

QUALITY OF ELECTRICITY SUPPLY: THE REGULATION IN ITALY

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OUTLINE

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A. BACKGROUND: THE LEGAL FRAMEWORK

- ◆ **The Regulatory Authority**
 - law no. 481 of November 14, 1995
- ◆ **New electricity market**
 - legislative decree no. 79 of March 16, 1999, implementing the European directive 96/92/CE
- ◆ **New gas market**
 - legislative decree no. 164 of May 19, 2000, implementing the European directive 98/30/CE
- ◆ **Local (energy) services**
 - law no.142 of June 8, 1990 (considered for amendment under draft law no. 7042)



A1. BACKGROUND: THE REGULATORY AUTHORITY FOR ELECTRICITY AND GAS OF ITALY

- ◆ **Established** under law no. 481 of November 14, 1995
- ◆ Fully **operational** since April 23, 1997
- ◆ **Independent entity** with three Commissioners
- ◆ Sets its own organisation and **procedures** for decision-making
- ◆ **Self-financed** by contributions from regulated companies and entities
- ◆ **Member** to the Council of European Energy Regulators since March 7, 2000



A2. BACKGROUND: THE POWERSPAN OF THE REGULATORY AUTHORITY

- ◆ **Tariff** setting (level and price-cap) and **price** monitoring
- ◆ **Quality of service** (minimum requirements and sanctions)
- ◆ Directives on **activity unbundling**
- ◆ Advice on **market structure** and **promotion of competition**
- ◆ **Overviewing** electricity and gas service supply and contracts
- ◆ **Settlement** of disputes and complaints



A3. BACKGROUND: SERVICE QUALITY REGULATION

- ◆ **Consumer protection and improvement of service quality** are among the **goals** of the Regulatory Authority
- ◆ Quality improvement is promoted through the **price-cap** scheme and ad hoc **incentives** and **sanctions**
- ◆ **Automatic refunds** are foreseen should quality standards be not met by the utilities
- ◆ The Regulatory Authority issues **directives** and **guidelines** on quality matters while identifying (the **liable entities**)
- ◆ The Regulatory Authority sets **compulsory quality standards** and **benchmarks**
- ◆ Customers' **claims regarding** quality issues can be treated before the Regulatory Authority



A4. BACKGROUND: (PAST) OBLIGATIONS UNDER THE CITIZEN'S PUBLIC SERVICE CHART

- ◆ **List of quality indicators** ("general framework") issued by the Ministry of Industry. The list to encompass both individual and collective standards
- ◆ **Each utility to set its own quality standards**
- ◆ Each utility to identify **at least 4 individual standards subject to refund** should they be not met
- ◆ Most utilities to adopt **refund schemes** for eventual enactment following customers' request

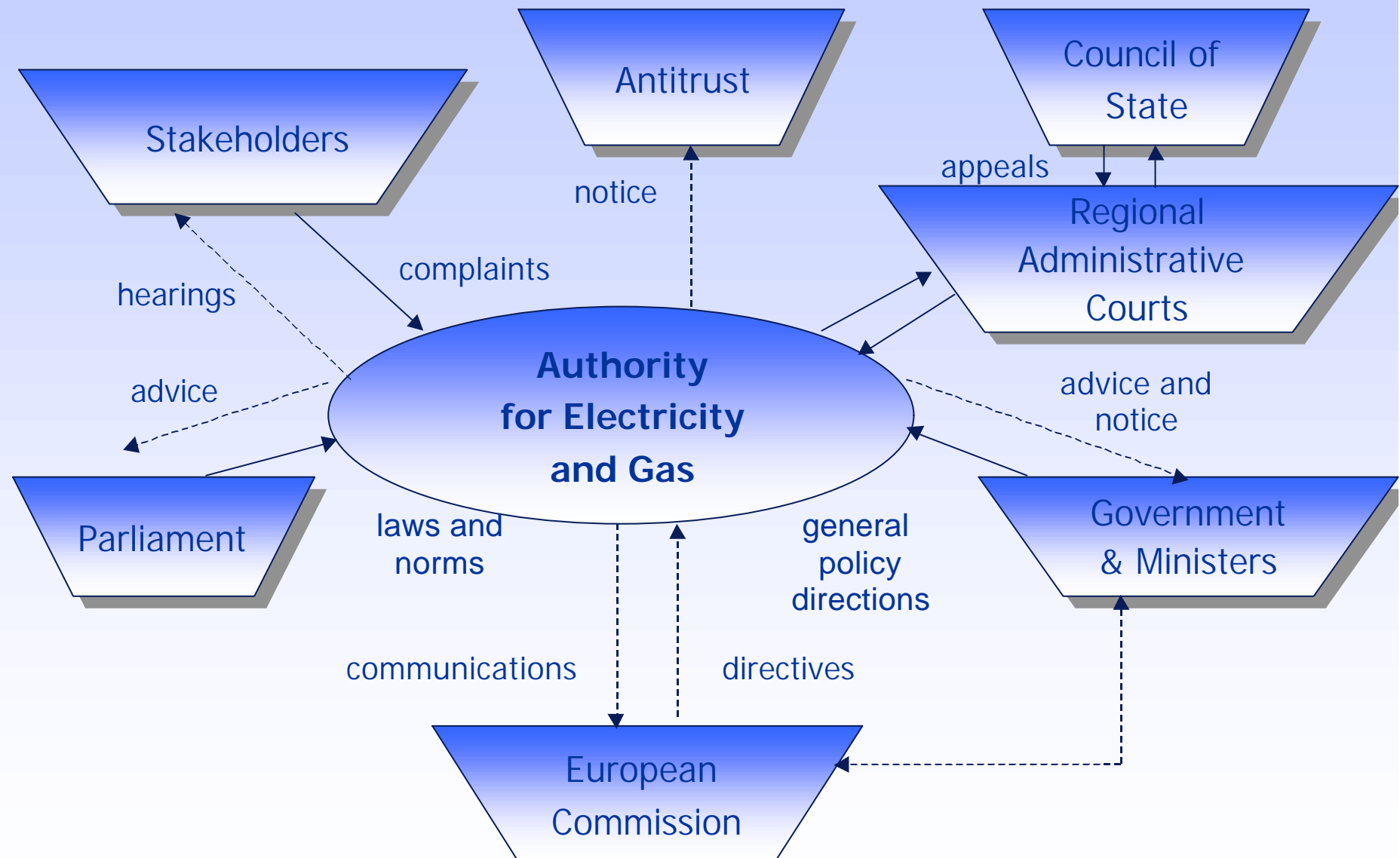


A5. BACKGROUND: ACCOUNTABILITY OF THE REGULATORY AUTHORITY

- ◆ **Annual report** on the state of electricity and gas services delivered to the Parliament and Prime Minister
- ◆ **Compliance** with general economic policy goals as determined by the Government and the Parliament
- ◆ **Hearings** with stakeholders (companies, consumers, environmentalists, trade unions and business groups)
- ◆ **Appeals** against Authority's decisions before the regional Administrative Courts and Council of State



A6. ACCOUNTABILITY OF THE REGULATORY AUTHORITY



B. ELECTRICITY SUPPLY QUALITY: PROGRESS AND ACHIEVEMENTS

- ◆ **THE PATH TO INDEPENDENT REGULATION OF
SUPPLY QUALITY**
- ◆ **CONTRACTUAL, COMMERCIAL AND TECHNICAL
QUALITY**
- ◆ **QUALITY MEASUREMENT AND STANDARDS**
- ◆ **QUALITY IMPACT ON TARIFFS (AND PRICES)**
- ◆ **INCENTIVES, REFUNDS AND SANCTIONS**



B1. ELECTRICITY DISTRIBUTION AND SUPPLY IN ITALY (I)

- ◆ LV CUSTOMERS : about **32 million**
- ◆ MV CUSTOMERS : about **110,000**
- ◆ MONOLITHIC MARKET : **Enel distribuzione Spa 93.7 %**
Others 6.3 %
(self-consumption excluded)
- ◆ ENEL DISTRIBUZIONE SPA: **HV: 14 regional divisions**
MV and LV: 74 distribution units
- ◆ OTHER DISTRIBUTORS:
> 100,000 customers: 7 local utilities
10,000-100,000 customers: 19 local utilities
- ◆ MICRO DISTRIBUTORS: **<10,000 customers: 177 small utilities**

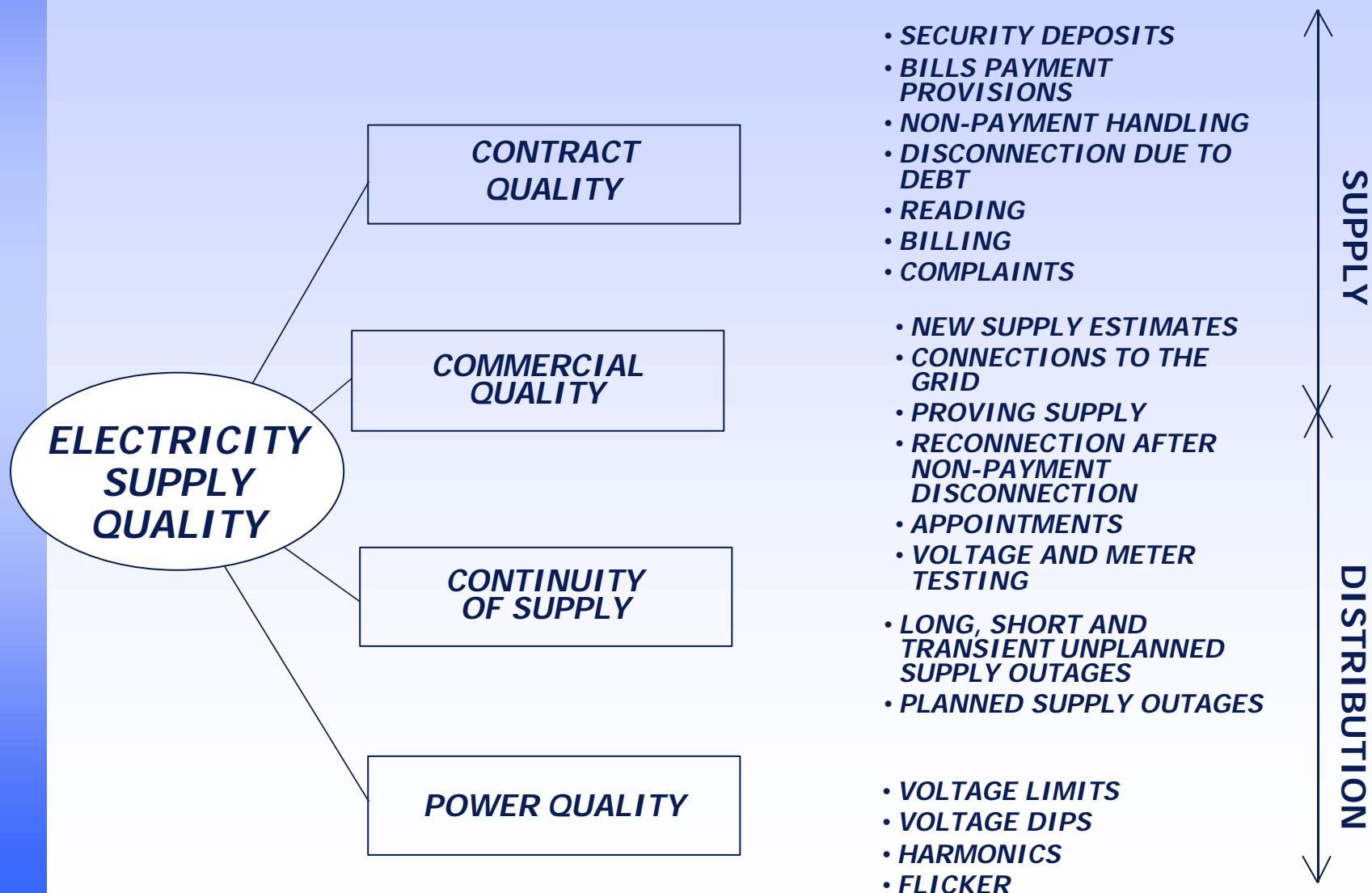


B1. ELECTRICITY DISTRIBUTION AND SUPPLY IN ITALY (II)

- ◆ Electricity distribution is a **franchised service** delivered under ministerial concession
- ◆ Distribution concessions go through December 31, 2030 **excluding measurement** and **supply** (retail) which are liberalised activities
- ◆ On May 31, 2001 the **eligible market** included about 1,200 customers representing 1/3 of national demand with 8,000 exit points (threshold at 9 GWh per year)
- ◆ **New threshold at 0,1 GWh per year** is foreseen after the dismissal of 15,000 MW of Enel Spa's generation capacity



B2. ELECTRICITY SUPPLY QUALITY: THE MAIN DETERMINANTS



B3. ELECTRICITY SUPPLY QUALITY: REGULATORY MILESTONES (I)

◆ *MARCH 1998: CONSULTATION PAPER ON GUIDELINES FOR QUALITY REGULATION*

- OBJECTIVE I: GUARANTEEING QUALITY BENCHMARKS TO EACH CUSTOMER
- OBJECTIVE II: PROMOTING QUALITY IMPROVEMENT
- OBJECTIVE III: DEFINING A COMMON SET OF QUALITY INDICATORS

◆ *OCTOBER 1998: CONSULTATION PAPER ON REGULATION OF SUPPLY OUTAGE MEASUREMENT AND CONTINUITY INDICATORS*

REG. ORDER no. 128/99 OF SEPTEMBER 1, 1999



B3. ELECTRICITY SUPPLY QUALITY: REGULATORY MILESTONES (II)

- ◆ ***JULY 1999: CONSULTATION PAPER ON REGULATION OF COMMERCIAL QUALITY***

REG. ORDER no. 200/99 OF DECEMBER 28, 1999

REG. ORDER no. 201/99 OF DECEMBER 28, 1999

- ◆ ***NOVEMBER 1999: CONSULTATION PAPER ON REGULATION OF CONTINUITY OF SUPPLY (AND ZONAL STANDARDS)***

REG. ORDER no. 202/99 OF DECEMBER 28, 1999



C. CONTRACT QUALITY REGULATION

- ◆ **COMPULSORY CONTRACT RULES AND (VOLUNTARY) CODES OF CONDUCT**
- ◆ **TRANSPARENT BILLING PRACTICE**



C1. COMPULSORY CONTRACT RULES AND CODES OF CONDUCT

◆ REG. ORDER no. 200/99 OF DECEMBER 28, 1999

- READING
- BILLING
- BILL PAYMENT PROVISIONS
- NON-PAYMENT HANDLING
- DISCONNECTION DUE TO DEBT
- SECURITY DEPOSITS
- COMPLAINTS

◆ (VOLUNTARY) SUPPLY CODES OF CONDUCT SUBJECT TO REGULATORY AUTHORITY APPROVAL



C2. TRANSPARENT BILLING PRACTICE

◆ REG. ORDER no. 55/00 OF MARCH 16, 2000

- DIRECTIVE TO THE SUPPLIERS FOR THE TRANSPARENCY OF THE BILLING PRACTICE AND DOCUMENTS**
- BILLS ARE AN EFFECTIVE MECHANISM TO DELIVER MESSAGES AND ACTIVATE CUSTOMERS**



D. COMMERCIAL QUALITY REGULATION

◆ **REG. ORDER no. 201/99 OF DECEMBER 28, 1999**

- **GUARANTEED INDIVIDUAL QUALITY STANDARDS BY THE SUPPLIERS**
- **AUTOMATIC REFUNDS TO CUSTOMERS**
- **COLLECTIVE QUALITY STANDARDS**



D1. GUARANTEED QUALITY STANDARDS

◆ MAXIMUM WAITING TIME FOR THE MOST FREQUENT SERVICES

(All standards in working days)

| | LV | MV |
|---|----|----|
| ➤ ESTIMATING CHARGES (SIMPLE WORKS) | 15 | na |
| ➤ PROVIDING SUPPLY (WITH SIMPLE WORKS) | 15 | na |
| ➤ PROVIDING SUPPLY (WITHOUT WORKS) | 5 | 10 |
| ➤ DISCONNECTION ON REQUEST | 5 | 7 |
| ➤ RECONNECTING USERS DISCONNECTED BECAUSE OF NON PAYMENT | 1 | 1 |

◆ MAXIMUM HOUR-BAND FOR APPOINTMENTS

| | | |
|--------------------------------|------|------|
| ➤ CUSTOMISED APPOINTMENTS ONLY | 3hrs | 3hrs |
|--------------------------------|------|------|

(GUARANTEED MAXIMUM WAITING TIME DOES NOT APPLY)



D2.AUTOMATIC REFUNDS TO CUSTOMERS (I)

- ◆ SHOULD **GUARANTEED STANDARDS BE NOT MET**, THE CUSTOMER IS ENTITLED TO RECEIVE AN **AUTOMATIC REFUND** BY HIS/HER SUPPLIER THROUGH THE BILL
- ◆ SHOULD GUARANTEED STANDARDS BE NOT MET BECAUSE OF **CUSTOMER'S MISBEHAVIOURS OR EXTERNAL AND UNPREDICTABLE EVENTS**, NO REFUND IS DUE BY THE SUPPLIER



D2.AUTOMATIC REFUNDS TO CUSTOMERS (II)

◆ LEVEL OF REFUND REFERS TO THE TYPE OF CUSTOMER :

- LV CUSTOMERS: about 25 Euros
- MV CUSTOMERS: about 50 Euros

◆ CUSTOMERS CAN APPEAL BEFORE REGIONAL COURTS WHEN ECONOMIC VALUE OF DAMAGE SUFFERED IS HIGHER THAN REFUND



D2. AUTOMATIC REFUND TO CUSTOMERS (III)

- ◆ **AUTOMATIC REFUND SCHEME** INTRODUCED SINCE JULY, 2000
- ◆ DURING THE **FIRST SIX MONTHS** OF ENFORCEMENT OF THE SCHEME, ABOUT 5,000 OF REFUNDS HAVE BEEN DECIDED
 - ENEL DISTRIBUZIONE SPA: 2,172 REFUNDS
 - OTHER DISTRIBUTORS: 2,599 REFUNDS



D3. COLLECTIVE QUALITY STANDARDS

◆ MINIMUM PERCENTAGE OF CUSTOMERS' REQUESTS TO BE MET WITHIN A GIVEN PERIOD OF TIME

(w.d.: working days)

| | time | % |
|--|---------|-----|
| ➤ COST ESTIMATE FOR (COMPLEX WORKS) | 40 w.d. | 80% |
| ➤ SUPPLY (COMPLEX WORKS) | 60 w.d. | 85% |
| ➤ BILLING PROBLEMS RESOLUTION | 15 w.d. | 90% |
| ➤ METER TESTING OR VOLTAGE PROBLEMS | 10 w.d. | 90% |
| ➤ RESPONSE TO COMPLAINTS AND WRITTEN QUERIES | 20 w.d. | 90% |
| ➤ METER READING (AT LEAST ONCE A YEAR PER CUSTOMER) | - | 95% |
| ➤ APPOINTMENTS KEPT WITHIN THE HOUR-BAND FOR COST ESTIMATES | 3 hours | 90% |



E. TECHNICAL QUALITY REGULATION

- ◆ **REG. ORDERS no. 128/99 AND no. 202/99**
 - **SUPPLY OUTAGES CLASSIFICATION**
 - **SUPPLY OUTAGES MEASUREMENT**
 - **PRESENT PERFORMANCE LEVELS**
 - **NEW OVERALL STANDARDS**
 - **IMPROVEMENT RATES, INCENTIVES AND PENALTIES**



E1. SUPPLY OUTAGES CLASSIFICATION (I)

- ◆ **OUTAGES REFER TO LONG-LASTING (> 3 MIN) UNPLANNED POWER SUPPLY INTERRUPTIONS (NO ADVANCE WARNING)**
- ◆ **CAUSES OF OUTAGES ARE CLASSIFIED ACCORDING TO THE LIABLE ENTITY:**
 - ACTS OF GOD ("FORCE MAJEURE"): EMERGENCIES OR DISASTERS TESTIFIED BY LOCAL OR NATIONAL AUTHORITIES, OR WEATHER CONDITIONS BEYOND GRID DESIGN LIMITS
 - CUSTOMER'S, OR USER'S, OR THIRD PARTY RESPONSIBILITY
 - DISTRIBUTOR'S RESPONSIBILITY



E1. SUPPLY OUTAGES CLASSIFICATION (II)

◆ **ORIGIN OF OUTAGES IS CLASSIFIED** ACCORDING TO THE LAYOUT OF THE DISTRIBUTION GRID :

- OUTAGE ORIGINATED IN THE **TRANSMISSION GRID**
- OUTAGE ORIGINATED IN THE **HV DISTRIBUTION GRID**
- OUTAGE ORIGINATED IN THE **MV DISTRIBUTION GRID**
- OUTAGE ORIGINATED IN THE **LV DISTRIBUTION GRID**



E2. SUPPLY OUTAGES MEASUREMENT (I)

- ◆ A SINGLE **METHOD FOR MEASURING OUTAGES** APPLIES THROUGH THE WHOLE COUNTRY
 - **ZONAL MEASUREMENTS** FOR LV CUSTOMERS AND FOR SHORT AND TRANSIENT INTERRUPTIONS IN THE MV GRID; TO THIS END, **TELECONTROL SYSTEM IS REQUIRED** AT THE EXIT OF HV/MV TRANSFORMER
 - **INDIVIDUAL MEASUREMENTS** FOR UNPLANNED LONG (>3 MIN) INTERRUPTIONS FOR MV CUSTOMERS
- ◆ **PERFORMANCE LEVELS AND INDICATORS** FOR SUPPLY CONTINUITY HAVE BEEN INTRODUCED (AS SHOWN IN THE FOLLOWING)



E2. SUPPLY OUTAGES MEASUREMENT (II)

- ◆ NATIONAL TERRITORY CLASSIFIED INTO:
 - **HIGH-DENSITY (URBAN)** AREAS: MUNICIPALITIES WITH MORE THAN 50,000 INHABITANTS
 - **MEDIUM -DENSITY (SUBURBAN)** AREAS: MUNICIPALITIES WITH MORE THAN 5,000 AND LESS THAN 50,000 INHABITANTS
 - **LOW-DENSITY (RURAL)** AREAS: MUNICIPALITIES WITH LESS THAN 5,000 INHABITANTS
- ◆ SPECIAL CARE USED **WHILE SEPARATING** LOW AND MEDIUM DENSITY AREAS (I.E. SUBURBS) FROM HIGH DENSITY AREAS (I.E. DOWNTOWNS) WITHIN CONURBATIONS (E.G. THE CITY OF ROME)



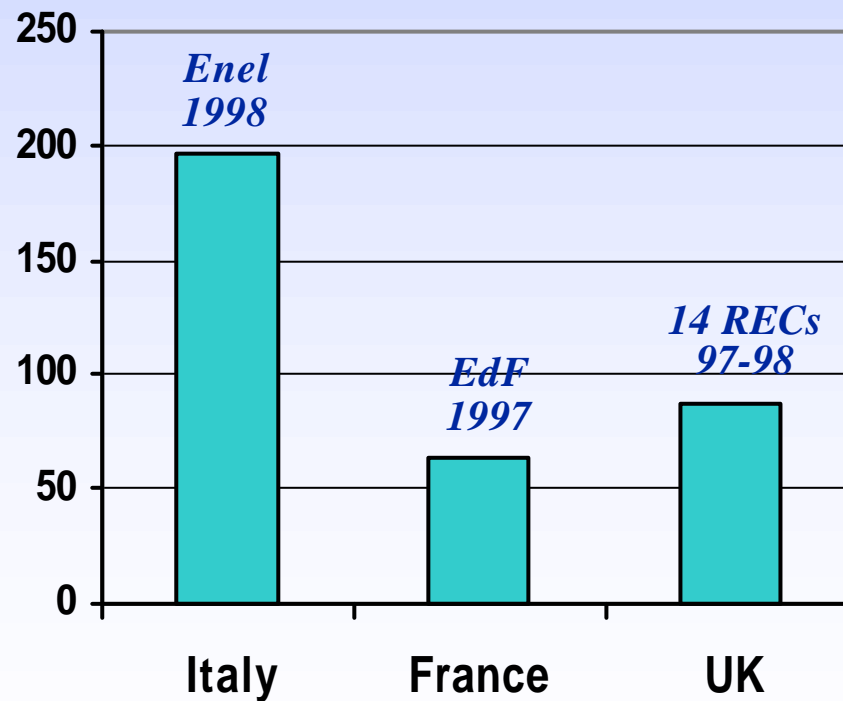
E3. SUPPLY CONTINUITY: PRESENT PERFORMANCE LEVELS (I)

- **AVERAGE OUTAGE LEVEL IN ITALY IS WORSE THAN IN OTHER MAJOR EU COUNTRIES**
 - ITALY 1998: 196 MINUTES LOST
 - FRANCE: 63 MINUTES LOST; UK: 88 MINUTES LOST
- **SIGNIFICANT DIFFERENCES EXIST BETWEEN NORTHERN AND SOUTHERN ITALY, EVEN FOR THE SAME DENSITY LEVEL (YEAR 1998)**
 - NORTH: 121 MINUTES LOST; SOUTH: 270 MINUTES LOST PER CUSTOMER
 - NORTHERN CITIES: 55 MINUTES LOST; SOUTHERN CITIES: 140 MINUTES LOST PER CUSTOMER
- **THE MV GRID IS CRITICAL PRIORITY**
 - OUTAGES ORIGINATED IN THE MV GRID: 85% OF MINUTES LOST
 - IN THE HV GRID: 3% " " "
 - IN THE LV GRID: 12% " " "



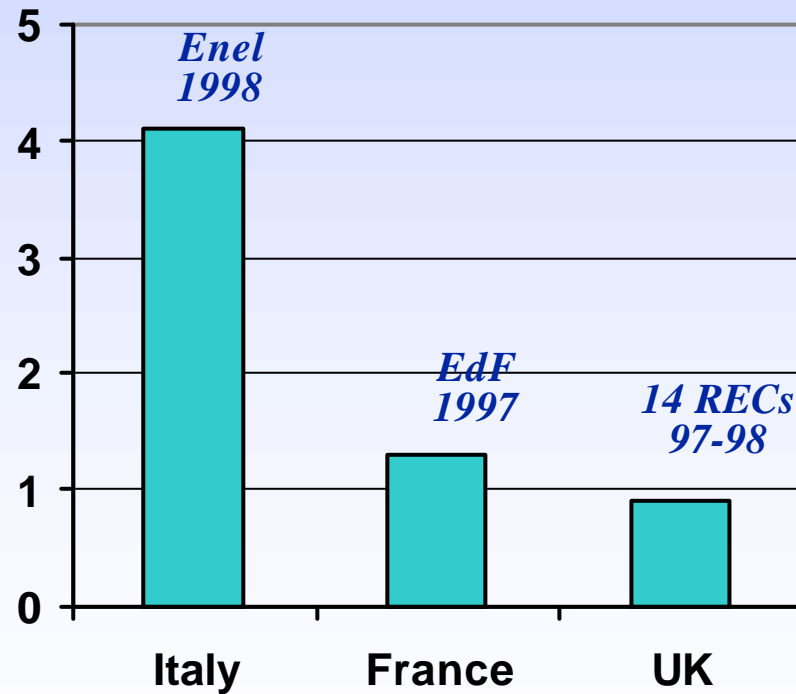
E3. SUPPLY CONTINUITY: PRESENT PERFORMANCE LEVELS (II)

Minutes lost per customer



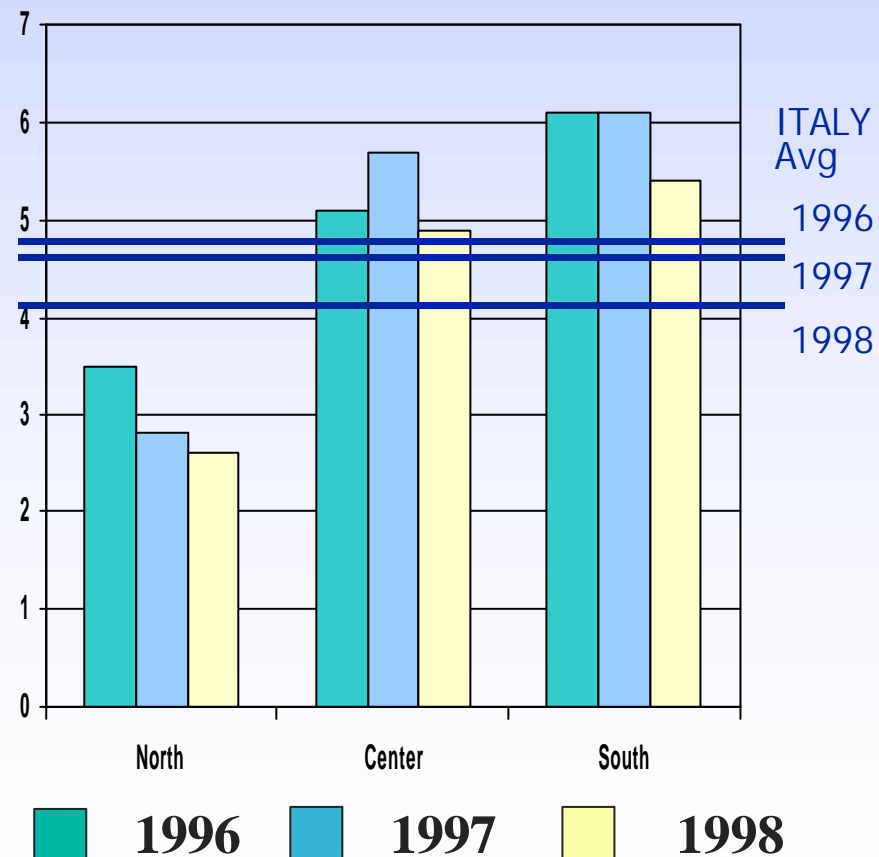
E3. SUPPLY CONTINUITY: PRESENT PERFORMANCE LEVELS (III)

Number of long outages (> 3') per customer



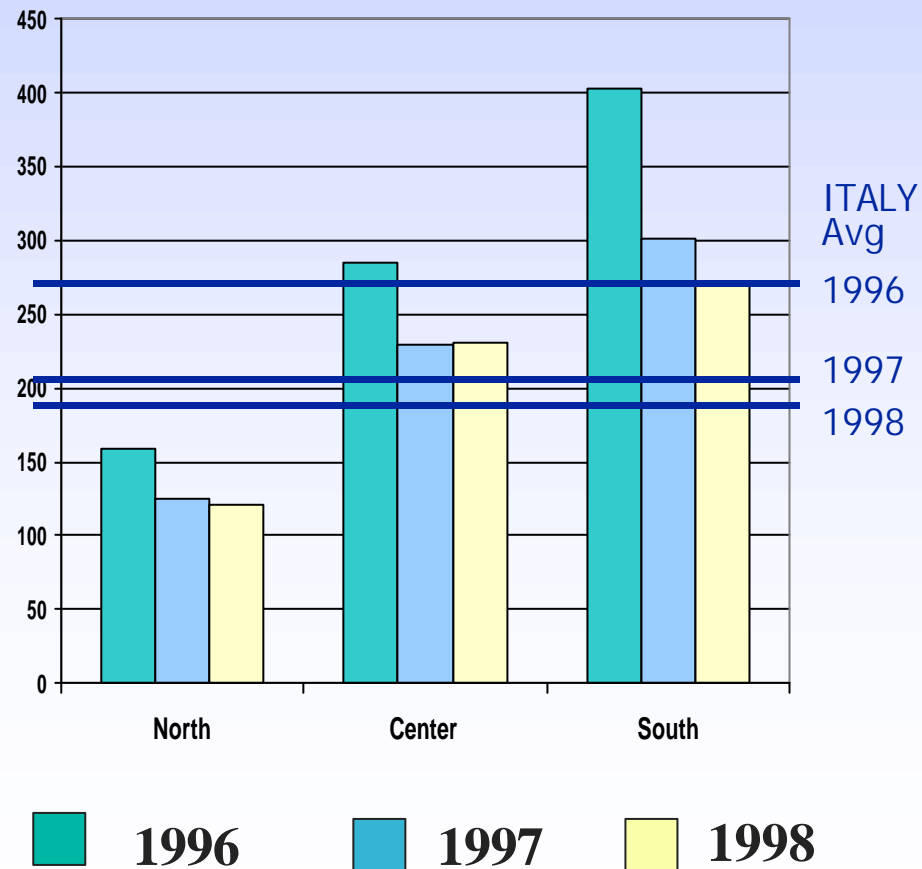
E4. SUPPLY CONTINUITY: ENEL'S PERFORMANCE (LV CUSTOMERS), YEARS 1996-1998 (I)

Number of long outages (>3') per customer



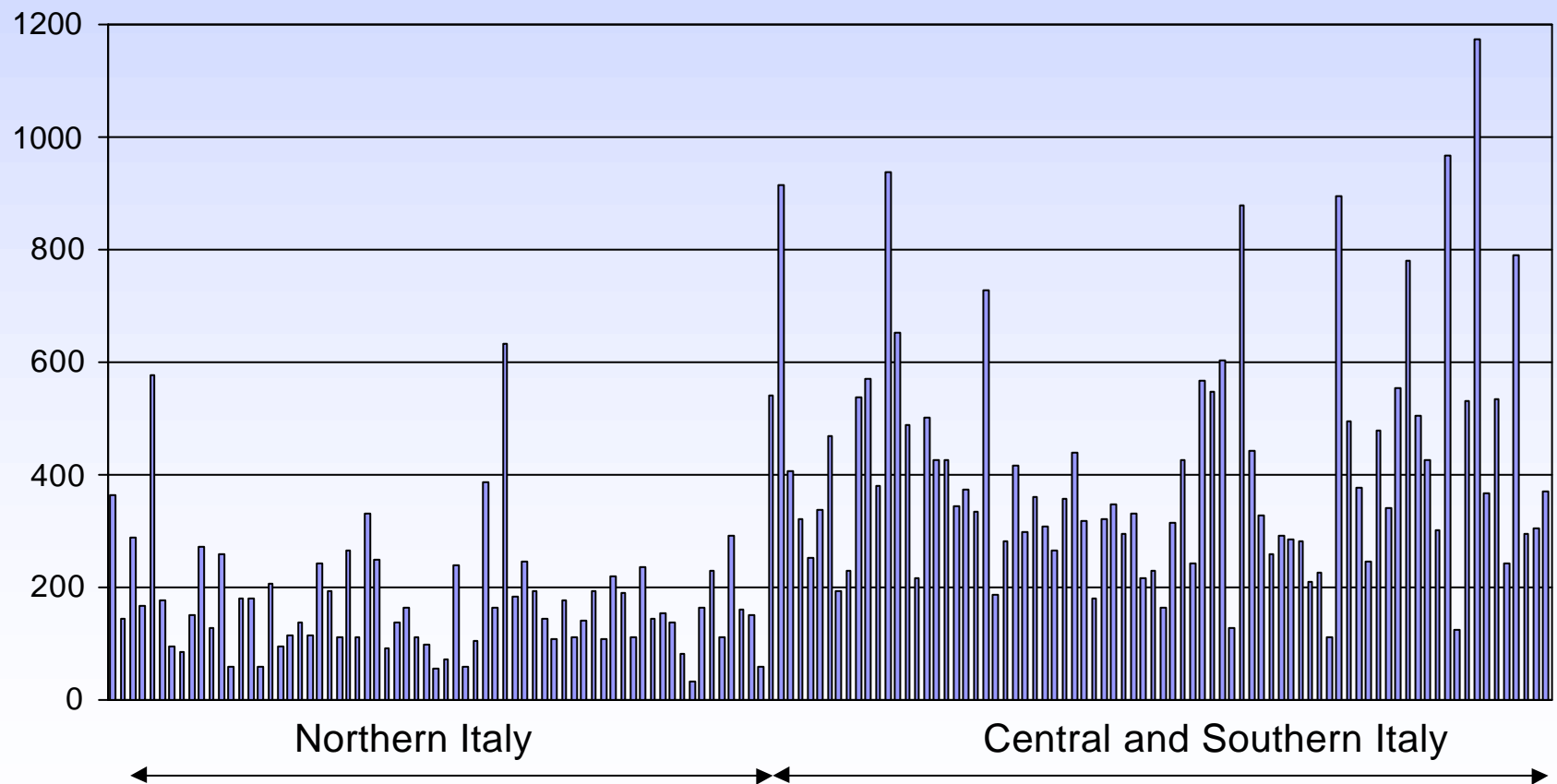
E4. SUPPLY CONTINUITY: ENEL'S PERFORMANCE (LV CUSTOMERS), YEARS 1996-1998 (II)

Minutes lost per customer



E4. SUPPLY CONTINUITY: ENEL'S PERFORMANCE (LV CUSTOMERS), YEARS 1996-1998 (III)

YEAR-CUMULATED DURATION OF OUTAGES
(MINUTES LOST PER LV CUSTOMER; ENEL, 1996)



E5. CONTINUITY OF SUPPLY REGULATION: THE FOUR OBJECTIVES (I)

- ◆ **TO ENHANCE THE OVERALL LEVEL OF CONTINUITY STANDARDS THROUGH THE COUNTRY**
 - IMPROVING COUNTRY'S AVERAGE LEVEL TO APPROACH EUROPEAN STANDARDS AND BENCHMARKS (➡ OVERALL STANDARDS)

- ◆ **TO REDUCE THE GAPS BETWEEN NORTH AND SOUTH**
 - REDUCING DIFFERENCES BETWEEN REGIONAL AND DISTRICT LEVELS TO REACH THE COUNTRY AVERAGE LEVEL (➡ OVERALL STANDARDS)



E5. CONTINUITY OF SUPPLY REGULATION: THE FOUR OBJECTIVES (II)

◆ TO PROTECT CONSUMERS BY MEANS OF AUTOMATIC REFUNDS

- WHERE POSSIBLE, INDIVIDUAL REFUNDS ARE APPLIED (➡ INDIVIDUAL STANDARDS); OTHERWISE, ZONAL OR OVERALL REDUCTIONS OF THE NATIONAL TARIFF ARE FORESEEN (➡ OVERALL STANDARDS)

◆ TO INTRODUCE FLEXIBILITY FOR SPECIAL QUALITY NEEDS

- HIGH QUALITY OF SUPPLY MATCHES THE NEEDS OF INDUSTRIAL CUSTOMERS (➡ NEW PRICE OPTIONS WITH SPECIAL QUALITY STANDARDS)



E6. CONTINUITY OF SUPPLY REGULATION: TOOLS

◆ CONTINUITY INDICATORS TO IDENTIFY RESPONSIBILITIES OF SINGLE DISTRIBUTORS

- MINUTES LOST PER LV CUSTOMERS
- EXCLUSION OF INTERRUPTIONS CAUSED BY ACTS OF GOD AND BY CUSTOMERS OR THIRD PARTIES MISBEHAVIOURS
- NETTING OF INTERRUPTIONS ORIGINATED IN THE EHV/HV GRID

◆ ZONE DEFINITION TO ALLOW GOOD GRID AND CUSTOMER COVERAGE

- 300 DISTRICTS (ABOUT 100 IN URBAN AREAS, 100 IN SUBURBAN AREAS, 100 IN RURAL AREAS) CONCERNING ALMOST THE ENTIRE COUNTRY



E7. CONTINUITY OF SUPPLY REGULATION: TWO OVERALL STANDARDS (I)

◆ **NATION-WIDE REFERENCE STANDARDS** INDICATE THE EXPECTED OPTIMAL LEVELS OF CONTINUITY. THEY ARE NATION-WIDE AND INDEPENDENT OF THE PRESENT CONTINUITY LEVEL IN EACH DISTRICT

- URBAN AREAS: 30 MINUTES LOST PER CUSTOMER PER YEAR
- SUBURBAN AREAS: 45 MINUTES LOST
- RURAL AREAS: 60 MINUTES LOST
- COUNTRY AVERAGE REFERENCE STANDARD: 44 MINUTES LOST



E7. CONTINUITY OF SUPPLY REGULATION: TWO OVERALL STANDARDS (II)

- ◆ **DISTRICT-WIDE BASIC STANDARDS** IDENTIFY THE MINIMUM IMPROVEMENT REQUIRED BY DISTRIBUTORS WITHOUT GRANTING THEM ANY EXTRA INCENTIVE
 - DISTRICT-WIDE BASIC STANDARDS HAVE BEEN DEFINED FOR EACH DISTRICT AND FOR EACH YEAR
 - A SET OF **BASIC IMPROVEMENT RATES** HAS BEEN DETERMINED STARTING FROM THE 2-YEAR (1998-1999) AVERAGE



E8. CONTINUITY OF SUPPLY REGULATION: BASIC IMPROVEMENT RATES

- ◆ IN EACH DISTRICT THE MINUTES LOST MUST DECREASE EVERY YEAR ACCORDING TO THE BASIC IMPROVEMENT RATES

| 2-YEAR AVERAGE LEVEL (MINUTES LOST) | | | BASIC IMPROVEMENT RATES |
|-------------------------------------|----------------|----------------|-------------------------------|
| URBAN AREAS | SUBURBAN AREAS | RURAL AREAS | |
| UP TO 30 min | UP TO 45 min | UP TO 60 min | 0% |
| 31 TO 60 min | 46 TO 90 min | 61 TO 120 min | 5% |
| 61 TO 90 min | 91 TO 135 min | 121 TO 180 min | 8% |
| 91 TO 120 min | 136 TO 180 min | 181 TO 240 min | 10% |
| 121 TO 150 min | 181 TO 270 min | 241 TO 360 min | 13% |
| OVER 151 min | OVER 271 min | OVER 361 min | 16% |

- ◆ EXPECTED NATIONAL AVERAGE CONTINUITY IMPROVEMENT:
10% PER YEAR



E9. CONTINUITY OF SUPPLY REGULATION : INCENTIVES AND PENALTIES (I)

◆ SHOULD DISTRIBUTORS IMPROVE CONTINUITY MORE THAN REQUIRED BY THE BASIC IMPROVEMENT RATES:

- DISTRIBUTORS GAIN AN EXTRA INCENTIVE RELATED TO THE EXTRA-IMPROVEMENT RATE

◆ SHOULD DISTRIBUTORS IMPROVE CONTINUITY LESS THAN REQUIRED BY THE BASIC IMPROVEMENT RATES:

- DISTRIBUTORS PAY AN EXTRA PENALTY RELATED TO THE LESS-THAN-BASIC IMPROVEMENT RATE



E9. CONTINUITY OF SUPPLY REGULATION : INCENTIVES AND PENALTIES (II)

- ◆ THE INCENTIVE SYSTEM IS FUNDED THROUGH:
 - A Q-PARAMETER IN THE PRICE-CAP SCHEME: $DP = RPI - X + Q$
 - PENALTIES PAID BY DISTRIBUTORS FOR DISTRICTS WHERE THE BASIC IMPROVEMENT RATES ARE NOT MET

- ◆ BECAUSE OF THE SINGLE NATIONAL TARIFF, **AN EQUALISATION FUND ALLOWS** THE ASSIGNMENT OF SPECIAL INCENTIVES TO THOSE DISTRIBUTORS WHICH WERE CHARACTERISED IN THE YEAR 2000 BY STRUCTURAL HINDRANCES AFFECTING QUALITY



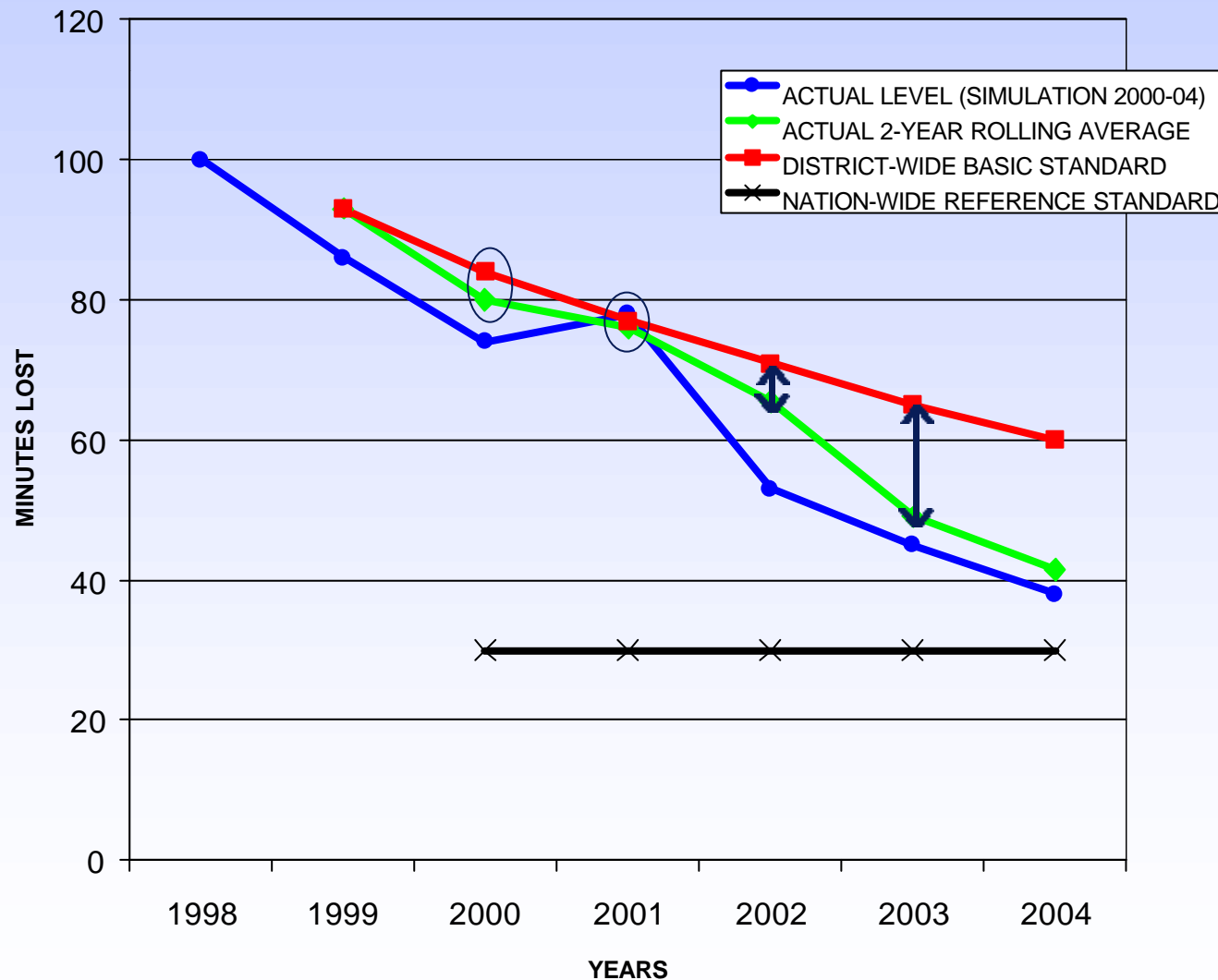
E10. CONTINUITY OF SUPPLY REGULATION : REQUIRED IMPROVEMENT

| | Starting level 1998-1999 | Standard 1999-2000 | Standard 2000-2001 | Standard 2001-2002 | Standard 2002-2003 |
|----------------------------|-----------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| ITALY (ENEL) | 150 cml | 133 cml | 120 cml | 109 cml | 99 cml |
| <i>Average improvement</i> | | 11% | 20% | 28% | 34% |
| Northern regions | 96 cml | 89 cml | 83 cml | 78 cml | 73 cml |
| <i>Average improvement</i> | | 8% | 15% | 21% | 26% |
| Central regions | 180 cml | 157 cml | 140 cml | 125 cml | 113 cml |
| <i>Average improvement</i> | | 13% | 22% | 31% | 37% |
| Southern regions | 213 cml | 186 cml | 163 cml | 145 cml | 130 cml |
| <i>Average improvement</i> | | 13% | 24% | 32% | 39% |

Cml: customer minutes lost (2-year rolling average, net of interruptions due to external causes)



E11. CONTINUITY OF SUPPLY REGULATION: IMPROVEMENT FOR AN URBAN DISTRICT



REMARKS:

2000: 2-YEAR AVERAGE BETTER THAN BASIC STANDARD, BUT IN THE DEADBAND: NO INCENTIVE

2001: ACTUAL LEVEL WORSE THAN BASIC STANDARD, BUT 2-YEAR AVERAGE IN THE DEADBAND: NO INCENTIVE
NEITHER PENALTY

2002 AND 2003: INCENTIVE LINKED TO THE ARROWS (REPRESENTING DIFFERENCE BETWEEN BASIC STANDARD AND 2-YEAR ROLLING AVERAGE)



E12. CONTINUITY OF SUPPLY REGULATION : CONTROLS

- ◆ DATA ON CONTINUITY OF SUPPLY ARE PROVIDED BY DISTRIBUTORS, THE REGULATORY AUTHORITY MAY CONTROL THAT OUTAGES ARE RECORDED ACCORDING TO ESTABLISHED MEASUREMENT RULES AND PRACTICE:
 - ABUSES IN SUPPLY INTERRUPTIONS MEASUREMENT ARE CHECKED AND FINED
- ◆ MECHANISMS ARE FORESEEN TO ADJUST CONTINUITY STANDARDS TO INCLUDE WEATHER UNPREDICTABLES
 - 2-YEAR MOVING AVERAGE
 - DEADBAND (+/- 5%)



E13.CONTINUITY OF SUPPLY REGULATION: SANCTIONS (I)

- ◆ THE REGULATORY AUTHORITY ON MAY 5, 2001 HAS FINED ENEL DISTRIBUZIONE SPA WITH **A 50 MILLION EUROS SANCTION** BECAUSE OF FALSE INFORMATION CONCERNING CONTINUITY OF SUPPLY IN 3 REGIONS OF THE SOUTH OF ITALY:
 - ABOUT **23% OF ENEL DISTRIBUZIONE SPA'S CUSTOMERS** WERE INVOLVED
 - ACTUAL CONTINUITY FIGURES **RESULTED 80% LESS THAN ASSUMED VALUES** (AS DECLARED BY ENEL DISTRIBUZIONE SPA FOR THE YEAR 2000)



E13.CONTINUITY OF SUPPLY REGULATION: SANCTIONS (II)

- ◆ THE SANCTION IS ABOUT **1% OF TOTAL DISTRIBUTION COST** OF ENEL DISTRIBUZIONE SPA (CAPEX AND OPEX)
- ◆ **A DEFAULT SCHEME** IS UNDER CONSIDERATION FOR THE 3 REGIONS OF THE SOUTH OF ITALY TO ACCELERATE THE RECOVERY OF THE RESULTING CONTINUITY "GAP"



F1. CONTINUITY OF SUPPLY REGULATION : NEXT STEPS

➤ **INDIVIDUAL GUARANTEED STANDARDS:**

- FOR HV AND MV CUSTOMERS, DISTRIBUTORS TO RECORD SINGLE (INDIVIDUAL) OUTAGES SINCE YEAR 2001
- THE REGULATORY AUTHORITY TO DEFINE INDIVIDUAL GUARANTEED STANDARDS FOR HV AND MV CUSTOMERS

➤ **SHORT OUTAGES AND TRANSIENTS:**

- FOR SHORT OUTAGES (DURATION 1''-3') AND TRANSIENTS (<1''), DISTRIBUTORS TO INTRODUCE ZONAL MEASUREMENT SINCE YEAR 2001
- THE REGULATORY AUTHORITY TO CONSIDER SPECIAL STANDARDS



F2. POWER QUALITY REGULATION: NEXT STEPS

➤ REGULATION OF VOLTAGE DIPS, HARMONICS, FLICKERS (**POWER QUALITY**) REQUIRING:

- SEPARATION OF RESPONSIBILITIES BETWEEN DISTRIBUTORS, SUPPLIERS, CUSTOMERS AND OTHER SYSTEM PLAYERS
- DEFINITION OF TECHNICAL STANDARDS AND BENCHMARKS
- ACTION BY THE REGULATORY AUTHORITY FORESEEN BY THE YEARS 2002 - 2003

➤ COSTS AND BENEFITS OF NARROWING THE **VOLTAGE TOLERANCE BAND** (PRESENTLY +/- 10%) ARE BEING ASSESSED



F3. CONCLUSION: LESSONS LEARNED (I)

- REGULATION OF ELECTRICITY **SUPPLY QUALITY** SHOULD BE AN **INTEGRAL PART** OF THE TARIFF AND PRICE SETTING PROCESS
- LACK OF AGREED UPON (INTERNATIONAL & EUROPEAN) **QUALITY STANDARDS MEASUREMENT PRACTICE AS WELL AS POOR PERFORMANCE BENCHMARKS** MAY SLACKEN REGULATORY SIMPLICITY, EFFECTIVENESS AND PROGRESS TOWARDS SINGLE ELECTRICITY MARKET
- **CUSTOMERS' DEMAND** FOR BETTER QUALITY COULD BE A STRONG INCENTIVE TO LONG-TERM IMPROVEMENT



F3. CONCLUSION: LESSONS LEARNED (II)

- TRANSITION TOWARDS **LIBERALISED RETAIL MARKET** MAY RAISE NEW QUALITY REGULATORY CHALLENGES
- MECHANISMS SHOULD BE INVENTED TO FRAME AND PROMOTE **SELF-REGULATION** IN SUPPLY QUALITY MATTERS
- **DEFAULT SCHEMES** SHOULD GENERALLY BASE ON ECONOMIC TOOLS TO FACE (UNRECOVERABLE) QUALITY FAILURES AND MISTAKEN PUBLIC SERVICE OBLIGATIONS

