Electricity Deregulation: Evidence, Analysis and Public Policy

By

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APPENDICES

Appendix 1

Glossary of terms and acronyms

*This glossary summarises the common acronyms used in the industry that this project contains. It is complied from CC (1996) and the Electricity Pool. Entries from the latter are identified by ** and the author includes those marked as ***.*

AGR	Advanced Gas-cooled Reactor (nuclear). The generation design prior to **PWR**. Most nuclear generation is by AGRs.
Ancillary services (AS)**	Services which are required for the security and stability of the transmission system, for example reactive power, hot standby and frequency control.
Ancillary Service Provider (ASP)**	In England and Wales, this is a term used for the party who contracts for the provision of ancillary services pursuant to the requirements of the transmission licence.
Annual average cold spell	A particular combination of weather elements which give rise to a level of peak demand within an NGC financial year which has a 50 per cent chance of being exceeded as a result of weather variation alone.
Area board	An area electricity board in England and Wales that has been succeeded in business by a **REC** pursuant to the Electricity Act 1989.
Authorized area	The geographical area within which a **PES** had been authorised by its **PES license** to supply electricity.
Auto-generators	Auto-generators generate electricity primarily for their own needs, but may additionally supply other customers on the same site.
Availability	The maximum amount of generation in **MW** that the operator of a **genset** declared it to be capable of providing.
Baseload; non-baseload, mid-merit, peak-load generation	Baseload generation is that used to meet continuous demand even at its lowest level. Non-baseload generation is brought in progressively as demand increases. Peak-load generation is used to satisfy short periods of maximum demand. Mid-merit generation is that which falls between baseload and peak.
Beach price	The price of gas available at the shore terminal.

BNFL British Nuclear Fuels plc.

Capacity The capacity of a **genset** or power station is usually given in **MW** and can be expressed in a number of ways. **Generators** are required to register the capacity of their gensets under the **Grid code**. The **GRC** of a **genset** is equal to its normal full load capacity, less the power in **MW** consumed by it through its transformer when generating at that normal full load capacity, as declared by the generator and registered with the **NGC**. Declared net capacity was the measure of capacity commonly used by the **CEGB** and is now principally used for business rating purposes.

Capacity payments The difference between **SMP** and **PPP**. Capacity payments [reflected] the probability of supply being lost (**LOLP**) by reason of available generation being insufficient to meet demand, and the **VOLL**.

CCGT Combined cycle gas turbine. A type of generating plant which turbines, typically fuelled by natural gas (or an oil distillate), are used to drive generators to produce electricity. The exhaust gases are then passed through a boiler to produce steam, which in turn drives an additional turbine coupled to a generator. Overall **thermal efficiency** with current technology is improved to up to about 50 per cent net, compared with about 37 per cent for coal, oil or conventional gas (**OCGT**).

CEGB Central Electricity Generating Board. Replaced at **vesting** by **PG, NP, NEP** and the **NGC**.

CfD Contract for differences. CfDs are contracts negotiated between the **generators** and **suppliers** in which the parties allocate among themselves the risk of variability in prices otherwise associated with the purchase and sale of electricity through the **Pool**.

CHP Combined heat and power. The simultaneous generation of heat and electricity, typically where the need for both arises for industrial or commercial purposes.

CO^2 Carbon dioxide.

Coal-backed contracts The contracts agreed between **NP** and **PG** on the one hand and the **RECs** on the other for the provision of specified volumes of electricity sales, the electricity having been generated by coal supplied under contracts between these two **generators** and British Coal (now RJB Mining). Their duration [was] from 1 April 1993 to 31 March 1998. They replaced similar contracts agreed at **vesting**, on their expiry.

Co-generators Co-generators can simultaneously generate electricity and steam. The steam is used locally, and the electricity may be used by local customers, sold through the **Pool**, or both.

Competitive customer See competitive market.

Competitive market The market to supply customers whose average power demand [exceeded] 100 **kW** for three months in a year. [Those] customers [might] purchase their electricity from any **supplier** as well as their local **PES**. They [were] known as competitive or **non-franchise customers**. From 1 April 1998 the competitive, or non-franchise, market [was extended] to all customers. See also **franchise market**.

Constrained-off Genets which, despite their output being offered at a price equal to or lower than **SMP**, [were] instructed by **NGC** to limit or cease generation as a result of limitations on the **transmission system** or demand forecasting errors.

Constrained-on **Generating sets** which, despite their output being offered at a price in excess of the **SMP**, [were] called on by **NGC** to operate as a result of limitations on the **transmission system**, demand forecasting errors or breakdown of other **gensets**.

Demand-weighted Pool price — The demand-weighted Pool price for a given period is obtained by multiplying the price and demand for each half-hour slot, summing them, and dividing the sum by the total demand for the period. It is the price a **generator** would receive from the **Pool** over the period of time its output profile was identical to **Pool** demand.

DGES — The Director General of Electricity Supply, [Professor Stephen Littlechild was the first]. See OFFER [& OFGEM].

DGGE* ** — The Director General of Gas and Electricity. Mr. Callum McCarthy was the first. Alistair Buchanan is the current DGGE.

Direct Sales — Sales of electricity to an end-customer by a **second-tier supplier**, particularly a **generator**.

Distribution system — A system of electric circuits with a nominal voltage of 132,000 volts or less, and associated electrical plant and meters to convey electricity from grid supply points on the national grid to customers. The systems owned and operated by the **PESs** are regulated by the **DGES** as local monopolies.

Eastern — Eastern Group plc, the owner of Eastern Electricity, one of the **12 RECs**.

EdF Electricite de France.

EFA Electricity Forward Agreement. A financial instrument based on contracts similar to **CfDs**.

Electricity Act Electricity Act 1989.

Embedded generation Generating plant, which is connected directly to the **distribution system** rather than to the **transmission system**.

FFL Fossil Fuel Levy. A levy ([was 10 per cent in 1996]) imposed on **PES licence**-holders and **second tier suppliers** to share among such holders and suppliers the additional costs incurred by the **PES licence**-holders as a result of satisfying the **NFFO**.

FGD Flue Gas Desulphurisation Equipment. Coal contains sulphur, realised as SO^2, on burning. Tighter emissions guidelines [were] met by removing SO^2 from the exhaust gas, typically by passing flue gasses through a limestone bed.

First-tier supply The supply of electricity by a REC in its own area, whether or not this is to a **competitive market** or **franchise market** customer.

Fossil fuel Coal, coal products, lignite, natural gas, crude liquid petroleum or other petroleum products.

Franchise customer See **franchise market**.

Franchise market **PESs** [had] monopoly right to supply customers in their **authorised areas** whose demand [was] under 100 **kW** (see **competitive market**). [Those were] known as franchise customers, and the market as franchise market. The franchise ended on 31 March 1998.

Generating licence	A licence granted under section 6 of the Electricity Act 1989 authorising the generation of electricity for the purpose of giving a supply or enabling a supply to be given to any premises.
Genset	Generating set. A generator and its associated turbines capable of generating electricity as a stand-alone unit. A power station may comprise one or more gensets.
Generator	A person authorised to generate electricity by way of a licence or an exemption from the requirement for a licence.
GW	Gigawatt—see **power**.
GWh	Gigawatt-hour—see **power**.
GRC	Genset registered capacity. See **capacity**.
Grid Operator (GO)**	The party required by the terms of the transmission licence to operate the transmission system and implement the Grid Code.
Grid Supply Point (GSP)**	Point where electricity is transferred from the transmission system to the distribution system of a Regional Electricity Company or to other users.
HMIP	Her Majesty's Inspectorate of Pollution.
Interconnectors	The links between the **transmission system** in England and Wales and the **transmission systems** in Scotland and France.
IPPs	Independent power producers. A generator other than a privatised **generator** (**PG, NP, NEP** and the **NGC's** pumped storage business) or **REC**. They may be partly owned by, or have **power purchase agreements** with, **RECs**.

kW Kilowatt-hour—see **power**.

kWh Kilowatt-hour—see **power**.

Load factor The ratio (expressed as a percentage) of a net amount of electricity generated by a **genset** to the net amount which it could have generated were it operating at its net output capacity. A **genset** operating at full capacity for half the time is said to have a 50 per cent load factor.

LOLP** Loss of Load Probability [was] used in the establishment of the Capacity Payment. LOLP [was] calculated through the comparison of total declared availability with forecasted demand. The total declared availability figure used in [that] case [was] taken as the maximum of the aggregate bids, on the day, for the day of trading and for the previous seven days.

London London electricity plc. One of the 12 **RECs**.

Magnox Magnesium Oxide Reactor (nuclear). The earliest UK operational reactor design.

Manweb Manweb plc. One of the 12 **RECs**.

MEB Midlands Electricity plc. One of the 12 **RECs**.

Merit-order** Ranking in order, of which generation plant should be used, based on ascending order of price together with amount of electricity that will be generated.

MW Megawatt—See **power**.

MWh Megawatt-hour—See **power**.

Mid-merit generation — See **baseload, non-baseload, mid-merit, peak-load generation**.

Mothballing — The decommissioning of generating plant to a state from which it may be recommissioned. With the exception of **IPPs, generators** must seek permission from the **DGES** for both mothballing and recommissioning.

Must-take contract — See **take-or-pay contract**.

National grid — See **transmission system**.

NO^x — Oxides of nitrogen.

Non-baseload generation — See **baseload, non-baseload, mid-merit, peal-load generation**.

Non-franchise customer — See **competitive market**.

Northern — Northern Electric plc. One of the 12 **RECs**.

NORWEB — NORWEB plc. One of the 12 **RECs**.

NP — National Power PLC.

OCGT — Open cycle gas turbine. A type of generating plant in which turbines, typically fuelled by gas-oil, are used to drive generators to produce electricity. The exhaust gases are then released to the atmosphere. OCGT plant [was then] typically used only for generation at times of peak demand.

OFFER** The Office of Electricity Regulation [was] an independent body established by the government under the Electricity Act 1989 to regulate the industry. It [was] headed by the Director General of Electricity Supply. It [was] funded by licence fees and its main duties [were] to promote competition in the electricity industry and to promote customer's interests.

OFGAS* The Office of Gas Supply (OFGAS).

OFGEM** The Office of Gas and Electricity Market was formed in 1999 from the merger of **OFGAS** and **OFFER**. It is headed by the **DGGE**.

Orimulsion An emulsion of bitumen and water. Orimulsion is a trademark of Bitumenas, Orinoco, SA of Venezuela.

Over 100 kW market See competitive market.

Own-generation limit The limit set on the level of ownership of generation capacity by a PES, and specified in Condition 6 of the PES licence. This is set by the DGES for each REC, and [was about 15 per cent in 1996] of the total electricity consumption in each **REC's** area at privatisation.

Pass-through price control Price control in which a component of cost paid for by a **supplier** is passed on to the customer.

Peak-load generation See **baseload, non-baseload, mid-merit, peak-load generation**.

PEC** Pool Executive Committee (PEC) was established by the Pooling and Settlement Agreement (P&SA) as the executive body for the administration of the market (as defined in the P&SA). It [was] also the body that [was] empowered to make changes to the P&SA itself, subject to Pool Member agreement. PEC [had] a Chief Executive's Office, which [was] empowered to carry out the administration of the market, and to complete development tasks, as prescribed by PEC.

PES Public Electricity Supplier. A holder of a **PES licence**.

PES licence** The holders of these licenses, known as Public Electricity Suppliers (PESs), [differed] from Second Tier Suppliers in two regards:

1. They [owned] and [operated] the distribution networks in their designated regions: and
2. They [had] an exclusive sales agreement with those non-contestable customers in the transition period to full retail competition.

There [were] twelve PESs in the market area of England and Wales (the 12 regional Electricity Companies (RECs) and there [were] two in Scotland (Scottish Power and Scottish Hydro-Electric).

PG PowerGen plc.

Pool The Electricity Pool of England and Wales. The Pool itself [did] not buy or sell electricity, but [existed] as a mechanism to allow trading between participating **generators** and **suppliers** according to a set of rules (the Pool rules) which [governed] the market's operation and the calculation of payments due to and from each member. Pool membership [was] open both to **generators** and **suppliers** of electricity, subject to fulfilment of certain membership conditions contained in the **Pooling and Settlement Agreement**.

Pool** The Pool [was] the term used to represent the organisation of the trading parties in the wholesale market. The operation of the market [was] administered by PEC and its sub-committees. Trading members of the Pool [were] represented on PEC by elected representatives. The Pool [acted] as the power exchange in that market.

POOL Funds Administrator (PFA)** The party, who [administered] the banking, billing and associated systems whereby payments under the Pool trading arrangements [were] made.

Pooling and Settlement Agreement (PSA)**

The Pooling and Settlement Agreement [contained] the rules for the Wholesale market trading arrangements and the rights and obligations of Pool members and Parties. The P&SA was established for the time of vesting.

Power

Power is the rate at which energy is used or produced. One kilowatt-hour (kWh) represents one hour of electricity consumption at a constant rate of 1 kilowatt (kW). Correspondingly:

1 megawatt (MW) = 1,000 kW 1 megawatt-hour (MWh) = 1,000kWh
1 gigawatt (GW) = 1,000 MW 1 gigawatt-hour (GWh) = 1,000 MWh
1 terawatt (TW) = 1000 GW 1 terawatt-hour (TWh) = 1,000 GWh

Power purchase agreement

A contract agreed between a **generator** and a **supplier**, typically an **IPP** and a **REC** which has an equity holding in that **IPP**, to supply electricity at a given price for a given period. It may allow for provision to the **supplier** of certain information about the **generator**; and may confer certain rights on the **supplier**, for example to influence the way in which the **generator** bids into the **Pool**.

Pool Purchase Price (PPP)***

This [was] the price (£/MWh) awarded by the Pool for electricity generated by Generators and purchased at Grid Supply Points (GSPs). This price [was] made up as follows: $PPP = CP + System\ M\arg inal\ \Pr ice\ (SMP)$.

Pool Selling Price (PSP)***

This [was] the price (£/MWh) which Suppliers [paid] for their electricity, sold at Grid Supply Points (GSPs). This price [was] made up as follows: $PSP = Pool\ Purchase\ \Pr ice\ (PPP) + Uplift$.

Pumped storage power station

A power station which used electricity to pump water into a high holding reservoir. The water can be released to turn turbines to generate electricity on short notice in order to meet sudden increases in demand.

PWR	Pressurised Water Reactor (nuclear). The most recent commercial reactor design operating in the UK. Sizewell 'B' is the only nuclear power station using PWR technology.
Regional Electricity Companies (RECs)**	At Vesting, the 12 Area distribution boards in the England and Wales market area were established as independent, private companies.
Renewables	Renewable energy sources are either natural, such as wind, water and sun, or sources such as waste or biofuels, which can be replenished.
RJB Mining	RJB Mining Plc.
RPI	Retail price index.
SE	Southern Electric plc. One of the **12 RECs**.
Second-tier customer	A customer who purchases electricity from a **second-tier supplier**.
Second-tier licence	A licence granted under the Electricity Act 1989 to supply electricity as a **second-tier supplier** to any customer in the **competitive market**.
Second Tier Supplier**	Second tier suppliers are those that purchase from the Pool for the purposes of selling into the Second Tier Market. Note that for each of the 12 REC areas in the market area, there [was] one REC with a First Tier Supplier licence whilst the other eleven (and other, independent companies) [could] opt for second tier licences. All RECs [operated] with second Tier licences outside their franchise area.
Second-tier supply	The supply by a **REC** outside its **authorised area**, or the supply by any other **supplier** to a **competitive customer** in any location.
Section 36 consent	Refers to the consent required under section 36 of the Electricity Act 1989, for the construction, extension or operation of generating stations.

SEEBOARD SEEBOARD plc. One of the 12 **RECs**.

SEPG Southern electricity Power Generation Limited.

Settlement System Administrator (SSA)** The party who [administered] the computerised system used to process the data and carry out the other procedures to calculate payments due under the pool trading rules.

SMP** This price [was] the marginal of electricity, established day-ahead in the Unconstrained schedule through matching of supply-and demand-side price and quantity bids in the Wholesale market. In the market of England and Wales, the demand side bids are forecast demand (volume) and related to Value of Lost Load (VOLL) (price). This price is one component of the price paid (£/MWh) to all generators dispatched through the Pool.

SO^2 Sulphur dioxide.

Strike Price The price agreed between a **generator** and a **supplier** for a **CfD**. It [might] contain a premium or a discount against current **PSP**.

Supplier A person authorised to supply electricity by way of a licence or an exemption from the requirement for a licence.

Supplier** Person or company purchasing electricity through the Pool's trading arrangements for sale to end customers.

Supply licence A licence granted under section 6 of the Electricity Act 1989 authorising the supply of electricity to consumers. Both **second-tier licences** and **PES licences** are supply licences.

SWALEC South Wales Electricity plc. One of the 12 **RECs**.

SWEB South Western Electricity plc. One of the 12 **RECs**.

System constraints — See **constrained-off** and **constrained-on**.

Take-or-pay contract — A contract calling for the purchaser to pay the contract price whether or not it accepts delivery of the contracted supply.

TW — Terawatt—see **power**.

TWh — Terawatt-hour—see **power**.

Thermal efficiency — The efficiency with which heat energy contained in fuel is converted into electricity energy. The thermal efficiency of a power station is the ratio of the electricity energy supplied by the power station (net of power consumed in the generation process) to the total energy of the fuel consumed by the station.

Time-weighted Pool price — The time-weighted Pool price for a given period is the average price over the period, obtained by summing the price for each half-hour slot and dividing the sum by the number of half-hour slots. It is the price a **generator** would receive from the **Pool** over the period of time if its output were constant.

TPHL — Teeside power Holdings Limited.

TPL — Teeside Power Limited.

Transmission — See **transmission system**.

Transmission system — The system of electric circuits with a nominal voltage mainly above 132,000 volts, and associated electrical plant and meters to convey electricity from power stations to **distribution systems** via grid supply points. The system is owned and operated by the **NGC** and regulated by the [DGGE] as a monopoly.

Transmission Loss factor**
Scaling factor applied to metered offtake at the Grid Supply point to allow for losses on the transmission system.

Under 100 kW market
See **franchise market**.

Uplift**
The difference between PSP and PPP [covered] reserve, constrained running, forecasting errors, ancillary services and marginal plant adjustments.

Unconstrained Schedule**
The half hour by half hour schedule of generating units notionally required to meet forecast demand and reserve, which [was] produced the day ahead of trading, ignoring transmission constraints.

UMIS
Uplift management incentive scheme. A programme introduced to provide the NGC with financial incentives to reduce **uplift**.

Use of system charges
Charges made on suppliers for the use of **distribution systems**.

Vesting
The transfer, on 31 March 1990, of the property, rights and liabilities (in England and Wales) of the **CEGB** and the 12 **area boards** to their successor companies: **NP, PG, NEP**, the **NGC** and the **RECs**.

VOLL*
Value of Lost Load [was] a figure (£/MWh) established at Vesting, and subsequently modified by OFFER (with RPI). The figure [reflected] a demand-side bid of the amount which they [were] willing to pay before forgoing generation. At vesting the figure was £2000/MWh.

Yorkshire
Yorkshire Electricity Group plc. One of the 12 **RECs**.

Appendix 2

Tables for section 3

Quantitative Analysis of the Components of Pool Selling Price (PSP) in England and Wales' Pool: January 1994 to December 2000

Table 3.6.1

Summary statistics for SMP, Uplift, CP, PPP and PSP

Year	*SMP*	*Uplift*	*CP*	*PPP*	*PSP*
1994					
Mean	21.50	2.14	1.08	22.58	24.72
Std. Dev	10.40	2.36	10.04	16.68	18.71
Coef. Of var.	0.23	1.22	87.02	0.55	0.57
kurtosis	5.15	126.23	341.23	105.20	113.82
1995					
Mean	18.72	2.14	5.26	23.98	26.12
Std. Dev	16.06	5.71	38.47	45.53	50.82
Coef. Of var.	0.74	7.12	53.53	3.60	3.79
kurtosis	1156.64	110.33	231.75	173.13	159.81
1996					
Mean	18.97	2.01	4.22	23.19	25.20
Std. Dev	10.18	3.55	18.78	24.56	27.87
Coef. Of var.	0.29	3.11	19.83	1.12	1.22
kurtosis	6.73	90.40	190.65	105.27	104.33
1997					
Mean	23.32	0.70	1.16	24.48	25.18
Std. Dev	12.90	2.45	13.08	20.56	22.61
Coef. Of var.	0.31	12.30	127.15	0.71	0.81
kurtosis	8.65	313.73	566.21	151.31	174.30
1998					
Mean	23.58	0.36	1.05	24.63	24.99
Std. Dev	15.22	1.37	5.98	17.72	18.54
Coef. Of var.	0.42	14.88	32.32	0.52	0.55
kurtosis	41.64	152.50	227.38	34.24	35.83
1999					
Mean	22.39	0.62	2.23	24.62	25.24
Std. Dev	12.91	2.23	9.57	17.82	19.44
Coef. Of var.	0.33	12.99	18.41	0.52	0.59
kurtosis	9.89	48.53	76.04	18.05	21.22
2000					
Mean	18.74	1.10	4.94	23.68	24.77
Std. Dev	8.96	3.98	18.64	23.87	27.57
Coef. Of var.	0.23	13.20	14.24	1.02	1.24
kurtosis	7.23	97.09	89.47	54.32	59.81

Table 3.6.2

Annual statistics of sqrt (SMP), sqrt(CP), sqrt(Uplift) and sqrt(PSP)

Statistics	*SMP*	*Uplift*	*CP*	*PSP*
1994				
Mean	4.51	2.14	0.27	4.78
Std. Dev.	1.07	2.36	1.00	1.37
Coef. Of var.	0.06	1.22	14.20	0.08
Kurtosis	2.94	126.23	91.63	19.07
1995				
Mean	4.14	2.14	0.73	4.58
Std. Dev.	1.25	5.71	2.17	2.27
Coef. Of var.	0.09	7.12	8.95	0.25
Kurtosis	30.53	110.33	58.01	41.67
1996				
Mean	4.22	2.01	0.85	4.69
Std. Dev.	1.06	3.55	1.87	1.78
Coef. Of var.	0.06	3.11	4.84	0.14
Kurtosis	3.87	90.40	22.32	19.24
1997				
Mean	4.68	0.70	0.25	4.79
Std. Dev.	1.20	2.45	1.05	1.49
Coef. Of var.	0.07	12.30	17.46	0.10
Kurtosis	4.25	313.73	133.36	25.01
1998				
Mean	4.67	0.36	0.34	4.77
Std. Dev.	1.34	1.37	0.97	1.50
Coef. Of var.	0.08	14.88	8.16	0.10
Kurtosis	6.36	152.50	34.36	7.98
1999				
Mean	4.58	0.62	0.54	4.78
Std. Dev.	1.20	2.23	1.39	1.55
Coef. Of var.	0.07	12.99	6.55	0.10
Kurtosis	5.09	48.53	19.01	7.45
2000				
Mean	4.23	1.10	0.92	4.63
Std. Dev.	0.93	3.98	2.02	1.82
Coef. Of var.	0.05	13.20	4.84	0.15
Kurtosis	4.60	97.09	15.12	15.24

Table 3.6.3

Annual Statistics of sqrt(SMP) by Week Days

Statistics	*Sun*	*Mon*	*Tues*	*Wed*	*Thurs*	*Fri*	*Sat*
1994							
Mean	4.11	4.59	4.64	4.65	4.68	4.60	4.32
Std. Dev.	1.02	1.16	1.07	1.06	1.06	1.00	1.01
Coef. Of var.	0.06	0.06	0.05	0.05	0.05	0.05	0.05
Kurtosis	2.94	3.28	2.94	3.15	2.81	2.71	2.91
1995							
Mean	3.64	4.24	4.35	4.32	4.36	4.36	3.82
Std. Dev.	0.93	1.31	1.57	1.23	1.25	1.25	0.98
Coef. Of var.	0.07	0.10	0.13	0.08	0.08	0.08	0.07
Kurtosis	5.11	4.01	75.58	3.24	3.51	3.51	4.72
1996							
Mean	3.77	4.33	4.42	4.43	4.34	4.31	3.96
Std. Dev.	0.85	1.17	1.11	1.09	1.02	1.05	0.90
Coef. Of var.	0.05	0.07	0.06	0.06	0.05	0.06	0.05
Kurtosis	6.24	3.38	3.34	3.24	3.44	4.28	4.38
1997							
Mean	4.04	4.85	4.93	4.92	4.93	4.85	4.23
Std. Dev.	0.85	1.34	1.20	1.26	1.19	1.21	0.93
Coef. Of var.	0.04	0.08	0.06	0.07	0.06	0.06	0.05
Kurtosis	5.45	3.69	4.06	4.55	3.49	4.26	4.02
1998							
Mean	3.98	4.85	5.00	4.99	4.91	4.79	4.15
Std. Dev.	0.92	1.45	1.39	1.42	1.38	1.30	1.02
Coef. Of var.	0.05	0.09	0.08	0.08	0.08	0.07	0.06
Kurtosis	7.69	3.71	4.30	12.09	4.77	4.77	8.79
1999							
Mean	4.00	4.77	4.83	4.82	4.82	4.66	4.14
Std. Dev.	0.88	1.34	1.24	1.25	1.23	1.20	0.84
Coef. Of var.	0.05	0.08	0.07	0.07	0.06	0.07	0.04
Kurtosis	7.86	3.74	4.20	4.85	4.67	5.14	7.75
2000							
Mean	3.90	4.33	4.38	4.38	4.36	4.26	4.01
Std. Dev.	0.72	1.00	0.98	1.00	1.00	0.93	0.70
Coef. Of var.	0.03	0.05	0.05	0.05	0.05	0.05	0.03
Kurtosis	5.27	3.80	3.75	3.71	4.32	4.89	5.09

Table 3.6.4

Annual Statistics of Uplift by Week Days

Statistics	*Sun*	*Mon*	*Tues*	*Wed*	*Thurs*	*Fri*	*Sat*
1994							
Mean	1.72	2.34	2.45	2.38	2.27	1.98	1.85
Std. Dev.	1.45	2.95	3.06	2.81	2.59	1.51	1.31
Coef. Of var.	0.71	1.59	1.56	1.39	1.30	0.58	0.50
Kurtosis	2.38	87.10	106.72	94.62	112.16	31.11	2.01
1995							
Mean	1.12	2.51	2.69	2.82	2.72	2.00	1.15
Std. Dev.	0.98	6.91	7.28	7.34	7.20	4.21	0.87
Coef. Of var.	0.76	7.59	7.31	6.80	7.01	4.44	0.57
Kurtosis	1.57	83.57	64.80	73.81	68.40	96.29	1.94
1996							
Mean	1.16	2.50	2.70	2.44	2.29	1.81	1.16
Std. Dev.	0.92	4.62	4.94	4.41	3.76	2.14	0.82
Coef. Of var.	0.63	3.42	3.33	3.27	2.70	1.39	0.50
Kurtosis	2.00	57.85	66.57	52.27	44.04	30.64	2.56
1997							
Mean	0.43	0.77	0.84	0.83	0.92	0.66	0.43
Std. Dev.	0.70	2.35	3.07	2.95	3.92	1.30	0.63
Coef. Of var.	2.67	9.23	13.28	12.68	18.11	3.92	2.16
Kurtosis	5.73	126.97	163.85	154.17	199.49	131.08	4.27
1998							
Mean	0.14	0.43	0.48	0.50	0.48	0.29	0.16
Std. Dev.	0.23	2.16	1.61	1.59	1.58	0.79	0.25
Coef. Of var.	2.55	24.68	11.42	10.02	10.70	7.48	2.56
Kurtosis	3.89	109.78	49.00	76.35	77.74	64.55	3.30
1999							
Mean	0.20	0.71	1.07	0.86	0.75	0.50	0.25
Std. Dev.	0.21	2.70	3.29	2.80	2.44	1.51	0.24
Coef. Of var.	1.12	14.34	9.51	10.62	10.53	9.20	0.91
Kurtosis	4.95	29.24	23.41	33.10	39.32	48.96	3.96
2000							
Mean	0.16	1.54	1.74	1.56	1.68	0.80	0.22
Std. Dev.	0.24	5.38	5.49	4.40	4.88	2.50	0.36
Coef. Of var.	2.10	12.16	9.99	7.95	8.42	9.83	2.60
Kurtosis	14.59	41.25	114.39	28.62	24.93	39.65	14.63

Table 3.6.5

Annual Statistics of sqrt(Capacity Payment) by Week Days

Statistics	*Sun*	*Mon*	*Tues*	*Wed*	*Thurs*	*Fri*	*Sat*
1994							
Mean	0.00037	0.41	0.46	0.42	0.37	0.20	0.0028
Std. Dev.	0.0032	1.30	1.34	1.25	1.16	0.0070	0.024
Coef. Of var.	73.25	9.85	8.61	8.78	9.76	10.87	79.64
Kurtosis	224.66	55.93	56.67	57.77	68.32	72.51	294.04
1995							
Mean	0.0045	1.02	1.09	1.12	1.13	0.71	0.03
Std. Dev.	0.04	2.49	2.65	2.74	2.74	1.82	0.23
Coef. Of var.	63.23	6.10	5.92	5.97	5.80	6.59	63.03
Kurtosis	324.63	38.66	36.28	41.06	42.49	44.13	244.14
1996							
Mean	0.0047	1.24	1.36	1.30	1.23	0.78	0.01
Std. Dev.	0.03	2.28	2.36	2.24	2.08	1.45	0.08
Coef. Of var.	29.97	3.37	3.04	2.97	2.84	3.45	30.01
Kurtosis	171.31	17.42	16.03	15.07	12.86	12.26	366.31
1997							
Mean	0.00097	0.35	0.38	0.39	0.41	0.21	0.0032
Std. Dev.	0.01	1.14	1.33	1.32	1.46	0.73	0.03
Coef. Of var.	116.47	10.48	12.21	11.23	12.78	11.69	109.04
Kurtosis	468.87	65.70	86.28	78.54	95.80	92.51	413.55
1998							
Mean	0.00097	0.55	0.54	0.52	0.49	0.27	0.0034
Std. Dev.	0.0056	1.32	1.17	1.14	1.13	0.71	0.018
Coef. Of var.	33.35	5.84	4.61	4.84	5.33	7.04	25.92
Kurtosis	129.72	25.83	17.84	20.41	23.21	27.36	147.26
1999							
Mean	0.0031	0.83	0.94	0.81	0.77	0.45	0.01
Std. Dev.	0.018	1.70	1.86	1.65	1.55	1.07	0.03
Coef. Of var.	32.17	4.23	3.91	4.16	4.09	5.61	13.94
Kurtosis	257.43	12.40	10.19	13.99	12.71	18.56	41.63
2000							
Mean	0.008	1.39	1.48	1.37	1.40	0.81	0.02
Std. Dev.	0.04	2.50	2.53	2.29	2.40	1.58	0.08
Coef. Of var.	18.67	3.22	2.94	2.81	2.95	3.83	13.19
Kurtosis	88.38	10.91	10.20	9.10	8.98	13.07	47.56

Table 3.6.6

Annual Statistics of sqrt(Pool Selling Price) by Week Days

Statistics	*Sun*	*Mon*	*Tues*	*Wed*	*Thurs*	*Fri*	*Sat*
1994							
Mean	4.30	4.90	4.97	4.97	4.97	4.83	4.52
Std. Dev.	1.09	1.61	1.53	1.48	1.40	1.14	1.07
Coef. Of var.	0.064	0.11	0.094	0.088	0.080	0.56	0.056
Kurtosis	2.62	17.85	22.54	20.92	21.24	6.87	2.66
1995							
Mean	3.78	4.80	4.95	4.94	4.98	4.66	3.96
Std. Dev.	0.98	2.54	2.80	2.71	2.70	1.92	1.03
Coef. Of var.	0.07	0.28	0.32	0.30	0.29	0.17	0.07
Kurtosis	4.36	29.30	30.12	34.76	36.52	26.00	4.45
1996							
Mean	3.91	4.97	5.13	5.08	4.96	4.70	4.10
Std. Dev.	0.89	2.15	2.15	2.04	1.86	1.48	0.93
Coef. Of var.	0.52	0.19	0.18	0.16	0.14	0.10	0.05
Kurtosis	5.25	16.63	17.61	14.92	13.85	9.02	4.02
1997							
Mean	4.09	4.98	5.08	5.08	5.10	4.94	4.28
Std. Dev.	0.87	1.63	1.62	1.65	1.71	1.33	0.95
Coef. Of var.	0.04	0.11	0.10	0.11	0.11	0.07	0.05
Kurtosis	5.36	12.76	27.94	22.39	35.46	7.70	3.99
1998							
Mean	3.99	5.01	5.15	5.14	5.05	4.86	4.17
Std. Dev.	0.92	1.72	1.59	1.61	1.58	1.37	1.02
Coef. Of var.	0.05	0.12	0.09	0.10	0.10	0.08	0.06
Kurtosis	7.61	7.38	5.68	10.53	6.40	4.96	8.61
1999							
Mean	4.02	5.06	5.20	5.11	5.09	4.81	4.17
Std. Dev.	0.88	1.80	1.80	1.69	1.61	1.39	0.84
Coef. Of var.	0.05	0.13	0.12	0.11	0.10	0.08	0.04
Kurtosis	7.74	5.92	5.68	7.01	6.23	4.80	7.56
2000							
Mean	3.92	4.94	5.05	4.97	4.99	4.55	4.04
Std. Dev.	0.73	2.23	2.22	2.03	2.13	1.48	0.71
Coef. Of var.	0.03	0.20	0.19	0.17	0.18	0.11	0.03
Kurtosis	5.02	11.89	12.63	9.81	9.53	9.74	4.87

Table 3.6.7

Summary Statistics of sqrt(SMP) by Load Regime

Year	*Regime*	*No. Of obs.*	*Mean*	*Std. Dev*	*Coef of var*	*Kurtosis*
1994	Baseload	1612	3.26	0.29	0.008	19.80
	Mid-merit	15668	4.61	1.02	0.05	2.80
	Peak	240	6.45	1.20	0.03	2.74
1995	Baseload	1108	3.00	0.26	0.007	9.67
	Mid-merit	16004	4.15	1.19	0.08	39.84
	Peak	408	6.73	1.40	0.04	3.68
1996	Baseload	819	3.02	0.24	0.006	13.84
	Mid-merit	15795	4.20	0.97	0.05	3.84
	Peak	954	5.71	1.18	0.04	2.66
1997	Baseload	778	3.32	0.27	0.007	2.84
	Mid-merit	15847	4.63	1.09	0.06	4.60
	Peak	895	6.77	1.08	0.03	3.76
1998	Baseload	606	3.07	0.51	0.03	16.07
	Mid-merit	15986	4.59	1.21	0.07	8.33
	Peak	928	7.01	1.11	0.03	3.35
1999	Baseload	540	3.14	0.50	0.03	4.74
	Mid-merit	15903	4.49	1.06	0.06	6.09
	Peak	1077	6.54	1.25	0.04	2.35
2000	Baseload	415	3.27	0.48	0.02	12.44
	Mid-merit	15580	4.14	0.83	0.04	4.60
	Peak	1573	5.33	1.12	0.04	2.50

Notes: Baseload =FTSL= <22; Mid-merit=23<FTSL< =42; Peak = FTSL= >43. N = the total number of observations within each load regime.

Table 3.6.8

Summary Statistics of sqrt(Uplift) by Load Regime

Year	*Regime*	*No. Of obs.*	*Mean*	*Std. Dev*	*Coef of var*	*Kurtosis*
1994	Baseload	1612	0.67	1.18	3.14	4.53
	Mid-merit	15668	2.15	1.52	0.50	40.83
	Peak	240	11.42	12.17	1.14	4.29
1995	Baseload	1108	0.33	0.71	4.73	5.19
	Mid-merit	16004	1.60	1.93	1.44	183.94
	Peak	408	28.13	23.67	0.71	3.07
1996	Baseload	819	0.40	0.72	3.25	3.90
	Mid-merit	15795	1.68	2.02	1.43	48.49
	Peak	954	8.86	10.67	1.45	10.48
1997	Baseload	778	0.11	0.15	1.61	2.88
	Mid-merit	15847	0.47	0.63	1.82	130.75
	Peak	895	5.25	9.39	3.20	19.56
1998	Baseload	606	0.06	0.20	10.29	10.24
	Mid-merit	15986	0.25	0.80	10.59	80.27
	Peak	928	2.42	4.46	3.38	17.01
1999	Baseload	540	0.06	0.44	49.68	14.70
	Mid-merit	15903	0.57	2.07	13.30	48.08
	Peak	1077	1.66	4.05	5.94	20.61
2000	Baseload	415	0.07	0.24	11.95	12.59
	Mid-merit	15580	0.93	3.64	13.14	48.81
	Peak	1573	3.03	7.79	6.60	51.60

Notes: Baseload = FTSL = < 22; Mid-merit = 23 < FTSL < = 42; Peak = FTSL = > 43. N = the total number of observations within each load regime.

Table 3.6.9

Summary Statistics of sqrt(Capacity Payment) by Load Regime

Year	*Regime*	*No. Of obs.*	*Mean*	*Std. Dev*	*Coef of var*	*Kurtosis*
1994	Baseload	1612	0.00	0.00	0.00	0.00
	Mid-merit	15668	0.21	0.65	9.16	65.92
	Peak	240	5.43	4.12	0.63	2.68
1995	Baseload	1108	0.00	0.00	0.00	0.00
	Mid-merit	16004	0.51	1.10	4.60	26.06
	Peak	408	11.15	6.64	0.35	2.95
1996	Baseload	819	0.00	0.00	0.00	0.00
	Mid-merit	15795	0.64	1.35	4.45	12.74
	Peak	954	5.02	3.91	0.61	4.96
1997	Baseload	778	0.00	0.00	0.00	0.00
	Mid-merit	15847	0.11	0.29	6.58	91.47
	Peak	895	2.92	3.54	1.47	9.27
1998	Baseload	606	0.00	0.00	0.00	0.00
	Mid-merit	15986	0.25	0.73	8.27	29.92
	Peak	928	2.03	2.34	1.33	6.02
1999	Baseload	540	0.00	0.00	0.00	0.00
	Mid-merit	15903	0.48	1.30	7.22	18.69
	Peak	1077	1.69	2.23	1.74	9.44
2000	Baseload	415	0.00	0.00	0.00	0.00
	Mid-merit	15580	0.80	1.87	5.41	14.19
	Peak	1573	2.31	2.98	1.66	9.65

Notes: Baseload =FTSL=<22; Mid-merit=23<FTSL<=42; Peak = FTSL=>43. N = the total number of observations within each load regime.

Table 3.6.10

Annual statistics of Generators: sqrt(Declared), sqrt(Redeclared) and sqrt(Actual) Availability

Statistics	*Gross demand*	*Declared*	*Redeclared*	*Actual*
1994				
Mean	124.06	149.62	151.51	149.40
Std. Dev.	11.72	8.51	8.45	8.50
Coef. Of var.	0.01	0.00	0.003	0.003
Kurtosis	2.30	2.16	2.16	2.16
1995				
Mean	125.70	147.64	150.82	147.49
Std. Dev	11.67	8.32	7.97	8.34
Coef. Of var.	0.009	0.003	0.002	0.00
Kurtosis	2.30	2.35	2.34	2.34
1996				
Mean	127.97	151.77	149.54	148.84
Std. Dev	12.06	8.53	9.69	9.25
Coef. Of var	0.009	0.03	0.004	0.003
Kurtosis	2.32	2.47	2.25	2.35
1997				
Mean	127.87	156.74	153.50	153.35
Std. Dev	11.82	9.38	9.72	9.76
Coef. Of var	0.009	0.003	0.004	0.004
Kurtosis	2.33	2.16	2.17	2.17
1998				
Mean	128.90	154.97	152.32	152.20
Std. Dev	11.52	10.10	10.06	10.10
Coef. Of var	0.008	0.004	0.004	0.004
Kurtosis	2.36	2.12	2.22	2.23
1999				
Mean	129.39	156.71	152.60	152.47
Std. Dev	11.80	9.47	9.99	9.96
Coef. Of var.	0.008	0.004	0.004	0.004
Kurtosis	2.30	2.23	2.21	2.22
2000				
Mean	130.80	155.51	150.63	150.53
Std. Dev	11.79	9.71	10.05	10.06
Coef. Of var.	0.008	0.003	0.004	0.004
Kurtosis	2.33	2.35	2.24	2.24

Table 3.6.11

Annual statistics of sqrt(Gross Demand) by weekdays

Statistics	*Sun*	*Mon*	*Tues*	*Wed*	*Thurs*	*Fri*	*Sat*
1994							
Mean	114.76	125.27	127.66	128.05	128.19	126.56	118.06
Std. Dev.	9.03	12.90	11.23	10.93	10.78	10.34	8.30
Coef. Of var.	0.0061	0.010	0.0077	0.0073	0.0071	0.0067	0.0049
Kurtosis	2.45	2.26	2.58	2.54	2.60	2.45	2.50
1995							
Mean	116.67	126.72	129.18	129.52	129.83	128.25	119.90
Std. Dev.	9.19	12.79	11.07	10.70	10.75	10.46	8.68
Coef. Of var.	0.0062	0.01	0.0074	0.0068	0.0066	0.0067	0.0052
Kurtosis	2.41	2.30	2.59	2.54	2.55	2.41	2.34
1996							
Mean	118.85	129.22	131.69	131.68	131.84	130.49	121.90
Std. Dev.	9.95	12.94	11.29	11.17	11.27	10.77	9.25
Coef. Of var.	0.0070	0.010	0.0073	0.0072	0.0073	0.0068	0.0058
Kurtosis	2.30	2.40	2.59	2.49	2.49	2.42	2.28
1997							
Mean	118.64	129.25	131.56	131.75	131.74	130.15	121.91
Std. Dev.	9.44	13.07	11.13	10.84	10.91	10.59	8.67
Coef. Of var.	0.0063	0.01	0.007	0.0068	0.0069	0.0066	0.0051
Kurtosis	2.42	2.29	2.70	2.63	2.50	2.42	2.50
1998							
Mean	119.99	130.43	132.89	132.85	132.42	130.83	122.81
Std. Dev.	9.24	12.76	10.97	10.52	10.62	10.12	8.28
Coef. Of var.	0.0059	0.0096	0.0068	0.0063	0.0064	0.0060	0.0045
Kurtosis	2.63	2.38	2.73	2.70	2.62	2.47	2.60
1999							
Mean	120.64	130.82	133.15	133.34	133.20	131.23	123.32
Std. Dev.	9.49	13.30	11.30	10.90	10.68	10.52	8.59
Coef. Of var.	0.0062	0.01	0.0072	0.0067	0.0064	0.0064	0.0049
Kurtosis	2.54	2.28	2.64	2.62	2.56	2.33	2.56
2000							
Mean	122.21	131.92	134.34	134.61	134.69	133.07	125.00
Std. Dev.	9.54	13.18	11.30	10.94	10.98	10.47	8.66
Coef. Of var.	0.006	0.010	0.01	0.0066	0.0066	0.0062	0.0048
Kurtosis	2.64	2.25	2.52	2.64	2.66	2.50	2.68

Table 3.6.12

Annual statistics of Generators: sqrt(Declared Availability) by weekdays

Statistics	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
1994							
Mean	144.15	151.07	152.25	152.19	152.26	151.33	144.20
Std. Dev.	6.90	8.53	7.95	8.01	8.17	8.11	6.50
Coef. Of var.	0.0023	0.0032	0.0027	0.0028	0.0029	0.0029	0.0020
Kurtosis	1.98	2.35	2.25	2.21	2.22	2.20	2.11
1995							
Mean	141.18	149.11	150.48	150.51	150.63	150.04	141.67
Std. Dev.	6.44	8.47	7.37	7.43	7.32	7.53	6.39
Coef. Of var.	0.0021	0.0032	0.0024	0.0024	0.0024	0.0025	0.0020
Kurtosis	2.39	2.37	2.31	2.10	2.14	2.12	2.24
1996							
Mean	145.94	153.09	154.53	154.42	154.41	153.71	146.22
Std. Dev.	6.68	8.79	8.04	7.93	7.92	8.05	6.40
Coef. Of var.	0.0021	0.0033	0.0027	0.0026	0.0026	0.0027	0.0019
Kurtosis	2.44	2.33	2.28	2.42	2.35	2.21	2.25
1997							
Mean	150.14	158.26	159.74	159.63	159.80	159.17	150.38
Std. Dev.	8.06	9.24	8.31	8.26	8.43	8.68	7.98
Coef. Of var.	0.0029	0.0034	0.0027	0.0027	0.0028	0.0030	0.0028
Kurtosis	1.80	2.34	2.47	2.43	2.44	2.28	1.81
1998							
Mean	147.13	156.39	158.42	158.50	158.61	157.64	148.04
Std. Dev.	8.36	10.40	9.17	8.73	8.71	8.79	8.16
Coef. Of var.	0.0032	0.0044	0.0033	0.0030	0.0030	0.0031	0.0030
Kurtosis	1.81	2.11	2.13	2.05	2.14	2.05	1.71
1999							
Mean	149.27	157.62	160.20	160.24	160.15	159.19	150.28
Std. Dev.	7.62	10.24	8.50	8.24	8.19	8.20	7.09
Coef. Of var.	0.0026	0.0042	0.0028	0.0026	0.0026	0.0027	0.0022
Kurtosis	1.97	2.28	2.09	1.85	1.88	1.92	1.89
2000							
Mean	147.92	156.28	158.74	159.14	159.23	158.32	149.23
Std. Dev.	7.92	10.64	8.73	8.41	8.22	8.27	7.60
Coef. Of var.	0.0029	0.0046	0.0030	0.0028	0.0027	0.0027	0.003
Kurtosis	1.99	2.31	2.43	2.25	2.22	2.15	1.81

Table 3.6.14

Distribution of Ratios of Various Components of PSP

Year	*Ratio*	*Mean*	*Min*	*Max*	*Std. Dev*	*Coef. of var*
1994	CP/SMP	0.04	0.00	2.33	0.14	10.43
	Uplift/SMP	0.44	0.00	7.46	0.38	0.75
	SMP/PSP	0.95	0.36	1.00	0.05	0.003
	CP/PSP	0.04	0.00	0.85	0.10	7.14
1995	CP/SMP	0.13	0.00	4.52	0.34	6.45
	Uplift/SMP	0.43	-0.29	15.33	0.83	3.79
	SMP/PSP	0.94	0.20	1.05	0.09	0.010
	CP/PSP	0.10	0.00	0.93	0.18	3.49
1996	CP/SMP	0.17	0.00	3.22	0.34	4.21
	Uplift/SMP	0.42	0.00	11.18	0.60	2.03
	SMP/PSP	0.93	0.26	1.00	0.10	0.01
	CP/PSP	0.12	0.00	0.92	0.21	3.01
1997	CP/SMP	0.04	0.00	3.03	0.14	12.94
	Uplift/SMP	0.13	-0.22	11.07	0.33	6.68
	SMP/PSP	0.98	0.29	1.02	0.04	0.002
	CP/PSP	0.03	0.00	0.89	0.09	7.66
1998	CP/SMP	0.06	0.00	1.84	0.16	7.25
	Uplift/SMP	0.06	-0.29	4.95	0.21	10.90
	SMP/PSP	0.99	0.44	1.07	0.05	0.002
	CP/PSP	0.05	0.00	0.82	0.12	5.71
1999	CP/SMP	0.10	0.00	2.23	0.25	6.22
	Uplift/SMP	0.11	-0.66	5.54	0.39	11.81
	SMP/PSP	0.97	0.38	1.12	0.08	0.006
	CP/PSP	0.08	0.00	0.91	0.17	4.61
2000	CP/SMP	0.18	0.00	2.84	0.37	4.38
	Uplift/SMP	0.20	-1.30	13.43	0.69	11.53
	SMP/PSP	0.95	0.30	1.23	0.12	0.02
	CP/PSP	0.13	0.00	0.93	0.22	3.07

Note: all the variables except uplift are transformed to square root.

Table 3.8.1

Spike: SMP three and half times the daily average value

June 1995					*November 1995*				
Day	*Daily Average*	*Daily Average *3.5*	*Daily Average reserve margins*	*Number of spikes*	*Day*	*Daily Average*	*Daily Average *3.5*	*Daily Average reserve margins*	*Number of spikes*
1	17.54787	61.41755	32.47927	0	1	22.99979	80.49927	30.57525	0
2	18.32088	64.12308	35.17704	0	2	23.33479	81.67177	31.56878	0
3	15.92439	55.73537	33.27441	0	3	23.31901	81.61654	32.50777	0
4	16.24298	56.85043	36.43934	0	4	15.7143	55.00005	33.22154	0
5	18.14687	63.51405	28.00814	0	5	14.05297	49.1854	35.29581	0
6	22.3058	78.0703	26.76956	0	6	30.14913	105.522	27.89151	0
7	20.85342	72.98697	26.45547	0	7	29.24526	102.3584	26.22348	0
8	21.40522	74.91827	28.28532	0	8	27.48252	96.18882	28.09204	0
9	20.26816	70.93856	30.28845	0	9	27.90923	97.68231	26.86845	0
10	17.02583	59.59041	29.15058	0	10	26.41981	92.46934	26.29221	0
11	15.58144	54.53504	32.86918	0	11	15.90188	55.65658	26.03582	0
12	20.25642	70.89747	27.74143	0	12	14.92432	52.23512	29.86741	0
13	21.98117	76.9341	25.68152	0	13	26.21953	91.76836	29.24429	0
14	20.0992	70.3472	26.7344	0	14	27.51624	96.30684	27.81492	0
15	20.86074	73.01259	27.96324	0	15	27.91728	97.71048	28.98286	0
16	20.12971	70.45399	29.07759	0	16	29.19648	102.1877	28.28729	0
17	17.30695	60.57433	28.58689	0	17	29.50096	103.2534	26.12507	0
18	16.07861	56.27514	35.34161	0	18	22.89009	80.11532	23.69806	0
19	20.61393	72.14876	31.1143	0	19	18.26391	63.92369	27.78107	0
20	20.32147	71.12515	28.99518	0	20	33.71246	117.9936	25.55115	0
21	21.55833	75.45416	27.26956	0	21	30.88044	108.0815	24.73817	0
22	21.35523	74.74331	28.73105	0	22	29.90207	104.6572	25.52703	0
23	20.6851	72.39785	30.66121	0	23	29.3251	102.6379	23.29451	0
24	16.38813	57.35846	32.81655	0	24	27.715	97.0025	25.86669	0
25	14.95033	52.32616	36.722	0	25	15.57642	54.51747	27.29268	0
26	18.6042	65.1147	33.80908	0	26	14.7056	51.4696	30.81504	0
27	21.11475	73.90163	33.02801	0	27	28.90298	101.1604	27.47331	0
28	19.35054	67.72689	32.97688	0	28	30.16618	105.5816	26.40303	0
29	19.17976	67.12916	32.26271	0	29	29.30923	102.5823	27.48747	0
30	18.51548	64.80418	33.09228	0	30	33.22328	116.2815	21.56123	0
				0					**0**

Table 3.8.2

Spike: SMP three and half times the daily average value

June 1998					*November 1998*				
Day	*Daily Average*	*Daily Average *3.5*	*Daily Average reserve margins*	*Number of spikes*	*Day*	*Daily Average*	*Daily Average *3.5*	*Daily Average reserve margins*	*Number of spikes*
1	24.69574	86.43509	30.95463	0	1	19.03793	66.63276	31.20713	0
2	27.26121	95.41424	26.97202	1	2	36.44165	127.5458	28.39896	0
3	27.85836	97.50426	27.00835	0	3	31.95106	111.8287	29.3794	0
4	23.95036	83.82626	28.67296	0	4	33.73864	118.0852	29.47679	0
5	25.6902	89.9157	30.97027	2	5	27.94735	97.81573	29.66761	2
6	20.51546	71.80411	30.45313	2	6	27.42731	95.99559	32.01983	0
7	13.20842	46.22947	32.87109	0	7	15.27354	53.45739	32.65893	0
8	20.50874	71.78059	29.28674	0	8	14.12019	49.42067	34.50234	0
9	21.08804	73.80814	28.54945	0	9	28.23555	98.82443	33.62086	0
10	20.41206	71.44221	28.32997	0	10	30.7011	107.4539	33.58894	0
11	20.07782	70.27237	27.65229	0	11	32.99881	115.4958	32.44748	0
12	18.10208	63.35728	30.9817	0	12	33.89815	118.6435	31.5067	0
13	14.78573	51.75006	30.22185	0	13	29.85567	104.4948	31.50198	0
14	14.71312	51.49592	29.53508	0	14	15.76983	55.19441	31.7293	0
15	19.57945	68.52808	28.94884	0	15	15.09651	52.83779	31.9401	0
16	18.46729	64.63552	30.01829	0	16	31.20393	109.2138	29.25402	0
17	20.57681	72.01884	28.7478	0	17	30.643	107.2505	28.56456	0
18	22.7954	79.7839	27.69241	0	18	33.56537	117.4788	27.56471	0
19	19.61405	68.64918	30.00223	0	19	33.46328	117.1215	28.87534	0
20	14.49616	50.73656	28.8714	0	20	29.74186	104.0965	29.53288	0
21	12.92334	45.23169	32.7193	0	21	19.15015	67.02553	25.9837	0
22	19.18541	67.14894	31.71518	0	22	19.25031	67.37609	28.25032	0
23	19.94269	69.79942	29.47163	0	23	35.59297	124.5754	27.86433	0
24	18.84421	65.95474	30.37706	0	24	36.98049	129.4317	29.13103	0
25	20.74271	72.59949	30.81651	0	25	29.67046	103.8466	30.322	0
26	17.74808	62.11828	33.43803	0	26	34.16333	119.5717	30.52983	0
27	14.09373	49.32806	32.20448	0	27	26.92446	94.23561	32.18417	0
28	12.88249	45.08872	36.9404	0	28	19.38448	67.84568	32.51472	3
29	18.25935	63.90773	33.86654	0	29	19.07874	66.77559	34.89695	3
30	9.24678	32.36373	32.28481	0	30	30.53128	106.8595	30.45964	0
				5					**8**

Table 3.8.3

Actual values for SMP, LOLP, CP, Gross Demand and generators availability's for 5 spikes in June 1998—a typical Summer month

Period[1] *(Half-hour)*	*SMP* *(£/MWh)*	*LOLP*	*CP*	*Gross Demand (MWh)*	*Declared (MWh)*	*Actual (MWh)*	*Reserve Margin (%)*
June 2							
42 (B)	19.94593	4.81E-07	.00166	16049.9	23288.95	21463.09	31.578
43 (A)	32.88235	1.01E-06	.00265	16226.61	23295.4	21744.14	30.5812
44 (A)	32.88235	1.33E-06	.00471	16304.22	23171.3	21615.05	30.8339
45 (A)**	101.1628	1.13E-06	.00393	15840.36	22811.38	21271.36	30.8509
46 (A)	22.90038	4.51E-07	.00255	15266.52	22484.17	20973.24	33.5586
47 (A)	19.66419	1.22E-08	.00005	14789.5	22018.34	20558.37	34.9591
48 (A)	15.64027	1E-10	0	14084.7	21080.91	19815.41	34.8225
June 5							
41 (A)	23.62013	2.13E-08	.00006	15380.19	23639.25	22281.68	34.9379
42 (A)	13.63013	1.03E-08	.00003	15105.55	23575.48	22333.73	35.9269
43 (A)	22.28292	1.14E-08	.00003	15212.86	23393.9	22149.61	34.9708
44 (A)**	109.0129	1.06E-08	.00003	15114.32	23006.37	21723.61	34.3037
45 (A)	109.0129	5.8E-09	.00001	14741.14	22389.03	21116.31	34.1591
46 (A)	22.28292	1.3E-09	0.	14302.67	22260.45	21059.99	35.7485
47 (A)	14.20111	1E-10	0.	13573.61	21655.02	20621.35	37.3189
48 (A)	14.20111	0	0.	12873.24	20474.69	19770.75	37.1261

[1] Table indicator in parenthesis.

** Three and half times the daily average value of £101.16 (approximated to two decimal places).

** Three and half times the daily average value of £101.16 (approximated to two decimal places).

Table 3.8.2 (cont.)

Actual values for SMP, LOLP, CP, Gross Demand and generators availability's for spikes in June 1998—a typical Summer month

Period[2] *(Half-hour)*	*SMP* *(£/MWh)*	*LOLP*	*CP*	*Gross Demand (MWh)*	*Declared (MWh)*	*Actual (MWh)*	*Reserve Margin (%)*
June 6							
17 (A)	11.6747	1.27E-08	.00003	14362.38	20375.7	19333.91	29.5122
18 (A)	14.58546	1.29E-07	.00034	14993.73	20470.13	19337.18	26.7532
19 (A)	16.67628	4.06E-07	.00109	15523.8	20576.94	19765.95	24.5573
20 (A)**	98.48792	7.56E-07	.00196	15629.33	20687.55	20044.51	24.4506
21 (A)	98.48792	1.04E-06	.00271	15737.22	20831.5	20047.09	24.4547
22 (A)	34.75546	1.16E-06	.00308	15894.98	20828.67	20027.05	23.687
23 (A)	34.75546	1.08E-06	.00288	15947.29	20826.19	20018.3	23.4268
24 (A)	20.85577	8.13E-07	.00217	15901.88	20822.43	19927.67	23.631

[2] Table indicator in parenthesis.

** Three and half times the daily average vales of £71.80 (approximated to two decimal places).

Table 3.8.3

Actual values for SMP, LOLP, CP, Gross Demand and generators availability's for 42 spikes in November 1998—a typical Winter month

Period[3] *(Half-hour)*	*SMP (£/MWh)*	*LOLP*	*CP*	*Gross Demand (MWh)*	*Declared (MWh)*	*Actual (MWh)*	*Reserve Margin (%)*
Nov 2							
32 (A)	37.54817	0.000106	0.28191	21736.35	27963.47	27077.6	22.26875
33 (A)	37.54817	0.001985	5.27189	22310.15	27901.7	26966.61	20.04019
34 (A)	50.3644	0.010686	28.24935	23088.12	27914.97	27032.62	17.29124
35 (A)	98.69448	0.016316	42.34426	23653.24	27923.5	27358.51	15.29273
36 (A)	98.69448	0.016145	41.90124	23314.08	27923.53	27399.61	16.5074
37 (A)	78.74615	0.007978	20.8645	22699.49	27925	27388.98	18.71267
38 (A)	50.3644	0.002369	6.26264	22243.71	27974.98	27427.93	20.48714
39 (A)	44.013	0.000668	1.7695	21744.93	27921.34	27261.45	22.12075
Nov 3							
32 (A)	37.45157	0.000302	0.80185	21089.23	28215.87	27308.7	25.25754
33 (A)	37.45157	0.004328	11.49668	21862.44	28140.05	27284.55	22.30845
34 (A)	59.24575	0.015648	41.22788	22926.7	28167.05	27413.03	18.60455
35 (A)	84.22222	0.0214	55.84809	23644.9	28193	27622.17	16.13204
36 (A)	84.22222	0.018797	49.05529	23285.41	28193.03	27646.7	17.4072
37 (A)	59.24575	0.00806	21.23703	22676.27	28194.4	27691.15	19.57173
38 (A)	47.18929	0.002149	5.68879	22377.74	28243.58	27574.15	20.76878
39 (A)	47.18929	0.000732	1.93731	21676.77	28173.84	27306.37	23.06064

[3] Table indicator in parenthesis.

Table 3.8.3 (cont.)

Actual values for SMP, LOLP, CP, Gross Demand and generators availability's for 42 spikes in November 1998—a typical Winter month

Period[4] (Half-hour)	*SMP (£/MWh)*	*LOLP*	*CP*	*Gross Demand (MWh)*	*Declared (MWh)*	*Actual (MWh)*	*Reserve Margin (%)*
Nov 4							
32 (A)	31.57947	0.000204	0.54243	21036.57	28327.27	27134.4	25.73738
33 (A)	37.99338	0.004237	11.25466	21548.38	28323.65	27494.13	23.92091
34 (A)	49.82373	0.016581	43.84408	22657.41	28327.15	27652.66	20.0152
35 (A)	81.23793	0.023829	62.26045	23663.55	28333	27800.7	16.48062
36 (A)	81.23793	0.021699	56.69421	23438.79	28333.03	27897.57	17.27398
37 (A)	53.07407	0.009788	25.8488	22936.15	28334.53	27893.74	19.05231
38 (A)	40.70895	0.002402	6.37372	22530.33	28361.73	27922.12	20.56082
39 (A)	40.70895	0.000516	1.3687	21960.02	28362.11	27931.72	22.57267
Nov 5							
38 (A)	35.23207	0.002393	6.36138	21972.74	28388.35	27218.47	22.59944
39 (A)	35.23207	0.000874	2.32311	21279.82	28385.3	27109.18	25.03223
40 (A)	40.75909	0.00015	0.39674	20603.38	28382.94	26935.6	27.40928
41 (A)**	112.1229	2.96E-05	0.0765	20049.77	28360	27058.97	29.30266
42 (A)	112.1229	9.13E-06	0.02356	19549.9	28359.75	27131.52	31.06464
43 (A)	31.33982	9.82E-07	0.00262	19243.18	28352.5	27287.42	32.12879
44 (A)	30.39294	1.19E-07	0.00031	18464.17	27866.07	26800.26	33.7396
45 (A)	15.74889	2.5E-09	1E-05	17808.91	27196.26	26079.1	34.51706

** Three and half times the daily average value of £97.82 (approximated to two decimal places).

Table 3.8.3 (cont.)

Actual values for SMP, LOLP, CP, Gross Demand and generators availability's for 42 spikes in November 1998—a typical Winter month

Period[5] *(Half-hour)*	*SMP* *(£/MWh)*	*LOLP*	*CP*	*Gross Demand (MWh)*	*Declared (MWh)*	*Actual (MWh)*	*Reserve Margin (%)*
Nov 9							
32 (A)	32.46056	1.42E-05	0.03791	19714.34	28907.62	28045.75	31.80225
33 (A)	30.69325	0.001377	3.66738	20408.88	28854.85	28111.5	29.27054
34 (A)	52.66864	0.006489	17.13989	22035.36	28882.25	28272.82	23.70622
35 (A)	84.22222	0.009185	23.9714	22832.87	28891	28238.97	20.96892
36 (A)	84.22222	0.008404	21.9338	22515.62	28891	28244.65	22.06701
37 (A)	56.48092	0.003461	9.12913	22055.02	28889.67	28266.33	23.65777
38 (A)	39.18902	0.000787	2.0901	21693.1	28918.72	28330.49	24.98597
39 (A)	39.18902	0.000208	0.55289	21141.89	28869.19	28349.11	26.76661
Nov 10							
16 (A)	16.47285	5.45E-08	0.00015	19133.1	28768.3	28010.59	33.4924
17 (A)	17.63063	1.15E-07	0.00031	19469.31	28935.44	28445.29	32.71468
18 (A)	17.63063	3.44E-07	0.00092	19495.42	28935.72	28439.33	32.62507
19 (A)	97.16816	5.22E-07	0.00135	19647	28911	28517.66	32.04317
20 (A)	97.16816	6.61E-07	0.00171	19604.58	28910.7	28505.15	32.1892
21 (A)	97.16816	6.64E-07	0.00172	19557.9	28902	28383.6	32.3303
22 (A)	95.65273	6.6E-07	0.00171	19591.09	28902	28321.16	32.21544
23 (A)	25.98985	7.29E-07	0.00194	19815.26	28902.07	28302.21	31.44

[5] Table indicator in parenthesis.

Table 3.8.3 (cont.)

Actual values for SMP, LOLP, CP, Gross Demand and generators availability's for 42 spikes in November 1998—a typical Winter month

Period[6] (Half-hour)	SMP (£/MWh)	LOLP	CP	Gross Demand (MWh)	Declared (MWh)	Actual (MWh)	Reserve Margin (%)
Nov 11							
22 (A)	34.10997	1.29E-06	0.00342	20087.86	28935.33	28388.36	30.57671
23 (A)	34.10997	1.5E-06	0.004	19994.81	28926.5	28368.71	30.87717
24 (A)	64.91676	1.76E-06	0.00462	19963.1	28923	28329.46	30.97846
25 (A)	98.72914	1.67E-06	0.00432	19918.67	28923	28207.96	31.13206
26 (A)	98.72914	1.11E-06	0.00288	19702.42	28923	28165.26	31.87977
27 (A)	64.91676	6.31E-07	0.00166	19651.98	28923	28136.22	32.05414
28 (A)	23.05255	5.31E-07	0.00142	19774.92	28923.28	27819.96	31.62975
29 (A)	23.05255	4.68E-07	0.00126	19876.42	28938.07	27525.36	31.31392
Nov 12							
16 (A)	26.55993	1.1E-07	0.0003	19654.9	28413.45	27234.5	30.82535
17 (A)	21.1309	3.16E-07	0.00084	20039.25	28582.74	27369.04	29.89039
18 (A)	22.68743	1.21E-06	0.00322	20036.23	28633.17	27118.64	30.0244
19 (A)	93.01134	2.18E-06	0.00567	20177.05	28650.5	26945.62	29.57524
20 (A)	93.01134	2.9E-06	0.00753	20156.24	28650.83	26996.06	29.64867
21 (A)	93.01134	3.31E-06	0.00862	20065.01	28660.5	27113.28	29.99073
22 (A)	93.01134	4.63E-06	0.01206	20130.46	28660.5	27246.71	29.76236
23 (A)	29.13934	7.35E-06	0.01958	20422.34	28660.5	27391.88	28.74395
24 (A)	29.13934	1.24E-05	0.03304	20588.26	28660.23	27552.45	28.16437

Table 3.8.3 (cont.)

Actual values for SMP, LOLP, CP, Gross Demand and generators availability's for 42 spikes in November 1998—a typical Winter month

Period[7] *(Half-hour)*	*SMP* *(£/MWh)*	*LOLP*	*CP*	*Gross Demand (MWh)*	*Declared (MWh)*	*Actual (MWh)*	*Reserve Margin (%)*
Nov 13							
21 (A)	37.06754	2.09E-06	0.00555	20529.87	28286.5	27763.11	27.42166
22 (A)	33.27647	2.47E-06	0.00657	20475.01	28286	27769.9	27.61435
23 (A0	46.03704	2.82E-06	0.00746	20473.51	28280.17	27771.47	27.60471
24 (A)	84.82226	2.86E-06	0.00747	20449.54	28274.45	27788.53	27.67485
25 (A)	84.82226	1.97E-06	0.00514	20362.94	28344	27789.2	28.15786
26 (A)	84.82226	1.1E-06	0.00288	20101.1	28482	27780.57	29.42527
27 (A)	29.65517	4.35E-07	0.00116	19870.81	28509.5	27750.7	30.30108
28 (A)	24.80382	2.42E-07	0.00065	19992.41	28510.52	27748.82	29.87708
29 (A)	24.80382	2.05E-07	0.00055	20018.89	28523.48	27750.84	29.81613

[7] Table indicator in parenthesis.

Table 3.8.3 (cont.)

Actual values for SMP, LOLP, CP, Gross Demand and generators availability's for 42 spikes in November 1998—a typical Winter month

Period[a] *(Half-hour)*	*SMP* *(£/MWh)*	*LOLP*	*CP*	*Gross Demand (MWh)*	*Declared (MWh)*	*Actual (MWh)*	*Reserve Margin (%)*
Nov 23							
14 (A)	21.03314	8.78E-08	0.00023	18592.26	28466.67	27741.37	34.68764
15 (A)	30.67527	9.94E-07	0.00264	19845.08	28801.31	28144.61	31.09661
16 (A)	34.06497	6.26E-06	0.01666	20443.25	29024.7	28224.28	29.56601
17 (A)	92.33845	1.4E-05	0.03643	20767.16	29228.37	28239.12	28.94861
18 (A)	92.33845	3.52E-05	0.09157	20957.89	29236.62	28373.62	28.31631
19 (A)	30.67527	6.45E-05	0.17172	21422.83	29239.5	28180.49	26.73324
20 (A)	92.33845	8.39E-05	0.2184	21550.18	29239.12	28480.92	26.29674
21 (A)	92.33845	8.57E-05	0.22291	21464.43	29234.5	28751.37	26.57844
22 (A)	30.67527	7.56E-05	0.20142	21614.78	29234.5	28756.34	26.06415
23 (A)	45.00971	7.3E-05	0.19341	21679.59	29121.53	28739.19	25.55478
32 (A)	35.5767	0.002209	5.87175	21959.41	28916.35	28690.12	35.5767
33 (A)	41.66366	0.022254	59.02381	23085.17	28916.47	28691.64	41.66366
34 (A)	51.56944	0.052877	139.7251	24107.89	28888.5	28752.27	51.56944
35 (A)	81.33793	0.062553	163.4295	24336.63	28888.5	28884.45	81.33793
36 (A)	81.33793	0.046578	121.6929	23953.65	28888.5	28943.64	81.33793
37 (A)	56.12823	0.017472	46.08983	23400.85	28888.5	28984.13	56.12823
38 (A)	45.49512	0.006165	16.32739	23018	28928.92	28912.85	45.49512

Table 3.8.3 (cont.)

Actual values for SMP, LOLP, CP, Gross Demand and generators availability's for 42 spikes in November 1998—a typical Winter month

Period[9] *(Half-hour)*	*SMP* *(£/MWh)*	*LOLP*	*CP*	*Gross Demand (MWh)*	*Declared (MWh)*	*Actual (MWh)*	*Reserve Margin (%)*
Nov 24							
18 (A)	39.5632	8.48E-05	0.22505	21601.12	29544	28802.56	26.88493
19 (A)	39.5632	0.000156	0.41399	21852.11	29544	28855.51	26.03536
20 (A)	39.64214	0.000212	0.56351	21902.53	29544	28810.99	25.86472
21 (A)	94.46066	0.000216	0.56049	21732.11	29544	28909.65	26.44155
22 (A)	94.46066	0.0002	0.51951	21757.05	29544	29010.78	26.35714
23 (A)	94.46066	0.000204	0.53131	21789.98	29544	28934.18	26.24567
24 (A)	94.46066	0.000209	0.54445	21828.6	29544.85	28955.13	26.11706
25 (A)	94.46066	0.000166	0.4307	21853.45	29574.9	29033.96	26.10811
26 (A)	33.84541	0.000116	0.30737	21700.91	29577.5	29070.13	26.63033
27 (A)	33.84541	0.00007	0.18621	21739.18	29577.5	29044.25	26.50097
Nov 26							
24 (A)	37.10336	4.63E-05	0.12314	21769.93	29644.21	29332.78	26.56262
25 (A)	63.66667	4.85E-05	0.12766	21676.27	29670.4	29257.62	26.94312
26 (A)	63.66667	4.54E-05	0.11941	21376.63	29672.83	29350.27	27.95892
27 (A)	98.49184	3.31E-05	0.08585	21299.72	29668	29368.28	28.20643
28 (A)	98.49184	2.83E-05	0.0734	21173.96	29662.36	29367.13	28.61673
29 (A)	34.72199	2.11E-05	0.05604	21438.94	29644.5	29340.7	27.67989

[9] Table indicator in parenthesis.

Table 3.8.3 (cont.)

Actual values for SMP, LOLP, CP, Gross Demand and generators availability's for 42 spikes in November 1998—a typical Winter month

Period[10] (Half-hour)	*SMP (£/MWh)*	*LOLP*	*CP*	*Gross Demand (MWh)*	*Declared (MWh)*	*Actual (MWh)*	*Reserve Margin (%)*
Nov 28							
23 (A)	17.72608	0	0	18052.74	25711.5	24129.93	29.7873
24 (A)	16.51048	0	0	18014.26	25711.5	24171.85	29.93695
25 (A)	13.21429	0	0	17778.66	25711.5	24251.35	30.85328
26 (A)**	85.85075	0	0	17349.63	25711.67	24319.48	32.52236
27 (A)	85.85075	0	0	16969.56	25697.17	24357.96	33.96332
28 (A)	85.85075	0	0	16668.07	25573.92	24239.47	34.82395
29 (A)	16.51048	0	0	16641.63	25571.5	23974.19	34.92117
30 (A)	16.51048	0	0	16584.65	25605	23916.75	35.22885
Nov 29							
38 (A)	17.61979	1.31E-08	4E-05	19438.69	26414.08	25092.08	26.40787
39 (A)	17.61979	3.5E-09	1E-05	19119.7	26421.35	25246.88	27.63545
40 (A)	17.61979	8E-10	0	18661.35	26239.25	25342.4	28.88003
41 (A)**	94.71721	1E-10	0	18291.57	25925.75	25397.01	29.44631
42 (A)	94.71721	0	0	17915.86	25798.63	25358.25	30.55501
43 (A)	94.71721	0	0	17469.67	25621.05	25347.79	31.81517
44 (A)	17.47936	0	0	16955.97	25407.4	25167.65	33.26364
45 (A)	17.47936	0	0	16232.3	25090.65	25007.66	35.30536

** Three and half times the daily average value of £67.84 (approximated to two decimal places).

** Three and half times the daily average value of £66.78 (approximated to two decimal places).

Table 3.8.4

Actual values for SMP, LOLP, CP, Gross Demand and generators availability's on April 4

Period (half-hour)	*SMP (£/MWh)*	*LOLP (£/MWh)*	*CP (£/MWh)*	*Gross Demand (MWh)*	*Declared (MWh)*	*Actual (MWh)*	*Reserve Margin (%)*
April 4							
16 (A)	15.24	4.31E-07	0.00105	18,603.93	24,244.55	24,103.29	23.27
17 (A)	21.10	8.2E-07	0.002	18,996.55	24,637.93	24,496.67	28.90
18 (A)	21.10	1.68E-06	0.00409	18,592.50	24,633.17	24,491.91	24.52
19 (A)	211.24	2.0534e-06	0.00461	18,531.50	24,774.30	24,633.00	25.20
20 (A)	211.24	2.3844e-06	0.00536	18,462.80	24,932.40	24,791.10	25.48
21 (A)	211.24	0.000000214	0.00481	18,372.10	24,955.50	24,814.20	25.84
22 (A)	211.24	1.9862e-06	0.00446	18,342.20	24,955.50	24,814.20	25.94
23 (A)	21.10	2.03E-06	0.00494	18,507.83	24,952.20	24,810.94	25.29
24 (A)	21.10	2.18E-06	0.00531	18,529.33	24,943.80	24,802.54	25.21
25 (A)	21.10	1.78E-06	0.00433	18,603.75	24,953.50	24,812.24	24.91

Table 3.8.5

Actual values for SMP, LOLP, CP, Gross Demand and generators availability's on April 11

Period (half-hour)	*SMP (£/MWh)*	*LOLP (£/MWh)*	*CP (£/MWh)*	*Gross Demand (MWh)*	*Declared (MWh)*	*Actual (MWh)*	*Reserve Margin (%)*
April 11							
32 (A)	14.66	3.8007e-06	0.00929	17,249.00	24,936.30	24,665.00	30.38
33 (A)	14.66	7.7685e-06	0.01899	17,446.80	25,022.20	24,701.50	29.58
34 (A)	18.68	9.9127e-06	0.02418	17,421.60	25,054.40	24,753.20	29.68
35 (A)	836.16	8.0974e-06	0.01313	17,234.30	25,034.70	24,816.80	30.43
36 (A)	836.16	3.5781e-06	0.0058	16,626.30	25,151.90	24,901.90	32.89
37 (A)	836.16	3.156e-07	0.00051	16,142.00	25,160.90	24,965.50	34.84
38 (A)	12.26	0.000000071	0.00017	15,943.30	25,227.70	25,031.10	35.65
39 (A)	12.26	0.000000017	0.00004	15,835.20	25,252.00	25,059.20	36.08
40 (B)	10.40	1.225e-07	0.0003	15,951.90	24,793.50	24,637.20	35.61

Table 3.9.2

Winter 1994 / 95

Dependent variable: sqrt:(System Marginal Price)

Period	*N*	*Uplift*	*Gross Demand*	R^2	*F Statistics*
1	90	0.50 [0.126] (0.000)	**0.03** **[0.017]** **(0.090)**	0.36	10.90 (0.0001)
2	90	0.58 [0.105] (0.000)	**0.021** **[0.035]** **(0.554)**	0.27	15.40 (0.0000)
3	90	0.76 [0.113] (0.000)	**-0.0053** **[0.038]** **(0.890)**	0.35	24.70 (0.0000)
4	90	0.81 [0.109] (0.000)	**0.014** **[0.036]** **(0.702)**	0.37	28.44 (0.0000)
5	90	0.67 [0.097] (0.000)	**0.047** **[0.022]** **(0.036)**	0.36	25.27 (0.0000)
6	90	0.52 [0.103] (0.000)	**0.026** **[0.027]** **(0.331)**	0.22	13.46 (0.0000)
7	90	0.61 [0.097] (0.000)	**0.021** **(0.023]** **(0.367)**	0.30	20.74 (0.0000)
8	90	0.52 [0.098] (0.000)	**0.049** **[0.016]** **(0.001)**	0.36	16.28 (0.0000)
9	90	0.50 [0.133] (0.000)	**0.022** **[0.011]** **(0.041)**	0.36	9.05 (0.0003)
10	90	0.41 [0.120] (0.001)	**0.021** **[0.010]** **(0.038)**	0.38	**7.75** **(0.0008)**
11	90	0.54 [0.110] (0.000)	0.039 [0.012] (0.003)	0.45	14.76 (0.0000)
12	90	0.75 [0.140] (0.000)	0.024 [0.0080] (0.003)	0.60	17.64 (0.0000)
13	90	0.69 [0.125] (0.000)	0.025 [0.0083] (0.004)	0.57	17.88 (0.0000)
14	90	0.80 [0.066] (0.000)	0.032 [0.0086] (0.000)	0.75	139.61 (0.0000)
15	90	0.62 [0.092] (0.000)	**0.025** **[0.001]** **(0.014)**	0.58	68.79 (0.0000)
16	90	0.55 [0.12] (0.000)	**0.027** **[0.001]** **(0.008)**	0.58	46.33 (0.0000)
17	90	0.54 [0.14] (0.000)	**0.035** **[0.015]** **(0.021)**	0.52	46.96 (0.0000)
18	90	0.46 [0.103] (0.000)	**0.026** **[0.011]** **(0.021)**	0.54	41.04 (0.0000)
19	90	0.34 [0.105] (0.002)	**0.036** **[0.013]** **(0.006)**	0.38	21.82 (0.0000)

Notes: 1. N = the total number observations in the period within the season. 2. The White-corrected standard errors are in square bracket. 3. The prob. values are in the ordinary bracket. 4. The statistically insignificant coefficients at 5% significance level are in bold.

Table 3.9.2 (cont.)

Winter 1994 / 95

Dependent variable: sqrt:(System Marginal Price)

Period	*N*	*Uplift*	*Gross Demand*	R^2	*F Statistics*
20	90	**0.26** **[0.108]** **(0.019)**	0.059 [0.017] (0.001)	0.27	18.17 (0.0000)
21	90	**0.23** **[0.101]** **(0.023)**	0.053 [0.018] (0.005)	0.21	11.63 (0.0000)
22	90	**0.29** **[0.102]** **(0.005)**	**0.012** **[0.017]** **(0.461)**	0.20	**5.48** **(0.0058)**
23	90	**0.25** **[0.093]** **(0.008)**	**0.011** **[0.017]** **(0.514)**	0.19	**4.75** **(0.0110)**
24	90	**0.21** **[0.091]** **(0.019)**	**0.008** **[0.019]** **(0.662)**	0.14	**3.78** **(0.0267)**
25	90	0.32 [0.106] (0.003)	**-0.005** **[0.020]** **(0.800)**	0.19	**4.77** **(0.0108)**
26	90	0.41 [0.104] (0.000)	**-0.019** **[0.019]** **(0.313)**	0.25	**7.86** **(0.0007)**
27	90	0.52 [0.124] (0.000)	**-0.016** **[0.017]** **(0.357)**	0.35	9.00 (0.0003)
28	90	0.53 [0.132] (0.000)	**0.011** **[0.013]** **(0.384)**	0.42	8.43 (0.0004)
29	90	0.527 [0.132] (0.000)	0.033 [0.113] (0.004)	0.48	11.99 (0.0000)
30	90	0.54 [0.123] (0.000)	**0.028** **[0.011]** **(0.010)**	0.52	15.91 (0.0000)
31	90	0.56 [0.073] (0.000)	**0.022** **[0.0096]** **(0.027)**	0.61	40.21 (0.0000)
32	90	0.203 [0.039] (0.000)	**0.0082** **[0.013]** **(0.525)**	0.50	23.88 (0.0000)
33	90	0.08 [0.015] (0.000)	**0.0063** **[0.019]** **(0.743)**	0.44	24.95 (0.0000)
34	90	0.032 [0.0076] (0.000)	**0.048** **[0.021]** **(0.027)**	0.36	34.35 (0.0000)
35	90	0.044 [0.010] (0.000)	**0.037** **[0.029]** **(0.207)**	0.33	26.67 (0.0000)
36	90	0.042 [0.011] (0.000)	**0.019** **[0.033]** **(0.559)**	0.22	14.45 (0.0000)
37	90	**0.016** **[0.014]** **(0.166)**	**0.034** **[0.028]** **(0.227)**	0.08	**4.72** **(0.0114)**
38	90	**0.017** **[0.023]** **(0.464)**	**0.025** **[0.025]** **(0.320)**	0.04	**1.85** **(0.1629)**

Notes: 1. N = the total number observations in the period within the season. 2. The White-corrected standard errors are in square bracket. 3. The prob. values are in the ordinary bracket. 4. The statistically insignificant coefficients at 5% significance level are in bold.

Table 3.9.2 (cont.)

Winter 1994 / 95

Dependent variable: sqrt:(System Marginal Price)

Period	*N*	*Uplift*	*Gross Demand*	R^2	*F Statistics*
39	90	**0.089** **[0.043]** **(0.041)**	**0.013** **[0.036]** **(0.620)**	**0.07**	**4.10** **(0.0198)**
40	90	0.46 [0.095] (0.000)	**-0.0093** **[0.022]** **(0.680)**	0.29	12.00 (0.0000)
41	90	0.75 [0.100] (0.000)	**0.021** **[0.019]** **(0.260)**	0.47	28.29 (0.0000)
42	90	0.79 [0.095] (0.000)	**0.041** **[0.016]** **(0.016)**	0.51	36.01 (0.0000)
43	90	0.73 [0.095] (0.000)	0.070 [0.016] (0.000)	0.53	31.42 (0.0000)
44	90	0.71 [0.063] (0.000)	0.067 [0.014] (0.000)	0.64	111.67 (0.0000)
45	90	0.74 [0.047] (0.000)	0.049 [0.012] (0.000)	0.74	181.39 (0.0000)
46	90	0.75 [0.058] (0.000)	**0.025** **[0.013]** **(0.058)**	0.74	106.21 (0.0000)
47	90	0.69 [0.077] (0.000)	**0.021** **[0.010]** **(0.039)**	0.75	41.91 (0.0000)
48	90	**0.33** **[0.145]** **(0.024)**	**0.0064** **[0.0059]** **(0.284)**	0.34	**3.61** **(0.0312)**

Notes: 1. N = the total number observations in the period within the season. 2. The White-corrected standard errors are in square bracket. 3. The prob. values are in the ordinary bracket. 4. The statistically insignificant coefficients at 5% significance level are in bold.

Table 3.9.3
Summer 1995

Dependent variable: sqrt:(System Marginal Price)

Period	*N*	*Uplift*	*Gross Demand*	R^2	*F Statistics*
1	62	0.22 [0.029] (0.000)	**0.016** **[0.0097]** **(0.094)**	0.45	43.40 (0.0000)
2	62	0.21 [0.045] (0.000)	**0.007** **[0.0076]** **(0.345)**	0.42	13.37 (0.0000)
3	62	0.23 [0.044 (0.000)	**0.01** **[0.009]** **(0.210)**	0.53	22.36 (0.0000)
4	62	0.23 [0.046] (0.000)	**0.016** **[0.009]** **(0.083)**	0.56	26.98 (0.0000)
5	62	0.23 [0.046] (0.000)	**0.017** **[0.0097]** **(0.089)**	0.57	26.94 (0.0000)
6	62	0.23 [0.046] (0.000)	**0.017** **[0.0097]** **(0.091)**	0.56	26.60 (0.0000)
7	62	0.244 [0.050] (0.000)	**0.019** **[0.008]** **(0.019)**	0.56	21.88 (0.000)
8	62	0.24 [0.050] (0.000)	**0.021** **[0.0078]** **(0.011)**	0.57	23.54 (0.0000)
9	62	0.20 [0.043] (0.000)	0.026 [0.0046] (0.000)	0.58	24.01 (0.0000)
10	62	0.19 [0.045] (0.000)	0.025 [0.0045] (0.000)	0.55	19.75 (0.0000)
11	62	0.21 [0.050] (0.000)	0.025 [0.0043] (0.000)	0.65	21.87 (0.0000)
12	62	0.24 [0.040] (0.000)	0.024 [0.0039] (0.000)	0.71	35.42 (0.0000)
13	62	0.19 [0.050] (0.000)	0.017 [0.004] (0.000)	0.51	11.19 (0.0001)
14	62	**0.16** **[0.044]** **(0.001)**	0.035 [0.0058] (0.000)	0.56	48.35 (0.0000)
15	62	**0.17** **[0.068]** **(0.016)**	0.038 [0.0052] (0.000)	0.67	128.31 (0.0000)
16	62	**0.13** **[0.063]** **(0.041)**	0.035 [0.0046] (0.000)	0.51	61.82 (0.0000)
17	62	**0.22** **[0.111]** **(0.056)**	0.039 [0.0047] (0.000)	0.43	37.57 (0.0000)
18	62	**0.30** **[0.154]** **(0.058)**	0.036 [0.0056] (0.000)	0.34	20.29 (0.0000)
19	62	**0.47** **[0.187]** **(0.015)**	0.038 [0.0075] (0.000)	0.36	21.74 (0.0000)

Notes: 1. N = the total number observations in the period within the season. 2. The White-corrected standard errors are in square bracket. 3. The prob. values are in the ordinary bracket. 4. The statistically insignificant coefficients at 5% significance level are in bold.

Table 3.9.3 (cont.)
Summer 1995

Dependent variable: sqrt:(System Marginal Price)

Period	*N*	*Uplift*	*Gross Demand*	R^2	*F Statistics*
20	62	**0.44** **[0.187]** **(0.023)**	0.047 [0.010] (0.000)	0.34	20.29 (0.0000)
21	62	**0.29** **[0.17]** **(0.095)**	0.037 [0.012] (0.002)	0.26	11.96 (0.0000)
22	62	**0.13** **[0.144]** **(0.378)**	**0.033** **[0.013]** **(0.018)**	0.15	6.08 (0.0040)
23	62	**0.12** **[0.14]** **(0.380)**	**0.038** **[0.014]** **(0.007)**	0.20	9.50 (0.0003)
24	62	**0.29** **[0.13]** **(0.030)**	**0.035** **[0.015]** **(0.021)**	0.29	11.95 (0.0000)
25	62	**0.058** **[0.159]** **(0.718)**	0.071 [0.018] (0.000)	0.29	15.28 (0.0000)
26	62	**0.17** **[0.183]** **(0.350)**	0.064 [0.016] (0.000)	0.31	16.09 (0.0000)
27	62	**0.26** **[0.189]** **(0.175)**	**0.023** **[0.011]** **(0.037)**	0.15	5.10 (0.0091)
28	62	**0.20** **[0.136]** **(0.140)**	0.027 [0.0063] (0.000)	0.21	9.60 (0.0002)
29	62	**0.24** **[0.128]** **(0.070)**	0.030 [0.0051] (0.000)	0.30	17.63 (0.0000)
30	62	**0.003** **(0.007]** **(0.061)**	0.033 [0.0052] (0.000)	0.34	21.38 (0.0000)
31	62	0.29 [0.085] (0.001)	0.031 [0.0047] (0.000)	0.42	27.28 (0.0000)
32	62	0.28 [0.075] (0.000)	0.030 [0.0051] (0.000)	0.43	29.54 (0.0000)
33	62	0.29 [0.095] (0.004)	0.049 [0.0077] (0.000)	0.47	38.16 (0.0000)
34	62	**0.111** **[0.171]** **(0.519)**	0.095 [0.0092] (0.000)	0.56	87.39 (0.0000)
35	62	**0.185** **[0.192]** **(0.341)**	0.085 [0.0099] (0.000)	0.47	52.22 (0.0000)
36	62	**0.31** **[0.26]** **(0.235)**	0.049 [0.012] (0.000)	0.18	9.76 (0.0002)
37	62	**0.23** **[0.104]** **(0.032)**	0.022 [0.0075] (0.004)	0.17	**5.05** **(0.0094)**
38	62	0.27 [0.069] (0.000)	0.029 [0.0047] (0.000)	0.39	20.45 (0.0000)

Notes: 1. N = the total number observations in the period within the season. 2. The White-corrected standard errors are in square bracket. 3. The prob. values are in the ordinary bracket. 4. The statistically insignificant coefficients at 5% significance level are in bold.

Table 3.9.3 (cont.)
Summer 1995

Dependent variable: sqrt:(System Marginal Price)					
Period	*N*	*Uplift*	*Gross Demand*	R^2	*F Statistics*
39	62	0.27 [0.070] (0.000)	0.029 [0.0055] (0.000)	0.14	24.99 (0.0000)
40	62	0.42 [0.043] (0.000)	0.026 [0.0058] (0.000)	0.62	49.36 (0.0000)
41	62	0.50 [0.054] (0.000)	0.035 [0.0096] (0.000)	0.68	43.27 (0.0000)
42	62	0.52 [0.115] (0.000)	0.089 [0.016] (0.000)	0.49	31.79 (0.0000)
43	62	**0.22** **[0.271]** **(0.428)**	0.092 [0.017] (0.000)	0.26	13.95 (0.000)
44	62	**0.48** **[0.222]** **(0.036)**	0.071 [0.0217] (0.002)	0.18	**6.43** **(0.0030)**
45	62	**0.45** **[0.162]** **(0.007)**	**0.040** **[0.017]** **(0.022)**	0.15	**4.90** **(0.0107)**
46	62	**0.35** **[0.177]** **(0.049)**	**0.020** **[0.019]** **(0.283)**	0.07	**2.35** **(0.1038)**
47	62	**0.36** **[0.210]** **(0.092)**	**0.037** **[0.013]** **(0.005)**	0.21	**5.24** **(0.0080)**
48	62	**0.21** **[0.077]** **(0.008)**	**0.034** **[0.012]** **(0.005)**	0.18	**6.98** **(0.0019)**

Notes: 1. N = the total number observations in the period within the season. 2. The White-corrected standard errors are in square bracket. 3. The prob. values are in the ordinary bracket. 4. The statistically insignificant coefficients at 5% significance level are in bold.

Table 3.9.4
Winter 1997/98

Dependent variable: sqrt:(System Marginal Price)

Period	*N*	*Uplift*	*Gross Demand*	R^2	*F Statistics*
1	90	**0.25** **[0.638]** **(0.693)**	0.14 [0.035] (0.000)	0.17	18.10 (0.0000)
2	90	**-0.27** **[0.51]** **(0.574)**	0.094 [0.031] (0.003)	0.11	**6.56** **(0.0022)**
3	90	**0.026** **[0.310]** **(0.402)**	**0.023** **[0.034]** **(0.504)**	0.01	**0.50** **(0.6070)**
4	90	**0.39** **[0.305]** **(0.207)**	**-0.0022** **[0.028]** **(0.937)**	0.01	0.97 (0.3829)
5	90	**0.37** **[0.151]** **(0.016)**	**0.03** **[0.011]** **(0.071)**	0.07	**7.77** **(0.0008)**
6	90	**0.021** **[0.265]** **(0.078)**	**0.041** **[0.017]** **(0.018)**	0.05	2.89 (0.0607)
7	90	**0.32** **[0.271]** **(0.240)**	**0.026** **[0.016]** **(0.098)**	0.04	**1.60** **(0.2069)**
8	90	**2.70** **[1.451]** **(0.066)**	**0.004** **[0.032]** **(0.899)**	0.33	**2.69** **(0.0736)**
9	90	**2.60** **[1.57]** **(0.101**	**0.028** **[0.033]** **(0.394)**	0.33	**3.60** **(0.0316)**
10	90	**0.40** **[0.311]** **(0.205)**	**0.057** **[0.013]** **(0.000)**	0.24	17.54 (0.0000)
11	90	**0.84** **[0.52** **(0.111)**	**0.032** **[0.013]** **(0.020)**	0.17	8.61 (0.0004)
12	90	**1.09** **[0.56]** **(0.053)]**	**0.033** **[0.011]** **(0.005)**	0.25	10.36 (0.0001)
13	90	**1.36** **[0.53]** **(0.012)**	0.037 [0.011] (0.001)	0.33	23.12 (0.0000)
14	90	**0.67** **[0.291]** **(0.023)**	0.07 (0.0082] (0.000)	0.44	49.80 (0.0000)
15	90	**0.17** **[0.179]** **(0.351)**	0.073 [0.0062] (0.000)	0.63	72.59 (0.0000)
16	90	**0.119** **[0.188]** **(0.530)**	0.084 [0.0055] (0.000)	0.75	120.56 (0.0000)
17	90	0.56 [0.133] (0.000)	0.090 [0.0052] (0.000)	0.84	218.07 (0.0000)
18	90	**0.30** **[0.156]** **(0.054)**	0.03 [0.0054] (0.000)	0.82	183.09 (0.0000)
19	90	**0.24** **[0.187]** **(0.210)**	0.101 [0.0073] (0.000)	0.74	119.73 (0.0000)

Notes: 1. N = the total number observations in the period within the season. 2. The White-corrected standard errors are in square bracket. 3. The prob. values are in the ordinary bracket. 4. The statistically insignificant coefficients at 5% significance level are in bold.

Table 3.9.4 (cont.)
Winter 1997/98

Dependent variable: sqrt:(System Marginal Price)

Period	*N*	*Uplift*	*Gross Demand*	R^2	*F Statistics*
20	90	**-0.025** **[0.179]** **(0.889)**	111 [0.0079] (0.000)	0.63	105.30 (0.0000)
21	90	**-0.088** **[0.185]** **(0.634)**	0.110 [[0.0094] (0.000)	0.53	72.31 (0.0000)
22	90	**-0.105** **[0.146]** **(0.473)**	0.088 [0.0085] (0.000)	0.52	56.14 (0.0000)
23	90	**-0.174** **[0.136]** **(0.202)**	0.074 [0.022] (0.001)	0.27	7.35 (0.0011)
24	90	**-0.079** **[0.094]** **(0.404)**	0.071 [0.23] (0.002)	0.26	**5.91** **(0.0039)**
25	90	**-0.021** **[0.069]** **(0.830)**	0.071 [0.019] (0.000)	0.27	7.41 (0.0011)
26	90	**-0.095** **[0.074]** **(0.203)**	0.082 [0.0190] (0.000)	0.36	11.95 (0.0000)
27	90	**0.0076** **[0.120]** **(0.950)**	0.102 [0.0097] (0.000)	0.58	58.33 (0.0000)
28	90	**0.070** **[0.149]** **(0.637)**	0.105 [0.0088] (0.000)	0.59	78.08 (0.0000)
29	90	**0.00015** **0.151** **(0.999)**	0.119 [0.0098] (0.000)	0.54	74.46 (0.0000)
30	90	**0.204** **[0.231]** **(0379)**	0.111 [0.013] (0.000)	0.48	42.81 (0.0000)
31	90	**0.232** **[0.181]** **(0.202)**	0.099 [0.0112] (0.000)	0.48	46.15 (0.0000)
32	90	**0.092** **[0.056]** **(0.101)**	0.0906 [0.012] (0.000)	0.51	48.31 (0.0000)
33	90	**0.0043** **[0.014]** **(0.747)**	0.130 [0.013] (0.000)	0.68	102.87 (0.0000)
34	90	**0.0022** **[0.0089]** **(0.801)**	0.17 [0.016] (0.000)	0.77	132.40 (0.0000)
35	90	**0.0026** **[0.0084]** **(0.758)**	0.188 [0.012] (0.000)	0.80	165.18 (0.0000)
36	90	**-0.0030** **[0.0106]** **(0.778)**	0.187 [0.016] (0.000)	0.79	124.01 (0.0000)
37	90	-0.044 [0.0088] (0.000)	0.135 [0.010] (0.000)	0.70	96.82 (0.0000)
38	90	-0.046 [0.015] (0.003)	0.127 [0.0090] (0.000)	0.72	118.10 (0.0000)

Notes: 1. N = the total number observations in the period within the season. 2. The White-corrected standard errors are in square bracket. 3. The prob. values are in the ordinary bracket. 4. The statistically insignificant coefficients at 5% significance level are in bold.

Table 3.9.4 (cont.)
Winter 1997/98

Dependent variable: sqrt:(System Marginal Price)

Period	*N*	*Uplift*	*Gross Demand*	R^2	*F Statistics*
39	90	**-0.04** **[0.043]** **(0.334)**	0.118 [0.0091] (0.000)	0.65	102.15 (0.0000)
40	90	**0.117** **[0.179]** **(0.512)**	0.101 [0.0076] (0.000)	0.64	123.10 (0.0000)
41	90	**0.35** **[0.178]** **(0.054)**	0.086 [0.0075] (0.000)	0.60	74.98 (0.0000)
42	90	**0.40** **[0.177]** **(0.027)**	0.096 [0.010] (0.000)	0.61	43.26 (0.0000)
43	90	**0.118** **[0.177]** **(0.507)**	0.095 [0.010] (0.000)	0.61	53.89 (0.0000)
44	90	**0.60** **[0.265]** **(0.026)**	0.110 [0.011] (0.000)	0.58	58.66 (0.0000)
45	90	**0.92** **[0.359]** **(0.012)**	0.123 [0.0122] (0.000)	0.63	96.77 (0.0000)
46	90	**1.101** **[0.470]** **(0.021)**	0.105 [0.015] (0.000)	0.44	58.52 (0.0000)
47	90	**0.98** **[0.456]** **(0.034)**	0.080 [0.016] (0.000)	0.30	25.66 (0.0000)
48	90	1.719 [0.349] (0.000)	0.069 [0.013] (0.000)	0.34	41.44 (0.0000)

Notes: 1. N – the total number observations in the period within the season. 2. The White-corrected standard errors are in square bracket. 3. The prob. values are in the ordinary bracket. 4. The statistically insignificant coefficients at 5% significance level are in bold.

Table 3.9.5 Summer 1998 Dependent variable: sqrt:(System Marginal Price)					
Period	*N*	*Uplift*	*Gross Demand*	R^2	*F Statistics*
1	62	**-0.056** **[0.431]** **(0.898)**	0.063 [0.020] (0.003)	0.20	**7.58** **(0.0012)**
2	62	**0.368** **[0.294]** **(0.215)**	**0.026** **[0.017]** **(0.145)**	0.09	**3.28** **(0.0445)**
3	62	**0.36** **[0.284]** **(0.214)**	**0.039** **[0.019]** **(0.049)**	0.14	**4.46** **[0.0157)**
4	62	**0.055** **[0.268]** **(0.838)**	0.068 [0.19] (0.001)	0.24	**8.22** **(0.0007)**
5	62	**0.08** **[0.272]** **(0.720)**	0.064 [0.017] (0.000)	0.23	**8.70** **(0.0005)**
6	62	**0.189** **[0.271]** **(0.488)**	0.060 [0.015] (0.000)	0.21	9.74 (0.0002)
7	62	**0.088** **[0.341]** **(0.797)**	0.050 [0.0150] (0.002)	0.14	**5.70** **(0.0054)**
8	62	**0.00049** **[0.351]** **(0.999)**	0.049 [0.016] (0.002)	0.12	**5.70** **(0.0094)**
9	62	**-0.067** **[0.375]** **(0.859)**	0.052 [0.016] (0.002)	0.13	**5.36** **(0.0073)**
10	62	**0.28** **[0.317]** **(0.931)**	0.046 (0.014] (0.002)	0.13	**5.10** **(0.0091)**
11	62	**0.711** **[0.527]** **(0.182)**	**0.0445** **[0.0212]** **(0.040)**	0.08	**2.79** **(0.0693)**
12	62	**0.71** **[0.510]** **(0.170)**	**0.039** **[0.021]** **(0.066)**	0.07	**3.08** **(0.0533)**
13	62	**0.033** **[0.441]** **(0.456)**	**0.024** **[0.015]** **(0.111)**	0.09	**1.53** **(0.2248]**
14	62	1.14 [0.30] (0.000)	**0.036** **[0.013]** **(0.009)**	0.33	11.67 (0.0001)
15	62	**-0.115** **[0.137]** **(0.405)**	0.046 [0.0104] (0.000)	0.40	9.62 (0.0002)
16	62	**-0.192** **[0.117]** **(0.107)**	0.043 [0.0046] (0.000)	0.63	53.54 (0.0000)
17	62	**-0.056** **[0.075]** **(0.459)**	0.032 [0.0031] (0.000)	0.58	51.93 (0.0000)
18	62	**-0.167** **[0.151]** **(0.275)**	0.0518 [0.0099] (0.000)	0.43	16.49 (0.0000)
19	62	**-0.46** **[0.319]** **(0.152)**	0.068 [0.013] (0.000)	0.25	15.82 (0.0000)

Notes: 1. N = the total number observations in the period within the season. 2. The White-corrected standard errors are in square bracket. 3. The prob. values are in the ordinary bracket. 4. The statistically insignificant coefficients at 5% significance level are in bold.

Table 3.9.5 (cont.) Summer 1998					
Dependent variable: sqrt:(System Marginal Price)					
Period	*N*	*Uplift*	*Gross Demand*	R^2	*F Statistics*
20	62	**-0.57** **[0.246]** **(0.025)**	0.073 [0.017] (0.000)	0.22	9.57 (0.0003)
21	62	**-0.517** **[0.235]** **(0.032)**	**0.047** **[0.0213]** **(0.030)**	0.10	**3.92** **(0.0251)**
22	62	**-0.033** **[0.161]** **(0.044)**	**0.019** **[0.024]** **(0.422)**	0.06	**2.17** **(0.1228)**
23	62	**-0.166** **[0.098]** **(0.097)**	**0.034** **[0.017]** **(0.045)**	0.06	**2.28** **(0.1117)**
24	62	**-0.080** **[0.082]** **(0.335)**	0.054 [0.014] (0.000)	0.14	9.86 (0.0002)
25	62	**-0.106** **[0.117]** **(0.369)**	0.057 [0.0146] (0.000)	0.11	8.95 (0.0004)
26	62	**-0.109** **[0.111]** **(0.329)**	0.050 [0.013] (0.000)	0.11	**7.98** **(0.0009)**
27	62	**0.018** **[0.083]** **(0.833)**	**0.011** **[0.202]** **(0.589)**	0.01	**0.16** **(0.8521)**
28	62	**-0.045** **[0.048]** **(0.349)**	0.025 [0.0075] (0.002)	0.16	**5.46** **(0.0067)**
29	62	**-0.0598** **[0.0495]** **(0.233)**	0.028 [0.0050] (0.000)	0.27	16.33 (0.0000)
30	62	**-0.53** **[0.317]** **(0.098)**	0.049 [0.010] (0.000)	0.21	16.28 (0.0000)
31	62	**-0.433** **[0.317]** **(0.177)**	0.061 [0.011] (0.000)	0.25	21.04 (0.0000)
32	62	**-0.033** **[0.074]** **(0.656)**	0.044 [0.0061] (0.000)	0.39	25.83 (0.0000)
33	62	**-0.056** **[0.054]** **(0.307)**	0.0502 [0.0069] (0.000)	0.38	30.12 (0.0000)
34	62	**0.063** **[0.065]** **(0.340)**	0.064 [0.010] (0.000)	0.32	22.49 (0.0000)
35	62	**0.067** **[0.729]** **(0.360)**	0.0620 [0.0110] (0.000)	0.28	22.87 (0.0000)
36	62	**0.017** **[0.121]** **(0.888)**	**0.0101** **[0.008]** **(0.106)**	0.05	**1.35** **(0.2678)**
37	62	**-0.163** **[0.115]** **(0.0162)**	**0.0033** **[0.0076]** **(0.663)**	0.03	**1.21** **(0.3064)**
38	62	**-0.205** **[0.102]** **(0.049)**	**0.0081** **[0.0074]** **(0.276)**	0.08	**4.30** **(0.0181)**

Notes: 1. N = the total number observations in the period within the season. 2. The White-corrected standard errors are in square bracket. 3. The prob. values are in the ordinary bracket. 4. The statistically insignificant coefficients at 5% significance level are in bold.

Table 3.9.5 (cont.) Summer 1998 Dependent variable: sqrt:(System Marginal Price)					
Period	*N*	*Uplift*	*Gross Demand*	R^2	*F Statistics*
39	62	**0.052** **[0.104]** **(0.618)**	**0.019** [0.0085] **(0.033)**	0.09	**2.42** **(0.0977)**
40	62	**-0.344** **[0.196]** **(0.085)**	0.050 [0.016] (0.003)	0.21	**5.41** **(0.0069)**
41	62	**0.422** **[0.409]** **(0.306)**	**0.024** **[0.013]** **(0.064)**	0.06	**2.55** **(0.0609)**
42	62	**1.200** **[0.483]** **(0.016)**	**0.018** **[0.012]** **(0.153)**	0.13	**3.83** **(0.0273)**
43	62	**-0.084** **[0.642]** **(0.896)**	**0.075** **[0.030]** **(0.015)**	0.07	**3.20** **(0.0478)**
44	62	**0.011** **[0.436]** **(0.800)**	**0.085** **[0.035]** **(0.018)**	0.06	**3.04** **(0.0554)**
45	62	**-0.513** **[0.216]** **(0.021)**	**0.0064** **[0.019]** **(0.738)**	0.03	**3.56** **(0.0346)**
46	62	**-0.371** **[0.229]** **(0.111)**	**0.0081** **[0.0153]** **(0.596)**	0.04	**1.90** **(0.1585)**
47	62	**0.144** **[0.206]** **(0.487)**	**0.050** **[0.019]** **(0.013)**	0.10	**3.33** **(0.0425)**
48	62	**-0.14** **[0.214]** **(0.524)**	**0.036** **[0.020]** **(0.069)**	0.06	**2.03** **(0.1408)**

Notes: 1. N = the total number observations in the period within the season. 2. The White-corrected standard errors are in square bracket. 3. The prob. values are in the ordinary bracket. 4. The statistically insignificant coefficients at 5% significance level are in bold.

Table 3.9.6 Winter 1999/2000 Dependent variable: sqrt:(System Marginal Price)					
Period	*N*	*Uplift*	*Gross Demand*	R^2	*F Statistics*
1	91	**0.434** **[0.573]** **(0.450)**	**0.012** **[0.0069]** **(0.085)**	0.05	**1.61** **(0.2049)**
2	91	**0.428** **[0.387]** **(0.272)**	**-0.021** **[0.0079]** **(0.008)**	0.09	**4.88** **(0.0098)**
3	91	**0.238** **[0.150]** **(0.116)**	**-0.0085** **[0.0115]** **(0.465)**	0.03	**1.46** **(0.2370)**
4	91	**0.144** **[0.128]** **(0.266)**	**-0.0077** **[0.0111]** **(0.488)**	0.02	**0.83** **(0.4414)**
5	91	**-0.069** **[0.114]** **(0.547)**	**-0.0040** **[0.0079]** **(0.616)**	0.01	**0.34** **(0.7105)**
6	91	**-0.162** **[0.098]** **(0.101)**	0.034 [0.0102] (0.001)	0.14	9.28 (0.0002)
7	91	**-0.138** **[0.095]** **(0.150)**	0.031 [0.0086] (0.000)	0.13	9.49 (0.0002)
8	91	**-0.23** **[0.155]** **(0.140)**	**0.0097** **[0.0070]** **(0.168)**	0.06	**3.02** **(0.0537)**
9	91	**-0.270** **[0.182]** **(0.142)**	**0.017** **[0.0082]** **(0.040)**	0.10	**5.74** **(0.0045)**
10	91	**-0.026** **[0.217]** **(0.231)**	**0.0081** **[0.0065]** **(0.213)**	0.05	**2.30** **(0.1058)**
11	91	**0.107** **[0.329]** **(0.745)**	**0.0036** **[0.0051]** **(0.479)**	0.01	**0.26** **(0.7694)**
12	91	**0.856** **[0.546]** **(0.121)**	0.018 [0.0056] (0.002)	0.14	**5.32** **(0.0066)**
13	91	**0.020** **[0.433]** **(0.964)**	0.038 [0.0066] (0.000)	0.27	18.21 (0.0000)
14	91	**-0.057** **[0.100]** **(0.570)**	0.058 [0.0051] (0.000)	0.60	75.51 (0.0000)
15	91	**-0.082** **[0.127]** **(0.517)**	0.076 [0.0047] (0.000)	0.71	140.89 (0.0000)
16	91	**-0.19** **[0.180]** **(0.291)**	0.081 [0.0046] (0.000)	0.74	166.34 (0.0000)
17	91	**-0.052** **[0.205]** **(0.801)**	0.089 [0.0050] (0.000)	0.70	171.01 (0.0000)
18	91	**0.159** **[0.213]** **(0.458)**	0.089 [0.0051] (0.000)	0.65	154.08 (0.0000)
19	91	**0.40** **[0.186]** **(0.036)**	0.076 [0.0051] (0.000)	0.66	118.38 (0.000)

Notes: 1. N = the total number observations in the period within the season. 2. The White-corrected standard errors are in square bracket. 3. The prob. values are in the ordinary bracket. 4. The statistically insignificant coefficients at 5% significance level are in bold.

Table 3.9.6 (cont).
Winter 1999/2000

Dependent variable: sqrt:(System Marginal Price)

Period	*N*	*Uplift*	*Gross Demand*	R^2	*F Statistics*
20	91	**0.26** **[0.195]** **(0.186)**	0.076 [0.0062] (0.000)	0.57	76.96 (0.0000)
21	91	**0.123** **[0.196]** **(0.531)**	0.070 [0.0059] (0.000)	0.57	73.06 (0.0000)
22	91	**0.043** **[0.136]** **(0.750)**	0.067 [0.0059] (0.000)	0.61	63.62 (0.0000)
23	91	**0.024** **[0.132]** **(0.855)**	0.073 (0.0067] (0.000)	0.58	60.78 (0.0000)
24	91	**0.087** **[0.145]** **(0.550)**	0.072 [0.0061] (0.000)	0.55	78.50 (0.0000)
25	91	**0.013** **[0.156]** **(0.934)**	0.073 [0.0072] (0.000)	0.47	53.50 (0.0000)
26	91	**-0.0046** **[0.145]** **(0.975)**	0.076 [0.0073] (0.000)	0.52	59.31 (0.0000)
27	91	**0.097** **[0.172]** **(0.576)**	0.061 [0.0062] (0.000)	0.52	54.61 (0.0000)
28	91	**0.180** **[0.136]** **(0.189)**	0.068 [0.0060] (0.000)	0.61	64.02 (0.000)
29	91	**0.167** **[0.141]** **(0.241)**	0.068 [0.0070] (0.000)	0.60	47.69 (0.0000)
30	91	**0.015** **[0.119]** **(0.901)**	0.068 [0.007] (0.000)	0.52	43.67 (0.0000)
31	91	**0.200** **[0.183]** **(0.277)**	0.056 [0.0079] (0.000)	0.37	34.17 (0.0000)
32	91	**0.182** **[0.0640]** **(0.006)**	0.049 [0.0085] (0.000)	0.47	47.36 (0.0000)
33	91	0.046 [0.013] (0.000)	0.073 [0.0088] (0.000)	0.68	130.68 (0.0000)
34	91	0.037 [0.0074] (0.000)	0.089 [0.0089] (0.000)	0.75	152.64 (0.0000)
35	91	0.032 [0.0088] (0.000)	0.104 [0.012] (0.000)	0.73	115.98
36	91	0.030 [0.0089] (0.001)	0.099 [0.0094] (0.000)	0.70	146.02 (0.0000)
37	91	0.060 [0.0117] (0.000)	0.071 [0.0077] (0.000)	0.68	132.68 (0.0000)
38	91	0.165 [0.025] (0.000)	0.059 [0.0083] (0.000)	0.66	100.36 (0.0000)

Notes: 1. N = the total number observations in the period within the season. 2. The White-corrected standard errors are in square bracket. 3. The prob. values are in the ordinary bracket. 4. The statistically insignificant coefficients at 5% significance level are in bold.

Table 3.9.6 (cont). Winter 1999/2000					
Dependent variable: sqrt:(System Marginal Price)					
Period	*N*	*Uplift*	*Gross Demand*	R^2	*F Statistics*
39	91	0.338 [0.059] (0.000)	0.067 [0.0080] (0.000)	0.64	99.16 (0.0000)
40	91	**0.266** **[0.175]** **(0.133)**	0.074 [0.0054] (0.000)	0.60	99.13 (0.0000)
41	91	**0.015** **[0.109]** **(0.889)**	0.067 [0.0054] (0.000)	0.62	93.99 (0.0000)
42	91	**-0.116** **[0.101]** **(0.254)**	0.060 [0.006] (0.000)	0.55	54.68 (0.0000)
43	91	**0.021** **[0.590]** **(0.728)**	0.068 [0.0037] (0.000)	0.77	183.75 (0.0000)
44	91	**0.099** **[0.073]** **(0.180)**	0.079 [0.0057] (0.000)	0.75	107.75 (0.0000)
45	91	**-0.0049** **[0.083]** **(0.953)**	0.085 [0.0062] (0.000)	0.62	113.24 (0.0000)
46	91	**-0.334** **[0.241]** **(0.169)**	0.033 [0.0114] (0.005)	0.14	**7.76** **(0.0008)**
47	91	**-0.180** **[0.513]** **(0.727)**	0.027 [0.0078] (0.001)	0.14	**6.63** **(0.0021)**
48	91	0.897 [0.104] (0.000)	0.022 [0.0047] (0.000)	0.43	69.20 (0.0000)

Notes: 1. N = the total number observations in the period within the season. 2. The White-corrected standard errors are in square bracket. 3. The prob. values are in the ordinary bracket. 4. The statistically insignificant coefficients at 5% significance level are in bold.

Table 3.9.7 Summer 2000 Dependent variable: sqrt:(System Marginal Price)					
Period	*N*	*Uplift*	*Gross Demand*	R^2	*F Statistics*
1	62	**-0.14** **[0.083]** **(0.088)**	**-0.0054** **[0.017]** **(0.746)**	0.03	**1.58** **(0.2140)**
2	62	**-0.008** **[0.166]** **(0.961)**	**-0.025** **[0.112]** **(0.033)**	0.06	**2.39** **(0.1004)**
3	62	**-0.221** **[0.175]** **(0.213)**	**-0.0093** **[0.013]** **(0.464)**	0.02	**1.17** **(0.3175)**
4	62	**-0.254** **[0.175]** **(0.150)**	**-0.0010** **[0.012]** **(0.415)**	0.027	**1.52** **(0.0268)**
5	62	**-0.301** **[0.168]** **(0078)**	**-0.012** **[0.011]** **(0.310)**	0.04	**2.15** **(0.1251)**
6	62	**-0.288** **[0.170]** **(0.095)**	**-0.013** **[0.011]** **(0.256)**	0.04	**2.12** **(0.1291)**
7	62	**-0.273** **[0.170]** **(0.114)**	**-0.013** **[0.011]** **(0.260)**	0.03	**1.98** **(0.1470)**
8	62	**-0.406** **[0.165]** **(0.017)**	**-0.0234** **[0.0099]** **(0.021)**	0.10	**6.20** **(0.0036)**
9	62	**-0.150** **[0.245]** **(0.544)**	**-0.019** **[0.011]** **(0.104)**	0.05	**1.39** **(0.2566)**
10	62	**-0.0132** **[0.243]** **(0.587)**	**-0.0099** **[0.012]** **(0.433)**	0.02	**0.39** **(0.6799)**
11	62	**-0.114** **[0.149]** **(0.466)**	**-0.014** **[0.013]** **(0.287)**	0.02	**0.74** **(0.4821)**
12	62	**0.182** **[0.472]** **(0.702)**	**0.027** **[0.031]** **(0.385)**	0.03	**0.41** **(0.6685)**
13	62	**-0.167** **[0.104]** **(0.114)**	**0.019** **[0.014]** **(0.201)**	0.10	**6.62** **(0.0025)**
14	62	**0.0086** **[0.076]** **(0.911)**	**0.044** **[0.017]** **(0.011)**	0.21	**5.07** **(0.0093)**
15	62	**0.016** **[0.148]** **(0.914)**	0.055 [0.013] (0.000)	0.42	10.17 (0.0002)
16	62	**-0.16** **[0.220]** **(0.459)**	0.032 [0.0071] (0.000)	0.38	12.99 (0.0000)
17	62	-0.40 [0.100] (0.000)	0.041 [0.0088] (0.000)	0.32	12.57 (0.0000)
18	62	**0.14** **[0.047]** **(0.005)**	0.046 [0.0088] (0.000)	0.33	13.53 (0.0000)
19	62	**-0.076** **[0.035]** **(0.037)**	0.057 [0.0093] (0.000)	0.34	20.63 (0.0000)

Notes: 1. N = the total number observations in the period within the season. 2. The White-corrected standard errors are in square bracket. 3. The prob. values are in the ordinary bracket. 4. The statistically insignificant coefficients at 5% significance level are in bold.

Table 3.9.7 (cont.)
Summer 2000

Dependent variable: sqrt:(System Marginal Price)

Period	*N*	*Uplift*	*Gross Demand*	R^2	*F Statistics*
20	62	**-0.042** **[0.028]** **(0.142)**	0.057 [0.0107] (0.000)	0.27	16.23 (0.0000)
21	62	**-0.033** **[0.019]** **(0.079)**	0.047 [0.0097] (0.000)	0.21	12.48 (0.0000)
22	62	**-0.014** **[0.025]** **(0.583)**	0.046 [0.0089] (0.000)	0.24	15.74 (0.0000)
23	62	**-0.015** **[0.023]** **(0.538)**	0.064 [0.012] (0.000)	0.32	20.39 (0.0000)
24	62	**-0.025** **[0.0174]** **(0.153)**	0.071 [0.0117] (0.000)	0.39	24.59 (0.0000)
25	62	**-0.049** **[0.018]** **(0.010)**	0.073 [0.014] (0.000)	0.31	13.55 (0.0000)
26	62	**-0.052** **[0.0218]** **(0.021)**	0.080 [0.015] (0.000)	0.33	15.54 (0.0000)
27	62	**-0.020** **[0.017]** **(0.262)**	**0.025** **[0.009]** **(0.008)**	0.12	4.01 (0.0232)
28	62	**-0.037** **[0.018]** **(0.047)**	**0.0213** **[0.011]** **(0.059)**	0.08	2.53 (0.0879)
29	62	**-0.009** **[0.028]** **(0.739)**	0.031 [0.0097] (0.002)	0.18	9.10 (0.0004)
30	62	**0.0014** **[0.0313]** **(0.965)**	0.030 [0.0093] (0.002)	0.17	12.34 (0.0000)
31	62	**0.019** **[0.025]** **(0.463)**	0.030 [0.0082] (0.001)	0.25	14.45 (0.0000)
32	62	**0.021** **[0.023]** **(0.372)**	0.047 [0.0112] (0.000)	0.37	17.65 (0.0000)
33	62	**0.086** **[0.064]** **(0.186)**	0.050 [0.0126] (0.000)	0.46	17.65 (0.0000)
34	62	**0.053** **[0.059]** **(0.376)**	0.087 [0.012] (0.000)	0.49	45.59 (0.0000)
35	62	**0.062** **[0.070]** **(0.383)**	0.071 [0.0157] (0.000)	0.31	16.66 (0.0000)
36	62	**0.139** **[0.112]** **(0.219)**	**0.044** **[0.015]** **(0.005)**	0.21	**7.44** **(0.0013)**
37	62	**0.035** **[0.080]** **(0.667)**	**0.035** **[0.013]** **(0.007)**	0.12	**4.56** **(0.0144)**
38	62	**0.025** **[0.187]** **(0.894)**	**0.015** **[0.013]** **(0.228)**	0.03	**0.77** **(0.4661)**

Notes: 1. N = the total number observations in the period within the season. 2. The White-corrected standard errors are in square bracket. 3. The prob. values are in the ordinary bracket. 4. The statistically insignificant coefficients at 5% significance level are in bold.

Table 3.9.7 (cont.) Summer 2000 Dependent variable: sqrt:(System Marginal Price)					
Period	*N*	*Uplift*	*Cross Demand*	R^2	*F Statistics*
39	62	**-0.285** **[0.215]** **(0.190)**	**-0.013** **[0.014]** **(0.338)**	0.02	**0.89** **(0.4160)**
40	62	**-0.24** **[0.272]** **(0.388)**	**-0.017** **[0.0093]** **(0.069)**	0.06	**1.75** **(0.1827)**
41	62	**0.231** **[0.166]** **(0.170)**	**-0.018** **[0.0075]** **(0.018)**	0.14	**3.34** **(0.0424)**
42	62	1.015 [0.220] (0.000)	**0.042** **[0.022]** **(0.057)**	0.24	**23.15** **(0.2384)**
43	62	0.87 [0.197] (0.000)	0.095 [0.023] (0.000)	0.23	21.41 (0.0000)
44	62	**0.042** **[0.344]** **(0.902)**	**0.039** **[0.031]** **(0.210)**	0.03	**1.05** **(0.3575)**
45	62	**0.067** **[0.008]** **(0.571)**	**-0.059** **[0.028]** **(0.039)**	0.10	**3.85** **(0.0268)**
46	62	**-0.0046** **[0.057]** **(0.936)**	-0.058 [0.020] (0.004)	0.22	**5.21** **(0.0083)**
47	62	**-0.034** **[0.045]** **(0.449)**	**-0.024** **[0.0109]** **(0.034)**	0.10	**2.36** **(0.1033)**
48	62	**-0.108** **[0.062]** **(0.086)**	**-0.015** **[0.015]** **(0.316)**	0.02	**1.53** **(0.2247)**

Notes: 1. N = the total number observations in the period within the season. 2. The White-corrected standard errors are in square bracket. 3. The prob. values are in the ordinary bracket. 4. The statistically insignificant coefficients at 5% significance level are in bold.