of electricity through distribution networks and to supply of electricity at regulated tariffs. Law "On Natural Monopolies" and license terms envision mandatory unbundling of accounts for each type of activities

Table 5 – VULNERABLE CUSTOMERS					
ERRA MEMBERS	ADDRESSED IN ENERGY LEGISLATION	SUPPLIER	STATUS OF SUPPLIER	HOW BECAME SUPPLIER	PRICES OF ENERGY FOR VULNERABLE CUSTOMERS
ALBANIA	Yes	Vertically integrated utility	Incumbent	No special process for selection of supplier to vulnerable customers	Prices set no differently than for other customers
ARMENIA	N/A	N/A	N/A	N/A	N/A
BOSNIA	Not in Electricity Law but state bodies are considering introducing subsidies for vulnerable customers from the central budget	Same entities as for other customers	Incumbent	No special process for selection of supplier to vulnerable customers	Prices set no differently than for other customers
BULGARIA	Bulgaria has created status of *socially weak* members of society for specific household customers of electric and heat power	Respective electricity distribution company supplies vulnerable customers joined to its network	Incumbent	SEWRC selects	2-step tariffs for electric and heat power for household customers still in force (regulated). Ministry of Labour and Social Policy in charge of setting monthly aid for vulnerable customers
CROATIA	No	N/A	Incumbent	N/A	Prices set no differently than for other customers
CZECH REPUBLIC	No	N/A	N/A	N/A	Prices set no differently than for other customers.
ESTONIA	No	N/A	N/A	N/A	Prices set no differently than for other customers
GEORGIA	No	N/A	N/A	N/A	Prices set no differently than for other customers

Table 5 – VULNERABLE CUSTOMERS					
ERRA MEMBERS	ADDRESSED IN ENERGY LEGISLATION	SUPPLIER	STATUS OF SUPPLIER	HOW BECAME SUPPLIER	PRICES OF ENERGY FOR VULNERABLE CUSTOMERS
HUNGARY	Yes; Electricity Law provides for "social welfare electricity allowance;" detailed rules defined by government; vulnerable customers may be defined as captive household customers with consumption below 1320 kWh/year	Rules on serving vulnerable customers same as rules on serving captive customers, who are supplied by public electricity companies (also responsible for distribution of electricity within their territory)	Task of public electricity supply are delegated to the distribution companies who may be called incumbent	No special process for selection of supplier to vulnerable customers	Price level is determined for several years ahead: after setting allowed costs and rate of return the price is determined for the first year and than adjusted to the inflation and expected efficiency growth
KAZAKHSTAN	No – but a social factor is considered during bill settlement; if total amount of utility bills exceeds 30% of total family income, customer is entitled to a housing and public utility allowance	Electricity suppliers	Due to lack of competition between ESOs on the retail market, final customers have no possibility of choosing suppliers but are supplied by ESO, established on the basis of DNC	No special process for selection of supplier to vulnerable customers	Prices set no differently than for other customers; vulnerable group with low family income have a right to apply for social allowances paid from the state budget; (falls under competence of the Ministry of Labour and Social Protection)
KOSOVO	No	N/A	N/A	N/A	Prices set no differently than for other customers
KYRGYZSTAN	Yes	Natural monopolies (distribution companies)	Yes	No special process for selection of supplier to vulnerable customers	Income level, social status, region of residence of the customers to be determined; then % of presumed electricity payment by vulnerable customers and an affordable state budget load for minimum volume of electricity calculated
LATVIA	Under development	N/A	N/A	N/A	Prices set no differently than for other customers

Table 5 – VULNERABLE CUSTOMERS					
ERRA MEMBERS	ADDRESSED IN ENERGY LEGISLATION	SUPPLIER	STATUS OF SUPPLIER	HOW BECAME SUPPLIER	PRICES OF ENERGY FOR VULNERABLE CUSTOMERS
LITHUANIA	No	N/A	N/A	N/A	Prices set no differently than for other customers
MACEDONIA	No	N/A	N/A	N/A	Prices set no differently than for other customers
MOLDOVA	No, but there are targeted compensations paid by state to the low-income people	Same entity which supplies captive customers	Incumbent	In accordance with legal acts and licenses	Prices set no differently than for other customers
MONGOLIA	No	N/A	N/A	N/A	Prices set no differently than for other customers
MONTENEGRO	No, but government decree on direct subsidies addresses vulnerable customers	N/A	N/A	N/A	Prices set no differently than for other customers, but subsidies separately available from the government
ROMANIA	Yes, (by the date of fully opening of the market, the suppliers are obliged to keep records of the vulnerable customers in their jurisdiction and provide special free services)	The incumbent DSO	Incumbent	ANRE designed	Suppliers offer regulated tariff for vulnerable customers (a cross-subsidization inside the household customer class). By full opening of the market, intend to remove the social tariffs and find other solutions, such as direct subsidies from the general or local budget or a fund
SLOVAKIA	No	N/A	N/A	N/A	Prices set no differently than for other customers
TURKEY	No	N/A	N/A	N/A	Prices set no differently than for other customers
UKRAINE	No	N/A	N/A	N/A	Prices set no differently than for other customers

Table 6 – REMOTE CUSTOMERS					
ERRA Members	Addressed In Legislation	Supplier	Status of Supplier	How Became Supplier	How Prices Are Set
Albania	No	N/A	N/A	N/A	N/A
Armenia	N/A	N/A	N/A	N/A	N/A
Bosnia	No	N/A	N/A	N/A	N/A
Bulgaria	No	N/A	N/A	N/A	N/A
Croatia	No	N/A	N/A	N/A	N/A
Czech Republic	No	N/A	N/A	N/A	N/A
Estonia	No	N/A	N/A	N/A	N/A
Georgia	No	N/A	N/A	N/A	N/A
Hungary	No	Captive customers are supplied by public electricity companies, which are also responsible for distribution of electricity within their territory	Distribution companies who may be called incumbent	Post-privatization of these distribution branches, distribution companies that were granted right to serve public electricity customers	Customers living in remote areas pay the same electricity tariffs as customers living in urban areas, even if serving remote customers incur higher cost to the supplier
Kazakhstan	No	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers
Kosovo	No	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers
Kyrgyzstan	No	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers
Latvia	No	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers
Lithuania	No	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers

Table 6 – REMOTE CUSTOMERS					
ERRA MEMBERS	ADDRESSED IN LEGISLATION	SUPPLIER	STATUS OF SUPPLIER	HOW BECAME SUPPLIER	HOW PRICES ARE SET
MACEDONIA	Legislation addresses universality of service but does not differentiate between remote customer and captive customers	Entities with public service obligations must provide access and connection to system and secure, safe, quality and continuous delivery and supply of electricity for all users of the system for the relevant territory under equal conditions, prices and tariffs	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers
MOLDOVA	No	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers
MONGOLIA	No	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers
MONTENEGRO	No	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers
ROMANIA	No	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers
SLOVAKIA	No	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers
TURKEY	No	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers
UKRAINE	No	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers	No provisions specific to remote customers

Table 7 – DEFAULT SUPPLIERS TO NEWLY ELIGIBLE CUSTOMERS		
ERRA MEMBERS	CHOICE AVAILABLE TO USE SAME SUPPLIER AS WHEN CAPTIVE	AUTOMATIC OR ELECTIVE
ALBANIA	In practice, no eligible customers	N/A
ARMENIA	No eligible customers	N/A
BOSNIA	No eligible customers	N/A
BULGARIA	Yes	Customer files an application to the TSO for access to the network. TSO has a month to check terms and conditions and to allow access to the network
CROATIA	Yes, in theory, but so far, only one supplier has been issued a license for supply of electricity	Not defined yet; secondary legislation which should define this issue has not been passed yet
CZECH REPUBLIC	Yes	The customer must apply to a new trader for supply and must report change to TSO
ESTONIA	Yes	Eligible customers have right to choose their suppliers; changing is not obligatory
GEORGIA	No eligible customers	N/A
HUNGARY	Yes. If an eligible customer does not take any affirmative action, he automatically remains served by his public electricity supplier at regulated price	1. Customers must terminate public utility contract 2. Customers must sign an electricity supply contract with a trader 3. Customers must sign connection and network access contract with the network company 4. If a customer wants to buy electricity abroad, he must apply for a license to import electricity (and must buy interconnection capacity on auction)
KAZAKHSTAN	Yes. Customers have right to choose ESO; under "Rules on organization and performance of electricity retail market, access and services on given market" customers can be switched only from the start of the billing period without any outages in electricity supply. Representatives of the new and former ESO must read meters together for official transfer and acceptance with the customer's signature; former ESO bills customer using the final settlement amount agreed upon	Any retail market consumer directly connected to the networks of DNC (or other electricity transmission companies) can choose a supplier among the ESOs, that serves the specific regions; (suppliers of last resort and DNC should not put any obstacles in customers' way to conclude a contract on electricity supply with chosen ESO)
KOSOVO	No eligible customers	N/A
KYRGYZSTAN	No eligible customers	N/A
LATVIA	N/A – in practice, no eligible customers	N/A
LITHUANIA	Yes	Customers automatically remain served by the same supplier (public supplier) who was serving them when they were captive. An eligible customer must provide written notice to the public supplier 30 days before dates on which he seeks to switch to an independent supplier. Customer may receive electricity from only one supplier - the independent or the public supplier

Table 7 – DEFAULT SUPPLIERS TO NEWLY ELIGIBLE CUSTOMERS		
ERRA MEMBERS	CHOICE AVAILABLE TO USE SAME SUPPLIER AS WHEN CAPTIVE	AUTOMATIC OR ELECTIVE
MACEDONIA	At present, no eligible customers; when customers change from captive to eligible, they may not remain with the same supplier who was serving them when they were captive	After changing status to eligible customers, eligible customers may conclude contracts with the electricity generators and with the electricity traders. Eligible customers may not conclude contract for purchasing electricity with the wholesale supplier or the retail supplier. Change in status cannot be done before the end of a one-year period from the last change of the status. Eligible customers are proclaimed by ERC resolution within 60 days of requesting eligibility status
MOLDOVA	Yes	As set forth in the Regulation on accreditation of independent customers, approved by ANRE, in order to switch to another supplier the customer has to retire debts, to set the appropriate recording tools, and hold a contract with a new supplier
MONGOLIA	In practice, no eligible customers	N/A
MONTENEGRO	In practice, no eligible customers	N/A
ROMANIA	Yes	A newly eligible customer must contact the new supplier, notify the DSO and the former supplier, must pay all his debts to the former supplier, at which point the DSO sets up a meeting between the suppliers and customer to have a final meter reading, cancel the prior agreement and sign a new contract
SLOVAKIA	All non-household customers are eligible, all household customers are captive; the household electricity customer shall be entitled to change the electricity supplier from 1 July 2007	No answer provided
TURKEY	Yes	The customer must sign bilateral agreements with supplier; and must certify that has no debt to previous suppliers
UKRAINE	Yes	An eligible customer must inform an independent supplier of desire to purchase switch, and must enter into a contract; all subsequent steps related to supply of electricity to consumers are taken by the new, independent supplier

Table 8 – MECHANISM(S) TO ENSURE SUPPLY TO ELIGIBLE CUSTOMERS IF USUAL SUPPLIER NOT CAPABLE			
ERRA MEMBERS	EXISTENCE	DESCRIPTION	EXPERIENCE
ALBANIA	In practice, no eligible customers	N/A	N/A
ARMENIA	No eligible customers	N/A	N/A
BOSNIA	No eligible customers	N/A	N/A
BULGARIA	Under Energy Act, Article 97(3), electricity supply is a universal service provided on equal terms	Procedure for supplying eligible customers in extraordinary situations is set in Chapter 3 of Rules for Trading with Electricity	So far no such case has been registered
CROATIA	Yes, Law on Electricity Market (Art. 41)	Defines incumbent utility HEP as in charge of providing public service obligation to customers who stay without their supplier or whose supplier stops providing its services or who do not want to change their supplier	N/A
CZECH REPUBLIC	Yes	Under law, SLR has obligation to supply energy at regulated price	N/A
ESTONIA	Concept addressed in Electricity Market Act	Act provides that a network operator shall sell electricity to a market participant who is connected to its network if the market participant does not have the economically competitive possibility to purchase electricity from another seller (selling obligation)	N/A
GEORGIA	In practice, no eligible customers	N/A	N/A
HUNGARY	Yes	In that case the customer has two options: 1. Signing a contract with another trader 2. Signing a public utility contract with public electricity supplier who is obliged to serve every customer located within its territory. In this case, the customers have to pay the regulated tariff applied to captive customers	We have no experience with this mechanism because no trader went into bankruptcy in Hungary since the opening of the market

Table 8 – MECHANISM(S) TO ENSURE SUPPLY TO ELIGIBLE CUSTOMERS IF USUAL SUPPLIER NOT CAPABLE			
ERRA MEMBERS	**EXISTENCE**	**DESCRIPTION**	**EXPERIENCE**
KAZAKHSTAN	SLR should meet requirements of retail market access and have guarantees on ensuring electricity supply by other ESOs in case of electricity outages that occur through no fault of customers; with development of competition on retail market, per Order No. 183 of Ministry of Energy and Mineral Resources from August 18, 2004, retail electricity market could have 2 and more ESOs as participants	ESO as SLR in case of electricity supply outages that occurred through no fault of customers without advance notification should have the following documents: 1. agreements on electricity supply with all consumers in its licensed territory 2. agreements with energy producers on electricity supply	There is no experience of collaboration between consumers and ESOs on retail market, a retail market organization process just started this year
KOSOVO	At present, no eligible customers	N/A	N/A
KYRGYZSTAN	N/A	N/A	N/A
LATVIA	Yes – in law that went into force in June 2005	Public electricity supplier has obligation to supply electricity for all captive customers in all cases	No examples as of yet
LITHUANIA	Yes, Article 25 of Law on Electricity	Supplier who plans to break off his activity must inform regulatory authority 6 months prior and public supplier obliged to conclude contracts and supply electricity upon request to all customers within territory specified in supplier's license who have not selected an independent supplier; (provision not binding if the public electricity supplier is prevented from implementing provision by circumstances beyond its control)	No
MACEDONIA	Law addresses only how eligible customers may conclude contracts with the electricity generators and with the electricity traders	Eligible customer bears risk of incapability of the electricity trader or of the electricity generator to continue to supply; eligible customer cannot receive electricity from Wholesale Supplier or Retail Supplier.	N/A
MOLDOVA	Regulation on accreditation of independent customers provides that the customer may return to the previous supplier by giving advance notice of 15 days prior to the end of contract month	Eligible customer must submit a copy of signed contract to the system operator, distribution or transmission company, according to the network he has connected. In addition, customer must conclude a contract on transmission and/or distribution services. (System operator receives a copy of the contract for administrative purposes)	The mechanism suits all parties so far

Table 8 – MECHANISM(S) TO ENSURE SUPPLY TO ELIGIBLE CUSTOMERS IF USUAL SUPPLIER NOT CAPABLE			
ERRA MEMBERS	EXISTENCE	DESCRIPTION	EXPERIENCE
MONGOLIA	Energy Law has a concept of Eligible Customers but in practice, all captive	N/A	N/A
MONTENEGRO	N/A	N/A	N/A
ROMANIA	In the process of developing SLR regulation	Upon market opening, a customer supplied by competitive supplier who does not receive service is automatically switched to SLR for a couple of months, paying SLR tariff (higher than regulated tariff); after this, customer must choose another competitive supplier or to stay with default supplier	No. The mechanism is under development
SLOVAKIA	Yes	Ministry of Economy may oblige electricity suppliers to ensure supply of electricity to households; and may issue a decision on obligation to ensure supply of electricity in respective areas	This mechanism has never been used
TURKEY	Yes	Where supply of an eligible consumer who is purchasing electricity and/or capacity from supplier other than distribution company holding a retail license is temporarily or permanent suspended, distribution licensees obliged to supply electricity and/or capacity until those customers enter into new bilateral agreements with new suppliers	No change
UKRAINE	Yes	In the event of a sudden termination of operations of an independent supplier, supplier who operates in designated territories must supply electricity to customers located in licensed territory in accordance with agreement on supply of electricity that was suspended for the validity of the sale and purchase agreement between customer and independent supplier	This mechanism has been tested in the course of almost ten years of its application

Table 8A – MECHANISM(S) TO ENSURE SUPPLY TO ELIGIBLE CUSTOMERS IF USUAL SUPPLIER NOT CAPABLE		
ERRA MEMBERS	DURATION	HOW PRICES ARE SET
ALBANIA	N/A	N/A
ARMENIA	N/A	N/A
BOSNIA	N/A	N/A
BULGARIA	There is no restriction in time; mechanism remains in place until a new supplier is chosen	When an eligible customer opts out of the bilateral agreement and chooses to be supplied by the Public Provider, that Eligible Customer pays the regulated price of electricity
CROATIA	N/A	N/A
CZECH REPUBLIC	Recently eligible customers try to find a cheaper supplier; thus far, unreliable suppliers are not present	No answer
ESTONIA	N/A	N/A
GEORGIA	N/A	N/A
HUNGARY	This mechanism remains in place until the relevant legislation remains intact. In the next few years (at least until 2007) we do not expect any change in the present arrangements	If customer looks for another trader, price of electricity depends on the agreement between the customer and his trader. If customer signs a public utility contract, he must pay the regulated price applicable to captive customers
KAZAKHSTAN	An eligible customer has a right to select a new supplier. Procedures of recontracting discussed above apply. There is no experience of collaboration between consumers and ESOs on retail market, a retail market organization process just started this year	Supply surcharge is a component of final electricity sale price. Services provided by market players dominating on the market (monopolists) are regulated in accordance with the legislation on protection of competition. If supplying organization has a monopoly position on particular area, a supply surcharge as well as electricity price for end-users should be reconciled by anti-monopoly body. There is no methodology for calculating of supply surcharge and final energy price worked out by a newly established antimonopoly body (Agency for Regulation of Natural Monopolies, Protection of Competition was divided and competition protecting functions were shifted on to the Committee on protection of competition, Ministry of Industry and Trade). But antimonopoly body has a procedure of formation fix prices on products (labour, services) in case of violation of state price regulation by monopolist. If entity seeks to increase prices, it must provide documents setting forth the rationale for the price increase to antimonopoly body
KOSOVO	N/A	N/A
KYRGYZSTAN	N/A	N/A
LATVIA	According to law (in force from June, 2005) public electricity supplier has obligations to supply electricity for all captive customers in the territory of Latvia in all cases. In practice we do not have any example	N/A
LITHUANIA	Indefinite and could continue until eligible customer decides to select the new supplier	Commission (Regulator) shall regulate prices for public supply services by setting price caps. Specific prices and tariffs for public supply services and public electricity shall be set and changed by a supplier

Table 8A – MECHANISM(S) TO ENSURE SUPPLY TO ELIGIBLE CUSTOMERS IF USUAL SUPPLIER NOT CAPABLE		
ERRA MEMBERS	DURATION	HOW PRICES ARE SET
MACEDONIA	Eligible customers shall enter, at their own costs and risks, into contract with the IPPs and electricity traders, for purchase of electricity at prices freely negotiated	N/A
MOLDOVA	If a supplier is unable to cope with his duties, the customer repeats the relevant mechanism with other supplier. According to the legal acts and configurations of electricity network if supplier stops providing electricity to independent customer, other customers that have delivery contracts and confirmation from supplier continue to receive electricity	Calculation of the price for supply is based on Methodology developed and approved by the Agency. It depends on the voltage level of networks supplying electricity
MONGOLIA	N/A	N/A
MONTENEGRO	N/A	N/A
ROMANIA	SLR is meant to be a temporary rather than a permanent solution for the customer (following the UK model)	In our future legislation, we will state than SLR and SLR tariffs are set as the result of a competitive bidding process and will be established as a reference price (for example the regulated tariff for non-domestic customers and the standard tariff for households) plus an addition (x%) that will be set after discussions. By the year 2007, the role of supplying customers abandoned by their competitive provider because of bankruptcy will be assigned to SLR, a provider selected through a competitive bidding process
SLOVAKIA	No answer exists	No answer exists
TURKEY	There is no time limit or selection process to select a new, permanent supplier. If supplier stops providing electricity to a customer, that customer will keep receiving electricity off the network as long as the network where the customer is located is in operation	The price is the same as applied to all captive customers
UKRAINE	A consumer can switch not only to SLR but also from the beginning of new calendar month to another independent supplier. Configuration of power networks in Ukraine is such that there are mutual electricity flows between many distribution companies. In case one termination of supply of electricity by one supplier which is at the same time a distribution company, consumption of electricity, including unauthorized one, is possible	Where switches to SLR, a consumer pays for electricity at retail tariff, and formula for calculating such a tariff is envisioned in license conditions; and if the consumer switches to an independent supplier he pays a negotiated price

Table 9 – SUPPLIER REGULATIONS AND LICENSING		
ERRA MEMBERS	PROVISIONS TO MINIMIZE ABRUPT CESSATION OF SUPPLY	ROLE OF REGULATOR TO MONITOR SUPPLIERS
ALBANIA	Stated in the law	Via reporting mechanisms and periodic controls
ARMENIA	According to the "Energy Law" and Rules on Power Supply and Use. Suppliers have right to cease supplying customers in case of non-payment only after taking precautionary measures set by the Commission	Assignment of the staff to monitor the financial-economical activity of licensees
BOSNIA	Conditions determined to ensure financial stability (bank guarantees and deposits), purchase contracts and other conditions will be stated in the licenses	Supervision through submission of periodical reports about all technical, financial, organizational and other data, as well as records and decisions of relevant inspections and decisions of authorized bodies, and access to premises and documentation of licensees to inspect performance compliance with license conditions
BULGARIA	Energy Act, Article 93 and Article 94, say "the Public Provider/the Public Suppliers ensure electricity supply to customers that are joined to the transmission/distribution networks." Specific mechanism is described in the General Terms and Conditions, which are part of license conditions	Under terms and conditions of licenses issued to Public Provider and Public Suppliers, electricity generators and traders, regulator requires licensees to submit quarterly, semi-annual and annual reports for overall activities (technical and financial)
CROATIA	N/A	Technical and Financial ability are required when issuing a license. Regulator's monitoring procedure for suppliers has not yet been developed
CZECH REPUBLIC	Statute of substitute keeper -- possibility to command to supply still 1 year	ERO monitors the activity all players of energy trading on basis of data processing
ESTONIA	Suppliers will abruptly cease supplying their customers only where customers do not pay for electricity	No answer provided
GEORGIA	N/A	N/A
HUNGARY	Every trader must get a trading license before serving any eligible customer. One of the criteria to get a trading license is proving financial strength: before getting license you have to deposit an amount (according to your sales) as financial security. If the supplier of a captive customer (the public electricity supplier) goes bankrupt, there is no mechanism in place to manage the situation	Regulator is responsible for monitoring the activity of traders. Companies must submit to regulator annual reports and detailed information on sales and purchases
KAZAKHSTAN	N/A	These issues are outside of scope of regulatory body and fall under competence of the Ministry of Energy and Mineral Resources. Will be addressed in more detail in secondary legislation
KOSOVO	N/A. No licenses issued yet	No answer provided
KYRGYZSTAN	The Energy Law of Kyrgyz Republic sets forth provisions	Regulator may inquire on regular basis; inspect site; investigate cases of suspicion of non-observance of license terms

Table 9 – SUPPLIER REGULATIONS AND LICENSING		
ERRA MEMBERS	**PROVISIONS TO MINIMIZE ABRUPT CESSATION OF SUPPLY**	**ROLE OF REGULATOR TO MONITOR SUPPLIERS**
LATVIA	General requirements that "*the public services' providers shall ensure the possibility of receiving uninterrupted public services during the whole term of a license*" (Law On Regulators of Public Services)	Through complaints of consumers, regulator monitors suppliers. Regulator can issue decision to set additional obligation for suppliers if there is a need, or set penalty for not conformity with requirements
LITHUANIA	Article 51 of Licensing Rules for Electricity Sector determines that supplier who plans to break off his activity must inform Commission (Regulator) 6 months before change	Commission (Regulator) assesses technological, financial and managerial capacity of enterprises according to data submitted annually At year end, costs of licensed activities of energy enterprises operating in electricity sector shall be audited within 4-month period and the auditor's report shall be submitted to the Commission. If a supplier of eligible customers stops supplying its customers because the supplier goes bankrupt, public supplier should act as SLR
MACEDONIA	Public service activities should be done continuously and with quality. Energy Law sets penalties for not fulfilling this requirement from 1300 to 4000 euros; responsible person at legal entity may be suspended from performing management activity from 3 months to one year. Suppliers and traders are obliged to deliver electricity to customers in compliance with energy balance, supply contract and conditions for supply of electricity. Energy Law sets penalties for not fulfilling these requirements. Obligations also set in licenses	ERC may suspend or revoke the license in case of failure to fulfill obligations. Licensee must allow ERC access to documents in the manner, scope requested by ERC. Licensee must submit an annual report to ERC by 31 March at the latest in the current year and other interim reports in manner, scope and form as defined in the license. Licensee must inform ERC of envisaged substantial modifications in its legal status, ownership structure and technical and economic-financial operation not later than 3 months prior to their occurrence. To monitor the fulfillment of license obligation, ERC may carry out direct inspection into performance of licensed activity at any time, with or without giving prior notice
MOLDOVA	Energy law requires licensees to ensure continuity of supply with the exception of cases of non-payment, technical reasons and safety and loss preventions provided by the licenses and contracts; duties fixed in the licenses on supply as well	In order to cover crediting of customers, methodology of tariff calculation foresees inclusion of operating funds, costs on network development and investments; arrangements allow for suppliers to ensure ongoing technical and financial ability to serve their customers
MONGOLIA	According to the Article 32.5. of the Energy Law, a supplier shall notify the consumer on suspension of energy consumption no later than 48 hours before the suspension (and shall notify regulator 6 months prior to any such suspension/cessation)	• Monthly, quarterly, yearly data analysis • Site inspection • Financial auditing

Table 9 – SUPPLIER REGULATIONS AND LICENSING		
ERRA MEMBERS	PROVISIONS TO MINIMIZE ABRUPT CESSATION OF SUPPLY	ROLE OF REGULATOR TO MONITOR SUPPLIERS
MONTENEGRO	All customers captive. Until market opening, generation and supply are public services, so a supplier could not stop providing electricity if customers fulfill their duties	Regulator monitors license conditions
ROMANIA	Regulatory framework designed to secure supply. Regulations contain provisions in order to increase competition, quality of supply, the transparency and fairness of prices	ANRE has strict control of suppliers' costs and profit; sets regulated prices to cover cost and reasonable profit. Suppliers report to ANRE on monthly basis
SLOVAKIA	License conditions	Regulator issues licenses
TURKEY	Electricity Market Retail Agreement automatically terminates where: • license awarded to retail sale company is terminated; • one of the parties is bankrupt and an officer is appointed in charge of liquidation, and there is a situation under which liquidation is legally required. Retail sale company can terminate retail agreements signed with customers who do not meet obligations with 10 days written notification. Electricity Market Customer Services Regulation requires: • retail licensee shall notify the relevant distribution licensee in writing at least 3 business days prior to the date of the termination of the retail agreement. Distribution licensee shall cut electricity if customer whose retail agreement has expired does not have new agreement	Minimal. Generation companies are responsible for keeping generation facilities in operating conditions required for the fulfillment of existing commitments, except for programmed annual maintenances and force majeure conditions. Also, in line with the applicable legislation, they are responsible for the notification of the programmed annual maintenance schedules to the transmission licensee and/or the distribution licensee operating in the distribution region wherein the generation facility is located; wholesale & retail sale companies are responsible for ensuring that the financial liabilities against other legal entities operating in market shall be guaranteed
UKRAINE	Per license terms and agreements, in the event of a sudden termination of operations of an independent supplier, supplier who operates in designated territories must ensure supply to consumers located in licensed territory; termination of operations of a supplier unlikely, as this supplier is at the same time owner of distribution networks, *i.e.* natural monopolist in this territory and its exit from the market cannot be sudden	Commission exercises ongoing control over licensees' activities and takes measures in case they violate provisions of the energy legislation or license conditions. If such a situation occurs, Commission would have to identify another SLR for "captive consumers," and "eligible consumers" would have the right to choose: either to apply to another "supplier of last resort," or to an independent supplier

APPENDIX

QUESTIONNAIRE
On Suppliers of Last Resort (SLR)
for the regulators of ERRA

The purpose of this Questionnaire is to find out how different jurisdictions address supply of electricity for certain segments of its population. It is specifically meant to determine how the concept of supplier of last resort is developing in ERRA countries. As this is a relatively new area of development, it may be that your country does not have this concept. Please answer all the questions that apply to your country; where the questions do not apply to your country, please note N/A or give any explanation you believe appropriate.

DEFINITIONS

For the purposes of this Questionnaire, the following terms have the following meaning:

Captive Customer:	Electricity Customers who cannot legally choose their own supplier.
Eligible Customer:	Electricity Customers who can legally choose their own supplier.
Default Supplier:	The supplier of electricity who provides electricity to Eligible Customers who do not choose their own supplier.
Incumbent:	The entity or a part of the entity that previously served customers when they were all captive, and generation, transmission, distribution, system operation and supply of electricity was a bundled monopoly service.
Remote Customers:	Customers in areas of the country which are expensive to serve with electricity because, for example, they are sparsely populated island, peninsulas, or remote valleys. This type of customer may or may not exist in ERRA countries.
Supplier of Last Resort:	The supplier of electricity who provides electricity to Eligible Customers in emergency situations when the supplier chosen by the Eligible Customers cannot serve, *e.g.* because it has gone bankrupt. This type of supplier may or may not exist in ERRA countries.
Supply:	The sale of electricity, usually including metering and billing, in contrast to other activities such as generation, transmission, system operation and distribution.

APPENDIX

Vulnerable Customers: Customers who lack the financial capability to pay for their electricity. An ERRA country may or may not have a statute defining the income level at which someone qualifies as "vulnerable."

QUESTIONS

A. Supplier of Last Resort

Based on the definition provided here, does your legislation include provisions regarding the supplier of last resort? Is this a concept supported by law in your country? If so, please give a reference to the applicable legislative provisions. If not, please let us know if there are discussions to change existing legislation to include the supplier of last resort.

B. Captive Customers

1. What percentage of the customers in your jurisdiction remain Captive Customers?

2. Who supplies Captive Customers? Please describe all energy functions fulfilled by such entity.

3. Is the entity supplying Captive Customers the Incumbent?

4. Who selected that entity to supply Captive Customers?

5. How did this entity become the supplier to Captive Customers? Is the supply of Captive Customers the result of a selection procedure or did it happen over time without an identified selection process?

6. Are the prices that Captive Customers pay for Supply regulated? If so, what pricing method is used?

7. What percentage of Eligible Customers does the Incumbent supply?

8. If the Incumbent supplier has been separated from any other aspects of Incumbent service, such as generation, transmission, distribution, and/or system operation, please describe how the supplier is separated from any other energy activities. For example, please describe if the supplier has account separation and/or management separation and/or ownership separation from other energy activities (such as transmission, generation, distribution and or system operation).

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C. Vulnerable Customers

9. Does your legislation have the concept of "vulnerable customers" as defined above? If so, please describe and answer the following questions. If not, please continue to the next section.

10. What entity supplies Vulnerable Customers?

11. Is the entity supplying Vulnerable Customers the Incumbent?

12. Who selected that entity to Supply Vulnerable Customers?

13. What process was used to select the entity that supplies Vulnerable Customers?

14. How are the prices that Vulnerable Customers pay for Supply determined?

D. Remote Customers

15. Does your legislation have the concept of "remote customers" as defined above? If so, please describe and answer the following questions. If not, please continue to the next section.

16. What entity supplies Remote Customers?

_____

_____

_____

17. Is the entity supplying Remote Customers the Incumbent?

_____

_____

_____

18. Who selected that entity to supply Remote Customers?

_____

_____

_____

19. What process was used to select the entity that supplies Remote Customers?

_____
_____
_____

20. How are the prices that Remote Customers pay for Supply determined?

_____
_____
_____

E. Default Suppliers

This section on default suppliers need only be filled out if your jurisdiction has Eligible Customers (i.e., your country has less than 100% Captive Customers).

21. When customers change from being Captive to Eligible Customers, may they choose to remain with the same supplier who was serving them when they were Captive?

22. If the answer to Question 21 is yes, do customers changing from Captive to Eligible automatically remain served by the same supplier who was serving them when they were captive unless the customers take affirmative action to switch to another supplier?

23. If the answer to Question 22 is yes, please describe the steps that a customer must take to switch to another supplier.

F. Suppliers of Last Resort

This section on suppliers of last resort need only be filled out if your jurisdiction has Eligible Customers (i.e., your country has less than 100% Captive Customers).

24. If a Supplier of Eligible Customers suddenly stops supplying its customers in your country because that supplier is no longer capable of doing so, for example because the supplier goes bankrupt or its license is revoked, is any mechanism in place to ensure that the supplier's customers continue to receive electricity?

25. As a technical matter, given how the electricity network is configured in your country, if a supplier stops providing electricity to a customer, will some customers nevertheless continue to receive electricity off the network? Please explain.

[*Answer following questions, Questions 26-29, only if the answer to Question 24 is yes.*]

APPENDIX

26. Please describe the mechanism used to ensure that the Eligible Customers continue to receive electricity, including the conditions under which the mechanism applies.

27. How long does this mechanism remain in place? For example, is there a process to select a new, permanent supplier to take the place of the one that failed? Please explain.

28. How is the price for Supply paid by customers served under this mechanism calculated?

29. If the mechanism has ever been used, please describe the circumstances, how the mechanism worked, and any changes in the mechanism resulting from the experience.

G. Supplier Regulations and Licensing

30. What provisions, if any, are contained in the law, secondary legislation, regulations or licenses to minimize the possibility that Suppliers will abruptly cease supplying their customers?

31. What steps, if any, does the regulator take to monitor any conditions placed on suppliers to ensure their ongoing technical and financial ability to serve their customers?

32. If the steps taken described in the answer to Question #29 differ depending upon whether the Supplier is serving Captive or Eligible Customers, or is acting as a Supplier of Last Resort, please describe those differences.