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How do Spot prices affect aggregate electricity demand?

Abstract:
All participants in power exchanges are interested in market responses when electricity prices change because this influences the profitability of actions. Contrary to most econometric work in this field, which uses annual time series or panel data, we exploit high-frequency data from a power exchange to estimate the spot price elasticities of the total market and of different market segments. The use of such data requires a simultaneous market model including both behavioral and control variables to capture short-term shifts in both demand and supply. Compared with Wolfram (1999) our short-term responses to spot market prices are not straightforward because the picture is confused by differences in production flexibilities in a complex and heterogeneous supply side, demand technologies and a combination of different end-user contracts. We show that short- and long-run price effects on demand differ significantly among hours, weekdays, seasons, and countries.

Keywords: Electricity demand, Simultaneous markets, High Frequent data, Electricity Exhange

JEL classification: Q41, D01, D51

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1. Introduction

In power markets where hydropower constitutes a significant share (see Bye et al. (2007) for an overview of such countries), producers are anxious to know the demand response to spot prices in different time periods in order to distribute their water efficiently among load periods and seasons. Certain end users are flexible with respect to the time of use and therefore also benefit from information about total market flexibility, i.e., the price effect on volume adjustments. The aim of this paper is to analyze the short- and long-run *spot price* effect on total demand in an electricity market with transmission possibilities between countries with different production technologies and different demand and contract structures. Identifying elasticities in a short-term market where demand and supply continuously shift because of, for instance, temperature, business cycles, transmission constraints and inflow, calls for a simultaneous modeling of supply and demand.

The spot price effect on markets may differ across time and space because of fundamental structures on the demand side, such as substitution possibilities and the shadow cost of reducing electricity demand. In some regions the dominant electricity end use is for technical purposes with low substitution possibilities. Another region may be more diversified with respect to end uses and substitution possibilities. In one market, the user may have a contracted level of short-term electricity supply, and therefore the short-term demand elasticity for electricity input in the production process is low. Other regions may be dominated by flexible industries. Some users have contracted long-term prices, which intuitively should imply low spot price elasticities. However, in a hydropower-dominated market, high demand corrodes the reservoirs and therefore prices increase also for fixed contracts in the medium term. Decreasing demand, when the spot price increases, keeps the contract price low in the medium term. Dynamic optimization may then imply positive spot price elasticities despite the fact that price contracts are medium term. Besides, an increased focus on prices when they escalate, which they occasionally do in a hydropower-dominated market, may also influence the behavior of fixed-price consumers in the short run. All this renders impossible a well-considered a priori opinion on the magnitude and ratio of the spot price elasticities between periods and regions.

In the earliest regulated electricity markets around the world, prices were mostly fixed on an annual basis and the focus was on long-term energy planning. Time series analyses were relevant when estimating elasticities, see for instance Dahl (1994) for a survey, and advanced econometric methods were eventually applied, see for instance Silk *et al.* (1997). Some studies applied cross-sectional data and discrete continuous choice methodologies, McFadden (1974), and eventually several panel data studies appeared, see Nesbakken (1999) for a survey.

Since the early 1990s, electricity markets all over the world have been deregulated, and electricity exchanges have been established (Nord Pool, European Energy Exchange (EEX), New Zealand Electricity Market (NZEM), Amsterdam Power Exchange (APX), British Exchange (BETTA), and Californian Power Exchange (CalPX)). The exchanges monitor supply, demand, trade, and equilibrium prices on an hourly (or half-hourly) basis, which enhances the data availability, topicality, and time resolution. Researchers took advantage of this, and new studies on short-term elasticities appeared.

Bushnell and Mansur (2005) estimated price elasticities based on daily data with different versions of prices (the spot price, the actual retail price and different weighted averages of the wholesale prices) in San Diego in order to find which price consumers react to (cf. the consumer information problem). They examined whether the spot price is the acting price for consumers, see also Bye and Hope (2005), Littlechild (2006) and Amundsen and Bergman (2006 and 2007). Bushnell and Mansur (2005) also discussed the need to distinguish between different loads during the day. Johnsen (2001) estimated elasticities in the Norwegian market, applying weekly data from exchange databases and taking into account short-term fluctuations in demand because of outdoor temperature variation, seasonal patterns, etc., see also Johnsen et al. (1999). Wolfram (1999) estimated elasticities of demand in the UK market in her study of abuse of market power in this market. She applied half-hourly data in a simultaneous supply and demand model. All production technologies were thermal and the relevant market was at the country level.

In our study we use a simultaneous supply and demand model approach. The model comprises trade between mixed flexible hydro and less-flexible thermal production technologies in two countries on the supply side (extending the Wolfram approach). The model also allows for differences in spot price effects, taking into account differences in structures and contracts on the demand side (incorporating the discussion in Bushnell and Mansur (2005), and also including differences in loads and days of the week (extending the time dimension in Johnsen (2001)). A large hourly dataset, consisting of 33 697 data points, allows identification of a large set of parameters.

Contrary to Wolfram (1999) and Bushnell and Mansur (2005), we take into account the dynamics of prices and demand to reveal the elasticities. However, we restrict the number of parameters based on a reasonable set of a priori assumptions, both with respect to demand blocks (several hours a day, several days, etc.) and dynamics. This calls for a test of the robustness of this set of assumptions. A full test is not technically feasible, but we do perform a robustness test of the short- and long-run price effects by including a set of lags of prices. We show that the long-run price elasticities are relatively robust over different selections of price dynamics. The short-term elasticities are also relatively robust, except for in a model with only very short lags (caused by multicollinearity

problems). The paper also presents a comparative analysis of the simultaneously estimated elasticities for the Norwegian and Swedish integrated markets.

The rest of the paper is organized as follows: Section 2 describes the model, Section 3 discusses the data, and Section 4 defines the set of a priori restrictions. Section 5 presents the results while Section 6 discusses the robustness of the a priori assumptions. Section 7 concludes.

2. The model

A normal presumption for energy markets is that the marginal cost of supply is increasing, demand is downward sloping, and the market clears at equilibrium volumes and prices. In a hydropower market, the *traditional* short-run marginal cost of production is close to zero because there are almost no operational costs, but the *relevant* short-term marginal cost includes the *opportunity value of water*. The *opportunity* value of water in a separate hydropower market is defined by the willingness to pay in the alternative period, i.e., the *demand functions* (and elasticities) in future periods are essential. In a combined hydro and thermal market, the *instant opportunity* value of water reflects the short-term marginal cost of producing electricity in substituting thermal plants. In the market, however, the *opportunity value of water* is defined as the marginal cost of production by the alternative capacity in several periods and the multi period storage possibilities for water (for a detailed discussion see Førsund (2007)). This implies that the market outcome is based on a dynamic optimization depending upon marginal costs and demand elasticities in several periods. Because hydropower accounts for more than 50 percent of total electricity, the most important element is the interaction between the instant storage of water, the instant inflow to the system and the marginal increasing cost of thermal capacities. Changing inflows and reservoir levels continuously shifts the supply curve. The demand curves also shift continuously, because heating changes according to the outdoor temperature, and heating end uses constitute a large part of the demand for electricity.

In this case, the changing location of the market equilibrium notified on the power exchange does not simply reflect changing demand with respect to changing prices, but traces the equilibrium changes along shifting demand and supply curves. The Nordpool exchange data reflect simultaneity along several dimensions. Such simultaneity problems are discussed in Bresnahan (1982) and Wolfram (1999).

We introduce one representative consumer in two markets (Norwegian (N) and Swedish (S)). Total demand is the sum of these two market demands g^i:

$$D_t = \sum_{i=S,N} g_t^{\,i}\left(X_t^{\,i}, T_t^{\,i}, \bar{P}_t^{\,i}, L_t^{\,i} \right), \tag{1}$$

where X_t^i is the activity level (GDP) at time t in country i, T_t^i is a country-specific demand-shifting variable capturing changing outdoor temperature, and $\bar{P}_t^{\,i}$ is a vector of the real-time spot price $P_t^{\,i}$ and lagged values of the spot price $P_{t-1}^{\,i},...,P_{t-n}^{\,i}$. The argument is as follows: some large customers in both markets observe the real-time spot price and act according to such price changes, while other consumers have signed fixed price contracts. The fixed price contracts develop with reference to the spot price and the futures price in these markets. The "total market fixed contracts" is then a weighted average of customers and contracts signed continuously in time, i.e., a lagged price approach is suitable. This implies that even in a market with only fixed price contracts, we could in principle identify spot price elasticities. In equation (1), the elasticities of demand for the two consumers in the different load periods (cf. $g_t^{\,i}$) differ. The dummy variable L^i_t shifts demand when daylight time changes over the year (Johnsen *et al.*, 1999). In the econometric specification (see Appendix A), we also include lagged left-hand side variables to capture dynamics, which is consistent with assuming adaptive expectations of the price.

The two markets are integrated and contain different supply technologies with different characteristics. When producers make their current production decision, the spot price is obviously relevant.[1] The inverse supply functions for the common market, i.e., the price P^S_t at any time t:

$$P_t^S = h_t\left(S_t^{\,N}, S_t^{\,S}, M_t, I_t, y_{Nt}^S, y_{Wt}^S, C_t\right), \tag{2}$$

is now a function of total power production S^i_t in each country $i = S, N$, which implies an increasing marginal cost function in each country when capacities are optimally dispatched. In the hydropower-dominated country, the marginal cost includes the opportunity value of water. The aggregate of the hydro reservoir level compared with the normal level in both countries, M_t, introduces a shift in the necessary dispatching of thermal plants, i.e., a shift in the equilibrium marginal cost of such dispatching (and thereby a shift in the opportunity value of water).

The real-time inflow to the reservoirs I_t affects the short-time prices directly and not only through the storing of water in reservoirs, because run of river plants cannot store water and must produce immediately. Storing may take place in other reservoirs, indirectly, i.e., reducing production in plants that hold storage capacity in reservoirs. However, during some periods (springtime), precipitation and snow melting is so high, and demand so low, that such indirect storage is not

[1] In the optimization problem, the producer considers both the spot price and the futures price in a dynamic setting. In the optimum production plan, the spot prices and the futures prices are equalized if reservoir capacities are sufficient to store water between periods, see Førsund (2007). Price differences may occur if reservoir capacities are constrained.

sufficient to hinder price decreases. The real-time production of nuclear and wind power in the thermal-based country *S*, y^S_{Nt} and y^S_{Wt}, are not flexible. Start and stop costs of nuclear plants are so high that changing prices do not affect short-term production. Variable costs of wind power are so low that whenever it is windy the plants produce, irrespective of price changes. Therefore, these technologies are comparable to run of river plants. Their production does not change because of short-term price variation. However, contrary to run of river plants, these technologies influence the total market flexibility in all seasons, not just during springtime. The primary energy input price for the coal-based thermal plants, C_t, serves as an approximation for the basic cost of producing from thermal technologies. The marginal cost curve for thermal plants shifts when coal prices shift. In the relevant market, nuclear, wind and thermal power production are all located only in country *S*. Country *N* produces only hydropower.[2]

Start and stop costs in thermal power production plants confine short-term flexibility on the supply side. Unless hydropower production flexibility is sufficient to outweigh short-term shocks, short-term prices may fluctuate strongly to clear the market when demand elasticities are low. Nuclear power is an important base load capacity in the Nordic system, which underlines the start and stop cost issue. We do not model start and stop costs for thermal power production explicitly, but the estimation results based on the detailed model structure allows an interpretation of the importance of this issue.

As long as there are no bottlenecks in the transmission system, the wholesale market price is equal in both markets. In practice, transmission constraints limit trade, and price differences occur.[3] A full modeling of the transmission system is superfluous in our approach, as modeling of this element does not add to the estimation of elasticities in the system. When bottlenecks occur, prices in the two markets (P_t^N and P_t^S) differ:

$$P_t^N = P_t^s + PD_t \,, \tag{3}$$

where PD_t is the price difference. If the price difference could be considered white noise with an expected value of zero, this variable could be left out without creating any bias in the estimation. During the estimation period transmission capacities were sufficient for "normal" periods and trade changed directions almost continuously.

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[2] Although hydropower faces an increasing marginal cost of expansion, the running of existing plants is quite homogeneous in the sense that without any transmission constraints, the value of water is equal in each reservoir.

[3] Basically, cost differences occur. Some countries handle market separation by introducing price areas, i.e., there are price differences within and outside a region. Some countries practice counter trade, which implies equal prices in all areas, but the capacity costs (costs of counter trade) are redistributed through ordinary transmission tariffs.

However, higher prices in one of the markets may be caused by high demand or limited supply. The value of the price difference depends upon how strong the market restriction is. This implies that the price difference is endogenous. By not accounting for these differences, we may introduce some bias in the estimation. Because we do not model transmission constraints, we include the observed price differences as a variable in our model. The average price difference between the two markets over the whole sample was 0.43 €/MWh, which constitutes only 1.7 percent of the average price (35 €/MWh) for the relevant period.

The two countries are surrounded and partly integrated through interconnections with four other countries (Finland (F), Germany (G), Denmark (D), and Russia (R)). The production technologies in these countries are mostly thermal, and the short-term marginal cost of production is comparable to the Swedish technology, i.e., modeling these countries does not add to the general features of the model. We therefore do not model these countries explicitly, but we do take into account actual trade between all countries which then shifts supply in our relevant area. Supply of electricity in country *i* equals domestic demand minus both net exports to neighboring countries, U^{ij}, and transmission losses in the network, Ω:

$$S^i = D^i - \sum_{j \neq i} U^{ij} - \Omega^i \qquad j = N, S, D, F, G, R \text{ and } i = N, S \,. \tag{4}$$

Net supply of electricity in the Norwegian–Swedish market constitutes domestic production and net imports adjusted for transmission loss.

3. Data and market characteristics

The most important variables are downloaded from the Nordpool[4] exchange ftp-server which contains hourly data on aggregate consumption, production, imports and exports, and the area spot prices in both Norway and Sweden. The hourly data contain 33 697 data points from the 1st hour of 1 January 2000 to the 24th hour of 31 December 2004.

We apply weekly data from The Norwegian Water and Energy Administration (NVE)[5] and Swedish Energy[6] for inflow, reservoir capacity, production of wind and nuclear power. The Norwegian Meteorological Institute (DNMI) and the Swedish Meteorological and Hydrological

[4] ftp://nordpool.com

[5] www.nve.no

[6] www.svenskenergi.se

Institute (SMHI) provided us with temperature data. Quarterly GDP data are downloaded from Statistics Norway and Statistics Sweden.

Nuclear power production normally runs on fixed capacities around the clock over a week. We split the relevant weekly production evenly throughout the hours of the day.[7] We split the weekly aggregate inflow and the weekly production from wind in a similar manner. For wind, this may be inconsistent with the fact that production may vary significantly throughout the day. However, this will not cause systematic errors, because wind production is assumed to be stochastic with an expected value and constant variance.

We calculate the hourly reservoir levels by linearly interpolating the weekly values (end of week observations). This approximates the opportunity value of producing from the reservoirs. We further assume that the spot coal price equals the weekly price for deliveries at Amsterdam harbor, i.e., it is assumed to be constant over hours in a week.

The Norwegian temperature data consist of daily observations from nine different metering stations.[8] For missing observations, we have interpolated. We have constructed an aggregated national temperature index weighting the regional data by current regional electricity consumption. The temperature variable for Sweden is from SMHI[9]. The regional indexes are weighed by regional population and aggregated to form a national temperature index.[10] The temperature variable is equal for all hours during a day; however, the temperature effect is on an hourly basis in the estimations. The interpretations of the temperature effect are equal for Norway and Sweden despite minor differences in the construction of the variables.

We have included variables for daylight constructed from US Navy data.

4. A priori restrictions

Detailed econometric specifications are presented in Appendix A. Below we discuss some a priori restrictions on parameters necessary to secure sufficient degrees of freedom in the estimation procedure. When limiting the number of parameters it is essential to consider a priori market characteristics.

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[7] Based on the derivative of the spline curve evaluated at first-of-period ID values for the output observation (SAS, 1999).

[8] Oslo, Melsom, Stavanger, Kjevik, Bergen, Lillehammer (some missing values are imputed from observations from Fagernes), Trondheim, Tromsø, and Bodø.

[9] The index values are from Umeå, Ørebro, Stockholm, Gothenburg and Malmø.

[10] Because of computable constraints, and the fact that this index is constructed to have a linear effect on demand, the index in this model is transformed by Temperature index = 12 000 + 500 × Original temperature index.

Demand

Demand fluctuates during a 24-hour period because of rush hour, business activities, nocturnal sleeping times, etc. Demand also varies over the week as the manufacturing industry and service activities start up on Monday morning, maintain high activity levels during weekdays, and close down for many private and governmental businesses on Friday afternoons, and during the weekends. Winter energy consumption is approximately double the electricity consumption in summer, because most buildings are heated with electricity, and so far air conditioning is limited in the Nordic countries. Flexibility also varies between summer and winter, as winter electricity consumption is dominated by substitutable heating (wood, fuels, etc.), while summer electricity consumption is dominated by technical end uses. Consequently, the characteristics and composition of total energy use differ over hours, weekdays, and time of the year. This supports the use of a time-varying intercept term in our demand model. Similarly, the time-varying characteristics of demand imply different substitution and direct adjustment possibilities, i.e., the price elasticities vary over time. However, many hours a day are comparable and so are many days in a week and months in a year, which permit a simplification.

Figure 1 depicts the average demand for electricity for Norway and Sweden in a 24-hour period. We find that, in addition to seasonal patterns, the main differences are between day and night: a steep increase in demand during morning hours and a decrease in demand during the afternoon and night. We also find that the hourly variation is similar over all seasons. Most variations in demand are because of changing activities in industries and heating end uses in the residential sector. Because this changes the composition of flexible electricity end uses, the elasticities for total demand also change. Based on this information, we divide the 24-hour clock into seven different load periods where we assume equal responses, cf. also Bushnell and Mansur (2005). We also divide the week into blocks. Monday and Friday form separate blocks, because they represent start up and shut down, respectively, for industries. This changes flexibility. Tuesday, Wednesday and Thursday form a separate block because industries are then in normal mode. On Saturday and Sunday, industries are closed. Employees stay at home on these days and use electricity in a different pattern than during weekdays.

Table 1 reduces the number of periods from 168 (hours) to 28 (blocks) during a week based on these a priori assumptions. The parameters attached to temperature and price, and lagged left-hand side variables vary between the 28 blocks during a week.[11] The parameters attached to prices, both the real-time and the lagged values also shift between the summer and the winter months (November–April and May–October, respectively). In the econometric specification we selected a 13-

[11] We originally tried to estimate hour-specific parameters. Because of computable constraints in TSP 5.0 we could not test the full simultaneous model formally, see Hall and Cummings (2005). We then implied restrictions on the parameters based on the empirical characteristics depicted in Figure 1.

week and a 26-week lag as the default; however, we tested the robustness of this assumption (see the robustness discussion in section 6).

The dynamics of demand are captured by lagging the left-hand side variable to represent one day (24 hours), three days (72 hours) and one week (168 hours) (see the robustness section for details).

Figure 1. Around the clock annual variation and averages in demand: Norway and Sweden

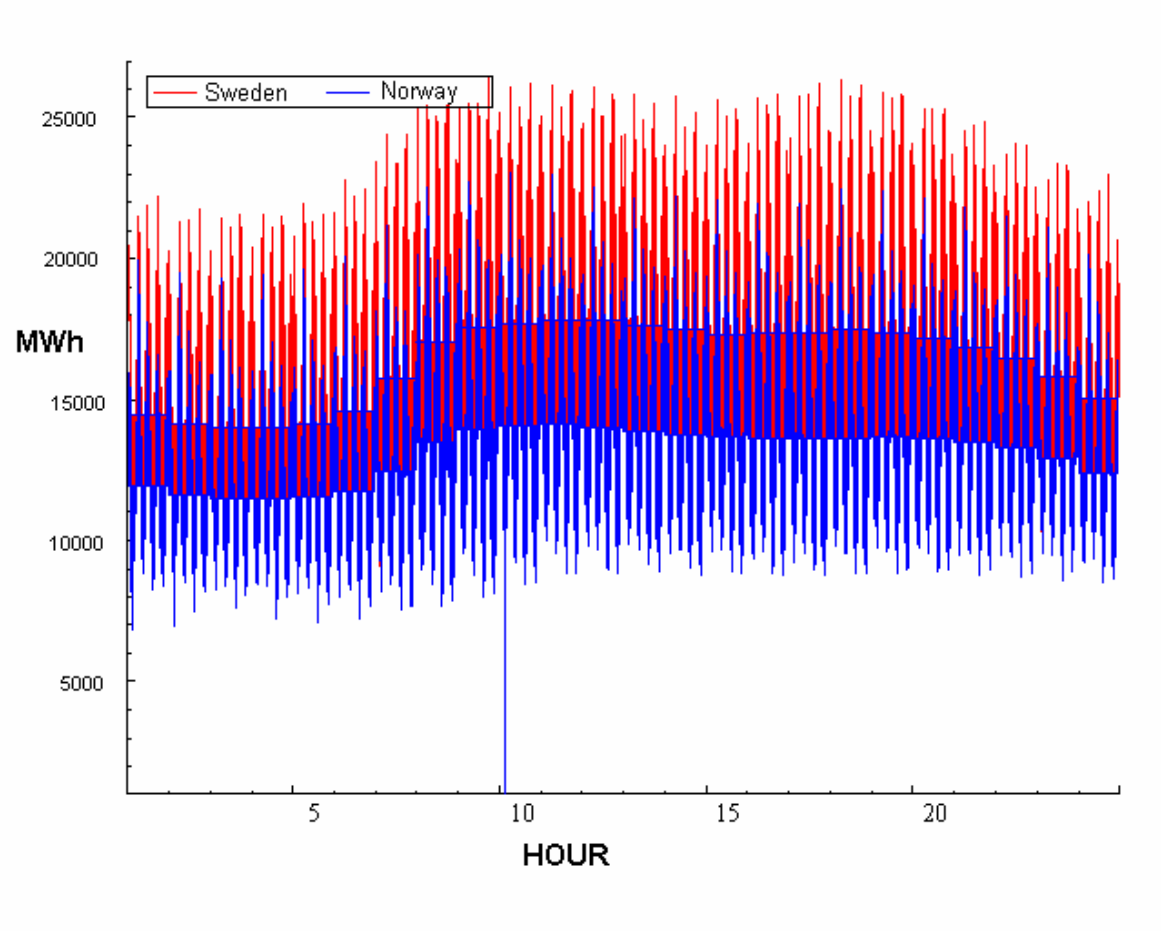


Table 1. Periods forming the blocks

Block j	Period	Block j	Period
1	Monday: 12 midnight -5 a.m.	15	Friday: 12 midnight -5 a.m.
2	Monday: 6 a.m. -7 a.m.	16	Friday: 6 a.m. -7 a.m.
3	Monday: 8 a.m. -1 p.m.	17	Friday: 8 a.m. -1 p.m.
4	Monday: 2 p.m. -4 p.m.	18	Friday: 2 p.m. - 4 p.m.
5	Monday: 5 p.m. - 6 p.m.	19	Friday: 5 p.m. - 6 p.m.
6	Monday: 7 p.m. - 9 p.m.	20	Friday: 7 p.m. – 9 p.m.
7	Monday: 10 p.m. -11 p.m.	21	Friday: 10 p.m. – 11 p.m.
8	Tuesday-Thursday: 12 midnight -5 a.m.	22	Saturday-Sunday: 12 midnight -5 a.m.
9	Tuesday-Thursday 6 a.m. -7 a.m.	23	Saturday-Sunday: 6 a.m. -7 a.m.
10	Tuesday-Thursday: 8 a.m. -1 p.m.	24	Saturday-Sunday: 8 a.m. -1 p.m.
11	Tuesday-Thursday: 2 p.m. - 4 p.m.	25	Saturday-Sunday: 2 p.m. - 4 p.m.
12	Tuesday-Thursday: 5 p.m. - 6 p.m.	26	Saturday-Sunday: 5 p.m. – 6 p.m.
13	Tuesday-Thursday: 7 p.m. – 9 p.m.	27	Saturday-Sunday: 7 p.m. – 9 p.m.
14	Tuesday-Thursday: 10 p.m. -11 p.m.	28	Saturday-Sunday: 10 p.m. – 11 p.m.

When temperature decreases, energy demand normally increases, and this may be captured by a linear term in the model. A quadratic term may explain different mechanisms; when the parameter sign is positive the quadratic term strengthens the linear term, which may explain a smaller net negative insulation effect as differences between indoor and outdoor temperature increase. When the parameter sign is negative, the quadratic term weakens the effect of the linear term, which may be because of a capacity limit on the electricity heating appliances. During summertime, a negative parameter on the quadratic term may explain cooling effects when temperature increases.

We have also included a day length variable, L, with a parameter common for all loads and months, see Johnsen et al. (1999). The effects of dummies for public holidays are also reported in Appendix B.

Supply

In the price equation, nuclear and wind power production in Sweden are base loads. This production is then not subject to marginal adjustments. Nuclear is assumed to run all the time when not under maintenance or stopped because of a longer period of low prices. Windmills are running whenever windy. In Sweden, thermal power capacity produces on the margin. Different load periods have special properties; the supply curve may increase stepwise based on intervals of large capacities with different operational costs, i.e., the capacities comprise heterogeneous thermal technologies.

The price equation shifts according to aggregate production twice a year. From May 1 to November 1, thermal capacities are shut down, or production substantially reduced, because of large shifts in demand when the heating season ends. At the same time, the snow-melting period fills up water reservoirs, and run of river plants with no storage capacity and very low operational cost are often sufficient to meet demand.

5. Results

The model contains almost 2000 parameters (exactly 1995), the estimates of which are reported with summary statistics in detail in Appendix B. In this section we summarize some of the key results of the model.

Despite the fact that not all customers directly observe the continuously changing spot prices, the aggregate demand responds to spot price changes, both in Norway and Sweden. That is, a sufficient number of consumers actually reacts to real-time spot price changes. The seasonal effects differ between the two countries. The price elasticities are lower during nights and weekends than during days and midweek. Other differences in the demand elasticities over the week are less systematic. It takes time before the price effect fully affects the market; however, multicollinearity in prices between periods makes it difficult to draw stringent conclusions, see below. The long-run effects are smaller in Sweden than in Norway. In the Norwegian market the full price adjustments take up to six months. In the Swedish market, the full demand response occurs within two to three months.

In the following, we present a more detailed description of the results. To simplify the exposition, the estimates are presented in diagrams, while the standard errors and t-values are reported in Appendix B. The significance levels of the estimates are discussed below and also reported in detail in Appendix B. We focus on the price elasticities, while the results for temperature effects, lagged left-hand-side variables, and the parameters related to production are reported in Appendix B.

Demand

Figure 2 reports on the short-term real-time price effect on demand for Norway. The price elasticities are reported for the different blocks for summer and winter, respectively. The direct spot price elasticity is generally zero during the summer and −0.02 in the winter, measured as a weighted average over the week (see also Figure 6 later in the paper for summary results).[12] Figure 3 reports the same short-run real-time price effect on demand for Sweden, which is also zero during the summer and −0.01 in the winter.

[12] The weights are the average consumption shares for the actual blocks.

These elasticities are considerably lower than reported in other studies, cf., for instance, Dahl (1994). Two obvious reasons explain this: (i) the time of adjustment is very short for the consumers in our model, (ii) our elasticities are measured using the wholesale power price, while the literature usually reports elasticities based on the purchaser price. The purchaser price includes transmission tariffs, administrative costs, commodity taxes, and value-added taxes. For instance, in Norway, the power price for the residential sector constitutes approximately one third of the purchaser prices. This implies that a price change of nine percent in the power price turns out to be a price change of three percent measured on the purchaser price if both transmission and administrative costs are constant. The estimated long-run elasticities measured on the purchaser price are then three times higher than the estimated power price elasticities reported here. That is, the implicit purchaser price elasticity is close to –0.06. This is relatively high in the short run.

There are significant differences between the blocks, but the effects are not systematic. However, both for Norway and Sweden, the short-run elasticities are lower for the weekends than midweek. For Norway, we also learn that at least in the winter the elasticities are lower during the night than during the day. Because of the high correlation between the short price lags, the short-run effect may be spurious; a further discussion of this aspect is provided in the robustness section. This may also explain why the short-run effect presented here is positive for some hours (counterintuitive) while the long-run effect reported below shows the normal negative sign.

Figure 2. The short-run price elasticity for Norway

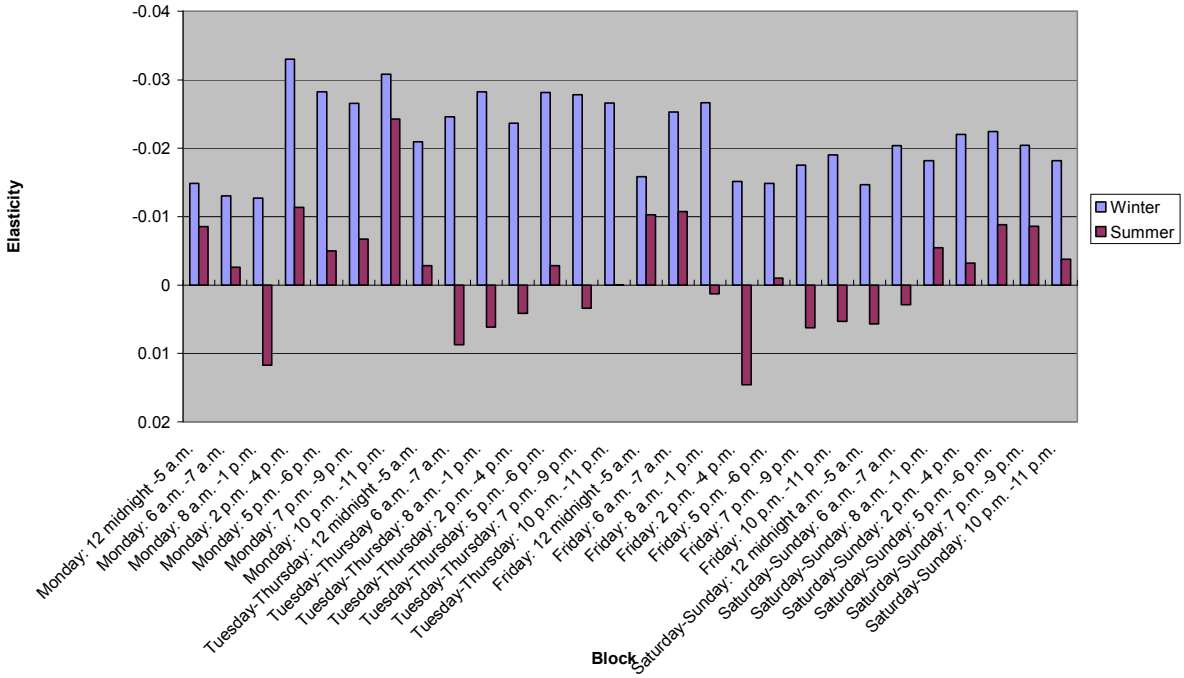
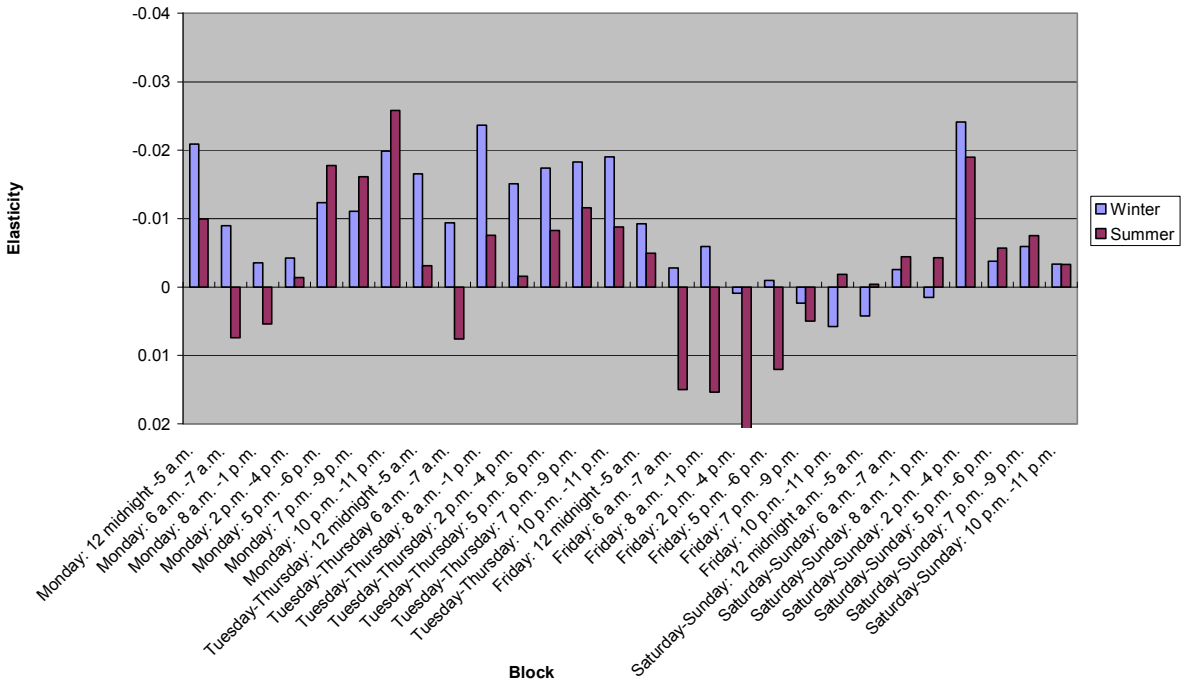


Figure 3. The short-run price elasticity for Sweden



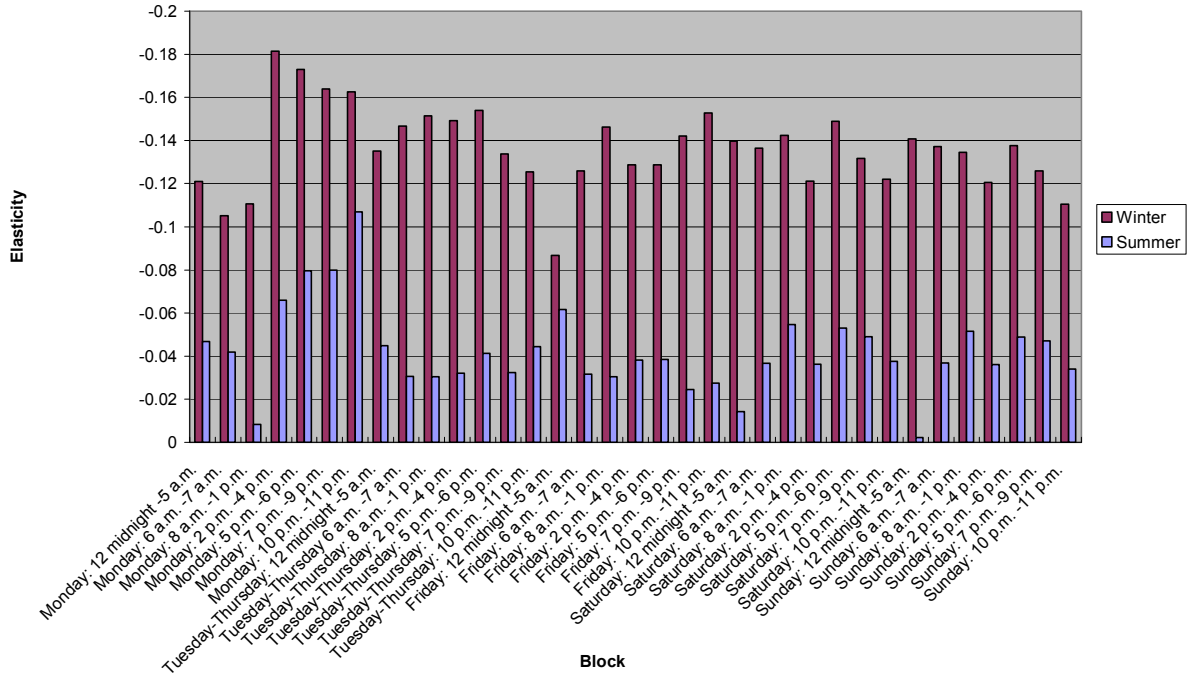
Figures 4 and 5 show the long-run power price elasticities for Norway and Sweden, respectively. Technically, we define the long-run effect as the total of the real-time price effect and the price-lags effects taking into account the time of adjustment effects (the endogenous lags).

We find that elasticities in the winter vary over the blocks for both countries. This stems from heterogeneity in demand. The elasticities are lowest during weekends and highest during the midweek working hours. During midweek, businesses dominate total demand, while during weekends the residential sector dominates. A priori we expect that households are less responsive to price changes than professional businesses, while the composition of demand (heating and technical end uses) and substitution possibilities may suggest the opposite. On Mondays we observe higher price elasticities. This could be related to start up in businesses. The rest of the week, businesses are less flexible.

The long-run price elasticity for Norway is significantly higher in the winter than in the summer, −0.14 in the winter compared to a low of −0.04 during the summer (weighted averages). Details for block elasticities are reported in Figure 4. During the winter, a large share of the electricity consumption is for heating purposes, when consumers are well equipped with substitutes such as heaters burning fuel oil and wood. In the summer season, the dominant part of electricity consumption is for technical end uses. This explains the seasonal differences in the elasticities. Elasticities measured at the purchaser price are then at the magnitude of −0.42 for the winter period and −0.12 for the summer period, which is comparable to elasticities reported from other studies, such as Dahl (1994). Johnsen's (2001) estimates range from −0.05 to −0.35, varying over the seasons. He reports higher elasticities for higher prices, and in his sample the prices are highest during the winter period.

In the summer, long-run elasticities in Norway are low, which is because of the relatively large amount of technical end uses. On some days, the night period has the highest elasticities, whereas on other days, peak periods have the highest elasticities. Again, the combination of end uses does not give any a priori reasonable explanation for the variation in elasticities over hours, unless that at sleeping times elasticities are expected to be low. However, sleeping time during summer may vary because of flexible working hours, summer holidays, etc.

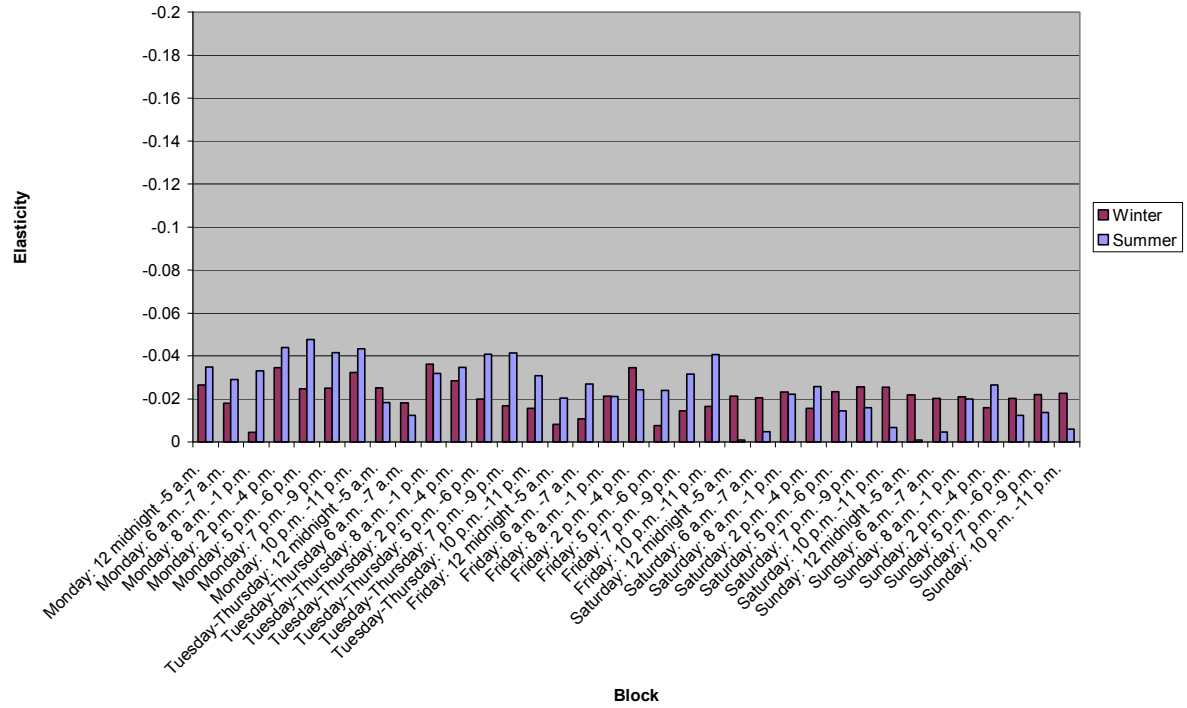
Figure 4. Long-run price elasticities for Norway



We observe that the long-run price responses in Sweden are different from those in Norway, see Figure 4. They differ with respect to the size of the demand response and in Sweden the weighted price response in the summer, −0.024, is also equal to the response in the winter, −0.021. At first sight this seems surprising since the winter substitution possibilities should be higher than in the summer; cf. the discussion of heating and technical end uses in Norway. In Sweden, however, the price elasticities are low in both seasons, which is probably due to a lower proportion of electricity for heating end uses in Sweden than in Norway.

Since approximately 85–90 percent of the end user contracts are either spot price contracts or variable price contracts, the Norwegian consumers are exposed to the changes in the spot prices. Prices in the variable price contracts are highly correlated to spot prices over time (not the hourly volatility), since they may be terminated from both parties two weeks in advance. When the spot price increases, prices in the variable contracts are somewhat lower than the spot price because they lag behind, and when the spot price decreases, the price in the variable price contracts are higher than the spot price. However, the high correlation between the spot price and the variable contract prices give the Norwegian consumers incentives to react to the spot price.

Figure 5. Long-run price elasticities for Sweden



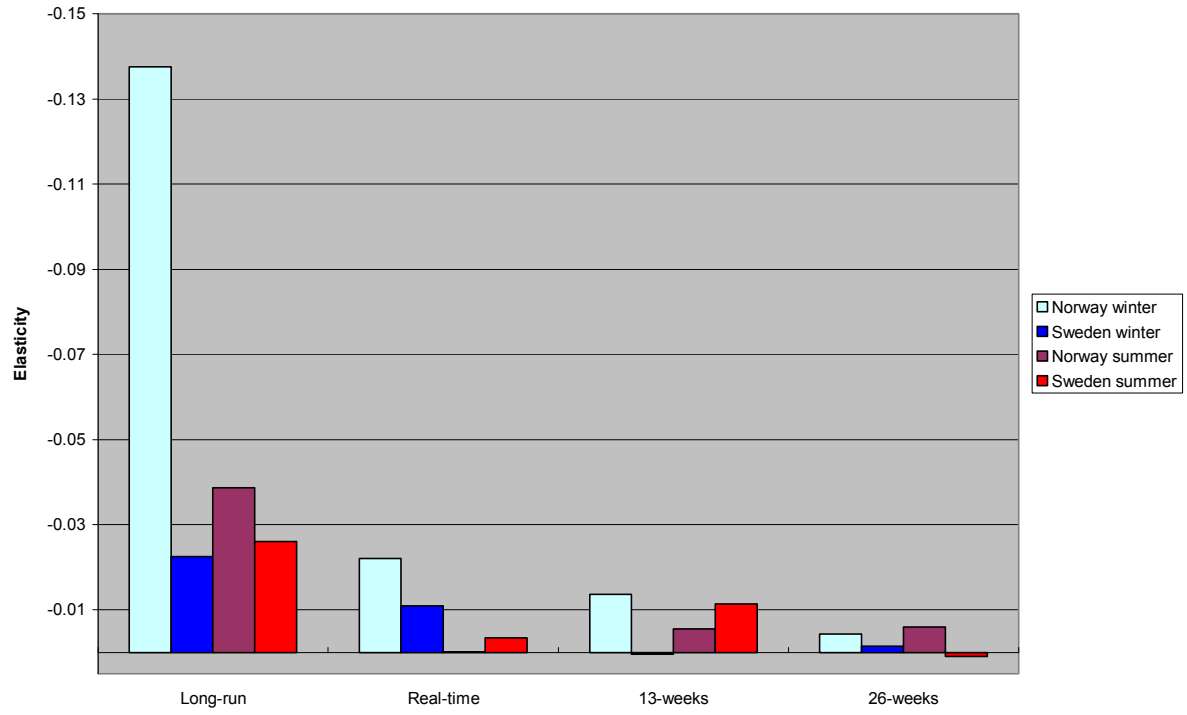
Most of the Swedish consumers, on the contrary, have long-term contracts and do not face the spot price directly. The fixed price may be set as a rather complex combination of earlier spot prices and futures. The long-term contract prices have increased over time according to the "tendency" development of the spot prices. For instance, during the inflow crisis to the Nordic hydropower reservoirs during the autumn of 2002, which reduced the power producing potential, the spot prices escalated. This had almost no effect on the prices in the fixed price contracts in the very short term. However, because the signing of fixed price contracts is an ongoing process, as contracts terminate, the "market aggregated fixed prices" also increase with the spot price increase. When the spot prices started to decline in the spring of 2003, the prices on the fixed price contracts continued to increase for a while, because they lagged behind. This suggests that the spot price, on average, has a very low impact on the aggregate demand in Sweden in both the short and the long run.

Figure 6 summarizes the comparison of the price elasticities of Norway and Sweden. The price elasticities are weighted averages over the blocks, and we report the estimates of parameters for the different price lags and the long-run dynamic responses. During winter we find that the Norwegian long-run demand response is much higher than in Sweden. In Sweden, we only obtain a real-time effect whereas the lagged price effects are very low. In Norway the 13- and the 26-week price effects also matter, see Appendix B. In the summer, the long-run effects are more similar among the

countries, but we identify no real-time effect in either of the countries. Again, it seems like the lag effect is larger in Norway (13 and 26 weeks), and therefore the long-run effect is slightly higher. As shown later where we comment on robustness, the choice of price lags influences the estimates of the real-time parameter because of multicollinearity in prices. However, the overall conclusion above seems to be robust.

Wolfram (1999) reports estimates for the long-run demand elasticity for the English and Welsh market, which are −0.17 on average over the year. Her estimates are at the lower end of other reported elasticities in the literature, which could be because of her static demand approach. However, compared with our elasticities, her estimates are high, which indicates a more flexible demand in England and Wales than in the Norwegian and Swedish markets.

Figure 6. Long-run, real-time, 13-week, 26-week price elasticity for Norway and Sweden



Our model includes only spot prices and spot price lags and does not include different contract prices. Because both the number and volumes of contracts obviously varies among countries, this may explain differences in the estimated lags. Even though data exist on end user prices for both fixed and variable contracts, the number and volumes of contracts are unavailable; i.e. one cannot construct aggregate market price indexes for contracts.

The development of the spot price (real-time and price lags) is an approximation for the development of end user prices (when transmission cost and taxes are constant).[13] Some customers directly face the spot price. In 2006, approximately 30 percent of the residential sector and the manufacturing industries, and 70 percent of services signed spot price contracts in Norway. The spot price is also an important reference price for all other contracts, such as the fixed price contracts and the standard variable contracts. We notify that the price lags capture these effects.

The price equation

The market price formation seems to change significantly between the seasons. In the Nordic market, the opportunity costs of producing are very important when setting the price. The marginal cost of production in thermal technologies forms the opportunity cost of hydro production (the water value) that affects the price in the long and short run. However, the inflow to the reservoir and the reservoir filling shift the necessary dispatching of thermal plants and is the most important factor in the short run. Divergence from the medium reservoir filling has a greater impact on prices during the winter, when demand is high and expected inflow is low, than in the summer, when demand is lower and supply is abundant from snow melting and rainy periods. But inflows to the hydro reservoirs are more important for the spot price in the summer, for at least two obvious reasons: (i) inflow to a basin, which should last for months (during the snow melting in the spring and the autumn rain period), is more important than inflow to a basin loaded to last for the winter period only (during winter), and (ii) inflow to a system without reservoir capacity, i.e., run of river plants with high production capacity compared with the demand during the spring, drives the spot price down. Demand increases raise the price in the winter because of increasing marginal cost in thermal plants. During the early summer period the demand is relatively low compared with the unregulated production from run of river power stations. This implies there is no need for expensive marginal production capacity to satisfy demand.

[13] Recall that elasticities on demand based on wholesale prices and end user prices differ in magnitude because of the different price levels.

Figure 7. The effect of one percent deviation from the median reservoir level on price

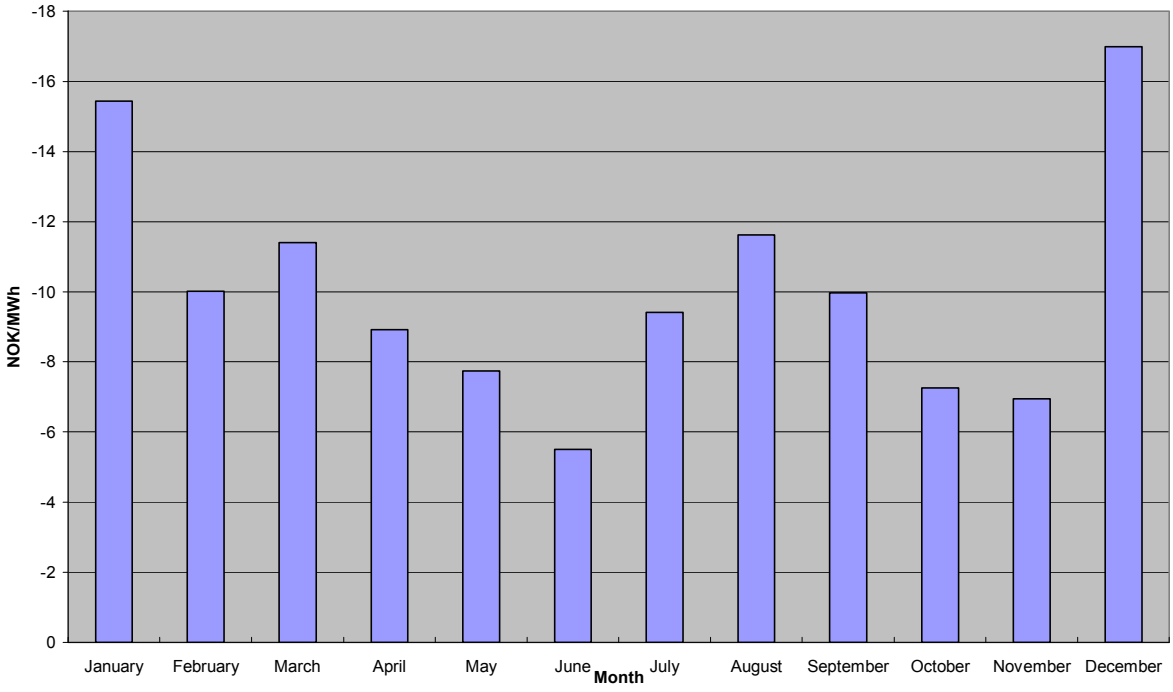


Figure 7 depicts the effects of the reservoir level on prices in the long run for different months.[14] We observe that a one percent deviation (+) from the medium reservoir level in January has a greater effect on prices than a one percent deviation (+) from the reservoir level in April/May (just before snow melts). The risk of running low in reservoirs is higher during the winter period with high demand than during spring when snow melts and reservoirs are filled. The autumn rainy period explains the drop in the reservoir level effect on prices during September to November. A deviation from the reservoir level has a greater impact on price in January, February, and March than in December and November because the adjustment period shrinks when moving throughout the winter period. If we have a reasonably large reservoir filling late in the winter, the probability of emptying the reservoir as the spring approaches is small, and therefore the price is lower.

In the summer months, the effect of the reservoir level on price is smaller. During this period the reservoir level is low but increasing, and the reservoir capacity is normally sufficient to also catch the autumn rain. The regulation capacity of thermal plants is relatively high, because the plants normally do not run at high capacities during the summer. However, some of them are out of production, which reduces market flexibility because of start and stop costs. The cost of the marginal

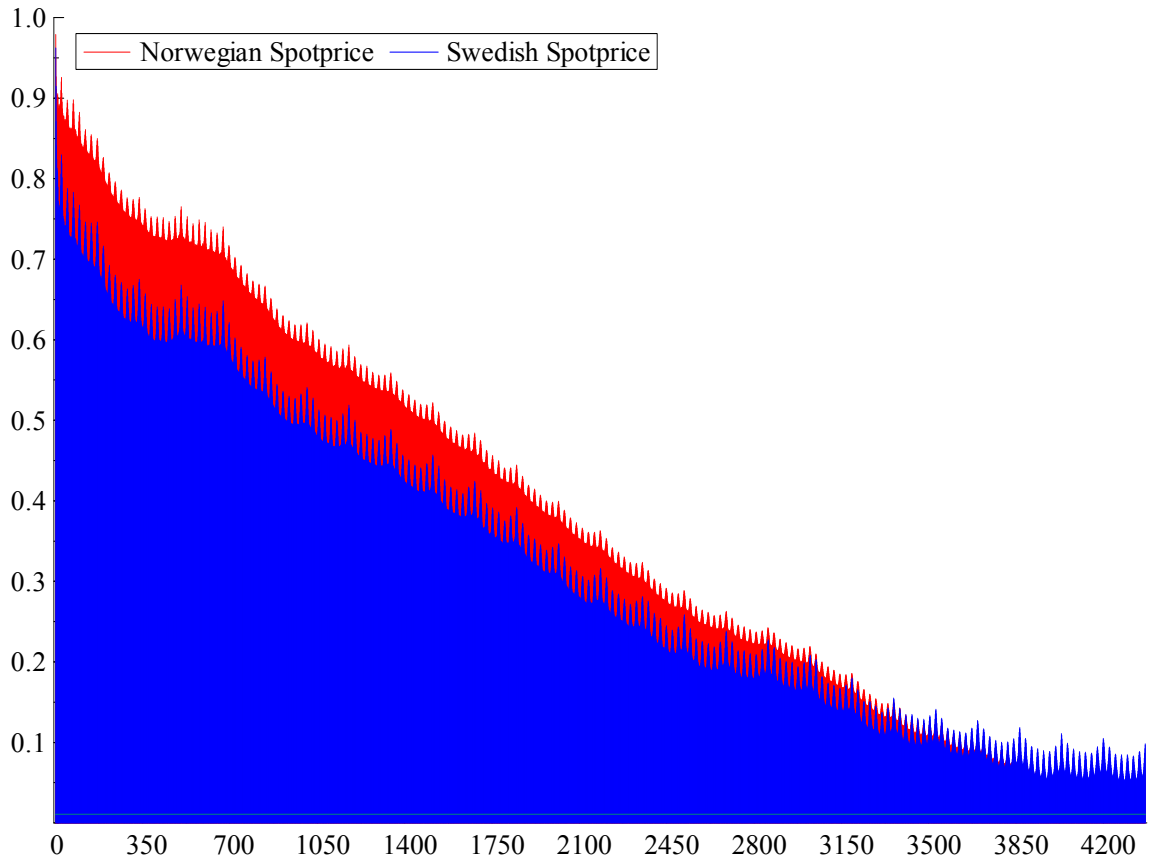
[14] The long-run effect is the short-run effect divided by the lagged left-hand side variables. The values reported here are the averages of the blocks per month. All the parameters are significant; see Appendix B.

thermal producers is more important for the price than the reservoir filling. For more details with respect to the estimated parameters, see Appendix B.

6. Robustness of the results

As indicated in the model and results sections, we imposed certain restrictions on the parameters, which calls for a test of the robustness of the results. The autocorrelation plot of the spot prices is provided in Figure 8, which supports the modeling of a high number of lags. This implies that the price in one period includes information on the prices of other periods. The model then could not possibly identify the exact price effect after a specific week, but, as argued below, the long-run effect of prices in our model is insensitive to the choice of lag structure. Multicollinearity also involves problems when identifying the differences in elasticities between the seasons (winter and summer) even though this problem is smaller.

Figure 8. Autocorrelation plot of the spot prices. Correlation (y-axis) and time lags (x-axis)



The overall conclusion given above was that the lagged prices were insignificant. However, this could be because of the specific choice of lags. In order to test the robustness of these results we have estimated five different models with the following price lag structures:

1) Real time, one week, and two weeks
2) Real time, two weeks, and four weeks
3) Real time, four weeks, and eight weeks
4) Real time, six weeks, and 12 weeks
5) Real time, 13 weeks, and 26 weeks

There are an "infinite number" of combinations when selecting the lag structure, but 1 to 5 capture some main features—short lags versus very long lags. Three price lags for each block include most of the price information that reaches the consumers in the actual electricity market.

Figures 9 and 10 provide the estimated long-run elasticities in these different lag choices (1–5) for Norway. We observe that the long-run effects do not change much when changing the price lag structure, except for the weekend elasticity that seems to change in the winter period. Shorter lags result in higher elasticities. However, this may be caused by multicollinearity problems. In Figure 11 we summarize the *weighted averages* over the blocks that do not change much. We observe the same structure of demand responses over the blocks. The weighted short-run effects differ somewhat, but not much.

Figure 9. Robustness of the long-run response for the summer in Norway

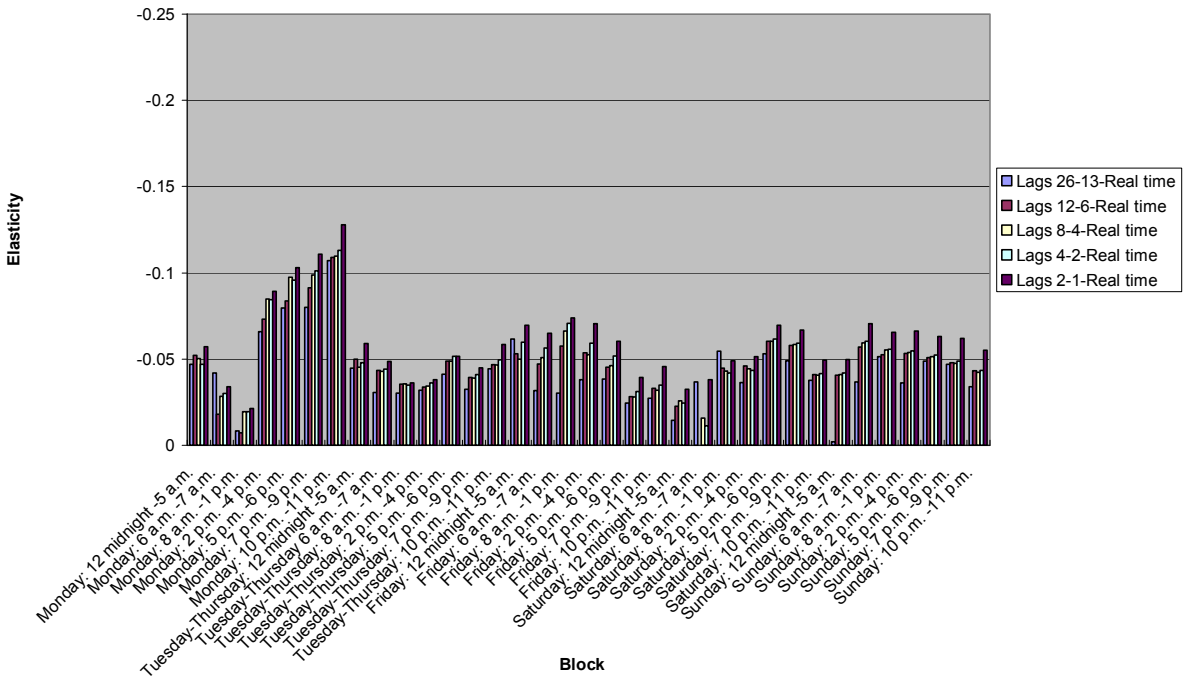


Figure 10. Robustness of the long-run response for the winter in Norway

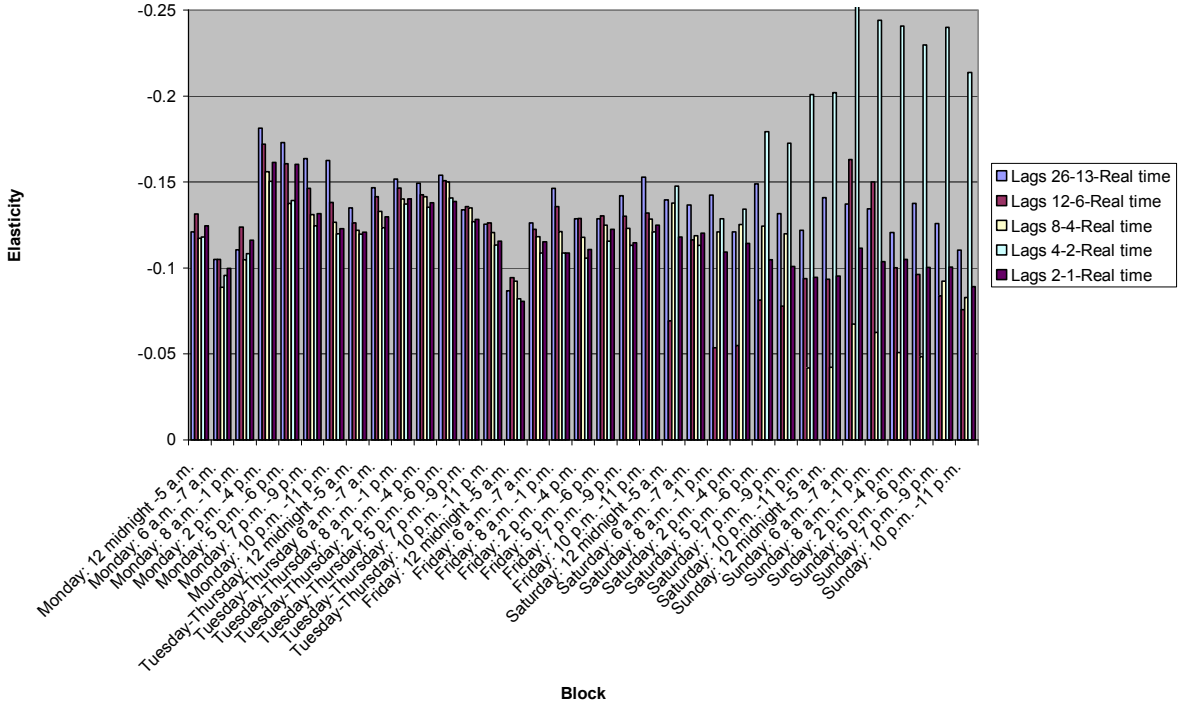
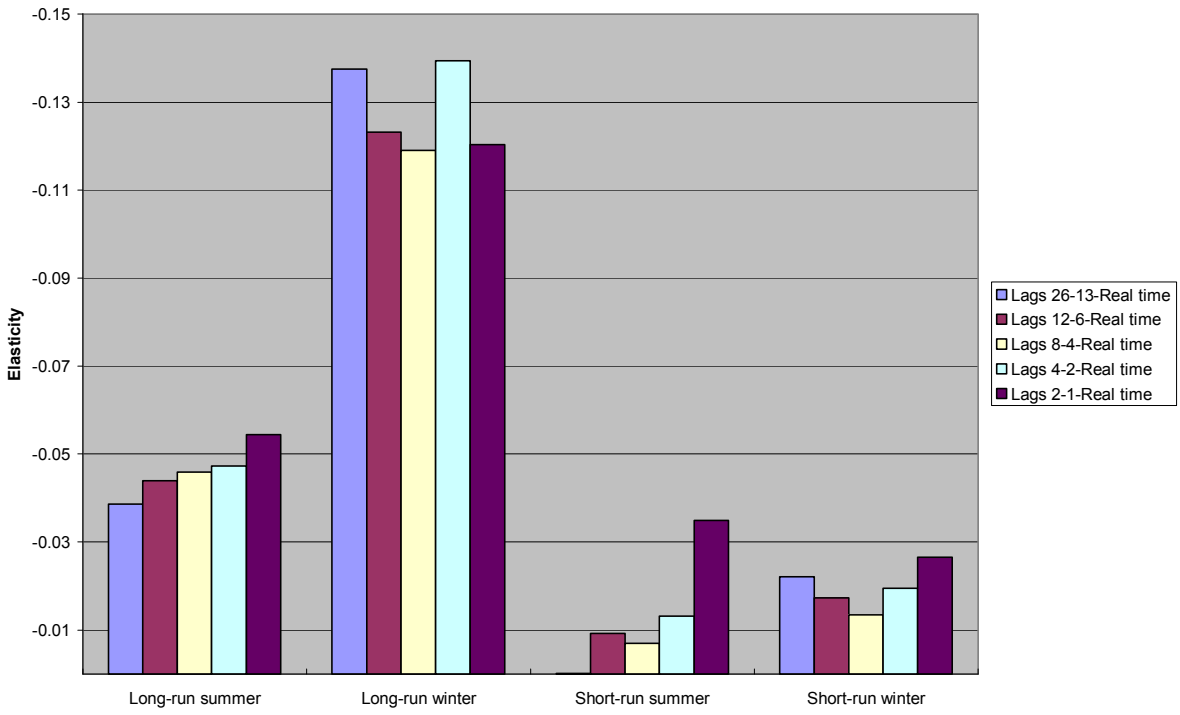


Figure 11. Robustness of the demand response for different lags, weighted values for Norway



The robustness of the Swedish results is similar for the summer period in the long run. However, volume weighted aggregates in figure 14 (and details in figure 12 and 13) indicates that the estimated long-run effects in the winter are highest when the longest lags (26 weeks, 13 weeks and real time) are included. This implies that these price lags capture information from prices that are included in the shorter price lags (multicollinearity). However, the short-run effects change significantly when a two-week, a one-week and a real-time effect are included, cf. that the estimated parameters for the two-week and one-week lags turn out to be positive. The short-run effects should be interpreted with caution. The long-run responses, however, seem robust.

Figure 12. Robustness of the long-run response for the summer in Sweden

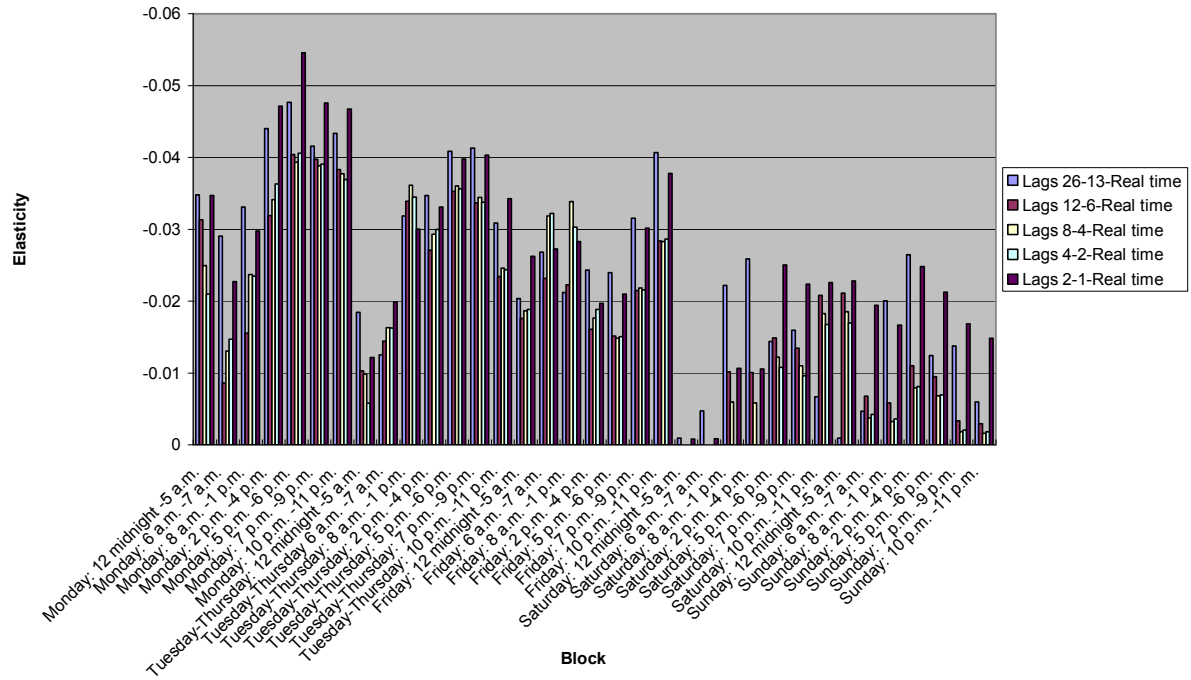


Figure 13. Robustness of the long-run response for the winter in Sweden

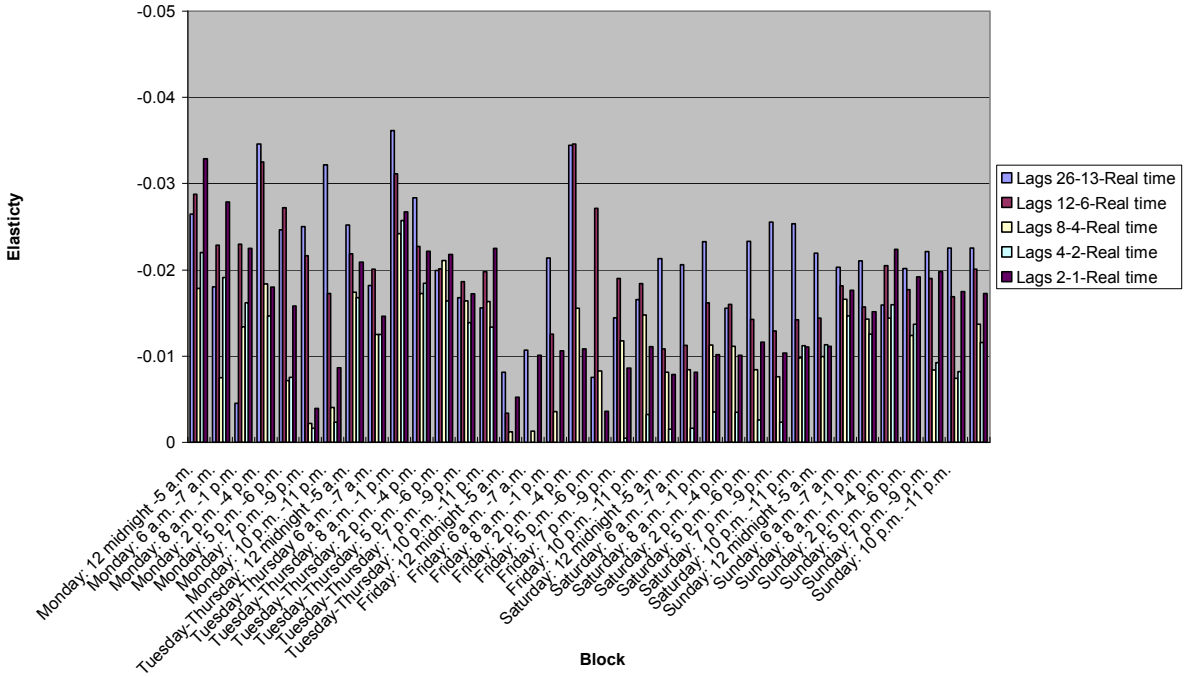
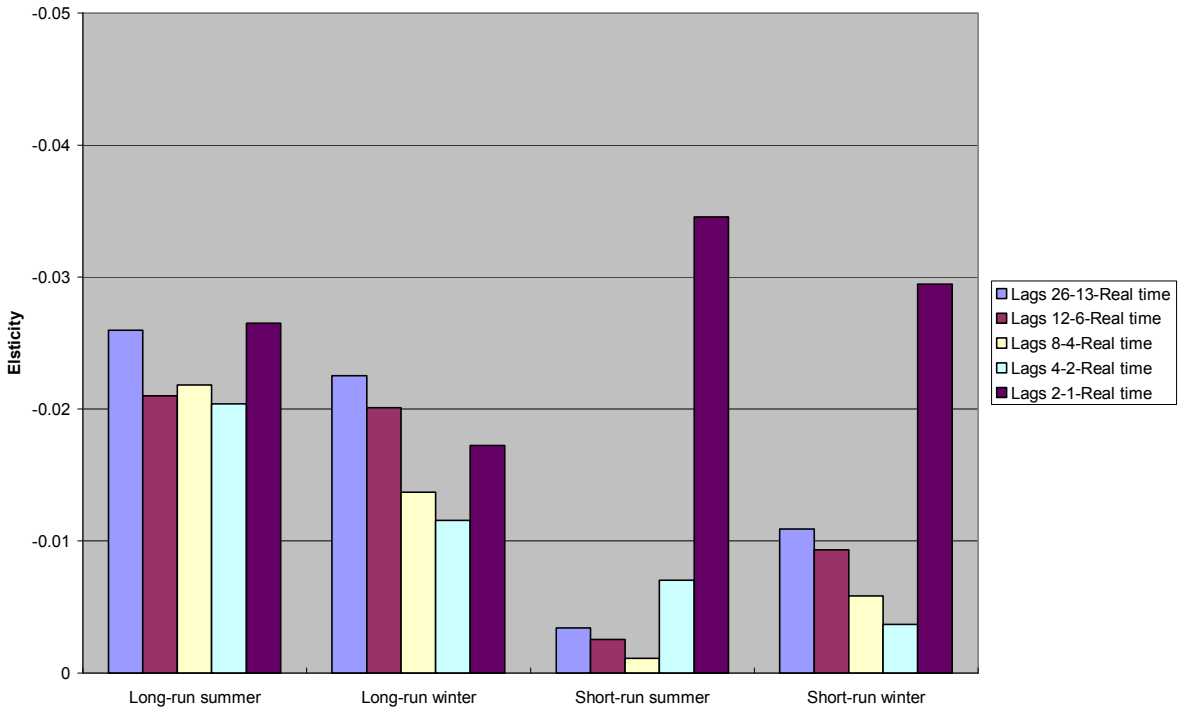


Figure 14. Robustness of the demand response for different lags, weighted values for Sweden



7. Concluding remarks

We have modeled a complete electricity market to estimate elasticities of demand using high-frequency data. The high-frequency data make it necessary to model both the supply and demand side to separate shifts in the market from movements along the demand curve. Prices are set in a simultaneous market and with equilibrium shifts because of short-term changes in inflow and thermal dispatching, changes in dispatching of thermal technologies because of transmission constraints, and shifting demand because of temperature changes. We modeled both the Norwegian and Swedish market shares as they are fully integrated and base their production on very different technologies that, through optimal dispatching, heavily influence the short-term marginal cost.

The price signals from the spot market reach the market in different ways in Norway and Sweden. The various kinds of price contracts in the market, and the intertemporal link between the prices in the contracts, imply that a good representation of price lags is vital to accurately identify the demand-responding effects on prices in this data set. We know a priori that a significant part of the Norwegian market responds to the spot price in real time, but we also know that the spot price influences the end user price for other fixed price consumers in the long run. The estimation reflects these aspects of the demand responses.

We identify a price response both in real time, and in the long run. The elasticities vary around the clock, over the days of the week and over seasons. An important objective of the paper has been to analyze the structure of the demand by letting the parameters in the model shift over all different load periods. The market is heterogeneous over blocks, but some basic characteristics in the market allow us to reduce the model from 168 hourly loads to 28 blocks during a week.

We find that the demand response related to the spot price is different for different blocks. This is due to both the fact that people respond differently to price changes depending on how and when they consume (heating, night and day), and how the spot price information reaches the consumers (information lags). The consumers will not react to extremely high spot prices that are only observed for a few hours. The estimations may then be biased downwards, which is part of the identification problem.

Although the elasticities may seem very small, they are reasonable when taking into account that they are measured on an hourly basis and reflect wholesale price effects. When comparing with elasticities from other studies, our elasticities should be multiplied by the purchaser/spot price ratio, because we measure elasticities using the spot price and other studies use the purchaser price. When the spot price increases, the purchaser price increase is relatively smaller because almost 2/3 of the purchaser price is constituted of a constant transmission tariff and commodity taxes.

In Sweden, consumers have signed more long-term contracts than in Norway, but even there consumers change contracts over time when spot prices change. We should expect spot price elasticities in Sweden to be lower than spot price elasticities in Norway, which we also find. The consumer's reaction is also weaker in Sweden in the long run, which obviously is because of the end user structure. Less heating is based on electricity, i.e., technical end uses that have fewer substitutes constitute a higher proportion of the electricity consumption.

The dynamics of demand and prices are obviously important when estimating demand elasticities. A further analysis of the dynamics in a simultaneous model, where the price elasticities vary over hours during the week, is computer and software demanding. More systematic testing of more lags and combinations of lags may produce better estimates of the short-run and long-run effects. However, our model seems to capture the long-run effect well and confirms that the price elasticities vary extensively over seasons and time of day.

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Appendix A

Detailed econometric specification

The transformations of (5) and (6) on the right-hand side define the price elasticities directly in the estimation:

$$(5)\quad D_t^s = \exp\left(\begin{array}{l}\sum_{l=1}^{168}\beta_l^1\chi_{l,t}^1 + \sum_{m=1}^{12}\beta_m^2\phi_{m,t} + \sum_{k=1,2}\sum_{i=0,h,b}\sum_{j=1}^{28}\beta_j^{k,3,i}\pi_{j,t}\omega_{k,t}\ln P_{t-i}^S + \sum_{j=1}^{28}\beta_j^4\pi_{j,t}\ln T_t^S \\ + \sum_{i=24,48,168}\sum_{j=1}^{28}\beta_j^{5,i}\pi_{j,t}\ln D_{t-i}^S + \sum_{d=6,7}\sum_{J=22}^{28}\beta_j^{d,6,24}\psi_{j,t}\ln D_{t-24}^S + \beta^7 L_t^S + \beta^8\ln X_t^S\end{array}\right) + \varepsilon_t^s$$

$$(6)\quad D_t^N = \exp\left(\begin{array}{l}\sum_{j=1}^{168}\rho_j^1\chi_{j,t} + \sum_{m=1}^{12}\rho_m^2\phi_{m,t} + \sum_{k=1,2}\sum_{i=0,h,b}\sum_{j=1}^{28}\rho_j^{k,3,i}\pi_{j,t}^3\omega_{k,t}\ln P_{t-i}^N + \sum_{j=1}^{28}\rho_j^4\pi_{j,t}T_t^N + \\ \sum_{j=1}^{28}\rho_j^5\pi_{j,t}\left(T_t^N\right)^2 + \sum_{i=24,48,168}\sum_{j=1}^{28}\rho_j^{6,i}\pi_{j,t}\ln D_{t-i}^N \\ + \sum_{d=6,7}\sum_{i=24}\sum_{j=22}^{28}\rho_j^{d,7,i}\psi_{j,t}\ln D_{t-i}^N + \rho^8 L_t^N + \rho^9\ln X_t^N\end{array}\right) + \varepsilon_t^N .$$

The index *t* runs from the starting point in the sample. The first terms on the right-hand side of (5) and (6) include the intercept terms β_j^1 and ρ_j^1, respectively, which differ for every hour during a week ($\chi_{j,t}$ is a dummy variable that equals one in hour *j* and zero otherwise). β_m^2 and ρ_m^2 are intercepts that change every month ($\phi_{m,t}$ is a dummy variable that equals one in month *m*, and zero otherwise). The price elasticities $\beta_j^{k,3,i}$ and $\rho_j^{k,3,i}$ vary over the summer months (where $k = 1$) and the winter months (where $k = 2$), and over the 28 blocks (cf. Table 1).

For Norway and Sweden, we include real-time price effects, $\beta_j^{k,3,i}$ and $\rho_j^{k,3,i}$, where $i = 0$ respectively in the two countries, and a 13-week lag ($i = b$) and a 26-week lag ($i = h$). In the robustness test we vary these lags (i.e., the length of *b* and *h*). The parameter changes for different lagged prices, and shifts over *k* (period) and *j* (blocks) where the dummy variable $\pi_{j,t}$ is one in the actual block *j*, and zero otherwise. $\omega_{k,t}$ is a dummy variable that equals one for the actual period *k,* and zero otherwise. The temperature effect on demand is β_j^4 for Sweden, and ρ_j^4 (first-order term) and ρ_j^5 (second-order term) for Norway. The temperature effects differ between the 28 blocks. The

dynamic adjustment is described by a lagged left-hand side variable. The lag structures comprise two terms. The first terms, $\beta_j^{5,i}$ and $\rho_j^{6,i}$, respectively, for the two countries, change depending on the block *j*, and the lagged effect for period *i* = 24, 48 168 (the dummy is $\pi_{j,t}$). The second term includes lagged values with the attached parameters $\beta_j^{d,6,i}$ and $\rho_j^{d,7,i}$. This term captures differences in the lagged effect on demand from Friday to Saturday and from Saturday to Sunday. The parameter then only has a value in blocks 22 to 28 (the dummy variable is $\psi_{j,t}$). The β^7 and ρ^8 parameters capture the effect of daylight, which is equal for all loads. The effects of economic activity, β^8 and ρ^9, are the same for all loads and seasons.

In the price equation, we apply the same dummy variables, and we assume a parallel structure in factor influence. The aggregate price equation for the equilibrium spot price (the Swedish spot price—see equation (3)) is:

$$
\begin{aligned}
P_t^S = & \sum_{l=1}^{168} \delta_l^1 \chi_{l,t} + \sum_{m=1}^{12} \delta_m^2 \phi_{m,t} M_t + \sum_{m=1}^{12} \delta_m^3 \phi_{m,t} I_t + \sum_{k=1,2} \sum_{j=1}^{28} \delta_j^{k,4} \pi_{j,t} \omega_{k,t} Y_t^N \\
& + \sum_{k=1,2} \sum_{j=1}^{28} \delta_j^{k,5} \pi_{j,t} \omega_{k,t} Y_t^S + \sum_{j=1}^{28} \delta_j^6 \pi_{j,t} C_t + \sum_{i=24,72,168} \sum_{j=1}^{28} \delta_j^{7i} \pi_{j,t} P_{t-i}^S + \varepsilon_t^P .
\end{aligned} \tag{7}
$$

In (7), δ_l^1 is a load-specific intercept term (the $\chi_{l,t}$ is a dummy variable). The parameters δ_m^2 and δ_m^3 reflect the effect of the deviation from the mean reservoir level and inflow, respectively, which differ for every month (the dummy variable is $\phi_{m,t}$). The effect of the aggregate endogenous productions Y_t^N and Y_t^S, $\delta_j^{k,4}$ and $\delta_j^{k,5}$, see (9) and (10) below, differs for the 28 blocks *j* and changes between the winter months and summer months (index *k*). The parameter δ_j^6 is the effect of the coal price variable for third-party producers and takes different values for the 28 blocks. The last term is the lagged left-hand side variable, which changes over the 28 blocks. Lagged values of the left-hand side variable are included in the price equation. They correspond to lags at 24 hours, 72 hours (three days) and 168 hours (seven days).

We assume that the errors are normal, independent, and identically distributed with expectation zero and a constant covariance matrix, i.e.

$\varepsilon_t = \left(\varepsilon_t^S, \varepsilon_t^N, \varepsilon_t^P\right)'$ and $\varepsilon_t \sim NIID(0, \Omega)$.

The full-information maximum likelihood function in TSP 5.0 is used for estimating the model, cf. Hall and Cummins (2005). We assume that the Norwegian spot price equals the estimated Swedish price plus the observed difference PD_t:

(8) $$P_t^N = P_t^S + PD_t ,$$

and that the power balance including net imports holds for each country:

(9) $$Y_t^N = D_t^N - U_t^{N,S} - U_t^{N,R} - U_t^{N,D} - U_t^{N,F} ,$$

(10) $$Y_t^S = D_t^S - U_t^{S,N} - U_t^{S,F} - U_t^{S,G} - U_t^{S,D} - N_t^S - W_t^S .$$

Appendix B

Estimated coefficients

The Norwegian demand

Real-time price elasticity

Summer

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-8.53E-03	5.55E-03	-1.53484	[.125]
Monday: 6 a.m. -7 a.m.	-2.61E-03	8.39E-03	-0.310902	[.756]
Monday: 8 a.m. -1 p.m.	0.011722	4.69E-03	2.501	[.012]
Monday: 2 p.m. -4 p.m.	-0.011344	7.70E-03	-1.47272	[.141]
Monday: 5 p.m. -6 p.m.	-5.00E-03	0.011478	-0.435252	[.663]
Monday: 7 p.m. -9 p.m.	-6.75E-03	9.61E-03	-0.702439	[.482]
Monday: 10 p.m. -11 p.m.	-0.024272	0.011767	-2.06274	[.039]
Tuesday-Thursday: 12 midnight -5 a.m.	-2.81E-03	3.03E-03	-0.927895	[.353]
Tuesday-Thursday 6 a.m. -7 a.m.	8.69E-03	4.30E-03	2.02322	[.043]
Tuesday-Thursday: 8 a.m. -1 p.m.	6.13E-03	2.44E-03	2.50921	[.012]
Tuesday-Thursday: 2 p.m. -4 p.m.	4.14E-03	4.36E-03	0.950607	[.342]
Tuesday-Thursday: 5 p.m. -6 p.m.	-2.81E-03	5.14E-03	-0.547016	[.584]
Tuesday-Thursday: 7 p.m. -9 p.m.	3.39E-03	4.64E-03	0.730436	[.465]
Tuesday-Thursday: 10 p.m. -11 p.m.	-6.05E-05	5.23E-03	-0.011576	[.991]
Friday: 12 midnight -5 a.m.	-0.01028	4.78E-03	-2.14939	[.032]
Friday: 6 a.m. -7 a.m.	-0.010731	9.78E-03	-1.09717	[.273]
Friday: 8 a.m. -1 p.m.	1.31E-03	6.01E-03	0.217821	[.828]
Friday: 2 p.m. -4 p.m.	0.014595	0.010249	1.424	[.154]
Friday: 5 p.m. -6 p.m.	-1.06E-03	0.012924	-0.081735	[.935]
Friday: 7 p.m. -9 p.m.	6.25E-03	0.010327	0.605537	[.545]
Friday: 10 p.m. -11 p.m.	5.34E-03	0.013736	0.388482	[.698]
Saturday-Sunday: 12 midnight -5 a.m.	5.66E-03	3.99E-03	1.42093	[.155]
Saturday -Sunday: 6 a.m. -7 a.m.	2.88E-03	6.66E-03	0.43206	[.666]
Saturday -Sunday: 8 a.m. -1 p.m.	-5.44E-03	4.07E-03	-1.33514	[.182]
Saturday -Sunday: 2 p.m. -4 p.m.	-3.18E-03	5.56E-03	-0.571952	[.567]
Saturday -Sunday: 5 p.m. -6 p.m.	-8.86E-03	7.64E-03	-1.16041	[.246]
Saturday -Sunday: 7 p.m. -9 p.m.	-8.63E-03	6.56E-03	-1.31467	[.189]
Saturday -Sunday: 10 p.m. -11 p.m.	-3.76E-03	8.58E-03	-0.437806	[.662]

Real-time price elasticity (cont.)

Winter

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-0.014851	3.16E-03	-4.69821	[.000]
Monday: 6 a.m. -7 a.m.	-0.013035	3.93E-03	-3.31278	[.001]
Monday: 8 a.m. -1 p.m.	-0.012656	1.80E-03	-7.05057	[.000]
Monday: 2 p.m. -4 p.m.	-0.032995	3.56E-03	-9.28053	[.000]
Monday: 5 p.m. -6 p.m.	-0.028213	5.74E-03	-4.9146	[.000]
Monday: 7 p.m. -9 p.m.	-0.026518	3.97E-03	-6.68453	[.000]
Monday: 10 p.m. -11 p.m.	-0.030785	5.69E-03	-5.41442	[.000]
Tuesday-Thursday: 12 midnight -5 a.m.	-0.020951	2.03E-03	-10.3109	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	-0.024566	3.12E-03	-7.87187	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	-0.028238	1.45E-03	-19.474	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	-0.023602	2.23E-03	-10.5754	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	-0.028107	3.22E-03	-8.73167	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	-0.027826	2.59E-03	-10.7292	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	-0.026591	3.15E-03	-8.43292	[.000]
Friday: 12 midnight -5 a.m.	-0.015799	5.54E-03	-2.85042	[.004]
Friday: 6 a.m. -7 a.m.	-0.025262	6.85E-03	-3.68587	[.000]
Friday: 8 a.m. -1 p.m.	-0.026669	2.79E-03	-9.54988	[.000]
Friday: 2 p.m. -4 p.m.	-0.015147	4.57E-03	-3.31662	[.001]
Friday: 5 p.m. -6 p.m.	-0.014845	5.84E-03	-2.54189	[.011]
Friday: 7 p.m. -9 p.m.	-0.017542	5.42E-03	-3.23845	[.001]
Friday: 10 p.m. -11 p.m.	-0.019009	7.53E-03	-2.52589	[.012]
Saturday-Sunday: 12 midnight -5 a.m.	-0.014682	2.91E-03	-5.04607	[.000]
Saturday -Sunday: 6 a.m. -7 a.m.	-0.020392	5.20E-03	-3.91858	[.000]
Saturday -Sunday: 8 a.m. -1 p.m.	-0.018135	2.53E-03	-7.15425	[.000]
Saturday -Sunday: 2 p.m. -4 p.m.	-0.022014	3.29E-03	-6.69888	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	-0.022424	4.23E-03	-5.29584	[.000]
Saturday -Sunday: 7 p.m. -9 p.m.	-0.02042	3.84E-03	-5.31531	[.000]
Saturday -Sunday: 10 p.m. -11 p.m.	-0.018128	5.57E-03	-3.25249	[.001]

13- weeks price elasticity

Summer

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	1.86E-04	6.74E-03	0.02754	[.978]
Monday: 6 a.m. -7 a.m.	-4.53E-04	8.19E-03	-0.055294	[.956]
Monday: 8 a.m. -1 p.m.	-5.98E-03	3.77E-03	-1.58759	[.112]
Monday: 2 p.m. -4 p.m.	-6.81E-03	8.06E-03	-0.845338	[.398]
Monday: 5 p.m. -6 p.m.	-0.013144	0.010565	-1.24404	[.213]
Monday: 7 p.m. -9 p.m.	-0.018216	0.012578	-1.44826	[.148]
Monday: 10 p.m. -11 p.m.	-9.45E-03	0.018057	-0.523225	[.601]
Tuesday-Thursday: 12 midnight -5 a.m.	-6.82E-03	3.73E-03	-1.82831	[.068]
Tuesday-Thursday 6 a.m. -7 a.m.	-0.015145	5.27E-03	-2.87614	[.004]
Tuesday-Thursday: 8 a.m. -1 p.m.	-0.012805	2.93E-03	-4.36902	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	-0.01145	5.63E-03	-2.03311	[.042]
Tuesday-Thursday: 5 p.m. -6 p.m.	-2.67E-03	5.49E-03	-0.486171	[.627]
Tuesday-Thursday: 7 p.m. -9 p.m.	-8.48E-03	5.96E-03	-1.4242	[.154]
Tuesday-Thursday: 10 p.m. -11 p.m.	-9.63E-03	7.40E-03	-1.30073	[.193]
Friday: 12 midnight -5 a.m.	-1.97E-03	6.43E-03	-0.306562	[.759]
Friday: 6 a.m. -7 a.m.	0.015796	0.011099	1.42324	[.155]
Friday: 8 a.m. -1 p.m.	5.52E-03	5.32E-03	1.03833	[.299]
Friday: 2 p.m. -4 p.m.	-8.51E-03	0.01149	-0.740472	[.459]
Friday: 5 p.m. -6 p.m.	3.86E-03	0.014617	0.263983	[.792]
Friday: 7 p.m. -9 p.m.	3.01E-03	0.011183	0.269106	[.788]
Friday: 10 p.m. -11 p.m.	-5.59E-03	0.015345	-0.364599	[.715]
Saturday-Sunday: 12 midnight -5 a.m.	-6.17E-03	4.87E-03	-1.26887	[.204]
Saturday -Sunday: 6 a.m. -7 a.m.	-3.58E-03	7.88E-03	-0.45407	[.650]
Saturday -Sunday: 8 a.m. -1 p.m.	-3.19E-05	5.00E-03	-6.39E-03	[.995]
Saturday -Sunday: 2 p.m. -4 p.m.	1.83E-03	5.69E-03	0.322525	[.747]
Saturday -Sunday: 5 p.m. -6 p.m.	1.49E-03	8.51E-03	0.17488	[.861]
Saturday -Sunday: 7 p.m. -9 p.m.	-1.72E-03	7.59E-03	-0.227019	[.820]
Saturday -Sunday: 10 p.m. -11 p.m.	5.78E-04	0.010517	0.054997	[.956]

Winter

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-0.023155	5.22E-03	-4.43941	[.000]
Monday: 6 a.m. -7 a.m.	-0.024596	4.32E-03	-5.69465	[.000]
Monday: 8 a.m. -1 p.m.	-0.032947	2.49E-03	-13.2282	[.000]
Monday: 2 p.m. -4 p.m.	-0.029253	5.42E-03	-5.39966	[.000]
Monday: 5 p.m. -6 p.m.	-0.026476	7.53E-03	-3.51599	[.000]
Monday: 7 p.m. -9 p.m.	-0.022652	6.27E-03	-3.61187	[.000]
Monday: 10 p.m. -11 p.m.	-8.18E-03	9.19E-03	-0.890347	[.373]
Tuesday-Thursday: 12 midnight -5 a.m.	-0.010862	3.25E-03	-3.34068	[.001]
Tuesday-Thursday 6 a.m. -7 a.m.	-0.014094	3.79E-03	-3.71905	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	-0.014063	1.74E-03	-8.09499	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	-0.013059	2.54E-03	-5.13593	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	-8.06E-03	3.52E-03	-2.28779	[.022]
Tuesday-Thursday: 7 p.m. -9 p.m.	-0.010517	3.41E-03	-3.08153	[.002]
Tuesday-Thursday: 10 p.m. -11 p.m.	-0.0144	5.20E-03	-2.77041	[.006]
Friday: 12 midnight -5 a.m.	-0.016689	5.91E-03	-2.82439	[.005]
Friday: 6 a.m. -7 a.m.	-0.017992	7.75E-03	-2.32274	[.020]
Friday: 8 a.m. -1 p.m.	-0.010961	3.86E-03	-2.84303	[.004]
Friday: 2 p.m. -4 p.m.	-0.019823	5.56E-03	-3.56278	[.000]
Friday: 5 p.m. -6 p.m.	-0.019479	7.20E-03	-2.70379	[.007]
Friday: 7 p.m. -9 p.m.	-0.020428	7.28E-03	-2.80773	[.005]
Friday: 10 p.m. -11 p.m.	-0.018212	8.29E-03	-2.19633	[.028]
Saturday-Sunday: 12 midnight -5 a.m.	-8.19E-03	3.28E-03	-2.5012	[.012]
Saturday -Sunday: 6 a.m. -7 a.m.	-6.35E-03	6.29E-03	-1.00846	[.313]
Saturday -Sunday: 8 a.m. -1 p.m.	-7.56E-03	3.17E-03	-2.38235	[.017]
Saturday -Sunday: 2 p.m. -4 p.m.	-5.73E-03	3.10E-03	-1.84731	[.065]
Saturday -Sunday: 5 p.m. -6 p.m.	-6.86E-03	4.39E-03	-1.56046	[.119]
Saturday -Sunday: 7 p.m. -9 p.m.	-8.71E-03	3.77E-03	-2.31024	[.021]
Saturday -Sunday: 10 p.m. -11 p.m.	-0.012419	6.73E-03	-1.84464	[.065]

26- weeks price elasticity

Summer

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-4.77E-03	6.55E-03	-0.727667	[.467]
Monday: 6 a.m. -7 a.m.	-0.012522	6.57E-03	-1.90597	[.057]
Monday: 8 a.m. -1 p.m.	-8.96E-03	2.39E-03	-3.74564	[.000]
Monday: 2 p.m. -4 p.m.	-6.72E-03	5.28E-03	-1.27179	[.203]
Monday: 5 p.m. -6 p.m.	-9.94E-03	6.81E-03	-1.46005	[.144]
Monday: 7 p.m. -9 p.m.	-3.66E-03	8.65E-03	-0.423139	[.672]
Monday: 10 p.m. -11 p.m.	-1.91E-03	0.012381	-0.153923	[.878]
Tuesday-Thursday: 12 midnight -5 a.m.	-2.25E-03	4.01E-03	-0.561065	[.575]
Tuesday-Thursday 6 a.m. -7 a.m.	-1.97E-03	4.63E-03	-0.426133	[.670]
Tuesday-Thursday: 8 a.m. -1 p.m.	-2.10E-03	2.22E-03	-0.94357	[.345]
Tuesday-Thursday: 2 p.m. -4 p.m.	-6.56E-04	4.32E-03	-0.151755	[.879]
Tuesday-Thursday: 5 p.m. -6 p.m.	-4.85E-03	4.80E-03	-1.01188	[.312]
Tuesday-Thursday: 7 p.m. -9 p.m.	-3.75E-03	4.50E-03	-0.832055	[.405]
Tuesday-Thursday: 10 p.m. -11 p.m.	-4.46E-03	6.06E-03	-0.735795	[.462]
Friday: 12 midnight -5 a.m.	-5.55E-03	5.85E-03	-0.949334	[.342]
Friday: 6 a.m. -7 a.m.	-0.015125	8.56E-03	-1.76752	[.077]
Friday: 8 a.m. -1 p.m.	-0.01537	4.22E-03	-3.63981	[.000]
Friday: 2 p.m. -4 p.m.	-0.017561	9.70E-03	-1.80964	[.070]
Friday: 5 p.m. -6 p.m.	-0.013725	9.91E-03	-1.38497	[.166]
Friday: 7 p.m. -9 p.m.	-0.01689	9.39E-03	-1.79823	[.072]
Friday: 10 p.m. -11 p.m.	-8.50E-03	0.012227	-0.694859	[.487]
Saturday-Sunday: 12 midnight -5 a.m.	-2.86E-03	4.97E-03	-0.576434	[.564]
Saturday -Sunday: 6 a.m. -7 a.m.	-9.66E-03	8.20E-03	-1.17792	[.239]
Saturday -Sunday: 8 a.m. -1 p.m.	-0.010505	5.39E-03	-1.94903	[.051]
Saturday -Sunday: 2 p.m. -4 p.m.	-0.01006	5.87E-03	-1.71483	[.086]
Saturday -Sunday: 5 p.m. -6 p.m.	-6.67E-03	8.10E-03	-0.822777	[.411]
Saturday -Sunday: 7 p.m. -9 p.m.	-3.95E-03	6.80E-03	-0.581285	[.561]
Saturday -Sunday: 10 p.m. -11 p.m.	-8.23E-03	9.47E-03	-0.869476	[.385]

Winter

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	4.17E-03	3.50E-03	1.18912	[.234]
Monday: 6 a.m. -7 a.m.	-1.56E-03	4.48E-03	-0.348574	[.727]
Monday: 8 a.m. -1 p.m.	2.94E-03	2.34E-03	1.25771	[.208]
Monday: 2 p.m. -4 p.m.	-6.18E-03	4.96E-03	-1.2474	[.212]
Monday: 5 p.m. -6 p.m.	-6.37E-03	7.03E-03	-0.90543	[.365]
Monday: 7 p.m. -9 p.m.	-9.47E-03	5.11E-03	-1.85198	[.064]
Monday: 10 p.m. -11 p.m.	-0.015182	7.27E-03	-2.0879	[.037]
Tuesday-Thursday: 12 midnight -5 a.m.	-4.02E-03	1.77E-03	-2.27592	[.023]
Tuesday-Thursday 6 a.m. -7 a.m.	-1.90E-03	3.09E-03	-0.614048	[.539]
Tuesday-Thursday: 8 a.m. -1 p.m.	-1.65E-03	1.58E-03	-1.04211	[.297]
Tuesday-Thursday: 2 p.m. -4 p.m.	-4.55E-04	2.58E-03	-0.176294	[.860]
Tuesday-Thursday: 5 p.m. -6 p.m.	-2.46E-03	3.14E-03	-0.784295	[.433]
Tuesday-Thursday: 7 p.m. -9 p.m.	1.81E-03	2.71E-03	0.667225	[.505]
Tuesday-Thursday: 10 p.m. -11 p.m.	1.05E-03	3.33E-03	0.316068	[.752]
Friday: 12 midnight -5 a.m.	7.43E-03	4.37E-03	1.69778	[.090]
Friday: 6 a.m. -7 a.m.	3.24E-03	5.74E-03	0.565377	[.572]
Friday: 8 a.m. -1 p.m.	-3.53E-03	3.16E-03	-1.11566	[.265]
Friday: 2 p.m. -4 p.m.	-3.88E-03	5.24E-03	-0.740086	[.459]
Friday: 5 p.m. -6 p.m.	-2.32E-03	7.34E-03	-0.315469	[.752]
Friday: 7 p.m. -9 p.m.	-6.30E-03	5.29E-03	-1.19257	[.233]
Friday: 10 p.m. -11 p.m.	-0.011642	6.89E-03	-1.68979	[.091]
Saturday-Sunday: 12 midnight -5 a.m.	-0.010093	2.53E-03	-3.99312	[.000]
Saturday -Sunday: 6 a.m. -7 a.m.	-0.01182	4.43E-03	-2.66619	[.008]
Saturday -Sunday: 8 a.m. -1 p.m.	-0.016066	2.18E-03	-7.38059	[.000]
Saturday -Sunday: 2 p.m. -4 p.m.	-0.010377	2.83E-03	-3.66365	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	-0.010276	4.70E-03	-2.18863	[.029]
Saturday -Sunday: 7 p.m. -9 p.m.	-9.29E-03	3.62E-03	-2.5637	[.010]
Saturday -Sunday: 10 p.m. -11 p.m.	-6.49E-03	5.29E-03	-1.22759	[.220]

Long-run price elasticity

Summer

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-0.046868	0.017922	-2.61512	[.009]
Monday: 6 a.m. -7 a.m.	-0.041753	0.020576	-2.02915	[.042]
Monday: 8 a.m. -1 p.m.	-8.34E-03	9.87E-03	-0.845216	[.398]
Monday: 2 p.m. -4 p.m.	-0.065956	0.014139	-4.6647	[.000]
Monday: 5 p.m. -6 p.m.	-0.079542	0.021842	-3.64164	[.000]
Monday: 7 p.m. -9 p.m.	-0.079995	0.018685	-4.28123	[.000]
Monday: 10 p.m. -11 p.m.	-0.106997	0.023256	-4.60084	[.000]
Tuesday-Thursday: 12 midnight -5 a.m.	-0.044729	0.010186	-4.3914	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	-0.030499	0.013594	-2.24355	[.025]
Tuesday-Thursday: 8 a.m. -1 p.m.	-0.030269	6.78E-03	-4.46697	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	-0.032028	0.012948	-2.4736	[.013]
Tuesday-Thursday: 5 p.m. -6 p.m.	-0.041181	0.014772	-2.78773	[.005]
Tuesday-Thursday: 7 p.m. -9 p.m.	-0.032377	0.012302	-2.63184	[.008]
Tuesday-Thursday: 10 p.m. -11 p.m.	-0.044393	0.01246	-3.56284	[.000]
Friday: 12 midnight -5 a.m.	-0.061604	0.016652	-3.69941	[.000]
Friday: 6 a.m. -7 a.m.	-0.0317	0.021418	-1.48004	[.139]
Friday: 8 a.m. -1 p.m.	-0.030364	0.014706	-2.06473	[.039]
Friday: 2 p.m. -4 p.m.	-0.038025	0.019569	-1.94312	[.052]
Friday: 5 p.m. -6 p.m.	-0.038398	0.026681	-1.43913	[.150]
Friday: 7 p.m. -9 p.m.	-0.024473	0.020367	-1.20165	[.229]
Friday: 10 p.m. -11 p.m.	-0.027394	0.027216	-1.00656	[.314]
Saturday: 12 midnight -5 a.m.	-0.014282	0.015444	-0.924702	[.355]
Saturday: 6 a.m. -7 a.m.	-0.03668	0.018095	-2.02702	[.043]
Saturday: 8 a.m. -1 p.m.	-0.05449	0.010332	-5.27361	[.000]
Saturday: 2 p.m. -4 p.m.	-0.036246	0.012048	-3.00845	[.003]
Saturday: 5 p.m. -6 p.m.	-0.052846	0.01951	-2.7087	[.007]
Saturday: 7 p.m. -9 p.m.	-0.049058	0.015477	-3.16969	[.002]
Saturday: 10 p.m. -11 p.m.	-0.037607	0.021166	-1.77679	[.076]
Sunday: 12 midnight -5 a.m.	-0.014412	0.015649	-0.920935	[.357]
Sunday: 6 a.m. -7 a.m.	-0.03686	0.018434	-1.99955	[.046]
Sunday: 8 a.m. -1 p.m.	-0.051443	9.72E-03	-5.29247	[.000]
Sunday: 2 p.m. -4 p.m.	-0.036081	0.012007	-3.00508	[.003]
Sunday: 5 p.m. -6 p.m.	-0.048836	0.018107	-2.69701	[.007]
Sunday: 7 p.m. -9 p.m.	-0.046904	0.014891	-3.14973	[.002]
Sunday: 10 p.m. -11 p.m.	-0.034006	0.019124	-1.77815	[.075]

Long-run price elasticity (cont.)

Winter

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-0.120994	0.015096	-8.01517	[.000]
Monday: 6 a.m. -7 a.m.	-0.105011	0.012181	-8.62103	[.000]
Monday: 8 a.m. -1 p.m.	-0.110709	6.46E-03	-17.1373	[.000]
Monday: 2 p.m. -4 p.m.	-0.181447	0.014181	-12.7952	[.000]
Monday: 5 p.m. -6 p.m.	-0.172934	0.021447	-8.06326	[.000]
Monday: 7 p.m. -9 p.m.	-0.163834	0.013705	-11.9544	[.000]
Monday: 10 p.m. -11 p.m.	-0.162624	0.023207	-7.00749	[.000]
Tuesday-Thursday: 12 midnight -5 a.m.	-0.134968	8.48E-03	-15.9151	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	-0.146773	0.01262	-11.63	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	-0.15156	5.93E-03	-25.5652	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	-0.149238	0.010588	-14.095	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	-0.153939	0.014185	-10.8524	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	-0.133852	0.010096	-13.2579	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	-0.125374	0.0116	-10.8083	[.000]
Friday: 12 midnight -5 a.m.	-0.086722	0.01643	-5.27834	[.000]
Friday: 6 a.m. -7 a.m.	-0.126083	0.020881	-6.03808	[.000]
Friday: 8 a.m. -1 p.m.	-0.146328	0.011842	-12.357	[.000]
Friday: 2 p.m. -4 p.m.	-0.128732	0.018161	-7.0885	[.000]
Friday: 5 p.m. -6 p.m.	-0.128802	0.025557	-5.03981	[.000]
Friday: 7 p.m. -9 p.m.	-0.14205	0.018933	-7.50264	[.000]
Friday: 10 p.m. -11 p.m.	-0.152905	0.021302	-7.17782	[.000]
Saturday: 12 midnight -5 a.m.	-0.139611	0.013231	-10.5518	[.000]
Saturday: 6 a.m. -7 a.m.	-0.136566	0.019347	-7.0587	[.000]
Saturday: 8 a.m. -1 p.m.	-0.142426	9.38E-03	-15.1853	[.000]
Saturday: 2 p.m. -4 p.m.	-0.121152	0.010827	-11.1901	[.000]
Saturday: 5 p.m. -6 p.m.	-0.148895	0.01878	-7.92838	[.000]
Saturday: 7 p.m. -9 p.m.	-0.131777	0.01342	-9.81913	[.000]
Saturday: 10 p.m. -11 p.m.	-0.122074	0.017373	-7.02684	[.000]
Sunday: 12 midnight -5 a.m.	-0.140886	0.013311	-10.5842	[.000]
Sunday: 6 a.m. -7 a.m.	-0.137239	0.019067	-7.19773	[.000]
Sunday: 8 a.m. -1 p.m.	-0.134463	8.66E-03	-15.5309	[.000]
Sunday: 2 p.m. -4 p.m.	-0.1206	0.01108	-10.8847	[.000]
Sunday: 5 p.m. -6 p.m.	-0.137597	0.016238	-8.47358	[.000]
Sunday: 7 p.m. -9 p.m.	-0.125992	0.012288	-10.2533	[.000]
Sunday: 10 p.m. -11 p.m.	-0.110384	0.014297	-7.72103	[.000]

Temperatureindex

Linear term

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-2.38E-03	5.36E-04	-4.43378	[.000]
Monday: 6 a.m. -7 a.m.	-1.10E-03	6.42E-04	-1.71206	[.087]
Monday: 8 a.m. -1 p.m.	-1.51E-03	2.94E-04	-5.13647	[.000]
Monday: 2 p.m. -4 p.m.	-3.12E-03	5.49E-04	-5.67984	[.000]
Monday: 5 p.m. -6 p.m.	-3.49E-03	1.01E-03	-3.45024	[.001]
Monday: 7 p.m. -9 p.m.	-2.31E-03	6.17E-04	-3.74612	[.000]
Monday: 10 p.m. -11 p.m.	-2.29E-03	7.83E-04	-2.92769	[.003]
Tuesday-Thursday: 12 midnight -5 a.m.	-3.91E-03	3.06E-04	-12.7912	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	-3.47E-03	4.47E-04	-7.75332	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	-4.68E-03	2.13E-04	-21.9202	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	-3.65E-03	3.66E-04	-9.9892	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	-4.31E-03	5.11E-04	-8.43199	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	-4.27E-03	3.87E-04	-11.035	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	-4.35E-03	4.61E-04	-9.43652	[.000]
Friday: 12 midnight -5 a.m.	-4.78E-03	7.30E-04	-6.54681	[.000]
Friday: 6 a.m. -7 a.m.	-3.80E-03	9.18E-04	-4.14491	[.000]
Friday: 8 a.m. -1 p.m.	-4.58E-03	4.13E-04	-11.1037	[.000]
Friday: 2 p.m. -4 p.m.	-5.54E-03	7.88E-04	-7.03242	[.000]
Friday: 5 p.m. -6 p.m.	-4.89E-03	8.45E-04	-5.78158	[.000]
Friday: 7 p.m. -9 p.m.	-4.70E-03	6.86E-04	-6.85281	[.000]
Friday: 10 p.m. -11 p.m.	-5.60E-03	9.97E-04	-5.6127	[.000]
Saturday-Sunday: 12 midnight -5 a.m.	-3.70E-03	3.99E-04	-9.27	[.000]
Saturday -Sunday: 6 a.m. -7 a.m.	-5.29E-03	6.05E-04	-8.73177	[.000]
Saturday -Sunday: 8 a.m. -1 p.m.	-4.24E-03	3.37E-04	-12.606	[.000]
Saturday -Sunday: 2 p.m. -4 p.m.	-4.26E-03	5.04E-04	-8.44127	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	-4.33E-03	6.23E-04	-6.94615	[.000]
Saturday -Sunday: 7 p.m. -9 p.m.	-4.33E-03	5.71E-04	-7.58506	[.000]
Saturday -Sunday: 10 p.m. -11 p.m.	-3.94E-03	6.51E-04	-6.05458	[.000]

Quadradic term

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-2.44E-05	8.37E-06	-2.91254	[.004]
Monday: 6 a.m. -7 a.m.	-3.47E-05	9.47E-06	-3.65915	[.000]
Monday: 8 a.m. -1 p.m.	-2.41E-05	4.74E-06	-5.07942	[.000]
Monday: 2 p.m. -4 p.m.	-6.85E-06	8.30E-06	-0.82619	[.409]
Monday: 5 p.m. -6 p.m.	-4.01E-06	1.34E-05	-0.300409	[.764]
Monday: 7 p.m. -9 p.m.	-1.86E-05	8.36E-06	-2.22621	[.026]
Monday: 10 p.m. -11 p.m.	-2.17E-05	9.80E-06	-2.21539	[.027]
Tuesday-Thursday: 12 midnight -5 a.m.	-6.47E-06	4.27E-06	-1.51484	[.130]
Tuesday-Thursday 6 a.m. -7 a.m.	-9.29E-06	6.03E-06	-1.54041	[.123]
Tuesday-Thursday: 8 a.m. -1 p.m.	-2.21E-06	2.87E-06	-0.768413	[.442]
Tuesday-Thursday: 2 p.m. -4 p.m.	-1.36E-06	5.04E-06	-0.270756	[.787]
Tuesday-Thursday: 5 p.m. -6 p.m.	5.18E-06	6.77E-06	0.764635	[.444]
Tuesday-Thursday: 7 p.m. -9 p.m.	4.66E-06	5.24E-06	0.890127	[.373]
Tuesday-Thursday: 10 p.m. -11 p.m.	-1.02E-06	6.31E-06	-0.160998	[.872]
Friday: 12 midnight -5 a.m.	5.53E-06	8.97E-06	0.616161	[.538]
Friday: 6 a.m. -7 a.m.	-1.17E-05	1.28E-05	-0.91297	[.361]
Friday: 8 a.m. -1 p.m.	8.82E-06	5.84E-06	1.51056	[.131]
Friday: 2 p.m. -4 p.m.	2.59E-05	1.10E-05	2.3513	[.019]
Friday: 5 p.m. -6 p.m.	1.25E-05	1.21E-05	1.03857	[.299]
Friday: 7 p.m. -9 p.m.	6.89E-06	1.02E-05	0.676236	[.499]
Friday: 10 p.m. -11 p.m.	1.41E-05	1.46E-05	0.96039	[.337]
Saturday-Sunday: 12 midnight -5 a.m.	-4.65E-06	5.73E-06	-0.812048	[.417]
Saturday -Sunday: 6 a.m. -7 a.m.	2.58E-06	9.17E-06	0.281488	[.778]
Saturday -Sunday: 8 a.m. -1 p.m.	-2.18E-06	4.80E-06	-0.455265	[.649]
Saturday -Sunday: 2 p.m. -4 p.m.	-7.45E-06	7.05E-06	-1.05698	[.291]
Saturday -Sunday: 5 p.m. -6 p.m.	4.89E-06	8.56E-06	0.571655	[.568]
Saturday -Sunday: 7 p.m. -9 p.m.	4.65E-06	7.47E-06	0.62217	[.534]
Saturday -Sunday: 10 p.m. -11 p.m.	-1.68E-06	8.36E-06	-0.200605	[.841]

Dummy for January

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	0.016374	4.40E-03	3.72387	[.000]
Monday: 6 a.m. -7 a.m.	0.033109	4.33E-03	7.64964	[.000]
Monday: 8 a.m. -1 p.m.	0.019758	2.14E-03	9.25332	[.000]
Monday: 2 p.m. -4 p.m.	4.65E-03	5.44E-03	0.853385	[.393]
Monday: 5 p.m. -6 p.m.	0.010644	7.57E-03	1.40622	[.160]
Monday: 7 p.m. -9 p.m.	0.011138	6.10E-03	1.82597	[.068]
Monday: 10 p.m. -11 p.m.	-3.95E-04	8.78E-03	-0.044923	[.964]
Tuesday-Thursday: 12 midnight -5 a.m.	-9.52E-03	2.32E-03	-4.10243	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	5.70E-04	3.56E-03	0.160244	[.873]
Tuesday-Thursday: 8 a.m. -1 p.m.	-3.19E-03	1.67E-03	-1.91067	[.056]
Tuesday-Thursday: 2 p.m. -4 p.m.	-7.34E-03	2.55E-03	-2.88203	[.004]
Tuesday-Thursday: 5 p.m. -6 p.m.	-5.28E-03	3.31E-03	-1.59443	[.111]
Tuesday-Thursday: 7 p.m. -9 p.m.	-3.98E-03	2.81E-03	-1.41617	[.157]
Tuesday-Thursday: 10 p.m. -11 p.m.	-8.05E-03	3.59E-03	-2.2423	[.025]
Friday: 12 midnight -5 a.m.	0.011108	6.39E-03	1.73896	[.082]
Friday: 6 a.m. -7 a.m.	0.02162	7.57E-03	2.85482	[.004]
Friday: 8 a.m. -1 p.m.	0.010767	3.14E-03	3.42684	[.001]
Friday: 2 p.m. -4 p.m.	2.24E-03	5.53E-03	0.405539	[.685]
Friday: 5 p.m. -6 p.m.	6.11E-03	7.46E-03	0.818707	[.413]
Friday: 7 p.m. -9 p.m.	4.42E-03	5.84E-03	0.756673	[.449]
Friday: 10 p.m. -11 p.m.	3.10E-03	8.59E-03	0.360804	[.718]
Saturday-Sunday: 12 midnight -5 a.m.	-3.44E-03	3.63E-03	-0.94851	[.343]
Saturday -Sunday: 6 a.m. -7 a.m.	-5.80E-03	6.56E-03	-0.88363	[.377]
Saturday -Sunday: 8 a.m. -1 p.m.	-0.010164	2.53E-03	-4.00988	[.000]
Saturday -Sunday: 2 p.m. -4 p.m.	-0.010399	3.64E-03	-2.85312	[.004]
Saturday -Sunday: 5 p.m. -6 p.m.	-9.39E-03	6.00E-03	-1.5664	[.117]
Saturday -Sunday: 7 p.m. -9 p.m.	-6.02E-03	4.46E-03	-1.34924	[.177]
Saturday -Sunday: 10 p.m. -11 p.m.	-6.43E-03	7.03E-03	-0.914925	[.360]

Dummy for February

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	4.03E-03	5.05E-03	0.798415	[.425]
Monday: 6 a.m. -7 a.m.	0.030724	4.59E-03	6.69972	[.000]
Monday: 8 a.m. -1 p.m.	0.018093	2.78E-03	6.49825	[.000]
Monday: 2 p.m. -4 p.m.	-6.45E-04	4.86E-03	-0.132756	[.894]
Monday: 5 p.m. -6 p.m.	9.49E-03	6.45E-03	1.46996	[.142]
Monday: 7 p.m. -9 p.m.	0.01039	5.77E-03	1.80196	[.072]
Monday: 10 p.m. -11 p.m.	1.72E-03	0.011581	0.148748	[.882]
Tuesday-Thursday: 12 midnight -5 a.m.	-7.89E-03	2.56E-03	-3.0749	[.002]
Tuesday-Thursday 6 a.m. -7 a.m.	-6.91E-04	3.73E-03	-0.185447	[.853]
Tuesday-Thursday: 8 a.m. -1 p.m.	-0.012213	1.95E-03	-6.26279	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	-0.020015	2.81E-03	-7.12697	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	-0.014445	3.51E-03	-4.11555	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	-0.011439	2.95E-03	-3.87594	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	-0.010631	3.86E-03	-2.75499	[.006]
Friday: 12 midnight -5 a.m.	0.01178	5.69E-03	2.0698	[.038]
Friday: 6 a.m. -7 a.m.	0.017683	6.89E-03	2.56772	[.010]
Friday: 8 a.m. -1 p.m.	3.39E-03	3.24E-03	1.04599	[.296]
Friday: 2 p.m. -4 p.m.	-7.72E-03	5.41E-03	-1.42756	[.153]
Friday: 5 p.m. -6 p.m.	-5.14E-03	7.80E-03	-0.658637	[.510]
Friday: 7 p.m. -9 p.m.	1.29E-03	5.97E-03	0.215326	[.830]
Friday: 10 p.m. -11 p.m.	1.85E-03	7.51E-03	0.246085	[.806]
Saturday-Sunday: 12 midnight -5 a.m.	3.51E-03	3.68E-03	0.954155	[.340]
Saturday -Sunday: 6 a.m. -7 a.m.	5.81E-03	7.03E-03	0.826774	[.408]
Saturday -Sunday: 8 a.m. -1 p.m.	-2.37E-03	3.03E-03	-0.780033	[.435]
Saturday -Sunday: 2 p.m. -4 p.m.	-9.22E-03	4.37E-03	-2.10875	[.035]
Saturday -Sunday: 5 p.m. -6 p.m.	-7.37E-03	5.60E-03	-1.31674	[.188]
Saturday -Sunday: 7 p.m. -9 p.m.	-1.87E-03	3.81E-03	-0.490322	[.624]
Saturday -Sunday: 10 p.m. -11 p.m.	3.03E-04	5.18E-03	0.058545	[.953]

Dummy for March

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	0.014261	4.96E-03	2.87676	[.004]
Monday: 6 a.m. -7 a.m.	0.038474	4.59E-03	8.38618	[.000]
Monday: 8 a.m. -1 p.m.	0.013203	2.77E-03	4.76899	[.000]
Monday: 2 p.m. -4 p.m.	-5.96E-03	5.68E-03	-1.04837	[.294]
Monday: 5 p.m. -6 p.m.	-1.52E-03	7.76E-03	-0.196088	[.845]
Monday: 7 p.m. -9 p.m.	-3.00E-04	5.32E-03	-0.056303	[.955]
Monday: 10 p.m. -11 p.m.	-0.015384	7.60E-03	-2.02519	[.043]
Tuesday-Thursday: 12 midnight -5 a.m.	-7.27E-03	3.01E-03	-2.41139	[.016]
Tuesday-Thursday 6 a.m. -7 a.m.	2.62E-03	3.88E-03	0.675579	[.499]
Tuesday-Thursday: 8 a.m. -1 p.m.	-0.013618	2.01E-03	-6.78475	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	-0.031345	3.03E-03	-10.3564	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	-0.028607	3.70E-03	-7.72349	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	-0.019499	3.14E-03	-6.20331	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	-0.01585	3.89E-03	-4.07067	[.000]
Friday: 12 midnight -5 a.m.	7.83E-03	5.73E-03	1.36785	[.171]
Friday: 6 a.m. -7 a.m.	0.016462	8.33E-03	1.97581	[.048]
Friday: 8 a.m. -1 p.m.	-9.42E-03	3.45E-03	-2.72945	[.006]
Friday: 2 p.m. -4 p.m.	-0.022474	5.07E-03	-4.43552	[.000]
Friday: 5 p.m. -6 p.m.	-0.014834	6.37E-03	-2.33014	[.020]
Friday: 7 p.m. -9 p.m.	-2.51E-03	5.07E-03	-0.495049	[.621]
Friday: 10 p.m. -11 p.m.	-6.56E-03	8.45E-03	-0.776142	[.438]
Saturday-Sunday: 12 midnight -5 a.m.	7.01E-03	3.52E-03	1.99372	[.046]
Saturday -Sunday: 6 a.m. -7 a.m.	0.012618	6.17E-03	2.04531	[.041]
Saturday -Sunday: 8 a.m. -1 p.m.	-6.99E-03	2.78E-03	-2.51671	[.012]
Saturday -Sunday: 2 p.m. -4 p.m.	-0.018451	3.82E-03	-4.82697	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	-0.016	5.11E-03	-3.13132	[.002]
Saturday -Sunday: 7 p.m. -9 p.m.	-1.09E-03	4.05E-03	-0.270453	[.787]
Saturday -Sunday: 10 p.m. -11 p.m.	1.88E-03	5.79E-03	0.325084	[.745]

Dummy for April

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	0.011065	5.54E-03	1.99837	[.046]
Monday: 6 a.m. -7 a.m.	5.09E-03	4.90E-03	1.03964	[.299]
Monday: 8 a.m. -1 p.m.	-0.016035	2.76E-03	-5.80184	[.000]
Monday: 2 p.m. -4 p.m.	-0.032665	5.67E-03	-5.76034	[.000]
Monday: 5 p.m. -6 p.m.	-0.025186	7.03E-03	-3.58069	[.000]
Monday: 7 p.m. -9 p.m.	-0.018425	5.32E-03	-3.46116	[.001]
Monday: 10 p.m. -11 p.m.	-0.017323	8.98E-03	-1.92958	[.054]
Tuesday-Thursday: 12 midnight -5 a.m.	-2.72E-03	2.82E-03	-0.966053	[.334]
Tuesday-Thursday 6 a.m. -7 a.m.	4.49E-03	3.64E-03	1.23336	[.217]
Tuesday-Thursday: 8 a.m. -1 p.m.	1.06E-03	2.03E-03	0.525464	[.599]
Tuesday-Thursday: 2 p.m. -4 p.m.	-0.020859	3.31E-03	-6.30569	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	-0.023982	4.11E-03	-5.83819	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	-0.023082	3.33E-03	-6.92199	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	-0.014459	4.41E-03	-3.28227	[.001]
Friday: 12 midnight -5 a.m.	0.01429	5.63E-03	2.53667	[.011]
Friday: 6 a.m. -7 a.m.	0.019428	8.17E-03	2.3771	[.017]
Friday: 8 a.m. -1 p.m.	-0.01028	4.43E-03	-2.32279	[.020]
Friday: 2 p.m. -4 p.m.	-0.022923	7.13E-03	-3.21611	[.001]
Friday: 5 p.m. -6 p.m.	-0.014217	8.14E-03	-1.74611	[.081]
Friday: 7 p.m. -9 p.m.	-3.73E-03	9.34E-03	-0.399427	[.690]
Friday: 10 p.m. -11 p.m.	9.42E-04	0.010204	0.092348	[.926]
Saturday-Sunday: 12 midnight -5 a.m.	2.91E-03	3.97E-03	0.733228	[.463]
Saturday -Sunday: 6 a.m. -7 a.m.	0.011137	6.77E-03	1.64415	[.100]
Saturday -Sunday: 8 a.m. -1 p.m.	-0.016484	3.09E-03	-5.34219	[.000]
Saturday -Sunday: 2 p.m. -4 p.m.	-0.029666	4.54E-03	-6.53571	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	-0.03738	6.07E-03	-6.15972	[.000]
Saturday -Sunday: 7 p.m. -9 p.m.	-0.021	4.41E-03	-4.75953	[.000]
Saturday -Sunday: 10 p.m. -11 p.m.	-0.015602	6.14E-03	-2.53918	[.011]

Dummy for May

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-0.124816	0.035713	-3.49498	[.000]
Monday: 6 a.m. -7 a.m.	-0.135384	0.048237	-2.80662	[.005]
Monday: 8 a.m. -1 p.m.	-0.2422	0.025038	-9.67311	[.000]
Monday: 2 p.m. -4 p.m.	-0.2724	0.042591	-6.3957	[.000]
Monday: 5 p.m. -6 p.m.	-0.215486	0.056806	-3.79335	[.000]
Monday: 7 p.m. -9 p.m.	-0.207377	0.044643	-4.64524	[.000]
Monday: 10 p.m. -11 p.m.	-0.137478	0.057251	-2.40132	[.016]
Tuesday-Thursday: 12 midnight -5 a.m.	-0.13241	0.018831	-7.03164	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	-0.181933	0.027333	-6.65625	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	-0.190028	0.014546	-13.0639	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	-0.178211	0.023325	-7.64028	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	-0.177967	0.028717	-6.19722	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	-0.17414	0.024858	-7.00528	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	-0.158987	0.03073	-5.17368	[.000]
Friday: 12 midnight -5 a.m.	-0.046662	0.035421	-1.31735	[.188]
Friday: 6 a.m. -7 a.m.	-0.156433	0.051335	-3.04729	[.002]
Friday: 8 a.m. -1 p.m.	-0.186705	0.030151	-6.19226	[.000]
Friday: 2 p.m. -4 p.m.	-0.187437	0.044819	-4.18213	[.000]
Friday: 5 p.m. -6 p.m.	-0.166086	0.056105	-2.96026	[.003]
Friday: 7 p.m. -9 p.m.	-0.217291	0.047988	-4.52804	[.000]
Friday: 10 p.m. -11 p.m.	-0.220265	0.058159	-3.78732	[.000]
Saturday-Sunday: 12 midnight -5 a.m.	-0.147242	0.024425	-6.02843	[.000]
Saturday -Sunday: 6 a.m. -7 a.m.	-0.142287	0.03994	-3.56253	[.000]
Saturday -Sunday: 8 a.m. -1 p.m.	-0.169636	0.021653	-7.83433	[.000]
Saturday -Sunday: 2 p.m. -4 p.m.	-0.178371	0.027171	-6.56475	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	-0.181562	0.037769	-4.80713	[.000]
Saturday -Sunday: 7 p.m. -9 p.m.	-0.159863	0.032072	-4.98459	[.000]
Saturday -Sunday: 10 p.m. -11 p.m.	-0.170022	0.044116	-3.85399	[.000]

Dummy for June

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-0.10148	0.036977	-2.74438	[.006]
Monday: 6 a.m. -7 a.m.	-0.139907	0.049977	-2.79943	[.005]
Monday: 8 a.m. -1 p.m.	-0.233718	0.025564	-9.14236	[.000]
Monday: 2 p.m. -4 p.m.	-0.261414	0.042838	-6.10242	[.000]
Monday: 5 p.m. -6 p.m.	-0.192532	0.057611	-3.34194	[.001]
Monday: 7 p.m. -9 p.m.	-0.181955	0.04631	-3.92909	[.000]
Monday: 10 p.m. -11 p.m.	-0.105751	0.057313	-1.84516	[.065]
Tuesday-Thursday: 12 midnight -5 a.m.	-0.133716	0.019503	-6.85615	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	-0.177878	0.028361	-6.27187	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	-0.185824	0.01486	-12.505	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	-0.171264	0.023605	-7.25545	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	-0.172984	0.02892	-5.98143	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	-0.172757	0.025135	-6.87311	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	-0.165304	0.031615	-5.2286	[.000]
Friday: 12 midnight -5 a.m.	-0.060582	0.036264	-1.6706	[.095]
Friday: 6 a.m. -7 a.m.	-0.163626	0.052475	-3.11817	[.002]
Friday: 8 a.m. -1 p.m.	-0.201115	0.03069	-6.55304	[.000]
Friday: 2 p.m. -4 p.m.	-0.200991	0.045615	-4.40629	[.000]
Friday: 5 p.m. -6 p.m.	-0.174504	0.056085	-3.11143	[.002]
Friday: 7 p.m. -9 p.m.	-0.231776	0.047842	-4.84465	[.000]
Friday: 10 p.m. -11 p.m.	-0.239607	0.058766	-4.07731	[.000]
Saturday-Sunday: 12 midnight -5 a.m.	-0.149138	0.0246	-6.06245	[.000]
Saturday -Sunday: 6 a.m. -7 a.m.	-0.151221	0.041278	-3.66346	[.000]
Saturday -Sunday: 8 a.m. -1 p.m.	-0.179946	0.021644	-8.31403	[.000]
Saturday -Sunday: 2 p.m. -4 p.m.	-0.181058	0.027296	-6.63316	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	-0.188016	0.037191	-5.05543	[.000]
Saturday -Sunday: 7 p.m. -9 p.m.	-0.169848	0.031507	-5.39085	[.000]
Saturday -Sunday: 10 p.m. -11 p.m.	-0.172193	0.044065	-3.90775	[.000]

Dummy for July

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-0.12667	0.035096	-3.60929	[.000]
Monday: 6 a.m. -7 a.m.	-0.188687	0.045534	-4.14388	[.000]
Monday: 8 a.m. -1 p.m.	-0.27166	0.024801	-10.9536	[.000]
Monday: 2 p.m. -4 p.m.	-0.288654	0.042171	-6.84484	[.000]
Monday: 5 p.m. -6 p.m.	-0.2377	0.056348	-4.21845	[.000]
Monday: 7 p.m. -9 p.m.	-0.225334	0.043085	-5.22999	[.000]
Monday: 10 p.m. -11 p.m.	-0.141506	0.055126	-2.56695	[.010]
Tuesday-Thursday: 12 midnight -5 a.m.	-0.136913	0.018726	-7.31145	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	-0.1979	0.027355	-7.23463	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	-0.19691	0.014697	-13.3979	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	-0.191239	0.022979	-8.32236	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	-0.187185	0.028248	-6.62657	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	-0.192781	0.024585	-7.84158	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	-0.177183	0.030671	-5.77681	[.000]
Friday: 12 midnight -5 a.m.	-0.062693	0.034389	-1.82307	[.068]
Friday: 6 a.m. -7 a.m.	-0.183338	0.049874	-3.67601	[.000]
Friday: 8 a.m. -1 p.m.	-0.212283	0.030663	-6.92301	[.000]
Friday: 2 p.m. -4 p.m.	-0.210095	0.044907	-4.67847	[.000]
Friday: 5 p.m. -6 p.m.	-0.179756	0.054601	-3.2922	[.001]
Friday: 7 p.m. -9 p.m.	-0.228217	0.047168	-4.83842	[.000]
Friday: 10 p.m. -11 p.m.	-0.237774	0.057019	-4.17005	[.000]
Saturday-Sunday: 12 midnight -5 a.m.	-0.15065	0.023439	-6.42731	[.000]
Saturday -Sunday: 6 a.m. -7 a.m.	-0.132174	0.03941	-3.35385	[.001]
Saturday -Sunday: 8 a.m. -1 p.m.	-0.167774	0.020361	-8.23981	[.000]
Saturday -Sunday: 2 p.m. -4 p.m.	-0.174893	0.025815	-6.77493	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	-0.181445	0.035729	-5.0784	[.000]
Saturday -Sunday: 7 p.m. -9 p.m.	-0.16748	0.030496	-5.49182	[.000]
Saturday -Sunday: 10 p.m. -11 p.m.	-0.178134	0.042205	-4.22071	[.000]

Dummy for August

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-0.104043	0.037516	-2.77325	[.006]
Monday: 6 a.m. -7 a.m.	-0.126233	0.048661	-2.59414	[.009]
Monday: 8 a.m. -1 p.m.	-0.219932	0.025706	-8.55566	[.000]
Monday: 2 p.m. -4 p.m.	-0.24379	0.043458	-5.60977	[.000]
Monday: 5 p.m. -6 p.m.	-0.187911	0.057617	-3.2614	[.001]
Monday: 7 p.m. -9 p.m.	-0.178156	0.044581	-3.99624	[.000]
Monday: 10 p.m. -11 p.m.	-0.109882	0.055203	-1.99051	[.047]
Tuesday-Thursday: 12 midnight -5 a.m.	-0.124799	0.018898	-6.60364	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	-0.171926	0.027635	-6.22137	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	-0.177522	0.014583	-12.1734	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	-0.163922	0.023174	-7.0734	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	-0.161939	0.028426	-5.69694	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	-0.164001	0.025117	-6.52948	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	-0.155257	0.031417	-4.94186	[.000]
Friday: 12 midnight -5 a.m.	-0.055046	0.035315	-1.55875	[.119]
Friday: 6 a.m. -7 a.m.	-0.152464	0.050539	-3.01677	[.003]
Friday: 8 a.m. -1 p.m.	-0.185677	0.030571	-6.0737	[.000]
Friday: 2 p.m. -4 p.m.	-0.193075	0.046437	-4.15778	[.000]
Friday: 5 p.m. -6 p.m.	-0.158709	0.057257	-2.77188	[.006]
Friday: 7 p.m. -9 p.m.	-0.211367	0.048409	-4.36629	[.000]
Friday: 10 p.m. -11 p.m.	-0.224507	0.059136	-3.79645	[.000]
Saturday-Sunday: 12 midnight -5 a.m.	-0.136368	0.02488	-5.48111	[.000]
Saturday -Sunday: 6 a.m. -7 a.m.	-0.12777	0.040878	-3.12568	[.002]
Saturday -Sunday: 8 a.m. -1 p.m.	-0.157666	0.021686	-7.27031	[.000]
Saturday -Sunday: 2 p.m. -4 p.m.	-0.161687	0.027592	-5.85997	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	-0.167634	0.036799	-4.5554	[.000]
Saturday -Sunday: 7 p.m. -9 p.m.	-0.146152	0.030852	-4.73719	[.000]
Saturday -Sunday: 10 p.m. -11 p.m.	-0.150133	0.043992	-3.41276	[.001]

Dummy for September

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-0.107407	0.035117	-3.05852	[.002]
Monday: 6 a.m. -7 a.m.	-0.109976	0.047592	-2.31079	[.021]
Monday: 8 a.m. -1 p.m.	-0.224468	0.024784	-9.05698	[.000]
Monday: 2 p.m. -4 p.m.	-0.250028	0.040973	-6.10231	[.000]
Monday: 5 p.m. -6 p.m.	-0.195892	0.055775	-3.51221	[.000]
Monday: 7 p.m. -9 p.m.	-0.176282	0.043829	-4.02201	[.000]
Monday: 10 p.m. -11 p.m.	-0.117278	0.05517	-2.12575	[.034]
Tuesday-Thursday: 12 midnight -5 a.m.	-0.13106	0.01916	-6.84035	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	-0.172937	0.028039	-6.16776	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	-0.184435	0.014574	-12.6555	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	-0.173273	0.022846	-7.5845	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	-0.163265	0.027919	-5.84779	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	-0.16125	0.024467	-6.59051	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	-0.158521	0.031118	-5.09423	[.000]
Friday: 12 midnight -5 a.m.	-0.044832	0.035643	-1.25781	[.208]
Friday: 6 a.m. -7 a.m.	-0.148798	0.051567	-2.88551	[.004]
Friday: 8 a.m. -1 p.m.	-0.185893	0.030171	-6.16139	[.000]
Friday: 2 p.m. -4 p.m.	-0.187956	0.044992	-4.1775	[.000]
Friday: 5 p.m. -6 p.m.	-0.161875	0.054722	-2.95813	[.003]
Friday: 7 p.m. -9 p.m.	-0.207901	0.046268	-4.49336	[.000]
Friday: 10 p.m. -11 p.m.	-0.2236	0.057728	-3.87333	[.000]
Saturday-Sunday: 12 midnight -5 a.m.	-0.142582	0.023903	-5.96516	[.000]
Saturday -Sunday: 6 a.m. -7 a.m.	-0.1317	0.039469	-3.33683	[.001]
Saturday -Sunday: 8 a.m. -1 p.m.	-0.155001	0.021051	-7.36324	[.000]
Saturday -Sunday: 2 p.m. -4 p.m.	-0.160774	0.027232	-5.90387	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	-0.158698	0.0373	-4.25467	[.000]
Saturday -Sunday: 7 p.m. -9 p.m.	-0.135827	0.031565	-4.30312	[.000]
Saturday -Sunday: 10 p.m. -11 p.m.	-0.154391	0.0433	-3.56557	[.000]

Dummy for October

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-0.096694	0.034768	-2.78111	[.005]
Monday: 6 a.m. -7 a.m.	-0.09463	0.047361	-1.99805	[.046]
Monday: 8 a.m. -1 p.m.	-0.200891	0.024181	-8.30785	[.000]
Monday: 2 p.m. -4 p.m.	-0.2246	0.040047	-5.60844	[.000]
Monday: 5 p.m. -6 p.m.	-0.161228	0.055265	-2.91737	[.004]
Monday: 7 p.m. -9 p.m.	-0.157077	0.04419	-3.55458	[.000]
Monday: 10 p.m. -11 p.m.	-0.108278	0.055367	-1.95562	[.051]
Tuesday-Thursday: 12 midnight -5 a.m.	-0.130954	0.018806	-6.96333	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	-0.17586	0.027444	-6.40786	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	-0.185519	0.01431	-12.9643	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	-0.166405	0.023051	-7.21908	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	-0.155589	0.028158	-5.52546	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	-0.157073	0.024224	-6.48421	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	-0.15146	0.029987	-5.0508	[.000]
Friday: 12 midnight -5 a.m.	-0.03925	0.035158	-1.1164	[.264]
Friday: 6 a.m. -7 a.m.	-0.139575	0.051452	-2.7127	[.007]
Friday: 8 a.m. -1 p.m.	-0.17004	0.029461	-5.77176	[.000]
Friday: 2 p.m. -4 p.m.	-0.160924	0.044088	-3.65008	[.000]
Friday: 5 p.m. -6 p.m.	-0.134321	0.05424	-2.47641	[.013]
Friday: 7 p.m. -9 p.m.	-0.199483	0.046817	-4.26089	[.000]
Friday: 10 p.m. -11 p.m.	-0.213238	0.05698	-3.74231	[.000]
Saturday-Sunday: 12 midnight -5 a.m.	-0.14631	0.023145	-6.32149	[.000]
Saturday -Sunday: 6 a.m. -7 a.m.	-0.135258	0.038405	-3.52188	[.000]
Saturday -Sunday: 8 a.m. -1 p.m.	-0.143626	0.020877	-6.87945	[.000]
Saturday -Sunday: 2 p.m. -4 p.m.	-0.147413	0.026909	-5.4782	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	-0.138636	0.036478	-3.80056	[.000]
Saturday -Sunday: 7 p.m. -9 p.m.	-0.126834	0.03093	-4.10072	[.000]
Saturday -Sunday: 10 p.m. -11 p.m.	-0.139356	0.042201	-3.30221	[.001]

Dummy for November				
	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	1.22E-03	4.77E-03	0.255897	[.798]
Monday: 6 a.m. -7 a.m.	0.032634	4.19E-03	7.79603	[.000]
Monday: 8 a.m. -1 p.m.	0.014045	2.74E-03	5.1244	[.000]
Monday: 2 p.m. -4 p.m.	7.93E-03	5.30E-03	1.49781	[.134]
Monday: 5 p.m. -6 p.m.	0.017251	6.01E-03	2.86866	[.004]
Monday: 7 p.m. -9 p.m.	0.014044	4.98E-03	2.81779	[.005]
Monday: 10 p.m. -11 p.m.	-3.14E-03	6.38E-03	-0.49132	[.623]
Tuesday-Thursday: 12 midnight -5 a.m.	-6.85E-03	2.76E-03	-2.48053	[.013]
Tuesday-Thursday 6 a.m. -7 a.m.	6.02E-04	3.54E-03	0.169946	[.865]
Tuesday-Thursday: 8 a.m. -1 p.m.	2.76E-03	1.97E-03	1.39931	[.162]
Tuesday-Thursday: 2 p.m. -4 p.m.	-2.46E-03	3.02E-03	-0.813536	[.416]
Tuesday-Thursday: 5 p.m. -6 p.m.	-2.46E-03	3.74E-03	-0.656271	[.512]
Tuesday-Thursday: 7 p.m. -9 p.m.	-7.30E-03	3.34E-03	-2.18815	[.029]
Tuesday-Thursday: 10 p.m. -11 p.m.	-0.010819	4.52E-03	-2.39107	[.017]
Friday: 12 midnight -5 a.m.	6.02E-03	6.26E-03	0.963007	[.336]
Friday: 6 a.m. -7 a.m.	0.019844	8.16E-03	2.43247	[.015]
Friday: 8 a.m. -1 p.m.	7.14E-03	3.65E-03	1.95661	[.050]
Friday: 2 p.m. -4 p.m.	-6.55E-05	5.76E-03	-0.011356	[.991]
Friday: 5 p.m. -6 p.m.	-3.78E-05	6.89E-03	-5.49E-03	[.996]
Friday: 7 p.m. -9 p.m.	-2.13E-03	6.34E-03	-0.336129	[.737]
Friday: 10 p.m. -11 p.m.	1.02E-03	8.11E-03	0.12568	[.900]
Saturday-Sunday: 12 midnight -5 a.m.	5.54E-03	3.47E-03	1.59775	[.110]
Saturday -Sunday: 6 a.m. -7 a.m.	6.53E-03	7.40E-03	0.882457	[.378]
Saturday -Sunday: 8 a.m. -1 p.m.	5.11E-04	2.60E-03	0.196468	[.844]
Saturday -Sunday: 2 p.m. -4 p.m.	6.74E-03	4.29E-03	1.5705	[.116]
Saturday -Sunday: 5 p.m. -6 p.m.	-2.53E-04	5.27E-03	-0.048023	[.962]
Saturday -Sunday: 7 p.m. -9 p.m.	3.99E-03	4.15E-03	0.961367	[.336]
Saturday -Sunday: 10 p.m. -11 p.m.	9.14E-04	5.67E-03	0.161427	[.872]

24-hour lag for the demand				
	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	0.611948	0.020126	30.4065	[.000]
Monday: 6 a.m. -7 a.m.	0.340051	0.046862	7.25648	[.000]
Monday: 8 a.m. -1 p.m.	0.506735	0.012548	40.3833	[.000]
Monday: 2 p.m. -4 p.m.	0.196153	0.044743	4.38402	[.000]
Monday: 5 p.m. -6 p.m.	0.308759	0.060071	5.13992	[.000]
Monday: 7 p.m. -9 p.m.	0.384483	0.050519	7.61061	[.000]
Monday: 10 p.m. -11 p.m.	0.411512	0.081917	5.02351	[.000]
Tuesday-Thursday: 12 midnight -5 a.m.	0.56977	0.017737	32.1234	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	0.498085	0.014884	33.4641	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	0.481361	7.43E-03	64.8245	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	0.482572	0.013634	35.3953	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	0.463109	0.020197	22.93	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	0.433778	0.020437	21.2247	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	0.351766	0.030868	11.3958	[.000]
Friday: 12 midnight -5 a.m.	0.49923	0.039034	12.7895	[.000]
Friday: 6 a.m. -7 a.m.	0.491244	0.033627	14.6086	[.000]
Friday: 8 a.m. -1 p.m.	0.468932	0.021126	22.1968	[.000]
Friday: 2 p.m. -4 p.m.	0.406299	0.038121	10.6582	[.000]
Friday: 5 p.m. -6 p.m.	0.372805	0.051955	7.17555	[.000]
Friday: 7 p.m. -9 p.m.	0.356518	0.042594	8.37011	[.000]
Friday: 10 p.m. -11 p.m.	0.281221	0.036724	7.65761	[.000]
Saturday: 12 midnight -5 a.m.	0.579177	0.018415	31.4517	[.000]
Saturday: 6 a.m. -7 a.m.	0.493055	0.034964	14.1017	[.000]
Saturday: 8 a.m. -1 p.m.	0.387276	7.43E-03	52.1039	[.000]
Saturday: 2 p.m. -4 p.m.	0.5045	0.023586	21.3894	[.000]
Saturday: 5 p.m. -6 p.m.	0.501562	0.033058	15.1721	[.000]
Saturday: 7 p.m. -9 p.m.	0.513762	0.024206	21.225	[.000]
Saturday: 10 p.m. -11 p.m.	0.564349	0.046835	12.0498	[.000]
Additional term on Saturday lag for Sunday: 12 midnight -5 a.m.	2.14E-03	7.81E-03	0.273687	[.784]
Additional term on Saturday lag for Sunday: 6 a.m. -7 a.m.	1.38E-03	0.013619	0.101668	[.919]
Additional term on Saturday lag for Sunday: 8 a.m. -1 p.m.	-0.017363	6.62E-03	-2.62225	[.009]
Additional term on Saturday lag for Sunday: 2 p.m. -4 p.m.	-1.44E-03	9.18E-03	-0.156774	[.875]
Additional term on Saturday lag for Sunday: 5 p.m. -6 p.m.	-0.021814	0.011925	-1.82933	[.067]
Additional term on Saturday lag for Sunday: 7 p.m. -9 p.m.	-0.013386	9.72E-03	-1.37693	[.169]
Additional term on Saturday lag for Sunday: 10 p.m. -11 p.m.	-0.032133	0.014614	-2.19875	[.028]

48-hours lag for the demand				
	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	0.107507	0.02589	4.15247	[.000]
Monday: 6 a.m. -7 a.m.	0.268729	0.04453	6.03476	[.000]
Monday: 8 a.m. -1 p.m.	0.076118	3.93E-03	19.3821	[.000]
Monday: 2 p.m. -4 p.m.	0.408662	0.041976	9.73556	[.000]
Monday: 5 p.m. -6 p.m.	0.279388	0.061224	4.5634	[.000]
Monday: 7 p.m. -9 p.m.	0.149741	0.041707	3.59032	[.000]
Monday: 10 p.m. -11 p.m.	0.148478	0.071684	2.07128	[.038]
Tuesday-Thursday: 12 midnight -5 a.m.	0.099689	0.016446	6.06173	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	0.159418	0.013539	11.775	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	0.139213	6.83E-03	20.3855	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	0.155122	0.013793	11.2462	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	0.154974	0.020498	7.5605	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	0.174915	0.019726	8.86733	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	0.219708	0.026785	8.20262	[.000]
Friday: 12 midnight -5 a.m.	0.182801	0.039876	4.58426	[.000]
Friday: 6 a.m. -7 a.m.	0.176716	0.046113	3.83221	[.000]
Friday: 8 a.m. -1 p.m.	0.20622	0.024326	8.47717	[.000]
Friday: 2 p.m. -4 p.m.	0.255188	0.041157	6.20037	[.000]
Friday: 5 p.m. -6 p.m.	0.285629	0.056492	5.05609	[.000]
Friday: 7 p.m. -9 p.m.	0.279192	0.047822	5.83809	[.000]
Friday: 10 p.m. -11 p.m.	0.361544	0.052285	6.91483	[.000]
Saturday: 12 midnight -5 a.m.	0.109527	0.018509	5.91763	[.000]
Saturday: 6 a.m. -7 a.m.	0.075952	0.032813	2.31467	[.021]
Saturday: 8 a.m. -1 p.m.	0.213852	9.51E-03	22.4962	[.000]
Saturday: 2 p.m. -4 p.m.	0.052139	0.020223	2.57821	[.010]
Saturday: 5 p.m. -6 p.m.	0.124962	0.027938	4.47279	[.000]
Saturday: 7 p.m. -9 p.m.	0.092334	0.024031	3.84225	[.000]
Saturday: 10 p.m. -11 p.m.	0.045442	0.036228	1.25432	[.210]

One-week lag for demand				
	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	8.73E-04	0.018383	0.047467	[.962]
Monday: 6 a.m. -7 a.m.	0.017988	0.016371	1.09877	[.272]
Monday: 8 a.m. -1 p.m.	0.031821	8.73E-03	3.6454	[.000]
Monday: 2 p.m. -4 p.m.	0.018037	0.021223	0.849908	[.395]
Monday: 5 p.m. -6 p.m.	0.058789	0.027002	2.17723	[.029]
Monday: 7 p.m. -9 p.m.	0.10788	0.023182	4.65366	[.000]
Monday: 10 p.m. -11 p.m.	0.107056	0.032529	3.29111	[.001]
Tuesday-Thursday: 12 midnight -5 a.m.	0.065064	9.91E-03	6.56327	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	0.066179	9.97E-03	6.63737	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	0.089448	5.71E-03	15.6632	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	0.113602	0.01015	11.1923	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	0.131007	0.013123	9.98302	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	0.118359	0.012511	9.46064	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	0.109963	0.016216	6.7811	[.000]
Friday: 12 midnight -5 a.m.	0.028984	0.024159	1.19974	[.230]
Friday: 6 a.m. -7 a.m.	0.014701	0.024248	0.606278	[.544]
Friday: 8 a.m. -1 p.m.	0.043576	0.013334	3.26818	[.001]
Friday: 2 p.m. -4 p.m.	0.036757	0.020293	1.81131	[.070]
Friday: 5 p.m. -6 p.m.	0.057091	0.025087	2.27577	[.023]
Friday: 7 p.m. -9 p.m.	0.052621	0.023641	2.22584	[.026]
Friday: 10 p.m. -11 p.m.	0.037665	0.03244	1.16108	[.246]
Saturday-Sunday: 12 midnight -5 a.m.	0.075151	0.012536	5.99471	[.000]
Saturday -Sunday: 6 a.m. -7 a.m.	0.148636	0.023886	6.22275	[.000]
Saturday -Sunday: 8 a.m. -1 p.m.	0.105673	2.78E-03	38.0438	[.000]
Saturday -Sunday: 2 p.m. -4 p.m.	0.128695	0.014765	8.71645	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	0.107805	0.019978	5.39615	[.000]
Saturday -Sunday: 7 p.m. -9 p.m.	0.102371	0.019241	5.32046	[.000]
Saturday -Sunday: 10 p.m. -11 p.m.	0.086784	0.029051	2.98725	[.003]

Intercept for each block

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	3.0577	0.227372	13.448	[.000]
Monday: 6 a.m. -7 a.m.	4.03032	0.228428	17.6437	[.000]
Monday: 8 a.m. -1 p.m.	4.2835	0.136364	31.4121	[.000]
Monday: 2 p.m. -4 p.m.	4.31836	0.22903	18.855	[.000]
Monday: 5 p.m. -6 p.m.	4.0278	0.306543	13.1394	[.000]
Monday: 7 p.m. -9 p.m.	4.02297	0.270324	14.882	[.000]
Monday: 10 p.m. -11 p.m.	3.72998	0.436054	8.55393	[.000]
Tuesday-Thursday: 12 midnight -5 a.m.	2.9894	0.116332	25.6972	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	3.13749	0.132459	23.6865	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	3.37727	0.090406	37.3566	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	2.89253	0.123688	23.3857	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	2.92663	0.155563	18.8131	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	3.12001	0.150869	20.6802	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	3.55994	0.203887	17.4604	[.000]
Friday: 12 midnight -5 a.m.	3.15658	0.236443	13.3503	[.000]
Friday: 6 a.m. -7 a.m.	3.51763	0.310864	11.3156	[.000]
Friday: 8 a.m. -1 p.m.	3.23797	0.165206	19.5996	[.000]
Friday: 2 p.m. -4 p.m.	3.41647	0.265989	12.8444	[.000]
Friday: 5 p.m. -6 p.m.	3.21238	0.325787	9.86039	[.000]
Friday: 7 p.m. -9 p.m.	3.50913	0.290556	12.0773	[.000]
Friday: 10 p.m. -11 p.m.	3.59881	0.37717	9.5416	[.000]
Saturday-Sunday: 12 midnight -5 a.m.	2.66119	0.163958	16.2309	[.000]
Saturday -Sunday: 6 a.m. -7 a.m.	3.11736	0.248703	12.5344	[.000]
Saturday -Sunday: 8 a.m. -1 p.m.	3.2161	0.109326	29.4174	[.000]
Saturday -Sunday: 2 p.m. -4 p.m.	3.46632	0.152566	22.7202	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	3.01193	0.197814	15.226	[.000]
Saturday -Sunday: 7 p.m. -9 p.m.	3.25024	0.179773	18.0797	[.000]
Saturday -Sunday: 10 p.m. -11 p.m.	3.33864	0.291991	11.434	[.000]

Additional term added on the intercept for each block to get the intercept for each hour during a week

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday:1 a.m.	-7.18E-03	3.11E-03	-2.30487	[.021]
Monday:2 a.m.	-7.74E-03	3.29E-03	-2.35393	[.019]
Monday:3 a.m.	-6.76E-04	3.26E-03	-0.207652	[.836]
Monday:4 a.m.	0.011727	3.43E-03	3.42036	[.001]
Monday:5 a.m.	0.040382	3.23E-03	12.5006	[.000]
Monday:7 a.m.	0.083299	2.36E-03	35.253	[.000]
Monday:9 a.m.	-0.0207	1.61E-03	-12.8219	[.000]
Monday:10 a.m.	-0.040593	1.96E-03	-20.6726	[.000]
Monday:11 a.m.	-0.054919	2.13E-03	-25.7234	[.000]
Monday:12 Noon	-0.063565	2.16E-03	-29.46	[.000]
Monday:1 p.m.	-0.062502	2.13E-03	-29.3451	[.000]
Monday:3 p.m.	-6.19E-03	2.35E-03	-2.63271	[.008]
Monday:4 p.m.	-0.016423	2.53E-03	-6.49954	[.000]
Monday:6 p.m.	-9.25E-03	2.61E-03	-3.53949	[.000]
Monday:8 p.m.	-8.11E-03	2.52E-03	-3.22017	[.001]
Monday:9 p.m.	-0.018541	2.76E-03	-6.7199	[.000]
Monday:11 p.m.	-0.026164	3.99E-03	-6.55988	[.000]
Tuesday:1 a.m.	-8.58E-03	2.79E-03	-3.07084	[.002]
Tuesday:2 a.m.	-0.011969	2.94E-03	-4.07497	[.000]
Tuesday:3 a.m.	-0.013324	3.05E-03	-4.36398	[.000]
Tuesday:4 a.m.	-8.29E-03	3.15E-03	-2.63433	[.008]
Tuesday:5 a.m.	1.60E-03	3.07E-03	0.522828	[.601]
Tuesday:7 a.m.	0.045502	2.44E-03	18.6805	[.000]
Tuesday:9 a.m.	-6.28E-03	1.63E-03	-3.86245	[.000]
Tuesday:10 a.m.	-0.01298	1.77E-03	-7.3501	[.000]
Tuesday:11 a.m.	-0.017811	1.83E-03	-9.72718	[.000]
Tuesday:12 Noon	-0.021818	1.87E-03	-11.6387	[.000]
Tuesday:1 p.m.	-0.021295	1.86E-03	-11.4351	[.000]
Tuesday:3 p.m.	-3.31E-03	2.01E-03	-1.6434	[.100]
Tuesday:4 p.m.	-6.18E-03	2.08E-03	-2.97386	[.003]
Tuesday:6 p.m.	-4.68E-03	2.29E-03	-2.04349	[.041]
Tuesday:8 p.m.	-6.72E-03	2.39E-03	-2.81678	[.005]
Tuesday:9 p.m.	-0.014484	2.50E-03	-5.80454	[.000]
Tuesday:11 p.m.	-0.017353	2.98E-03	-5.81802	[.000]

	Estimated parameter	Standard deviation	t-statistic	P-value
Wednesday:12 midnight	-5.34E-03	2.87E-03	-1.85858	[.063]
Wednesday:1 a.m.	-0.01275	2.97E-03	-4.28876	[.000]
Wednesday:2 a.m.	-0.016358	3.06E-03	-5.33706	[.000]
Wednesday:3 a.m.	-0.017151	3.23E-03	-5.30558	[.000]
Wednesday:4 a.m.	-0.013476	3.36E-03	-4.01612	[.000]
Wednesday:5 a.m.	-6.09E-03	3.11E-03	-1.96	[.050]
Wednesday:6 a.m.	-0.018179	3.18E-03	-5.71391	[.000]
Wednesday:7 a.m.	0.014803	3.05E-03	4.85894	[.000]
Wednesday:8 a.m.	-0.024884	2.03E-03	-12.2386	[.000]
Wednesday:9 a.m.	-0.024612	2.18E-03	-11.2936	[.000]
Wednesday:10 a.m.	-0.026025	2.25E-03	-11.5752	[.000]
Wednesday:11 a.m.	-0.030087	2.39E-03	-12.5878	[.000]
Wednesday:12 noon	-0.035153	2.31E-03	-15.1875	[.000]
Wednesday:1 p.m.	-0.036238	2.27E-03	-15.9355	[.000]
Wednesday:2 p.m.	-0.017043	2.62E-03	-6.51342	[.000]
Wednesday:3 p.m.	-0.019283	2.57E-03	-7.51491	[.000]
Wednesday:4 p.m.	-0.020695	2.53E-03	-8.17712	[.000]
Wednesday:5 p.m.	-0.011573	2.66E-03	-4.34782	[.000]
Wednesday:6 p.m.	-0.012748	2.66E-03	-4.79763	[.000]
Wednesday:7 p.m.	-8.42E-03	2.60E-03	-3.24357	[.001]
Wednesday:8 p.m.	-0.01384	2.61E-03	-5.31004	[.000]
Wednesday:9 p.m.	-0.019941	2.60E-03	-7.65844	[.000]
Wednesday:10 p.m.	-3.30E-03	2.89E-03	-1.14038	[.254]
Wednesday:11 p.m.	-0.017844	3.10E-03	-5.74975	[.000]
Thursday:12 midnight	-5.40E-03	2.87E-03	-1.87675	[.061]
Thursday:1 a.m.	-0.015166	2.84E-03	-5.33296	[.000]
Thursday:2 a.m.	-0.01792	2.98E-03	-6.01972	[.000]
Thursday:3 a.m.	-0.017839	3.05E-03	-5.84377	[.000]
Thursday:4 a.m.	-0.014452	3.15E-03	-4.59313	[.000]
Thursday:5 a.m.	-7.68E-03	2.97E-03	-2.58676	[.010]
Thursday:6 a.m.	-0.021284	2.99E-03	-7.12046	[.000]
Thursday:7 a.m.	7.72E-03	3.03E-03	2.54607	[.011]
Thursday:8 a.m.	-0.031017	1.98E-03	-15.6752	[.000]
Thursday:9 a.m.	-0.031286	2.13E-03	-14.6842	[.000]
Thursday:10 a.m.	-0.030904	2.21E-03	-13.9582	[.000]
Thursday:11 a.m.	-0.034336	2.32E-03	-14.8286	[.000]
Thursday:12 noon	-0.039199	2.33E-03	-16.843	[.000]
Thursday:1 p.m.	-0.039363	2.25E-03	-17.51	[.000]
Thursday:2 p.m.	-0.019173	2.61E-03	-7.33467	[.000]
Thursday:3 p.m.	-0.023031	2.69E-03	-8.55363	[.000]
Thursday:4 p.m.	-0.025548	2.90E-03	-8.80249	[.000]
Thursday:5 p.m.	-0.013885	2.89E-03	-4.80404	[.000]
Thursday:6 p.m.	-0.015523	2.90E-03	-5.34414	[.000]
Thursday:7 p.m.	-0.011273	3.00E-03	-3.75692	[.000]
Thursday:8 p.m.	-0.014767	2.89E-03	-5.11134	[.000]
Thursday:9 p.m.	-0.020658	2.71E-03	-7.62681	[.000]
Thursday:10 p.m.	-4.20E-03	2.86E-03	-1.47049	[.141]
Thursday:11 p.m.	-0.017222	3.17E-03	-5.43491	[.000]

	Estimated parameter	Standard deviation	t-statistic	P-value
Friday:1 a.m.	-4.30E-03	3.70E-03	-1.16349	[.245]
Friday:2 a.m.	-8.54E-03	3.75E-03	-2.27782	[.023]
Friday:3 a.m.	-7.87E-03	3.73E-03	-2.11122	[.035]
Friday:4 a.m.	-4.48E-03	3.64E-03	-1.22956	[.219]
Friday:5 a.m.	6.14E-03	3.51E-03	1.7474	[.081]
Friday:7 a.m.	0.035861	3.92E-03	9.14448	[.000]
Friday:9 a.m.	3.43E-03	2.29E-03	1.49711	[.134]
Friday:10 a.m.	1.24E-03	2.42E-03	0.510916	[.609]
Friday:11 a.m.	-5.53E-03	2.53E-03	-2.1867	[.029]
Friday:12 noon	-0.013872	2.62E-03	-5.3045	[.000]
Friday:1 p.m.	-0.022241	2.53E-03	-8.79422	[.000]
Friday:3 p.m.	-0.011128	2.59E-03	-4.29428	[.000]
Friday:4 p.m.	-0.015684	2.57E-03	-6.10905	[.000]
Friday:6 p.m.	1.16E-03	2.68E-03	0.43401	[.664]
Friday:8 p.m.	-0.011289	2.95E-03	-3.8223	[.000]
Friday:9 p.m.	-0.020838	3.28E-03	-6.35259	[.000]
Friday:11 p.m.	-6.96E-03	3.69E-03	-1.88727	[.059]
Saturday:1 a.m.	-9.39E-03	3.31E-03	-2.83329	[.005]
Saturday:2 a.m.	-0.014718	3.59E-03	-4.10008	[.000]
Saturday:3 a.m.	-0.020184	3.61E-03	-5.58803	[.000]
Saturday:4 a.m.	-0.027395	3.59E-03	-7.63039	[.000]
Saturday:5 a.m.	-0.03829	3.69E-03	-10.3719	[.000]
Saturday:7 a.m.	-0.023111	4.00E-03	-5.77373	[.000]
Saturday:9 a.m.	0.037794	2.69E-03	14.0605	[.000]
Saturday:10 a.m.	0.060839	2.85E-03	21.3573	[.000]
Saturday:11 a.m.	0.063954	2.79E-03	22.9511	[.000]
Saturday:12 noon	0.058773	2.69E-03	21.8515	[.000]
Saturday:1 p.m.	0.05093	2.63E-03	19.3564	[.000]
Saturday:3 p.m.	4.19E-03	2.49E-03	1.68074	[.093]
Saturday:4 p.m.	0.014335	2.52E-03	5.68433	[.000]
Saturday:6 p.m.	6.89E-03	2.72E-03	2.53814	[.011]
Saturday:8 p.m.	-7.36E-03	2.93E-03	-2.51703	[.012]
Saturday:9 p.m.	-0.013574	3.02E-03	-4.48774	[.000]
Saturday:11 p.m.	-4.72E-03	3.87E-03	-1.21962	[.223]

	Estimated parameter	Standard deviation	t-statistic	P-value
Sunday:12 midnight	-0.034408	0.073897	-0.465624	[.641]
Sunday:1 a.m.	-0.03838	0.074146	-0.517628	[.605]
Sunday:2 a.m.	-0.041481	0.074151	-0.559418	[.576]
Sunday:3 a.m.	-0.04441	0.074152	-0.5989	[.549]
Sunday:4 a.m.	-0.046095	0.074223	-0.621029	[.535]
Sunday:5 a.m.	-0.048358	0.074282	-0.651013	[.515]
Sunday:6 a.m.	0.01483	0.129952	0.114122	[.909]
Sunday:7 a.m.	9.75E-03	0.130199	0.074889	[.940]
Sunday:8 a.m.	0.174294	0.064197	2.71498	[.007]
Sunday:9 a.m.	0.194969	0.064264	3.03386	[.002]
Sunday:10 a.m.	0.214784	0.064262	3.34234	[.001]
Sunday:11 a.m.	0.226343	0.064276	3.52142	[.000]
Sunday:12 noon	0.230086	0.06427	3.58	[.000]
Sunday:1 p.m.	0.229236	0.064187	3.57135	[.000]
Sunday:2 p.m.	0.044797	0.088497	0.506199	[.613]
Sunday:3 p.m.	0.046906	0.088438	0.53038	[.596]
Sunday:4 p.m.	0.048116	0.088374	0.544452	[.586]
Sunday:5 p.m.	0.216669	0.114462	1.89293	[.058]
Sunday:6 p.m.	0.21516	0.114513	1.87891	[.060]
Sunday:7 p.m.	0.137324	0.09312	1.47469	[.140]
Sunday:8 p.m.	0.146141	0.093177	1.56842	[.117]
Sunday:9 p.m.	0.151257	0.093129	1.62416	[.104]
Sunday:10 p.m.	0.335122	0.139339	2.40508	[.016]
Sunday:11 p.m.	0.314822	0.139355	2.25913	[.024]

Other parameters

	Estimated parameter	Standard deviation	t-statistic	P-value
Economic activity	-0.022053	0.010477	-2.10488	[.035]
Dummy for daylight	-0.010849	8.66E-04	-12.5217	[.000]
Dummy for eastern	-0.077644	1.32E-03	-59.0358	[.000]
Dummy for daylight for Whit Monday	-0.079742	5.13E-03	-15.5438	[.000]
Dummy for Ascension day	-0.084117	3.27E-03	-25.7139	[.000]
Dummy for Christmas	-0.073029	1.53E-03	-47.7835	[.000]
Dummy for 1 of January	-0.059862	1.88E-03	-31.7689	[.000]
Dummmy for 1 of May	-0.088085	3.02E-03	-29.1898	[.000]
Dummy for 17 of May	-0.103913	2.72E-03	-38.2477	[.000]

The Swedish demand

Real-time price elasticity

Summer

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight -5 a.m.	-9.92E-03	8.40E-03	-1.18097	[.238]
Monday: 6 a.m. -7 a.m.	7.43E-03	0.012317	0.602838	[.547]
Monday: 8 a.m. -1 p.m.	5.40E-03	6.41E-03	0.842284	[.400]
Monday: 2 p.m. -4 p.m.	-1.39E-03	0.011634	-0.119057	[.905]
Monday: 5 p.m. -6 p.m.	-0.017754	0.013755	-1.29071	[.197]
Monday: 7 p.m. -9 p.m.	-0.0161	0.011549	-1.39404	[.163]
Monday: 10 p.m. -11 p.m.	-0.025764	0.014675	-1.75569	[.079]
Tuesday-Thursday: 12 midnight -5 a.m.	-3.14E-03	2.46E-03	-1.27458	[.202]
Tuesday-Thursday 6 a.m. -7 a.m.	7.61E-03	6.58E-03	1.15664	[.247]
Tuesday-Thursday: 8 a.m. -1 p.m.	-7.54E-03	2.68E-03	-2.81138	[.005]
Tuesday-Thursday: 2 p.m. -4 p.m.	-1.53E-03	5.95E-03	-0.257691	[.797]
Tuesday-Thursday: 5 p.m. -6 p.m.	-8.25E-03	7.42E-03	-1.11236	[.266]
Tuesday-Thursday: 7 p.m. -9 p.m.	-0.011569	6.34E-03	-1.82625	[.068]
Tuesday-Thursday: 10 p.m. -11 p.m.	-8.80E-03	8.06E-03	-1.09139	[.275]
Friday: 12 midnight -5 a.m.	-4.93E-03	8.92E-03	-0.553469	[.580]
Friday: 6 a.m. -7 a.m.	0.015017	0.012059	1.24535	[.213]
Friday: 8 a.m. -1 p.m.	0.01532	4.50E-03	3.4029	[.001]
Friday: 2 p.m. -4 p.m.	0.021331	0.012982	1.64316	[.100]
Friday: 5 p.m. -6 p.m.	0.01203	0.015168	0.793085	[.428]
Friday: 7 p.m. -9 p.m.	4.98E-03	0.012944	0.384662	[.700]
Friday: 10 p.m. -11 p.m.	-1.87E-03	0.020906	-0.089249	[.929]
Saturday-Sunday: 12 midnight -5 a.m.	-4.03E-04	5.17E-03	-0.077932	[.938]
Saturday -Sunday: 6 a.m. -7 a.m.	-4.38E-03	8.86E-03	-0.494593	[.621]
Saturday -Sunday: 8 a.m. -1 p.m.	-4.28E-03	6.08E-03	-0.703864	[.482]
Saturday -Sunday: 2 p.m. -4 p.m.	-0.018953	5.15E-03	-3.67841	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	-5.71E-03	0.010658	-0.536062	[.592]
Saturday -Sunday: 7 p.m. -9 p.m.	-7.51E-03	9.77E-03	-0.768436	[.442]
Saturday -Sunday: 10 p.m. -11 p.m.	-3.32E-03	0.012372	-0.26833	[.788]

Winter

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-0.020871	4.82E-03	-4.33213	[.000]
Monday: 6 a.m. -7 a.m.	-8.94E-03	4.96E-03	-1.80457	[.071]
Monday: 8 a.m. -1 p.m.	-3.56E-03	2.72E-03	-1.30677	[.191]
Monday: 2 p.m. -4 p.m.	-4.24E-03	3.77E-03	-1.12418	[.261]
Monday: 5 p.m. -6 p.m.	-0.012348	6.08E-03	-2.0312	[.042]
Monday: 7 p.m. -9 p.m.	-0.011032	5.64E-03	-1.95569	[.051]
Monday: 10 p.m. -11 p.m.	-0.01985	9.60E-03	-2.0678	[.039]
Tuesday-Thursday: 12 midnight -5 a.m.	-0.016514	1.46E-03	-11.2893	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	-9.34E-03	2.94E-03	-3.18134	[.001]
Tuesday-Thursday: 8 a.m. -1 p.m.	-0.023619	1.52E-03	-15.5138	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	-0.015045	3.02E-03	-4.97787	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	-0.017416	3.46E-03	-5.03645	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	-0.018264	3.09E-03	-5.92008	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	-0.019013	3.78E-03	-5.02497	[.000]
Friday: 12 midnight -5 a.m.	-9.24E-03	7.11E-03	-1.29941	[.194]
Friday: 6 a.m. -7 a.m.	-2.75E-03	6.05E-03	-0.454151	[.650]
Friday: 8 a.m. -1 p.m.	-5.93E-03	3.45E-03	-1.71997	[.085]
Friday: 2 p.m. -4 p.m.	8.70E-04	6.71E-03	0.129802	[.897]
Friday: 5 p.m. -6 p.m.	-9.85E-04	6.45E-03	-0.15261	[.879]
Friday: 7 p.m. -9 p.m.	2.33E-03	6.70E-03	0.347294	[.728]
Friday: 10 p.m. -11 p.m.	5.77E-03	9.79E-03	0.589166	[.556]
Saturday-Sunday: 12 midnight -5 a.m.	4.22E-03	3.64E-03	1.15958	[.246]
Saturday -Sunday: 6 a.m. -7 a.m.	-2.53E-03	6.62E-03	-0.382061	[.702]
Saturday -Sunday: 8 a.m. -1 p.m.	1.55E-03	3.27E-03	0.474593	[.635]
Saturday -Sunday: 2 p.m. -4 p.m.	-0.024072	2.64E-03	-9.11479	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	-3.79E-03	3.88E-03	-0.977555	[.328]
Saturday -Sunday: 7 p.m. -9 p.m.	-5.94E-03	3.52E-03	-1.68712	[.092]
Saturday -Sunday: 10 p.m. -11 p.m.	-3.37E-03	5.35E-03	-0.629302	[.529]

13-weeks price elasticity

Summer

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-5.03E-03	0.010648	-0.472795	[.636]
Monday: 6 a.m. -7 a.m.	-0.011643	5.13E-03	-2.26742	[.023]
Monday: 8 a.m. -1 p.m.	-0.017505	9.38E-03	-1.8653	[.062]
Monday: 2 p.m. -4 p.m.	-0.010164	0.011015	-0.922751	[.356]
Monday: 5 p.m. -6 p.m.	-7.07E-03	0.010077	-0.701956	[.483]
Monday: 7 p.m. -9 p.m.	-9.08E-03	0.016217	-0.559632	[.576]
Monday: 10 p.m. -11 p.m.	-9.94E-03	2.73E-03	-3.64196	[.000]
Tuesday-Thursday: 12 midnight -5 a.m.	-6.57E-03	5.97E-03	-1.10202	[.270]
Tuesday-Thursday 6 a.m. -7 a.m.	-0.013193	2.30E-03	-5.74495	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	-0.015731	5.74E-03	-2.74209	[.006]
Tuesday-Thursday: 2 p.m. -4 p.m.	-0.015021	7.56E-03	-1.98745	[.047]
Tuesday-Thursday: 5 p.m. -6 p.m.	-0.01696	7.18E-03	-2.36264	[.018]
Tuesday-Thursday: 7 p.m. -9 p.m.	-0.015381	9.13E-03	-1.68551	[.092]
Tuesday-Thursday: 10 p.m. -11 p.m.	-6.89E-03	9.62E-03	-0.716444	[.474]
Friday: 12 midnight -5 a.m.	-3.95E-03	0.012226	-0.323066	[.747]
Friday: 6 a.m. -7 a.m.	-5.60E-03	4.20E-03	-1.33309	[.183]
Friday: 8 a.m. -1 p.m.	-0.019185	0.01207	-1.58945	[.112]
Friday: 2 p.m. -4 p.m.	-9.40E-03	0.011424	-0.822758	[.411]
Friday: 5 p.m. -6 p.m.	-0.022382	0.012009	-1.86379	[.062]
Friday: 7 p.m. -9 p.m.	-0.035205	0.019513	-1.80423	[.071]
Friday: 10 p.m. -11 p.m.	-4.82E-03	5.68E-03	-0.848935	[.396]
Saturday-Sunday: 12 midnight -5 a.m.	-3.56E-03	8.74E-03	-0.406968	[.684]
Saturday -Sunday: 6 a.m. -7 a.m.	-0.01247	6.28E-03	-1.98526	[.047]
Saturday -Sunday: 8 a.m. -1 p.m.	-0.019991	5.74E-03	-3.48052	[.001]
Saturday -Sunday: 2 p.m. -4 p.m.	-3.00E-03	9.95E-03	-0.301773	[.763]
Saturday -Sunday: 5 p.m. -6 p.m.	-6.77E-03	0.010166	-0.665568	[.506]
Saturday -Sunday: 7 p.m. -9 p.m.	-8.05E-03	0.012178	-0.661099	[.509]
Saturday -Sunday: 10 p.m. -11 p.m.	-5.03E-03	0.010648	-0.472795	[.636]

Winter

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	7.81E-03	4.99E-03	1.56663	[.117]
Monday: 6 a.m. -7 a.m.	-2.86E-04	7.12E-03	-0.040169	[.968]
Monday: 8 a.m. -1 p.m.	-4.35E-03	4.23E-03	-1.02846	[.304]
Monday: 2 p.m. -4 p.m.	-2.92E-03	5.20E-03	-0.562443	[.574]
Monday: 5 p.m. -6 p.m.	4.96E-03	8.22E-03	0.603002	[.547]
Monday: 7 p.m. -9 p.m.	4.96E-03	7.18E-03	0.691089	[.490]
Monday: 10 p.m. -11 p.m.	0.015664	0.012088	1.29579	[.195]
Tuesday-Thursday: 12 midnight -5 a.m.	1.54E-03	1.86E-03	0.827344	[.408]
Tuesday-Thursday 6 a.m. -7 a.m.	-1.08E-03	3.80E-03	-0.284505	[.776]
Tuesday-Thursday: 8 a.m. -1 p.m.	1.32E-03	2.33E-03	0.56603	[.571]
Tuesday-Thursday: 2 p.m. -4 p.m.	4.39E-03	3.67E-03	1.19646	[.232]
Tuesday-Thursday: 5 p.m. -6 p.m.	7.51E-03	4.16E-03	1.80577	[.071]
Tuesday-Thursday: 7 p.m. -9 p.m.	5.98E-03	4.32E-03	1.38234	[.167]
Tuesday-Thursday: 10 p.m. -11 p.m.	5.96E-03	5.44E-03	1.09517	[.273]
Friday: 12 midnight -5 a.m.	9.63E-03	6.34E-03	1.5182	[.129]
Friday: 6 a.m. -7 a.m.	8.62E-03	6.42E-03	1.34399	[.179]
Friday: 8 a.m. -1 p.m.	3.26E-03	4.21E-03	0.773527	[.439]
Friday: 2 p.m. -4 p.m.	-0.011159	7.08E-03	-1.57545	[.115]
Friday: 5 p.m. -6 p.m.	-6.49E-03	6.51E-03	-0.997909	[.318]
Friday: 7 p.m. -9 p.m.	-0.012875	8.22E-03	-1.56669	[.117]
Friday: 10 p.m. -11 p.m.	-0.022926	0.014443	-1.58741	[.112]
Saturday-Sunday: 12 midnight -5 a.m.	-0.010257	3.35E-03	-3.06365	[.002]
Saturday -Sunday: 6 a.m. -7 a.m.	-5.68E-03	5.69E-03	-0.997779	[.318]
Saturday -Sunday: 8 a.m. -1 p.m.	-6.60E-03	3.64E-03	-1.81612	[.069]
Saturday -Sunday: 2 p.m. -4 p.m.	0.011006	3.31E-03	3.32406	[.001]
Saturday -Sunday: 5 p.m. -6 p.m.	-1.14E-03	4.80E-03	-0.238011	[.812]
Saturday -Sunday: 7 p.m. -9 p.m.	-2.69E-03	4.39E-03	-0.614231	[.539]
Saturday -Sunday: 10 p.m. -11 p.m.	-4.11E-03	5.88E-03	-0.698438	[.485]

26-weeks price elasticity

Summer

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	2.66E-04	7.92E-03	0.033635	[.973]
Monday: 6 a.m. -7 a.m.	-0.015793	7.39E-03	-2.13756	[.033]
Monday: 8 a.m. -1 p.m.	-9.78E-03	3.45E-03	-2.8362	[.005]
Monday: 2 p.m. -4 p.m.	-3.85E-03	7.17E-03	-0.53789	[.591]
Monday: 5 p.m. -6 p.m.	1.47E-03	9.45E-03	0.155514	[.876]
Monday: 7 p.m. -9 p.m.	-1.42E-03	8.39E-03	-0.16954	[.865]
Monday: 10 p.m. -11 p.m.	6.88E-03	0.011806	0.582915	[.560]
Tuesday-Thursday: 12 midnight -5 a.m.	1.38E-03	2.48E-03	0.555835	[.578]
Tuesday-Thursday 6 a.m. -7 a.m.	-7.14E-03	4.63E-03	-1.54211	[.123]
Tuesday-Thursday: 8 a.m. -1 p.m.	6.33E-04	1.96E-03	0.322782	[.747]
Tuesday-Thursday: 2 p.m. -4 p.m.	1.74E-03	4.12E-03	0.422484	[.673]
Tuesday-Thursday: 5 p.m. -6 p.m.	3.97E-03	5.23E-03	0.759729	[.447]
Tuesday-Thursday: 7 p.m. -9 p.m.	7.12E-03	5.18E-03	1.3748	[.169]
Tuesday-Thursday: 10 p.m. -11 p.m.	5.80E-03	6.90E-03	0.841297	[.400]
Friday: 12 midnight -5 a.m.	5.75E-04	7.13E-03	0.080574	[.936]
Friday: 6 a.m. -7 a.m.	-0.023232	5.59E-03	-4.15758	[.000]
Friday: 8 a.m. -1 p.m.	-0.018551	2.85E-03	-6.50307	[.000]
Friday: 2 p.m. -4 p.m.	-0.011639	6.50E-03	-1.79093	[.073]
Friday: 5 p.m. -6 p.m.	-0.0132	5.76E-03	-2.291	[.022]
Friday: 7 p.m. -9 p.m.	1.05E-03	7.65E-03	0.137735	[.890]
Friday: 10 p.m. -11 p.m.	0.01373	0.013092	1.04874	[.294]
Saturday-Sunday: 12 midnight -5 a.m.	4.77E-03	4.89E-03	0.974511	[.330]
Saturday -Sunday: 6 a.m. -7 a.m.	5.45E-03	7.75E-03	0.704123	[.481]
Saturday -Sunday: 8 a.m. -1 p.m.	7.60E-03	5.08E-03	1.49635	[.135]
Saturday -Sunday: 2 p.m. -4 p.m.	0.018841	4.30E-03	4.38383	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	3.56E-03	8.61E-03	0.413177	[.679]
Saturday -Sunday: 7 p.m. -9 p.m.	7.87E-03	7.22E-03	1.08893	[.276]
Saturday -Sunday: 10 p.m. -11 p.m.	8.41E-03	9.10E-03	0.92428	[.355]

Winter

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	2.00E-03	4.01E-03	0.498938	[.618]
Monday: 6 a.m. -7 a.m.	9.05E-04	7.37E-03	0.122803	[.902]
Monday: 8 a.m. -1 p.m.	5.71E-03	4.62E-03	1.23516	[.217]
Monday: 2 p.m. -4 p.m.	-0.01071	8.42E-03	-1.27215	[.203]
Monday: 5 p.m. -6 p.m.	-6.29E-03	0.012542	-0.501775	[.616]
Monday: 7 p.m. -9 p.m.	-8.74E-03	9.07E-03	-0.963044	[.336]
Monday: 10 p.m. -11 p.m.	-0.016586	0.012464	-1.33069	[.183]
Tuesday-Thursday: 12 midnight -5 a.m.	-1.04E-03	1.31E-03	-0.795289	[.426]
Tuesday-Thursday 6 a.m. -7 a.m.	1.55E-03	3.87E-03	0.399661	[.689]
Tuesday-Thursday: 8 a.m. -1 p.m.	-5.45E-04	2.26E-03	-0.241476	[.809]
Tuesday-Thursday: 2 p.m. -4 p.m.	-2.03E-03	3.58E-03	-0.568669	[.570]
Tuesday-Thursday: 5 p.m. -6 p.m.	4.82E-04	4.84E-03	0.099488	[.921]
Tuesday-Thursday: 7 p.m. -9 p.m.	3.58E-03	3.40E-03	1.05512	[.291]
Tuesday-Thursday: 10 p.m. -11 p.m.	3.77E-03	4.07E-03	0.925296	[.355]
Friday: 12 midnight -5 a.m.	-4.88E-03	5.80E-03	-0.84149	[.400]
Friday: 6 a.m. -7 a.m.	-0.010732	5.49E-03	-1.95626	[.050]
Friday: 8 a.m. -1 p.m.	-6.22E-03	4.22E-03	-1.47513	[.140]
Friday: 2 p.m. -4 p.m.	-3.17E-03	7.52E-03	-0.421236	[.674]
Friday: 5 p.m. -6 p.m.	4.15E-03	9.03E-03	0.459507	[.646]
Friday: 7 p.m. -9 p.m.	3.06E-03	7.35E-03	0.416344	[.677]
Friday: 10 p.m. -11 p.m.	7.66E-03	0.012768	0.599976	[.549]
Saturday-Sunday: 12 midnight -5 a.m.	-4.38E-03	3.01E-03	-1.45544	[.146]
Saturday -Sunday: 6 a.m. -7 a.m.	-2.62E-03	4.98E-03	-0.525311	[.599]
Saturday -Sunday: 8 a.m. -1 p.m.	-4.55E-03	3.39E-03	-1.3414	[.180]
Saturday -Sunday: 2 p.m. -4 p.m.	9.66E-04	2.81E-03	0.344041	[.731]
Saturday -Sunday: 5 p.m. -6 p.m.	-3.43E-03	4.81E-03	-0.713767	[.475]
Saturday -Sunday: 7 p.m. -9 p.m.	-1.65E-03	4.16E-03	-0.396736	[.692]
Saturday -Sunday: 10 p.m. -11 p.m.	-3.81E-03	5.90E-03	-0.646944	[.518]

Long-run price elasticity

Summer

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-0.034794	0.019217	-1.81055	[.070]
Monday: 6 a.m. -7 a.m.	-0.029045	0.021314	-1.36276	[.173]
Monday: 8 a.m. -1 p.m.	-0.033066	0.01204	-2.74636	[.006]
Monday: 2 p.m. -4 p.m.	-0.044042	0.015448	-2.85101	[.004]
Monday: 5 p.m. -6 p.m.	-0.047684	0.01882	-2.5337	[.011]
Monday: 7 p.m. -9 p.m.	-0.041571	0.015106	-2.75187	[.006]
Monday: 10 p.m. -11 p.m.	-0.043327	0.016675	-2.59827	[.009]
Tuesday-Thursday: 12 midnight -5 a.m.	-0.018411	3.24E-03	-5.68811	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	-0.012495	0.010161	-1.22971	[.219]
Tuesday-Thursday: 8 a.m. -1 p.m.	-0.031849	3.56E-03	-8.95259	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	-0.03467	9.56E-03	-3.62755	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	-0.040848	0.011557	-3.53454	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	-0.041313	9.26E-03	-4.46178	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	-0.030836	9.65E-03	-3.19457	[.001]
Friday: 12 midnight -5 a.m.	-0.020352	0.012569	-1.61923	[.105]
Friday: 6 a.m. -7 a.m.	-0.02681	0.01676	-1.5996	[.110]
Friday: 8 a.m. -1 p.m.	-0.021223	9.57E-03	-2.21676	[.027]
Friday: 2 p.m. -4 p.m.	-0.024297	0.02089	-1.16306	[.245]
Friday: 5 p.m. -6 p.m.	-0.023963	0.02361	-1.01495	[.310]
Friday: 7 p.m. -9 p.m.	-0.031521	0.01535	-2.0535	[.040]
Friday: 10 p.m. -11 p.m.	-0.040706	0.022329	-1.82301	[.068]
Saturday: 12 midnight -5 a.m.	-9.25E-04	0.010025	-0.09227	[.926]
Saturday: 6 a.m. -7 a.m.	-4.73E-03	0.016718	-0.283019	[.777]
Saturday: 8 a.m. -1 p.m.	-0.022195	0.011422	-1.94317	[.052]
Saturday: 2 p.m. -4 p.m.	-0.025852	5.60E-03	-4.61414	[.000]
Saturday: 5 p.m. -6 p.m.	-0.014379	0.024227	-0.593503	[.553]
Saturday: 7 p.m. -9 p.m.	-0.015919	0.018837	-0.845089	[.398]
Saturday: 10 p.m. -11 p.m.	-6.65E-03	0.022702	-0.293067	[.769]
Sunday: 12 midnight -5 a.m.	-9.53E-04	0.010327	-0.092256	[.926]
Sunday: 6 a.m. -7 a.m.	-4.67E-03	0.016536	-0.282425	[.778]
Sunday: 8 a.m. -1 p.m.	-0.020062	0.010379	-1.93289	[.053]
Sunday: 2 p.m. -4 p.m.	-0.026454	5.74E-03	-4.60766	[.000]
Sunday: 5 p.m. -6 p.m.	-0.012426	0.020984	-0.592183	[.554]
Sunday: 7 p.m. -9 p.m.	-0.013779	0.016315	-0.844572	[.398]
Sunday: 10 p.m. -11 p.m.	-5.92E-03	0.020204	-0.292942	[.770]

Winter				
	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-0.02647	0.013916	-1.90217	[.057]
Monday: 6 a.m. -7 a.m.	-0.018038	0.0141	-1.27932	[.201]
Monday: 8 a.m. -1 p.m.	-4.53E-03	9.89E-03	-0.458174	[.647]
Monday: 2 p.m. -4 p.m.	-0.034601	0.014444	-2.39557	[.017]
Monday: 5 p.m. -6 p.m.	-0.024673	0.022199	-1.11146	[.266]
Monday: 7 p.m. -9 p.m.	-0.025028	0.014541	-1.72122	[.085]
Monday: 10 p.m. -11 p.m.	-0.032191	0.016861	-1.90926	[.056]
Tuesday-Thursday: 12 midnight -5 a.m.	-0.025186	2.73E-03	-9.21049	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	-0.018164	9.00E-03	-2.01803	[.044]
Tuesday-Thursday: 8 a.m. -1 p.m.	-0.036185	3.95E-03	-9.15038	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	-0.028349	7.44E-03	-3.81173	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	-0.019952	0.010132	-1.96924	[.049]
Tuesday-Thursday: 7 p.m. -9 p.m.	-0.0168	6.74E-03	-2.49251	[.013]
Tuesday-Thursday: 10 p.m. -11 p.m.	-0.015578	7.05E-03	-2.20824	[.027]
Friday: 12 midnight -5 a.m.	-8.13E-03	0.012923	-0.629057	[.529]
Friday: 6 a.m. -7 a.m.	-0.010706	0.018289	-0.58535	[.558]
Friday: 8 a.m. -1 p.m.	-0.021368	0.014059	-1.51985	[.129]
Friday: 2 p.m. -4 p.m.	-0.034441	0.021857	-1.57571	[.115]
Friday: 5 p.m. -6 p.m.	-7.55E-03	0.022297	-0.338422	[.735]
Friday: 7 p.m. -9 p.m.	-0.014437	0.014884	-0.970011	[.332]
Friday: 10 p.m. -11 p.m.	-0.016561	0.019682	-0.841463	[.400]
Saturday: 12 midnight -5 a.m.	-0.021304	7.25E-03	-2.93941	[.003]
Saturday: 6 a.m. -7 a.m.	-0.020576	0.011709	-1.75731	[.079]
Saturday: 8 a.m. -1 p.m.	-0.023272	8.64E-03	-2.69311	[.007]
Saturday: 2 p.m. -4 p.m.	-0.01556	4.10E-03	-3.79531	[.000]
Saturday: 5 p.m. -6 p.m.	-0.023311	0.014142	-1.64832	[.099]
Saturday: 7 p.m. -9 p.m.	-0.025539	0.01069	-2.38899	[.017]
Saturday: 10 p.m. -11 p.m.	-0.025346	0.013288	-1.90742	[.056]
Sunday: 12 midnight -5 a.m.	-0.021944	7.43E-03	-2.95222	[.003]
Sunday: 6 a.m. -7 a.m.	-0.020309	0.011515	-1.7637	[.078]
Sunday: 8 a.m. -1 p.m.	-0.021036	7.75E-03	-2.71365	[.007]
Sunday: 2 p.m. -4 p.m.	-0.015922	4.18E-03	-3.81111	[.000]
Sunday: 5 p.m. -6 p.m.	-0.020146	0.012044	-1.67264	[.094]
Sunday: 7 p.m. -9 p.m.	-0.022105	9.19E-03	-2.40663	[.016]
Sunday: 10 p.m. -11 p.m.	-0.022547	0.011756	-1.91801	[.055]

Temperatureindex elasticity				
	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	0.381771	0.021073	18.1164	[.000]
Monday: 6 a.m. -7 a.m.	0.188198	0.022849	8.23669	[.000]
Monday: 8 a.m. -1 p.m.	0.154117	0.016086	9.58056	[.000]
Monday: 2 p.m. -4 p.m.	0.178994	0.023474	7.62526	[.000]
Monday: 5 p.m. -6 p.m.	0.273751	0.029328	9.33396	[.000]
Monday: 7 p.m. -9 p.m.	0.333631	0.026971	12.3701	[.000]
Monday: 10 p.m. -11 p.m.	0.465133	0.042501	10.944	[.000]
Tuesday-Thursday: 12 midnight -5 a.m.	0.575513	6.03E-03	95.5033	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	0.337596	0.012434	27.1507	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	0.541644	2.18E-03	248.762	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	0.30829	9.68E-03	31.8607	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	0.33439	0.013469	24.826	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	0.367138	0.011519	31.8731	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	0.437582	0.016833	25.9954	[.000]
Friday: 12 midnight -5 a.m.	0.441363	0.021833	20.2154	[.000]
Friday: 6 a.m. -7 a.m.	0.297625	0.023023	12.9275	[.000]
Friday: 8 a.m. -1 p.m.	0.239293	0.014194	16.8586	[.000]
Friday: 2 p.m. -4 p.m.	0.223432	0.02323	9.61805	[.000]
Friday: 5 p.m. -6 p.m.	0.286943	0.032999	8.69559	[.000]
Friday: 7 p.m. -9 p.m.	0.376392	0.030709	12.2569	[.000]
Friday: 10 p.m. -11 p.m.	0.452733	0.04118	10.994	[.000]
Saturday-Sunday: 12 midnight -5 a.m.	0.448905	0.015551	28.866	[.000]
Saturday -Sunday: 6 a.m. -7 a.m.	0.53037	0.026149	20.2824	[.000]
Saturday -Sunday: 8 a.m. -1 p.m.	0.37985	0.012524	30.329	[.000]
Saturday -Sunday: 2 p.m. -4 p.m.	0.745483	5.09E-03	146.325	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	0.305875	0.023565	12.9801	[.000]
Saturday -Sunday: 7 p.m. -9 p.m.	0.31884	0.01991	16.014	[.000]
Saturday -Sunday: 10 p.m. -11 p.m.	0.340236	0.032409	10.4982	[.000]

Dummy for January

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	0.023645	5.82E-03	4.06255	[.000]
Monday: 6 a.m. -7 a.m.	0.038545	7.34E-03	5.24855	[.000]
Monday: 8 a.m. -1 p.m.	0.037951	4.44E-03	8.54182	[.000]
Monday: 2 p.m. -4 p.m.	0.032086	6.25E-03	5.13436	[.000]
Monday: 5 p.m. -6 p.m.	0.029772	9.33E-03	3.19041	[.001]
Monday: 7 p.m. -9 p.m.	0.028762	7.04E-03	4.08303	[.000]
Monday: 10 p.m. -11 p.m.	0.016124	0.01061	1.51972	[.129]
Tuesday-Thursday: 12 midnight -5 a.m.	0.012487	1.85E-03	6.75599	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	0.025996	3.58E-03	7.26959	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	0.02176	1.96E-03	11.1197	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	0.013081	3.52E-03	3.71291	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	0.015481	4.16E-03	3.72514	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	0.018114	2.98E-03	6.07923	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	0.016214	4.05E-03	4.00765	[.000]
Friday: 12 midnight -5 a.m.	0.039327	8.58E-03	4.58567	[.000]
Friday: 6 a.m. -7 a.m.	0.043636	7.15E-03	6.10546	[.000]
Friday: 8 a.m. -1 p.m.	0.042919	4.39E-03	9.78196	[.000]
Friday: 2 p.m. -4 p.m.	0.035855	8.79E-03	4.08086	[.000]
Friday: 5 p.m. -6 p.m.	0.034758	0.011029	3.15138	[.002]
Friday: 7 p.m. -9 p.m.	0.028715	8.55E-03	3.35753	[.001]
Friday: 10 p.m. -11 p.m.	0.031846	0.013667	2.33011	[.020]
Saturday-Sunday: 12 midnight -5 a.m.	0.023364	4.68E-03	4.99736	[.000]
Saturday -Sunday: 6 a.m. -7 a.m.	0.021239	8.17E-03	2.59971	[.009]
Saturday -Sunday: 8 a.m. -1 p.m.	5.24E-03	3.73E-03	1.40372	[.160]
Saturday -Sunday: 2 p.m. -4 p.m.	0.010758	3.34E-03	3.22361	[.001]
Saturday -Sunday: 5 p.m. -6 p.m.	3.05E-03	5.04E-03	0.605514	[.545]
Saturday -Sunday: 7 p.m. -9 p.m.	6.80E-03	4.46E-03	1.52524	[.127]
Saturday -Sunday: 10 p.m. -11 p.m.	2.24E-03	7.80E-03	0.287426	[.774]

Dummy for February

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	6.09E-03	6.58E-03	0.92567	[.355]
Monday: 6 a.m. -7 a.m.	0.033856	6.87E-03	4.92575	[.000]
Monday: 8 a.m. -1 p.m.	0.030978	3.87E-03	7.99944	[.000]
Monday: 2 p.m. -4 p.m.	0.014737	5.52E-03	2.67122	[.008]
Monday: 5 p.m. -6 p.m.	0.010525	8.59E-03	1.2255	[.220]
Monday: 7 p.m. -9 p.m.	0.016028	7.09E-03	2.26018	[.024]
Monday: 10 p.m. -11 p.m.	7.31E-03	0.010566	0.692054	[.489]
Tuesday-Thursday: 12 midnight -5 a.m.	0.011981	2.07E-03	5.78841	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	0.024694	3.91E-03	6.32136	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	0.014006	2.30E-03	6.08087	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	-8.70E-03	3.34E-03	-2.60434	[.009]
Tuesday-Thursday: 5 p.m. -6 p.m.	1.07E-03	3.73E-03	0.286621	[.774]
Tuesday-Thursday: 7 p.m. -9 p.m.	9.65E-03	3.11E-03	3.10272	[.002]
Tuesday-Thursday: 10 p.m. -11 p.m.	0.010983	4.00E-03	2.74261	[.006]
Friday: 12 midnight -5 a.m.	0.048676	6.56E-03	7.41555	[.000]
Friday: 6 a.m. -7 a.m.	0.048578	6.41E-03	7.58363	[.000]
Friday: 8 a.m. -1 p.m.	0.036677	4.19E-03	8.76225	[.000]
Friday: 2 p.m. -4 p.m.	0.019212	8.02E-03	2.39646	[.017]
Friday: 5 p.m. -6 p.m.	0.015425	0.011468	1.345	[.179]
Friday: 7 p.m. -9 p.m.	0.014894	8.34E-03	1.78488	[.074]
Friday: 10 p.m. -11 p.m.	0.023362	0.011607	2.01271	[.044]
Saturday-Sunday: 12 midnight -5 a.m.	0.028957	4.40E-03	6.58708	[.000]
Saturday -Sunday: 6 a.m. -7 a.m.	0.022622	7.20E-03	3.14019	[.002]
Saturday -Sunday: 8 a.m. -1 p.m.	-4.51E-04	3.50E-03	-0.128832	[.897]
Saturday -Sunday: 2 p.m. -4 p.m.	-0.025889	3.29E-03	-7.87536	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	-4.84E-03	5.10E-03	-0.948148	[.343]
Saturday -Sunday: 7 p.m. -9 p.m.	1.19E-03	3.74E-03	0.317123	[.751]
Saturday -Sunday: 10 p.m. -11 p.m.	-2.94E-04	5.69E-03	-0.051625	[.959]

Dummy for March

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-1.63E-04	6.71E-03	-0.024316	[.981]
Monday: 6 a.m. -7 a.m.	0.028391	7.04E-03	4.0333	[.000]
Monday: 8 a.m. -1 p.m.	9.51E-03	4.65E-03	2.04465	[.041]
Monday: 2 p.m. -4 p.m.	-0.013636	6.47E-03	-2.10757	[.035]
Monday: 5 p.m. -6 p.m.	-0.018669	8.21E-03	-2.27454	[.023]
Monday: 7 p.m. -9 p.m.	-5.19E-03	7.36E-03	-0.706116	[.480]
Monday: 10 p.m. -11 p.m.	-0.010261	0.012569	-0.816363	[.414]
Tuesday-Thursday: 12 midnight -5 a.m.	0.012865	2.32E-03	5.53531	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	0.01418	4.34E-03	3.26424	[.001]
Tuesday-Thursday: 8 a.m. -1 p.m.	-6.85E-03	2.33E-03	-2.94515	[.003]
Tuesday-Thursday: 2 p.m. -4 p.m.	-0.047192	4.13E-03	-11.4199	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	-0.034847	4.59E-03	-7.58467	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	-0.01519	3.64E-03	-4.17373	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	-0.012007	5.04E-03	-2.38146	[.017]
Friday: 12 midnight -5 a.m.	0.046041	7.06E-03	6.52284	[.000]
Friday: 6 a.m. -7 a.m.	0.045138	6.23E-03	7.24651	[.000]
Friday: 8 a.m. -1 p.m.	0.01042	4.62E-03	2.2552	[.024]
Friday: 2 p.m. -4 p.m.	-6.94E-03	9.08E-03	-0.764109	[.445]
Friday: 5 p.m. -6 p.m.	-4.62E-03	0.011421	-0.404844	[.686]
Friday: 7 p.m. -9 p.m.	1.46E-03	8.40E-03	0.174155	[.862]
Friday: 10 p.m. -11 p.m.	0.013443	0.011691	1.14984	[.250]
Saturday-Sunday: 12 midnight -5 a.m.	0.031077	4.93E-03	6.30755	[.000]
Saturday -Sunday: 6 a.m. -7 a.m.	0.031527	7.87E-03	4.00753	[.000]
Saturday -Sunday: 8 a.m. -1 p.m.	-0.011913	3.63E-03	-3.27848	[.001]
Saturday -Sunday: 2 p.m. -4 p.m.	-0.055279	3.45E-03	-16.0346	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	-0.023906	4.80E-03	-4.97938	[.000]
Saturday -Sunday: 7 p.m. -9 p.m.	-8.57E-03	3.79E-03	-2.26083	[.024]
Saturday -Sunday: 10 p.m. -11 p.m.	-5.95E-03	6.00E-03	-0.992339	[.321]

Dummy for April

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	0.022993	8.45E-03	2.72178	[.006]
Monday: 6 a.m. -7 a.m.	9.57E-03	8.52E-03	1.12326	[.261]
Monday: 8 a.m. -1 p.m.	-0.018085	5.26E-03	-3.44062	[.001]
Monday: 2 p.m. -4 p.m.	-0.048654	8.78E-03	-5.54062	[.000]
Monday: 5 p.m. -6 p.m.	-0.053973	0.011289	-4.78113	[.000]
Monday: 7 p.m. -9 p.m.	-0.019372	8.52E-03	-2.27478	[.023]
Monday: 10 p.m. -11 p.m.	-5.24E-03	0.012278	-0.426764	[.670]
Tuesday-Thursday: 12 midnight -5 a.m.	0.019471	3.11E-03	6.26748	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	0.020645	5.32E-03	3.88054	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	0.01649	3.02E-03	5.46383	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	-0.035299	4.99E-03	-7.08009	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	-0.039231	6.57E-03	-5.973	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	-0.021458	4.90E-03	-4.37629	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	-0.015424	7.03E-03	-2.19541	[.028]
Friday: 12 midnight -5 a.m.	0.043563	9.25E-03	4.70763	[.000]
Friday: 6 a.m. -7 a.m.	0.033495	9.68E-03	3.46022	[.001]
Friday: 8 a.m. -1 p.m.	-3.26E-03	6.54E-03	-0.497676	[.619]
Friday: 2 p.m. -4 p.m.	-0.020582	0.011957	-1.7213	[.085]
Friday: 5 p.m. -6 p.m.	-0.027361	0.014546	-1.881	[.060]
Friday: 7 p.m. -9 p.m.	2.09E-03	9.95E-03	0.209752	[.834]
Friday: 10 p.m. -11 p.m.	0.023813	0.0135	1.76398	[.078]
Saturday-Sunday: 12 midnight -5 a.m.	0.035651	6.12E-03	5.82682	[.000]
Saturday -Sunday: 6 a.m. -7 a.m.	0.037564	0.010189	3.68679	[.000]
Saturday -Sunday: 8 a.m. -1 p.m.	-9.13E-03	4.97E-03	-1.83772	[.066]
Saturday -Sunday: 2 p.m. -4 p.m.	-0.04108	4.68E-03	-8.78183	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	-0.033145	7.98E-03	-4.15341	[.000]
Saturday -Sunday: 7 p.m. -9 p.m.	-0.017882	5.78E-03	-3.09142	[.002]
Saturday -Sunday: 10 p.m. -11 p.m.	-0.01205	7.84E-03	-1.53684	[.124]

Dummy for May

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	0.040007	0.048362	0.827225	[.408]
Monday: 6 a.m. -7 a.m.	0.030311	0.06264	0.483895	[.628]
Monday: 8 a.m. -1 p.m.	0.057162	0.041616	1.37355	[.170]
Monday: 2 p.m. -4 p.m.	-6.57E-03	0.054529	-0.120571	[.904]
Monday: 5 p.m. -6 p.m.	0.026006	0.079314	0.327881	[.743]
Monday: 7 p.m. -9 p.m.	0.030011	0.060071	0.499599	[.617]
Monday: 10 p.m. -11 p.m.	0.046214	0.073716	0.626922	[.531]
Tuesday-Thursday: 12 midnight -5 a.m.	0.024491	0.013689	1.78902	[.074]
Tuesday-Thursday 6 a.m. -7 a.m.	-8.81E-03	0.034413	-0.255887	[.798]
Tuesday-Thursday: 8 a.m. -1 p.m.	0.024067	0.018069	1.33189	[.183]
Tuesday-Thursday: 2 p.m. -4 p.m.	-0.010129	0.028446	-0.356078	[.722]
Tuesday-Thursday: 5 p.m. -6 p.m.	0.0253	0.03771	0.670901	[.502]
Tuesday-Thursday: 7 p.m. -9 p.m.	0.051789	0.030947	1.67349	[.094]
Tuesday-Thursday: 10 p.m. -11 p.m.	0.045578	0.037501	1.21539	[.224]
Friday: 12 midnight -5 a.m.	0.050813	0.050014	1.01596	[.310]
Friday: 6 a.m. -7 a.m.	0.073558	0.057629	1.27639	[.202]
Friday: 8 a.m. -1 p.m.	5.39E-03	0.035903	0.150019	[.881]
Friday: 2 p.m. -4 p.m.	-0.03362	0.061481	-0.546839	[.584]
Friday: 5 p.m. -6 p.m.	0.018026	0.074282	0.242665	[.808]
Friday: 7 p.m. -9 p.m.	0.045076	0.056822	0.793276	[.428]
Friday: 10 p.m. -11 p.m.	0.092161	0.083804	1.09971	[.271]
Saturday-Sunday: 12 midnight -5 a.m.	-3.82E-03	0.030121	-0.126703	[.899]
Saturday -Sunday: 6 a.m. -7 a.m.	-4.26E-03	0.053279	-0.079878	[.936]
Saturday -Sunday: 8 a.m. -1 p.m.	-0.010589	0.030255	-0.350001	[.726]
Saturday -Sunday: 2 p.m. -4 p.m.	0.03627	0.027025	1.34212	[.180]
Saturday -Sunday: 5 p.m. -6 p.m.	-0.054499	0.052391	-1.04025	[.298]
Saturday -Sunday: 7 p.m. -9 p.m.	-0.04457	0.044237	-1.00751	[.314]
Saturday -Sunday: 10 p.m. -11 p.m.	-0.055804	0.05971	-0.934586	[.350]

Dummy for June

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	0.068763	0.049987	1.37561	[.169]
Monday: 6 a.m. -7 a.m.	0.018002	0.062898	0.286211	[.775]
Monday: 8 a.m. -1 p.m.	0.057684	0.041688	1.38369	[.166]
Monday: 2 p.m. -4 p.m.	4.92E-03	0.054715	0.08995	[.928]
Monday: 5 p.m. -6 p.m.	0.040978	0.079588	0.514871	[.607]
Monday: 7 p.m. -9 p.m.	0.04239	0.06212	0.682401	[.495]
Monday: 10 p.m. -11 p.m.	0.081674	0.075273	1.08504	[.278]
Tuesday-Thursday: 12 midnight -5 a.m.	0.039818	0.013935	2.85732	[.004]
Tuesday-Thursday 6 a.m. -7 a.m.	1.31E-03	0.035235	0.037063	[.970]
Tuesday-Thursday: 8 a.m. -1 p.m.	0.069789	0.018198	3.83493	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	0.014484	0.029005	0.499355	[.618]
Tuesday-Thursday: 5 p.m. -6 p.m.	0.041963	0.038293	1.09584	[.273]
Tuesday-Thursday: 7 p.m. -9 p.m.	0.062007	0.03153	1.96658	[.049]
Tuesday-Thursday: 10 p.m. -11 p.m.	0.0598	0.038238	1.56386	[.118]
Friday: 12 midnight -5 a.m.	0.036453	0.050543	0.72123	[.471]
Friday: 6 a.m. -7 a.m.	-3.82E-04	0.058321	-6.56E-03	[.995]
Friday: 8 a.m. -1 p.m.	-0.057087	0.036094	-1.58162	[.114]
Friday: 2 p.m. -4 p.m.	-0.087899	0.061449	-1.43044	[.153]
Friday: 5 p.m. -6 p.m.	-0.026026	0.074074	-0.351348	[.725]
Friday: 7 p.m. -9 p.m.	-5.20E-03	0.056088	-0.092641	[.926]
Friday: 10 p.m. -11 p.m.	0.060444	0.082104	0.736197	[.462]
Saturday-Sunday: 12 midnight -5 a.m.	-9.14E-03	0.030681	-0.297785	[.766]
Saturday -Sunday: 6 a.m. -7 a.m.	-4.95E-03	0.053589	-0.092417	[.926]
Saturday -Sunday: 8 a.m. -1 p.m.	-7.17E-03	0.030754	-0.233093	[.816]
Saturday -Sunday: 2 p.m. -4 p.m.	0.062051	0.026984	2.29957	[.021]
Saturday -Sunday: 5 p.m. -6 p.m.	-0.041322	0.052694	-0.784197	[.433]
Saturday -Sunday: 7 p.m. -9 p.m.	-0.041075	0.044971	-0.913377	[.361]
Saturday -Sunday: 10 p.m. -11 p.m.	-0.050993	0.059768	-0.85318	[.394]

Dummy for July

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	0.027435	0.048692	0.563441	[.573]
Monday: 6 a.m. -7 a.m.	-0.065634	0.060902	-1.07769	[.281]
Monday: 8 a.m. -1 p.m.	1.15E-03	0.040791	0.028303	[.977]
Monday: 2 p.m. -4 p.m.	-0.059224	0.053333	-1.11045	[.267]
Monday: 5 p.m. -6 p.m.	-0.017861	0.076996	-0.231976	[.817]
Monday: 7 p.m. -9 p.m.	-0.022305	0.06001	-0.37169	[.710]
Monday: 10 p.m. -11 p.m.	0.021736	0.073441	0.295968	[.767]
Tuesday-Thursday: 12 midnight -5 a.m.	0.020442	0.013754	1.48632	[.137]
Tuesday-Thursday 6 a.m. -7 a.m.	-0.048223	0.035147	-1.37206	[.170]
Tuesday-Thursday: 8 a.m. -1 p.m.	0.028651	0.018093	1.58358	[.113]
Tuesday-Thursday: 2 p.m. -4 p.m.	-7.81E-03	0.028802	-0.271214	[.786]
Tuesday-Thursday: 5 p.m. -6 p.m.	0.023825	0.03798	0.627315	[.530]
Tuesday-Thursday: 7 p.m. -9 p.m.	0.040312	0.031249	1.29005	[.197]
Tuesday-Thursday: 10 p.m. -11 p.m.	0.040316	0.037635	1.07124	[.284]
Friday: 12 midnight -5 a.m.	0.061076	0.050224	1.21608	[.224]
Friday: 6 a.m. -7 a.m.	0.047871	0.059744	0.801271	[.423]
Friday: 8 a.m. -1 p.m.	-3.34E-03	0.036312	-0.091933	[.927]
Friday: 2 p.m. -4 p.m.	-0.032087	0.061773	-0.51944	[.603]
Friday: 5 p.m. -6 p.m.	0.02812	0.072276	0.38907	[.697]
Friday: 7 p.m. -9 p.m.	0.048232	0.055304	0.872141	[.383]
Friday: 10 p.m. -11 p.m.	0.100137	0.080629	1.24194	[.214]
Saturday-Sunday: 12 midnight -5 a.m.	0.022488	0.031174	0.721354	[.471]
Saturday -Sunday: 6 a.m. -7 a.m.	0.026604	0.05249	0.506849	[.612]
Saturday -Sunday: 8 a.m. -1 p.m.	0.018401	0.030122	0.610874	[.541]
Saturday -Sunday: 2 p.m. -4 p.m.	0.086559	0.025972	3.33273	[.001]
Saturday -Sunday: 5 p.m. -6 p.m.	-0.024166	0.052092	-0.463905	[.643]
Saturday -Sunday: 7 p.m. -9 p.m.	-0.029775	0.044703	-0.666064	[.505]
Saturday -Sunday: 10 p.m. -11 p.m.	-0.040697	0.059343	-0.685799	[.493]

Dummy for August

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	0.064502	0.050053	1.28868	[.198]
Monday: 6 a.m. -7 a.m.	0.039359	0.061341	0.641633	[.521]
Monday: 8 a.m. -1 p.m.	0.079234	0.041558	1.90658	[.057]
Monday: 2 p.m. -4 p.m.	0.01998	0.055126	0.362434	[.717]
Monday: 5 p.m. -6 p.m.	0.051993	0.078783	0.659948	[.509]
Monday: 7 p.m. -9 p.m.	0.06014	0.060278	0.997715	[.318]
Monday: 10 p.m. -11 p.m.	0.07922	0.074156	1.06829	[.285]
Tuesday-Thursday: 12 midnight -5 a.m.	0.046805	0.013701	3.4161	[.001]
Tuesday-Thursday 6 a.m. -7 a.m.	0.01004	0.034596	0.290191	[.772]
Tuesday-Thursday: 8 a.m. -1 p.m.	0.08158	0.018142	4.49675	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	0.029625	0.028479	1.04022	[.298]
Tuesday-Thursday: 5 p.m. -6 p.m.	0.057727	0.037656	1.53303	[.125]
Tuesday-Thursday: 7 p.m. -9 p.m.	0.085485	0.030913	2.7653	[.006]
Tuesday-Thursday: 10 p.m. -11 p.m.	0.069022	0.037687	1.83146	[.067]
Friday: 12 midnight -5 a.m.	0.073147	0.050243	1.45586	[.145]
Friday: 6 a.m. -7 a.m.	0.069526	0.058966	1.17909	[.238]
Friday: 8 a.m. -1 p.m.	0.011953	0.036273	0.329535	[.742]
Friday: 2 p.m. -4 p.m.	-0.03464	0.06142	-0.563985	[.573]
Friday: 5 p.m. -6 p.m.	0.030699	0.071881	0.42708	[.669]
Friday: 7 p.m. -9 p.m.	0.063583	0.055318	1.1494	[.250]
Friday: 10 p.m. -11 p.m.	0.106987	0.085579	1.25017	[.211]
Saturday-Sunday: 12 midnight -5 a.m.	0.013202	0.031482	0.419363	[.675]
Saturday -Sunday: 6 a.m. -7 a.m.	0.021882	0.055026	0.397674	[.691]
Saturday -Sunday: 8 a.m. -1 p.m.	0.015035	0.03133	0.479873	[.631]
Saturday -Sunday: 2 p.m. -4 p.m.	0.101254	0.027238	3.71743	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	-0.017635	0.053359	-0.330501	[.741]
Saturday -Sunday: 7 p.m. -9 p.m.	-9.50E-03	0.04497	-0.211351	[.833]
Saturday -Sunday: 10 p.m. -11 p.m.	-0.028317	0.06012	-0.471002	[.638]

Dummy for September

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	0.024487	0.049411	0.495585	[.620]
Monday: 6 a.m. -7 a.m.	0.042987	0.061608	0.697757	[.485]
Monday: 8 a.m. -1 p.m.	0.063651	0.040886	1.5568	[.120]
Monday: 2 p.m. -4 p.m.	-7.83E-03	0.053696	-0.145793	[.884]
Monday: 5 p.m. -6 p.m.	0.03025	0.076956	0.393079	[.694]
Monday: 7 p.m. -9 p.m.	0.0448	0.060481	0.740737	[.459]
Monday: 10 p.m. -11 p.m.	0.031293	0.073812	0.423956	[.672]
Tuesday-Thursday: 12 midnight -5 a.m.	7.02E-04	0.013697	0.051249	[.959]
Tuesday-Thursday 6 a.m. -7 a.m.	-4.99E-03	0.034623	-0.144223	[.885]
Tuesday-Thursday: 8 a.m. -1 p.m.	0.029589	0.018059	1.63844	[.101]
Tuesday-Thursday: 2 p.m. -4 p.m.	-7.89E-03	0.02893	-0.272629	[.785]
Tuesday-Thursday: 5 p.m. -6 p.m.	0.031765	0.037495	0.847169	[.397]
Tuesday-Thursday: 7 p.m. -9 p.m.	0.064535	0.030895	2.08885	[.037]
Tuesday-Thursday: 10 p.m. -11 p.m.	0.025839	0.037487	0.689281	[.491]
Friday: 12 midnight -5 a.m.	0.048092	0.050029	0.961284	[.336]
Friday: 6 a.m. -7 a.m.	0.056401	0.058969	0.956463	[.339]
Friday: 8 a.m. -1 p.m.	-9.92E-03	0.036292	-0.273475	[.784]
Friday: 2 p.m. -4 p.m.	-0.063663	0.061241	-1.03955	[.299]
Friday: 5 p.m. -6 p.m.	5.02E-03	0.072861	0.068853	[.945]
Friday: 7 p.m. -9 p.m.	0.040755	0.055927	0.728712	[.466]
Friday: 10 p.m. -11 p.m.	0.06674	0.083065	0.803474	[.422]
Saturday-Sunday: 12 midnight -5 a.m.	-0.024988	0.030472	-0.820011	[.412]
Saturday -Sunday: 6 a.m. -7 a.m.	-0.019164	0.05333	-0.35934	[.719]
Saturday -Sunday: 8 a.m. -1 p.m.	-0.018874	0.03043	-0.620248	[.535]
Saturday -Sunday: 2 p.m. -4 p.m.	0.035079	0.026466	1.32541	[.185]
Saturday -Sunday: 5 p.m. -6 p.m.	-0.042896	0.051897	-0.826557	[.408]
Saturday -Sunday: 7 p.m. -9 p.m.	-0.031978	0.044837	-0.71321	[.476]
Saturday -Sunday: 10 p.m. -11 p.m.	-0.065761	0.059658	-1.10229	[.270]

Dummy for October

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-0.012955	0.036819	-0.35186	
Monday: 6 a.m. -7 a.m.	0.010549	0.030344	0.347645	P-value
Monday: 8 a.m. -1 p.m.	0.097843	0.043236	2.26298	[.725]
Monday: 2 p.m. -4 p.m.	0.042052	0.027271	1.54198	[.728]
Monday: 5 p.m. -6 p.m.	0.065571	0.027263	2.40516	[.024]
Monday: 7 p.m. -9 p.m.	0.07025	0.054683	1.28466	[.123]
Monday: 10 p.m. -11 p.m.	0.042904	0.048219	0.88977	[.016]
Tuesday-Thursday: 12 midnight -5 a.m.	-0.025541	0.018763	-1.36122	[.199]
Tuesday-Thursday 6 a.m. -7 a.m.	5.25E-03	0.019194	0.273356	[.374]
Tuesday-Thursday: 8 a.m. -1 p.m.	0.04127	0.024339	1.69561	[.173]
Tuesday-Thursday: 2 p.m. -4 p.m.	0.025801	0.014767	1.74719	[.785]
Tuesday-Thursday: 5 p.m. -6 p.m.	0.035232	0.014423	2.44285	[.090]
Tuesday-Thursday: 7 p.m. -9 p.m.	0.044169	0.026162	1.68825	[.081]
Tuesday-Thursday: 10 p.m. -11 p.m.	0.010647	0.026906	0.395727	[.015]
Friday: 12 midnight -5 a.m.	0.060267	0.034047	1.7701	[.091]
Friday: 6 a.m. -7 a.m.	0.102147	0.029153	3.50384	[.692]
Friday: 8 a.m. -1 p.m.	0.196296	0.035678	5.50179	[.077]
Friday: 2 p.m. -4 p.m.	0.083591	0.024825	3.36722	[.000]
Friday: 5 p.m. -6 p.m.	3.81E-03	0.028808	0.132323	[.000]
Friday: 7 p.m. -9 p.m.	1.62E-03	0.048485	0.033486	[.001]
Friday: 10 p.m. -11 p.m.	-6.39E-03	0.051116	-0.125081	[.895]
Saturday-Sunday: 12 midnight -5 a.m.	-0.028491	0.024807	-1.14852	[.973]
Saturday -Sunday: 6 a.m. -7 a.m.	-0.02718	0.028876	-0.94128	[.900]
Saturday -Sunday: 8 a.m. -1 p.m.	-0.018787	0.040843	-0.459969	[.251]
Saturday -Sunday: 2 p.m. -4 p.m.	-0.036504	0.02407	-1.51659	[.347]
Saturday -Sunday: 5 p.m. -6 p.m.	-0.062587	0.020941	-2.98871	[.646]
Saturday -Sunday: 7 p.m. -9 p.m.	-0.04024	0.03877	-1.03792	[.129]
Saturday -Sunday: 10 p.m. -11 p.m.	-0.050524	0.045437	-1.11196	[.003]

Dummy for November				
	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-6.61E-03	8.02E-03	-0.824095	[.410]
Monday: 6 a.m. -7 a.m.	0.025099	7.92E-03	3.16803	[.002]
Monday: 8 a.m. -1 p.m.	0.018192	4.32E-03	4.21511	[.000]
Monday: 2 p.m. -4 p.m.	9.19E-03	6.09E-03	1.50877	[.131]
Monday: 5 p.m. -6 p.m.	0.012572	0.010021	1.25461	[.210]
Monday: 7 p.m. -9 p.m.	0.010465	8.83E-03	1.1853	[.236]
Monday: 10 p.m. -11 p.m.	-1.73E-03	0.012015	-0.144008	[.885]
Tuesday-Thursday: 12 midnight -5 a.m.	-5.56E-03	2.61E-03	-2.13156	[.033]
Tuesday-Thursday 6 a.m. -7 a.m.	1.78E-04	4.10E-03	0.043529	[.965]
Tuesday-Thursday: 8 a.m. -1 p.m.	8.37E-03	2.66E-03	3.14209	[.002]
Tuesday-Thursday: 2 p.m. -4 p.m.	-7.98E-03	3.93E-03	-2.03004	[.042]
Tuesday-Thursday: 5 p.m. -6 p.m.	-5.44E-03	4.46E-03	-1.22085	[.222]
Tuesday-Thursday: 7 p.m. -9 p.m.	-9.14E-03	3.84E-03	-2.37889	[.017]
Tuesday-Thursday: 10 p.m. -11 p.m.	-0.019035	5.31E-03	-3.58563	[.000]
Friday: 12 midnight -5 a.m.	0.014374	8.56E-03	1.67958	[.093]
Friday: 6 a.m. -7 a.m.	0.023199	7.64E-03	3.03627	[.002]
Friday: 8 a.m. -1 p.m.	0.013785	4.45E-03	3.09681	[.002]
Friday: 2 p.m. -4 p.m.	3.91E-03	7.43E-03	0.525582	[.599]
Friday: 5 p.m. -6 p.m.	-1.33E-04	0.010172	-0.013087	[.990]
Friday: 7 p.m. -9 p.m.	-7.50E-03	7.80E-03	-0.961888	[.336]
Friday: 10 p.m. -11 p.m.	-0.010506	0.01179	-0.891081	[.373]
Saturday-Sunday: 12 midnight -5 a.m.	-2.86E-03	5.23E-03	-0.547246	[.584]
Saturday -Sunday: 6 a.m. -7 a.m.	-6.42E-03	8.80E-03	-0.729848	[.465]
Saturday -Sunday: 8 a.m. -1 p.m.	-0.017221	3.90E-03	-4.42126	[.000]
Saturday -Sunday: 2 p.m. -4 p.m.	6.75E-03	3.53E-03	1.91443	[.056]
Saturday -Sunday: 5 p.m. -6 p.m.	-0.013984	5.19E-03	-2.69658	[.007]
Saturday -Sunday: 7 p.m. -9 p.m.	-0.015703	4.28E-03	-3.67144	[.000]
Saturday -Sunday: 10 p.m. -11 p.m.	-0.023066	6.17E-03	-3.74138	[.000]

24-hour lag for the demand				
	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	0.648823	0.041757	15.5379	[.000]
Monday: 6 a.m. -7 a.m.	0.493097	0.050117	9.83887	[.000]
Monday: 8 a.m. -1 p.m.	0.511976	0.039579	12.9357	[.000]
Monday: 2 p.m. -4 p.m.	0.368627	0.044631	8.25939	[.000]
Monday: 5 p.m. -6 p.m.	0.327508	0.057594	5.68647	[.000]
Monday: 7 p.m. -9 p.m.	0.300305	0.054646	5.49549	[.000]
Monday: 10 p.m. -11 p.m.	0.190165	0.101558	1.87248	[.061]
Tuesday-Thursday: 12 midnight -5 a.m.	0.313067	0.013327	23.4912	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	0.404891	0.016032	25.2549	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	0.255317	9.32E-03	27.4049	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	0.362074	0.017834	20.3027	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	0.3512	0.028051	12.52	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	0.293003	0.022836	12.8307	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	0.206827	0.029507	7.00936	[.000]
Friday: 12 midnight -5 a.m.	0.411457	0.031826	12.9284	[.000]
Friday: 6 a.m. -7 a.m.	0.558935	0.040555	13.7821	[.000]
Friday: 8 a.m. -1 p.m.	0.536377	0.028409	18.8806	[.000]
Friday: 2 p.m. -4 p.m.	0.642855	0.05611	11.457	[.000]
Friday: 5 p.m. -6 p.m.	0.504377	0.073158	6.89435	[.000]
Friday: 7 p.m. -9 p.m.	0.357372	0.06119	5.84037	[.000]
Friday: 10 p.m. -11 p.m.	0.260954	0.072028	3.62293	[.000]
Saturday-Sunday: 12 midnight -5 a.m.	0.454326	0.03044	14.9252	[.000]
Saturday -Sunday: 6 a.m. -7 a.m.	0.376249	0.043758	8.59849	[.000]
Saturday -Sunday: 8 a.m. -1 p.m.	0.508245	0.019772	25.7054	[.000]
Saturday -Sunday: 2 p.m. -4 p.m.	0.112868	0.020485	5.50984	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	0.604363	0.044325	13.6347	[.000]
Saturday -Sunday: 7 p.m. -9 p.m.	0.580314	0.039207	14.8012	[.000]
Saturday -Sunday: 10 p.m. -11 p.m.	0.543161	0.059518	9.12597	[.000]
Additional term on Saturday lag for Sunday: 12 midnight -5 a.m.	0.014257	0.01131	1.26057	[.207]
Additional term on Saturday lag for Sunday: 6 a.m. -7 a.m.	-6.90E-03	0.018206	-0.378981	[.705]
Additional term on Saturday lag for Sunday: 8 a.m. -1 p.m.	-0.043845	0.010098	-4.34186	[.000]
Additional term on Saturday lag for Sunday: 2 p.m. -4 p.m.	0.017682	8.23E-03	2.14959	[.032]
Additional term on Saturday lag for Sunday: 5 p.m. -6 p.m.	-0.056365	0.014021	-4.01988	[.000]
Additional term on Saturday lag for Sunday: 7 p.m. -9 p.m.	-0.062555	0.011728	-5.33369	[.000]
Additional term on Saturday lag for Sunday: 10 p.m. -11 p.m.	-0.055261	0.0181	-3.05315	[.002]

48-hours lag for the demand

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-0.085784	0.046469	-1.84607	[.065]
Monday: 6 a.m. -7 a.m.	0.019228	0.049678	0.387049	[.699]
Monday: 8 a.m. -1 p.m.	5.66E-03	0.033134	0.170903	[.864]
Monday: 2 p.m. -4 p.m.	0.153506	0.043297	3.54545	[.000]
Monday: 5 p.m. -6 p.m.	0.078798	0.065968	1.19449	[.232]
Monday: 7 p.m. -9 p.m.	0.028861	0.061447	0.469693	[.639]
Monday: 10 p.m. -11 p.m.	0.074761	0.091944	0.813116	[.416]
Tuesday-Thursday: 12 midnight -5 a.m.	-7.26E-04	0.012425	-0.058467	[.953]
Tuesday-Thursday 6 a.m. -7 a.m.	0.033079	0.014046	2.35509	[.019]
Tuesday-Thursday: 8 a.m. -1 p.m.	0.020204	8.05E-03	2.50857	[.012]
Tuesday-Thursday: 2 p.m. -4 p.m.	0.060204	0.017164	3.50752	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	0.048601	0.025282	1.92237	[.055]
Tuesday-Thursday: 7 p.m. -9 p.m.	0.059131	0.019775	2.9902	[.003]
Tuesday-Thursday: 10 p.m. -11 p.m.	0.092129	0.023475	3.92453	[.000]
Friday: 12 midnight -5 a.m.	0.055527	0.038615	1.43796	[.150]
Friday: 6 a.m. -7 a.m.	0.078576	0.041688	1.88485	[.059]
Friday: 8 a.m. -1 p.m.	0.120358	0.026459	4.54882	[.000]
Friday: 2 p.m. -4 p.m.	-0.016627	0.059689	-0.27856	[.781]
Friday: 5 p.m. -6 p.m.	6.54E-03	0.069178	0.094543	[.925]
Friday: 7 p.m. -9 p.m.	0.067916	0.057387	1.18348	[.237]
Friday: 10 p.m. -11 p.m.	0.122083	0.071703	1.70263	[.089]
Saturday-Sunday: 12 midnight -5 a.m.	0.020901	0.026944	0.775731	[.438]
Saturday -Sunday: 6 a.m. -7 a.m.	0.033992	0.039423	0.86224	[.389]
Saturday -Sunday: 8 a.m. -1 p.m.	0.019235	0.017999	1.06864	[.285]
Saturday -Sunday: 2 p.m. -4 p.m.	0.026899	0.020582	1.30691	[.191]
Saturday -Sunday: 5 p.m. -6 p.m.	-7.06E-03	0.037185	-0.189827	[.849]
Saturday -Sunday: 7 p.m. -9 p.m.	-0.015822	0.03353	-0.471868	[.637]
Saturday -Sunday: 10 p.m. -11 p.m.	2.34E-03	0.052374	0.044584	[.964]

One-week lag for demand

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	0.019202	0.019537	0.982866	[.326]
Monday: 6 a.m. -7 a.m.	0.02626	0.019827	1.32447	[.185]
Monday: 8 a.m. -1 p.m.	-2.03E-03	0.012548	-0.161984	[.871]
Monday: 2 p.m. -4 p.m.	-0.038567	0.017184	-2.24443	[.025]
Monday: 5 p.m. -6 p.m.	0.039039	0.026201	1.49002	[.136]
Monday: 7 p.m. -9 p.m.	0.079172	0.025793	3.06953	[.002]
Monday: 10 p.m. -11 p.m.	0.089793	0.041235	2.17757	[.029]
Tuesday-Thursday: 12 midnight -5 a.m.	0.051784	7.43E-03	6.96531	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	0.073669	0.013657	5.39427	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	0.093217	7.41E-03	12.5746	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	0.130032	0.013009	9.99587	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	0.127625	0.01708	7.47226	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	0.129716	0.013425	9.66216	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	0.105142	0.019423	5.41321	[.000]
Friday: 12 midnight -5 a.m.	-0.019782	0.028497	-0.694183	[.488]
Friday: 6 a.m. -7 a.m.	-0.091254	0.024086	-3.78863	[.000]
Friday: 8 a.m. -1 p.m.	-0.072872	0.013671	-5.33029	[.000]
Friday: 2 p.m. -4 p.m.	-0.016944	0.02799	-0.605365	[.545]
Friday: 5 p.m. -6 p.m.	0.047996	0.031628	1.51753	[.129]
Friday: 7 p.m. -9 p.m.	0.05602	0.027714	2.02136	[.043]
Friday: 10 p.m. -11 p.m.	0.043559	0.033922	1.28408	[.199]
Saturday-Sunday: 12 midnight -5 a.m.	0.036044	0.013418	2.68622	[.007]
Saturday -Sunday: 6 a.m. -7 a.m.	0.063806	0.023115	2.76032	[.006]
Saturday -Sunday: 8 a.m. -1 p.m.	0.060196	0.012498	4.81657	[.000]
Saturday -Sunday: 2 p.m. -4 p.m.	0.082617	0.010778	7.6651	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	0.043975	0.017918	2.45417	[.014]
Saturday -Sunday: 7 p.m. -9 p.m.	0.032802	0.015221	2.15499	[.031]
Saturday -Sunday: 10 p.m. -11 p.m.	9.28E-03	0.022548	0.411365	[.681]

Intercept for each block				
	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-0.248212	0.257148	-0.965253	[.334]
Monday: 6 a.m. -7 a.m.	2.21422	0.268414	8.24925	[.000]
Monday: 8 a.m. -1 p.m.	2.85355	0.173467	16.4501	[.000]
Monday: 2 p.m. -4 p.m.	2.97107	0.239467	12.407	[.000]
Monday: 5 p.m. -6 p.m.	2.35152	0.300543	7.82422	[.000]
Monday: 7 p.m. -9 p.m.	2.08493	0.27736	7.51706	[.000]
Monday: 10 p.m. -11 p.m.	1.26675	0.438564	2.8884	[.004]
Tuesday-Thursday: 12 midnight -5 a.m.	-0.024486	0.094347	-0.259538	[.795]
Tuesday-Thursday 6 a.m. -7 a.m.	0.934233	0.161231	5.79438	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	0.466271	0.091884	5.07454	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	0.925824	0.145827	6.34878	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	0.883274	0.187451	4.71204	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	0.982367	0.166647	5.89488	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	0.994018	0.209758	4.73888	[.000]
Friday: 12 midnight -5 a.m.	0.411366	0.301215	1.36569	[.172]
Friday: 6 a.m. -7 a.m.	0.934327	0.326165	2.86458	[.004]
Friday: 8 a.m. -1 p.m.	1.24236	0.19519	6.36487	[.000]
Friday: 2 p.m. -4 p.m.	1.1477	0.302693	3.79162	[.000]
Friday: 5 p.m. -6 p.m.	0.949668	0.372108	2.55213	[.011]
Friday: 7 p.m. -9 p.m.	0.823655	0.341807	2.40971	[.016]
Friday: 10 p.m. -11 p.m.	0.553608	0.45153	1.22607	[.220]
Saturday-Sunday: 12 midnight -5 a.m.	-0.284372	0.190966	-1.48912	[.136]
Saturday -Sunday: 6 a.m. -7 a.m.	-0.765878	0.318571	-2.4041	[.016]
Saturday -Sunday: 8 a.m. -1 p.m.	-0.35378	0.160255	-2.2076	[.027]
Saturday -Sunday: 2 p.m. -4 p.m.	-0.283865	0.14628	-1.94056	[.052]
Saturday -Sunday: 5 p.m. -6 p.m.	-0.061832	0.238943	-0.258774	[.796]
Saturday -Sunday: 7 p.m. -9 p.m.	0.245007	0.210815	1.16219	[.245]
Saturday -Sunday: 10 p.m. -11 p.m.	0.425475	0.306895	1.38639	[.166]

Additional term added on the intercept for each block to get the intercept for each hour during a week

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday:1 a.m.	-2.91E-03	4.31E-03	-0.675658	[.499]
Monday:2 a.m.	-2.54E-03	4.50E-03	-0.565241	[.572]
Monday:3 a.m.	3.98E-03	4.50E-03	0.88474	[.376]
Monday:4 a.m.	0.019944	4.62E-03	4.31973	[.000]
Monday:5 a.m.	0.06573	4.58E-03	14.3376	[.000]
Monday:7 a.m.	0.085107	3.42E-03	24.9052	[.000]
Monday:9 a.m.	-0.01331	2.56E-03	-5.19716	[.000]
Monday:10 a.m.	-0.023363	2.99E-03	-7.82614	[.000]
Monday:11 a.m.	-0.032883	3.22E-03	-10.2274	[.000]
Monday:12 noon	-0.041824	3.35E-03	-12.4981	[.000]
Monday:1 p.m.	-0.045848	3.28E-03	-13.9907	[.000]
Monday:3 p.m.	-4.11E-03	2.65E-03	-1.55171	[.121]
Monday:4 p.m.	-0.026864	2.98E-03	-9.01168	[.000]
Monday:6 p.m.	-0.014886	2.79E-03	-5.34065	[.000]
Monday:8 p.m.	-0.017408	3.14E-03	-5.54713	[.000]
Monday:9 p.m.	-0.039431	3.33E-03	-11.8541	[.000]
Monday:11 p.m.	-0.045316	5.49E-03	-8.25932	[.000]
Tuesday:1 a.m.	-0.014601	3.43E-03	-4.26244	[.000]
Tuesday:2 a.m.	-0.019846	3.50E-03	-5.6739	[.000]
Tuesday:3 a.m.	-0.020778	3.47E-03	-5.98369	[.000]
Tuesday:4 a.m.	-0.011768	3.47E-03	-3.38812	[.001]
Tuesday:5 a.m.	0.017894	3.58E-03	4.995	[.000]
Tuesday:7 a.m.	0.05274	3.38E-03	15.6027	[.000]
Tuesday:9 a.m.	2.48E-03	1.91E-03	1.29885	[.194]
Tuesday:10 a.m.	4.73E-03	2.02E-03	2.34202	[.019]
Tuesday:11 a.m.	1.78E-03	2.12E-03	0.836321	[.403]
Tuesday:12 noon	3.99566	0.023263	171.757	[.000]
Tuesday:1 p.m.	-0.01113	2.07E-03	-5.37497	[.000]
Tuesday:3 p.m.	-1.24E-03	2.67E-03	-0.465844	[.641]
Tuesday:4 p.m.	-0.010795	2.90E-03	-3.71725	[.000]
Tuesday:6 p.m.	-8.22E-03	3.11E-03	-2.64443	[.008]
Tuesday:8 p.m.	-0.013511	3.17E-03	-4.26547	[.000]
Tuesday:9 p.m.	-0.032261	3.31E-03	-9.74874	[.000]
Tuesday:11 p.m.	-0.038206	3.85E-03	-9.91973	[.000]

	Estimated parameter	Standard deviation	t-statistic	P-value
Wednesday:12 midnight	-8.50E-03	3.45E-03	-2.46489	[.014]
Wednesday:1 a.m.	-0.022351	3.55E-03	-6.29085	[.000]
Wednesday:2 a.m.	-0.027628	3.72E-03	-7.42547	[.000]
Wednesday:3 a.m.	-0.027481	3.66E-03	-7.50036	[.000]
Wednesday:4 a.m.	-0.017882	3.65E-03	-4.90295	[.000]
Wednesday:5 a.m.	-3.42732	0.061702	-55.5459	[.000]
Wednesday:6 a.m.	-8.79E-03	3.92E-03	-2.24274	[.025]
Wednesday:7 a.m.	0.04358	4.06E-03	10.7306	[.000]
Wednesday:8 a.m.	-3.01E-03	2.54E-03	-1.18443	[.236]
Wednesday:9 a.m.	1.00E-03	2.70E-03	0.3718	[.710]
Wednesday:10 a.m.	2.96E-03	2.80E-03	1.05624	[.291]
Wednesday:11 a.m.	-8.47E-04	2.93E-03	-0.288966	[.773]
Wednesday:12 noon	3.99654	0.023276	171.706	[.000]
Wednesday:1 p.m.	-0.012903	2.84E-03	-4.53836	[.000]
Wednesday:2 p.m.	-9.17E-03	3.95E-03	-2.3222	[.020]
Wednesday:3 p.m.	-0.0112	3.92E-03	-2.85648	[.004]
Wednesday:4 p.m.	-0.018313	3.90E-03	-4.69625	[.000]
Wednesday:5 p.m.	-5.51E-03	4.17E-03	-1.32096	[.187]
Wednesday:6 p.m.	-0.011901	4.13E-03	-2.88416	[.004]
Wednesday:7 p.m.	-2.87E-03	3.60E-03	-0.795766	[.426]
Wednesday:8 p.m.	-0.016366	3.70E-03	-4.42386	[.000]
Wednesday:9 p.m.	-0.033278	3.72E-03	-8.93599	[.000]
Wednesday:10 p.m.	-1.15E-03	3.66E-03	-0.313837	[.754]
Wednesday:11 p.m.	-0.039075	3.98E-03	-9.82956	[.000]
Thursday:12 midnight	-0.010532	3.42E-03	-3.07722	[.002]
Thursday:1 a.m.	-0.023883	3.47E-03	-6.87428	[.000]
Thursday:2 a.m.	-0.028284	3.54E-03	-7.98954	[.000]
Thursday:3 a.m.	-0.029219	3.54E-03	-8.24904	[.000]
Thursday:4 a.m.	-0.019353	3.63E-03	-5.3274	[.000]
Thursday:5 a.m.	0.010055	3.59E-03	2.7995	[.005]
Thursday:6 a.m.	-0.012329	3.83E-03	-3.22183	[.001]
Thursday:7 a.m.	0.037961	4.06E-03	9.33926	[.000]
Thursday:8 a.m.	-0.010082	2.73E-03	-3.69057	[.000]
Thursday:9 a.m.	-6.23E-03	2.97E-03	-2.09942	[.036]
Thursday:10 a.m.	-3.31E-03	3.08E-03	-1.07332	[.283]
Thursday:11 a.m.	-5.64E-03	3.07E-03	-1.83825	[.066]
Thursday:12 noon	3.99259	0.02327	171.579	[.000]
Thursday:1 p.m.	-0.018541	2.82E-03	-6.57235	[.000]
Thursday:2 p.m.	-0.012638	3.76E-03	-3.36326	[.001]
Thursday:3 p.m.	-0.014289	3.78E-03	-3.78402	[.000]
Thursday:4 p.m.	-0.022465	3.82E-03	-5.87835	[.000]
Thursday:5 p.m.	-9.72E-03	4.29E-03	-2.26736	[.023]
Thursday:6 p.m.	-0.015778	4.21E-03	-3.74594	[.000]
Thursday:7 p.m.	-7.46E-03	3.68E-03	-2.028	[.043]
Thursday:8 p.m.	-0.020783	3.62E-03	-5.73536	[.000]
Thursday:9 p.m.	-0.038255	3.67E-03	-10.4259	[.000]
Thursday:10 p.m.	-7.17E-03	3.62E-03	-1.98176	[.048]
Thursday:11 p.m.	-0.044018	4.15E-03	-10.5985	[.000]

	Estimated parameter	Standard deviation	t-statistic	P-value
Friday:1 a.m.	-0.011439	4.61E-03	-2.48026	[.013]
Friday:2 a.m.	-0.01528	4.63E-03	-3.29915	[.001]
Friday:3 a.m.	-0.014685	4.60E-03	-3.19144	[.001]
Friday:4 a.m.	-7.36E-03	4.55E-03	-1.61738	[.106]
Friday:5 a.m.	0.019566	4.37E-03	4.47686	[.000]
Friday:7 a.m.	0.047869	4.13E-03	11.6013	[.000]
Friday:9 a.m.	6.44E-03	2.20E-03	2.92392	[.003]
Friday:10 a.m.	7.26E-03	2.34E-03	3.10263	[.002]
Friday:11 a.m.	7.28E-04	2.46E-03	0.295555	[.768]
Friday:12 noon	-0.010408	2.53E-03	-4.1126	[.000]
Friday:1 p.m.	-0.026725	2.62E-03	-10.2105	[.000]
Friday:3 p.m.	-0.013432	3.01E-03	-4.45929	[.000]
Friday:4 p.m.	-0.021683	3.22E-03	-6.7319	[.000]
Friday:6 p.m.	-8.72E-03	3.11E-03	-2.80608	[.005]
Friday:8 p.m.	-0.022973	3.46E-03	-6.6438	[.000]
Friday:9 p.m.	-0.040983	4.26E-03	-9.60924	[.000]
Friday:11 p.m.	-0.022401	5.03E-03	-4.45493	[.000]
Saturday:1 a.m.	-1.80084	0.053634	-33.5765	[.000]
Saturday:2 a.m.	-0.020706	4.53E-03	-4.56782	[.000]
Saturday:3 a.m.	-0.027052	4.56E-03	-5.9387	[.000]
Saturday:4 a.m.	-0.031015	4.56E-03	-6.80802	[.000]
Saturday:5 a.m.	-0.038774	4.55E-03	-8.52181	[.000]
Saturday:7 a.m.	1.82E-03	5.21E-03	0.349843	[.726]
Saturday:9 a.m.	0.04054	3.55E-03	11.4324	[.000]
Saturday:10 a.m.	0.055939	3.52E-03	15.8998	[.000]
Saturday:11 a.m.	0.060699	3.49E-03	17.3838	[.000]
Saturday:12 noon	0.059903	3.74E-03	16.0016	[.000]
Saturday:1 p.m.	0.057618	3.69E-03	15.6031	[.000]
Saturday:3 p.m.	1.82645	0.053845	33.9204	[.000]
Saturday:4 p.m.	0.016087	2.54E-03	6.34336	[.000]
Saturday:6 p.m.	3.30E-03	2.97E-03	1.10913	[.267]
Saturday:8 p.m.	-7.79E-03	3.29E-03	-2.36787	[.018]
Saturday:9 p.m.	-0.011824	3.58E-03	-3.30625	[.001]
Saturday:11 p.m.	-0.011882	4.13E-03	-2.87579	[.004]
Sunday:12 midnight	-0.142213	0.109503	-1.29871	[.194]
Sunday:1 a.m.	-0.15149	0.109344	-1.38545	[.166]
Sunday:2 a.m.	-0.15485	0.10933	-1.41635	[.157]
Sunday:3 a.m.	-0.158424	0.109344	-1.44885	[.147]
Sunday:4 a.m.	-0.157171	0.109311	-1.43783	[.150]
Sunday:5 a.m.	-0.154269	0.109311	-1.41129	[.158]
Sunday:6 a.m.	0.099322	0.179204	0.55424	[.579]
Sunday:7 a.m.	0.109806	0.179908	0.610343	[.542]
Sunday:8 a.m.	0.479973	0.100404	4.78041	[.000]
Sunday:9 a.m.	0.504319	0.100319	5.02714	[.000]
Sunday:10 a.m.	0.523024	0.100318	5.21366	[.000]
Sunday:11 a.m.	0.534454	0.100233	5.3321	[.000]
Sunday:12 noon	0.537019	0.100143	5.36253	[.000]
Sunday:1 p.m.	0.535618	0.100057	5.35313	[.000]
Sunday:2 p.m.	-0.165776	0.080752	-2.05291	[.040]
Sunday:3 p.m.	-0.16265	0.080754	-2.01413	[.044]
Sunday:4 p.m.	-0.151357	0.080857	-1.87189	[.061]
Sunday:5 p.m.	0.590592	0.138601	4.26108	[.000]
Sunday:6 p.m.	0.595392	0.138651	4.29418	[.000]
Sunday:7 p.m.	0.66181	0.115882	5.71105	[.000]
Sunday:8 p.m.	0.663484	0.115758	5.73164	[.000]
Sunday:9 p.m.	0.650808	0.115668	5.62651	[.000]
Sunday:10 p.m.	0.581157	0.176737	3.28825	[.001]
Sunday:11 p.m.	0.552308	0.176795	3.124	[.002]

Other parameters				
	Estimated parameter	Standard deviation	t-statistic	P-value
Economic activity	0.12571	3.69E-03	34.0781	[.000]
Dummy for daylight	-0.025995	9.86E-04	-26.3671	[.000]
Dummy for eastern	-0.126512	2.24E-03	-56.3622	[.000]
Dummy for daylight for Whit Monday	-0.17809	7.00E-03	-25.456	[.000]
Dummy for Ascension day	-0.110679	3.78E-03	-29.2779	[.000]
Dummy for Christmas	-0.115955	1.67E-03	-69.295	[.000]
Dummy for 1 of January	-0.125302	2.22E-03	-56.4317	[.000]
Dummmy for 1 of May	-0.146537	2.57E-03	-57.0237	[.000]
Dummy for 6 of june	-0.064259	4.32E-03	-14.8881	[.000]

A3. The production

The effect of Swedish production on price

Summer

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	4.32E-03	1.99E-03	2.17307	[.030]
Monday: 6 a.m. -7 a.m.	5.68E-03	3.49E-03	1.6282	[.103]
Monday: 8 a.m. -1 p.m.	9.13E-03	1.72E-03	5.31195	[.000]
Monday: 2 p.m. -4 p.m.	9.54E-03	3.08E-03	3.09743	[.002]
Monday: 5 p.m. -6 p.m.	0.01182	3.06E-03	3.85779	[.000]
Monday: 7 p.m. -9 p.m.	5.40E-03	4.38E-03	1.23401	[.217]
Monday: 10 p.m. -11 p.m.	4.45E-03	5.37E-03	0.829559	[.407]
Tuesday-Thursday: 12 midnight -5 a.m.	1.82E-03	1.16E-03	1.56456	[.118]
Tuesday-Thursday 6 a.m. -7 a.m.	2.28E-03	2.70E-03	0.841645	[.400]
Tuesday-Thursday: 8 a.m. -1 p.m.	4.41E-03	1.19E-03	3.71567	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	4.52E-03	1.95E-03	2.3185	[.020]
Tuesday-Thursday: 5 p.m. -6 p.m.	3.38E-03	2.02E-03	1.67126	[.095]
Tuesday-Thursday: 7 p.m. -9 p.m.	2.99E-03	2.62E-03	1.13989	[.254]
Tuesday-Thursday: 10 p.m. -11 p.m.	3.16E-03	3.57E-03	0.886813	[.375]
Friday: 12 midnight -5 a.m.	4.14E-03	2.30E-03	1.80315	[.071]
Friday: 6 a.m. -7 a.m.	5.04E-03	3.84E-03	1.31288	[.189]
Friday: 8 a.m. -1 p.m.	6.98E-03	1.57E-03	4.45095	[.000]
Friday: 2 p.m. -4 p.m.	3.11E-03	3.87E-03	0.803252	[.422]
Friday: 5 p.m. -6 p.m.	4.13E-03	5.12E-03	0.80535	[.421]
Friday: 7 p.m. -9 p.m.	3.34E-03	3.64E-03	0.916568	[.359]
Friday: 10 p.m. -11 p.m.	2.69E-03	6.75E-03	0.398213	[.690]
Saturday-Sunday: 12 midnight -5 a.m.	-1.50E-03	1.12E-03	-1.33987	[.180]
Saturday -Sunday: 6 a.m. -7 a.m.	-2.91E-03	1.68E-03	-1.72712	[.084]
Saturday -Sunday: 8 a.m. -1 p.m.	-1.20E-03	1.32E-03	-0.908526	[.364]
Saturday -Sunday: 2 p.m. -4 p.m.	1.82E-03	2.32E-03	0.783946	[.433]
Saturday -Sunday: 5 p.m. -6 p.m.	1.74E-03	3.19E-03	0.54417	[.586]
Saturday -Sunday: 7 p.m. -9 p.m.	2.80E-03	2.93E-03	0.954417	[.340]
Saturday -Sunday: 10 p.m. -11 p.m.	2.09E-03	3.02E-03	0.693011	[.488]

Winter

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	4.47E-03	2.96E-03	1.50737	[.132]
Monday: 6 a.m. -7 a.m.	-2.39E-03	4.54E-03	-0.527236	[.598]
Monday: 8 a.m. -1 p.m.	2.39E-03	1.24E-03	1.92728	[.054]
Monday: 2 p.m. -4 p.m.	7.35E-03	2.39E-03	3.07518	[.002]
Monday: 5 p.m. -6 p.m.	0.021236	2.16E-03	9.83691	[.000]
Monday: 7 p.m. -9 p.m.	3.51E-03	3.75E-03	0.934932	[.350]
Monday: 10 p.m. -11 p.m.	4.85E-03	8.56E-03	0.565908	[.571]
Tuesday-Thursday: 12 midnight -5 a.m.	4.04E-03	1.97E-03	2.04669	[.041]
Tuesday-Thursday 6 a.m. -7 a.m.	-1.97E-03	2.14E-03	-0.923799	[.356]
Tuesday-Thursday: 8 a.m. -1 p.m.	-2.02E-03	1.16E-03	-1.74263	[.081]
Tuesday-Thursday: 2 p.m. -4 p.m.	1.41E-03	1.60E-03	0.884467	[.376]
Tuesday-Thursday: 5 p.m. -6 p.m.	-1.12E-03	1.67E-03	-0.67158	[.502]
Tuesday-Thursday: 7 p.m. -9 p.m.	-3.02E-04	2.18E-03	-0.138671	[.890]
Tuesday-Thursday: 10 p.m. -11 p.m.	5.08E-03	4.21E-03	1.20628	[.228]
Friday: 12 midnight -5 a.m.	3.89E-03	4.38E-03	0.888459	[.374]
Friday: 6 a.m. -7 a.m.	-3.43E-04	6.46E-03	-0.053059	[.958]
Friday: 8 a.m. -1 p.m.	1.03E-03	1.79E-03	0.578545	[.563]
Friday: 2 p.m. -4 p.m.	-2.56E-03	4.80E-03	-0.533737	[.594]
Friday: 5 p.m. -6 p.m.	-5.78E-04	4.06E-03	-0.142218	[.887]
Friday: 7 p.m. -9 p.m.	-1.24E-03	4.51E-03	-0.273836	[.784]
Friday: 10 p.m. -11 p.m.	1.96E-03	8.82E-03	0.222463	[.824]
Saturday-Sunday: 12 midnight -5 a.m.	1.67E-03	1.36E-03	1.22935	[.219]
Saturday -Sunday: 6 a.m. -7 a.m.	-1.63E-04	2.53E-03	-0.064212	[.949]
Saturday -Sunday: 8 a.m. -1 p.m.	-5.50E-03	1.35E-03	-4.06376	[.000]
Saturday -Sunday: 2 p.m. -4 p.m.	5.68E-03	2.87E-03	1.98176	[.048]
Saturday -Sunday: 5 p.m. -6 p.m.	2.48E-03	3.06E-03	0.809191	[.418]
Saturday -Sunday: 7 p.m. -9 p.m.	2.82E-03	3.16E-03	0.893943	[.371]
Saturday -Sunday: 10 p.m. -11 p.m.	3.13E-03	4.35E-03	0.719587	[.472]

The effect of Norwegian production on price

Summer

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	3.04E-03	1.52E-03	1.99626	[.046]
Monday: 6 a.m. -7 a.m.	1.46E-03	2.33E-03	0.625922	[.531]
Monday: 8 a.m. -1 p.m.	1.25E-03	1.19E-03	1.05043	[.294]
Monday: 2 p.m. -4 p.m.	3.33E-03	2.00E-03	1.67033	[.095]
Monday: 5 p.m. -6 p.m.	4.54E-03	1.89E-03	2.3993	[.016]
Monday: 7 p.m. -9 p.m.	2.71E-03	2.58E-03	1.05236	[.293]
Monday: 10 p.m. -11 p.m.	3.97E-03	3.55E-03	1.11693	[.264]
Tuesday-Thursday: 12 midnight -5 a.m.	4.38E-03	9.73E-04	4.50101	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	3.28E-03	1.56E-03	2.09625	[.036]
Tuesday-Thursday: 8 a.m. -1 p.m.	3.35E-03	7.46E-04	4.49161	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	3.56E-03	1.26E-03	2.83589	[.005]
Tuesday-Thursday: 5 p.m. -6 p.m.	4.18E-03	1.28E-03	3.25433	[.001]
Tuesday-Thursday: 7 p.m. -9 p.m.	2.65E-03	1.40E-03	1.89213	[.058]
Tuesday-Thursday: 10 p.m. -11 p.m.	2.83E-03	2.43E-03	1.16514	[.244]
Friday: 12 midnight -5 a.m.	3.68E-03	2.07E-03	1.77393	[.076]
Friday: 6 a.m. -7 a.m.	3.73E-03	2.20E-03	1.69378	[.090]
Friday: 8 a.m. -1 p.m.	6.85E-03	1.03E-03	6.64367	[.000]
Friday: 2 p.m. -4 p.m.	1.54E-03	2.83E-03	0.545318	[.586]
Friday: 5 p.m. -6 p.m.	3.00E-03	3.47E-03	0.864235	[.387]
Friday: 7 p.m. -9 p.m.	1.94E-03	2.32E-03	0.839058	[.401]
Friday: 10 p.m. -11 p.m.	3.62E-03	4.81E-03	0.752969	[.451]
Saturday-Sunday: 12 midnight -5 a.m.	6.22E-03	7.81E-04	7.95792	[.000]
Saturday -Sunday: 6 a.m. -7 a.m.	6.87E-03	1.32E-03	5.21388	[.000]
Saturday -Sunday: 8 a.m. -1 p.m.	4.13E-03	9.39E-04	4.40304	[.000]
Saturday -Sunday: 2 p.m. -4 p.m.	4.38E-03	1.59E-03	2.75349	[.006]
Saturday -Sunday: 5 p.m. -6 p.m.	3.78E-03	2.04E-03	1.85188	[.064]
Saturday -Sunday: 7 p.m. -9 p.m.	3.09E-03	1.79E-03	1.7206	[.085]
Saturday -Sunday: 10 p.m. -11 p.m.	3.61E-03	2.29E-03	1.57642	[.115]

Winter

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	3.22E-03	2.07E-03	1.55846	[.119]
Monday: 6 a.m. -7 a.m.	7.19E-03	3.16E-03	2.27878	[.023]
Monday: 8 a.m. -1 p.m.	5.55E-03	9.68E-04	5.73335	[.000]
Monday: 2 p.m. -4 p.m.	4.29E-03	1.46E-03	2.94411	[.003]
Monday: 5 p.m. -6 p.m.	-2.59E-03	1.26E-03	-2.05698	[.040]
Monday: 7 p.m. -9 p.m.	3.89E-03	2.67E-03	1.45464	[.146]
Monday: 10 p.m. -11 p.m.	3.65E-03	5.04E-03	0.723369	[.469]
Tuesday-Thursday: 12 midnight -5 a.m.	3.81E-03	1.29E-03	2.95046	[.003]
Tuesday-Thursday 6 a.m. -7 a.m.	6.38E-03	1.44E-03	4.41958	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	7.64E-03	7.36E-04	10.3811	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	5.82E-03	1.03E-03	5.6587	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	7.99E-03	1.15E-03	6.95597	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	5.06E-03	1.51E-03	3.34832	[.001]
Tuesday-Thursday: 10 p.m. -11 p.m.	2.10E-03	2.82E-03	0.746207	[.456]
Friday: 12 midnight -5 a.m.	4.38E-03	2.72E-03	1.61116	[.107]
Friday: 6 a.m. -7 a.m.	6.98E-03	4.19E-03	1.66564	[.096]
Friday: 8 a.m. -1 p.m.	0.010537	1.14E-03	9.23069	[.000]
Friday: 2 p.m. -4 p.m.	6.11E-03	3.01E-03	2.03248	[.042]
Friday: 5 p.m. -6 p.m.	6.51E-03	2.59E-03	2.51113	[.012]
Friday: 7 p.m. -9 p.m.	5.99E-03	3.04E-03	1.97015	[.049]
Friday: 10 p.m. -11 p.m.	4.76E-03	5.64E-03	0.843178	[.399]
Saturday-Sunday: 12 midnight -5 a.m.	5.56E-03	9.30E-04	5.97325	[.000]
Saturday -Sunday: 6 a.m. -7 a.m.	7.08E-03	1.52E-03	4.66911	[.000]
Saturday -Sunday: 8 a.m. -1 p.m.	8.35E-03	7.83E-04	10.6718	[.000]
Saturday -Sunday: 2 p.m. -4 p.m.	2.16E-03	1.80E-03	1.19859	[.231]
Saturday -Sunday: 5 p.m. -6 p.m.	3.57E-03	1.82E-03	1.96276	[.050]
Saturday -Sunday: 7 p.m. -9 p.m.	3.52E-03	2.04E-03	1.72201	[.085]
Saturday -Sunday: 10 p.m. -11 p.m.	3.63E-03	2.60E-03	1.3931	[.164]

The effect of Coal-price on price				
	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	0.066547	0.036032	1.84689	[.065]
Monday: 6 a.m. -7 a.m.	0.017329	0.055644	0.311428	[.755]
Monday: 8 a.m. -1 p.m.	4.18E-03	0.020028	0.208757	[.835]
Monday: 2 p.m. -4 p.m.	-0.030266	0.041402	-0.731028	[.465]
Monday: 5 p.m. -6 p.m.	0.041948	0.039644	1.0581	[.290]
Monday: 7 p.m. -9 p.m.	0.034555	0.074295	0.465111	[.642]
Monday: 10 p.m. -11 p.m.	0.048196	0.11486	0.419611	[.675]
Tuesday-Thursday: 12 midnight -5 a.m.	0.034317	0.021823	1.57251	[.116]
Tuesday-Thursday 6 a.m. -7 a.m.	0.025106	0.028645	0.876466	[.381]
Tuesday-Thursday: 8 a.m. -1 p.m.	-0.021094	0.012367	-1.70576	[.088]
Tuesday-Thursday: 2 p.m. -4 p.m.	-4.58E-03	0.024416	-0.187507	[.851]
Tuesday-Thursday: 5 p.m. -6 p.m.	-0.051221	0.02236	-2.29076	[.022]
Tuesday-Thursday: 7 p.m. -9 p.m.	0.029513	0.037039	0.796814	[.426]
Tuesday-Thursday: 10 p.m. -11 p.m.	0.04136	0.065392	0.632504	[.527]
Friday: 12 midnight -5 a.m.	0.021379	0.045048	0.474579	[.635]
Friday: 6 a.m. -7 a.m.	0.047804	0.06143	0.778187	[.436]
Friday: 8 a.m. -1 p.m.	0.033065	0.02082	1.58812	[.112]
Friday: 2 p.m. -4 p.m.	0.04708	0.057759	0.815104	[.415]
Friday: 5 p.m. -6 p.m.	0.051453	0.060114	0.855923	[.392]
Friday: 7 p.m. -9 p.m.	0.036299	0.068338	0.531163	[.595]
Friday: 10 p.m. -11 p.m.	0.057751	0.108974	0.52995	[.596]
Saturday-Sunday: 12 midnight -5 a.m.	0.046949	0.021962	2.13777	[.033]
Saturday -Sunday: 6 a.m. -7 a.m.	0.043609	0.027178	1.60461	[.109]
Saturday -Sunday: 8 a.m. -1 p.m.	0.061648	0.021723	2.83788	[.005]
Saturday -Sunday: 2 p.m. -4 p.m.	0.052064	0.035858	1.45193	[.147]
Saturday -Sunday: 5 p.m. -6 p.m.	0.044247	0.049487	0.894118	[.371]
Saturday -Sunday: 7 p.m. -9 p.m.	0.04886	0.04796	1.01876	[.308]
Saturday -Sunday: 10 p.m. -11 p.m.	0.053319	0.062914	0.847499	[.397]

24-hours lag on price				
	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	0.603114	0.028998	20.7983	[.000]
Monday: 6 a.m. -7 a.m.	0.271911	0.046814	5.80831	[.000]
Monday: 8 a.m. -1 p.m.	0.290889	0.017521	16.6023	[.000]
Monday: 2 p.m. -4 p.m.	0.408146	0.061893	6.59437	[.000]
Monday: 5 p.m. -6 p.m.	0.581282	0.026768	21.7155	[.000]
Monday: 7 p.m. -9 p.m.	0.619419	0.133374	4.64421	[.000]
Monday: 10 p.m. -11 p.m.	0.569791	0.129202	4.41007	[.000]
Tuesday-Thursday: 12 midnight -5 a.m.	0.716999	0.022659	31.6435	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	0.622272	8.71E-03	71.4773	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	0.514964	1.93E-03	266.94	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	0.394104	4.86E-03	81.0139	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	0.331964	3.25E-03	102.22	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	0.559857	0.01164	48.0962	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	0.804075	0.094406	8.51721	[.000]
Friday: 12 midnight -5 a.m.	0.623461	0.054283	11.4853	[.000]
Friday: 6 a.m. -7 a.m.	0.715134	0.043229	16.5431	[.000]
Friday: 8 a.m. -1 p.m.	0.575662	0.012061	47.7305	[.000]
Friday: 2 p.m. -4 p.m.	0.659325	0.076876	8.57645	[.000]
Friday: 5 p.m. -6 p.m.	0.357856	0.015191	23.557	[.000]
Friday: 7 p.m. -9 p.m.	0.624217	0.085235	7.32348	[.000]
Friday: 10 p.m. -11 p.m.	0.90992	0.238337	3.81779	[.000]
Saturday-Sunday: 12 midnight -5 a.m.	0.78423	0.029108	26.942	[.000]
Saturday -Sunday: 6 a.m. -7 a.m.	0.309317	0.017991	17.193	[.000]
Saturday -Sunday: 8 a.m. -1 p.m.	0.135829	5.02E-03	27.0393	[.000]
Saturday -Sunday: 2 p.m. -4 p.m.	0.832328	0.039301	21.1785	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	0.622163	0.017791	34.9701	[.000]
Saturday -Sunday: 7 p.m. -9 p.m.	0.717332	0.047884	14.9805	[.000]
Saturday -Sunday: 10 p.m. -11 p.m.	0.677379	0.080626	8.40147	[.000]
Additional term on Saturday lag for Sunday: 12 midnight -5 a.m.	-0.030372	0.013281	-2.28684	[.022]
Additional term on Saturday lag for Sunday: 6 a.m. -7 a.m.	0.132918	0.020286	6.55207	[.000]
Additional term on Saturday lag for Sunday: 8 a.m. -1 p.m.	0.090096	9.13E-03	9.86959	[.000]
Additional term on Saturday lag for Sunday: 2 p.m. -4 p.m.	4.07E-04	0.035128	0.011595	[.991]
Additional term on Saturday lag for Sunday: 5 p.m. -6 p.m.	0.011025	0.025564	0.431281	[.666]
Additional term on Saturday lag for Sunday: 7 p.m. -9 p.m.	0.033932	0.036776	0.92267	[.356]
Additional term on Saturday lag for Sunday: 10 p.m. -11 p.m.	0.050841	0.04469	1.13763	[.255]

72-hours lag on price

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	0.175173	0.057457	3.04874	[.002]
Monday: 6 a.m. -7 a.m.	0.590703	0.015078	39.1766	[.000]
Monday: 8 a.m. -1 p.m.	0.651218	2.45E-03	265.798	[.000]
Monday: 2 p.m. -4 p.m.	0.469683	0.078813	5.95949	[.000]
Monday: 5 p.m. -6 p.m.	0.483231	0.01589	30.4118	[.000]
Monday: 7 p.m. -9 p.m.	0.3104	0.130758	2.37385	[.018]
Monday: 10 p.m. -11 p.m.	0.276842	0.175213	1.58003	[.114]
Tuesday-Thursday: 12 midnight -5 a.m.	0.110972	0.025589	4.33668	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	0.109611	0.01387	7.90272	[.000]
Tuesday-Thursday: 8 a.m. -1 p.m.	0.106943	3.72E-03	28.7578	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	0.300053	8.88E-03	33.7987	[.000]
Tuesday-Thursday: 5 p.m. -6 p.m.	0.225168	4.03E-03	55.8746	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	0.239981	0.013683	17.5387	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	0.126212	0.100903	1.25083	[.211]
Friday: 12 midnight -5 a.m.	0.294	0.058669	5.01119	[.000]
Friday: 6 a.m. -7 a.m.	0.024327	0.033622	0.723534	[.469]
Friday: 8 a.m. -1 p.m.	0.218493	9.37E-03	23.3095	[.000]
Friday: 2 p.m. -4 p.m.	0.092083	0.078541	1.17242	[.241]
Friday: 5 p.m. -6 p.m.	0.469699	0.03992	11.766	[.000]
Friday: 7 p.m. -9 p.m.	0.278724	0.146853	1.89798	[.058]
Friday: 10 p.m. -11 p.m.	0.062705	0.293802	0.213426	[.831]
Saturday-Sunday: 12 midnight -5 a.m.	1.41E-03	0.032457	0.043306	[.965]
Saturday -Sunday: 6 a.m. -7 a.m.	0.21633	0.027646	7.82486	[.000]
Saturday -Sunday: 8 a.m. -1 p.m.	0.123762	0.010458	11.8344	[.000]
Saturday -Sunday: 2 p.m. -4 p.m.	-0.092155	0.042277	-2.17979	[.029]
Saturday -Sunday: 5 p.m. -6 p.m.	-7.31E-03	0.020291	-0.360486	[.718]
Saturday -Sunday: 7 p.m. -9 p.m.	0.035657	0.062854	0.567295	[.571]
Saturday -Sunday: 10 p.m. -11 p.m.	0.155528	0.131312	1.18442	[.236]

One-week lag on price

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	4.75E-03	0.046526	0.102104	[.919]
Monday: 6 a.m. -7 a.m.	-0.074245	0.036984	-2.00747	[.045]
Monday: 8 a.m. -1 p.m.	-0.131115	5.22E-03	-25.1354	[.000]
Monday: 2 p.m. -4 p.m.	-0.070189	0.035625	-1.9702	[.049]
Monday: 5 p.m. -6 p.m.	-0.164638	9.07E-03	-18.1512	[.000]
Monday: 7 p.m. -9 p.m.	-0.107082	0.030759	-3.4813	[.000]
Monday: 10 p.m. -11 p.m.	-0.014287	0.114016	-0.125308	[.900]
Tuesday-Thursday: 12 midnight -5 a.m.	-0.101314	0.021208	-4.77711	[.000]
Tuesday-Thursday 6 a.m. -7 a.m.	-0.022429	0.020375	-1.10079	[.271]
Tuesday-Thursday: 8 a.m. -1 p.m.	0.073853	5.29E-03	13.9528	[.000]
Tuesday-Thursday: 2 p.m. -4 p.m.	9.92E-03	0.014836	0.668985	[.504]
Tuesday-Thursday: 5 p.m. -6 p.m.	0.072029	8.43E-03	8.54479	[.000]
Tuesday-Thursday: 7 p.m. -9 p.m.	-0.071308	0.019496	-3.6576	[.000]
Tuesday-Thursday: 10 p.m. -11 p.m.	-0.186478	0.057036	-3.26951	[.001]
Friday: 12 midnight -5 a.m.	-0.173556	0.035203	-4.93009	[.000]
Friday: 6 a.m. -7 a.m.	0.014933	0.016603	0.899447	[.368]
Friday: 8 a.m. -1 p.m.	-0.042518	8.27E-03	-5.1438	[.000]
Friday: 2 p.m. -4 p.m.	-0.022903	0.041102	-0.557221	[.577]
Friday: 5 p.m. -6 p.m.	-0.130684	0.031412	-4.16037	[.000]
Friday: 7 p.m. -9 p.m.	-0.196251	0.090799	-2.16137	[.031]
Friday: 10 p.m. -11 p.m.	-0.226576	0.146481	-1.5468	[.122]
Saturday-Sunday: 12 midnight -5 a.m.	-0.069996	0.014029	-4.98954	[.000]
Saturday -Sunday: 6 a.m. -7 a.m.	0.068939	0.02778	2.48162	[.013]
Saturday -Sunday: 8 a.m. -1 p.m.	0.366927	0.013424	27.3344	[.000]
Saturday -Sunday: 2 p.m. -4 p.m.	0.016127	0.036444	0.442516	[.658]
Saturday -Sunday: 5 p.m. -6 p.m.	0.136597	0.027152	5.03093	[.000]
Saturday -Sunday: 7 p.m. -9 p.m.	2.56E-03	0.047729	0.053633	[.957]
Saturday -Sunday: 10 p.m. -11 p.m.	-0.109107	0.079876	-1.36595	[.172]

The short-run effect of one percent devitation from the normal reservoir level on price NOK/MWh

	Estimated parameter	Standard deviation	t-statistic	P-value
January	-4.00069	0.113422	-35.2725	[.000]
February	-2.59647	0.113284	-22.9199	[.000]
March	-2.95427	0.194996	-15.1504	[.000]
April	-2.30846	0.212965	-10.8396	[.000]
May	-2.00641	0.137518	-14.5901	[.000]
June	-1.42516	0.082485	-17.2778	[.000]
July	-2.44007	0.150348	-16.2294	[.000]
August	-3.01258	0.167358	-18.0008	[.000]
September	-2.58531	0.221077	-11.6942	[.000]
October	-1.88064	0.149049	-12.6176	[.000]
November	-1.8004	0.148364	-12.1351	[.000]
December	-4.39974	0.119201	-36.9102	[.000]

The effect of aggregate inflow in Norway and Sweden per hour

	Estimated parameter	Standard deviation	t-statistic	P-value
January	-1.72E-03	2.31E-04	-7.42646	[.000]
February	-1.88E-03	3.23E-04	-5.82979	[.000]
March	-2.41E-03	4.05E-04	-5.95156	[.000]
April	1.31E-04	1.70E-04	0.772675	[.440]
May	1.49E-04	5.11E-05	2.91547	[.004]
June	2.67E-04	4.30E-05	6.20379	[.000]
July	-1.21E-04	6.73E-05	-1.79883	[.072]
August	-7.58E-05	9.96E-05	-0.761318	[.446]
September	-1.15E-04	1.03E-04	-1.12451	[.261]
October	-2.38E-04	1.11E-04	-2.1462	[.032]
November	-8.90E-04	1.48E-04	-5.9978	[.000]
December	-2.14E-04	1.87E-04	-1.1461	[.252]

Intercept for each block

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday: 12 midnight-5 a.m.	-55.4715	20.2419	-2.74043	[.006]
Monday: 6 a.m. -7 a.m.	-29.0879	24.8998	-1.1682	[.243]
Monday: 8 a.m. -1 p.m.	-56.8589	13.4168	-4.2379	[.000]
Monday: 2 p.m. -4 p.m.	-78.4398	20.3107	-3.862	[.000]
Monday: 5 p.m. -6 p.m.	-155.358	13.7945	-11.2623	[.000]
Monday: 7 p.m. -9 p.m.	-59.3434	29.8023	-1.99124	[.046]
Monday: 10 p.m. -11 p.m.	-78.1257	51.094	-1.52906	[.126]
Tuesday-Thursday: 12 midnight -5 a.m.	-34.2797	14.6197	-2.34475	[.019]
Tuesday-Thursday 6 a.m. -7 a.m.	-22.0996	17.1918	-1.28547	[.199]
Tuesday-Thursday: 8 a.m. -1 p.m.	-25.6943	10.0634	-2.55325	[.011]
Tuesday-Thursday: 2 p.m. -4 p.m.	-35.3891	17.0667	-2.07358	[.038]
Tuesday-Thursday: 5 p.m. -6 p.m.	-9.89152	14.8421	-0.666451	[.505]
Tuesday-Thursday: 7 p.m. -9 p.m.	-31.534	19.8735	-1.58674	[.113]
Tuesday-Thursday: 10 p.m. -11 p.m.	-41.4797	33.6561	-1.23246	[.218]
Friday: 12 midnight -5 a.m.	-42.3246	26.7244	-1.58375	[.113]
Friday: 6 a.m. -7 a.m.	-67.7619	23.8164	-2.84518	[.004]
Friday: 8 a.m. -1 p.m.	-130.781	14.941	-8.75316	[.000]
Friday: 2 p.m. -4 p.m.	-35.7648	32.6669	-1.09483	[.274]
Friday: 5 p.m. -6 p.m.	-62.167	30.5128	-2.03741	[.042]
Friday: 7 p.m. -9 p.m.	-37.6237	34.0872	-1.10375	[.270]
Friday: 10 p.m. -11 p.m.	-59.2128	59.4305	-0.996338	[.319]
Saturday-Sunday: 12 midnight -5 a.m.	-38.4841	12.8376	-2.99776	[.003]
Saturday -Sunday: 6 a.m. -7 a.m.	-33.3397	13.3925	-2.48944	[.013]
Saturday -Sunday: 8 a.m. -1 p.m.	-23.5679	11.1495	-2.11381	[.035]
Saturday -Sunday: 2 p.m. -4 p.m.	-67.3003	17.4608	-3.85436	[.000]
Saturday -Sunday: 5 p.m. -6 p.m.	-44.807	19.4737	-2.3009	[.021]
Saturday -Sunday: 7 p.m. -9 p.m.	-52.0504	20.3223	-2.56125	[.010]
Saturday -Sunday: 10 p.m. -11 p.m.	-42.4447	27.6553	-1.53478	[.125]

Additional term added on intercept for each block to get the intercept for each hour during a week

	Estimated parameter	Standard deviation	t-statistic	P-value
Monday:1 a.m.	2.21334	8.92385	0.248026	[.804]
Monday:2 a.m.	2.6261	8.79563	0.298569	[.765]
Monday:3 a.m.	7.16677	9.10901	0.786778	[.431]
Monday:4 a.m.	11.4555	9.26385	1.23658	[.216]
Monday:5 a.m.	15.7306	8.59122	1.83101	[.067]
Monday:7 a.m.	-4.61045	8.2789	-0.556891	[.578]
Monday:9 a.m.	-9.73936	2.11273	-4.60985	[.000]
Monday:10 a.m.	-11.6511	2.23105	-5.22224	[.000]
Monday:11 a.m.	-7.7289	2.51524	-3.07283	[.002]
Monday:12 noon	-8.19169	3.6147	-2.26621	[.023]
Monday:1 p.m.	-3.59129	3.95658	-0.907674	[.364]
Monday:3 p.m.	1.31E-03	4.97634	2.64E-04	[1.00]
Monday:4 p.m.	2.46678	4.68215	0.526848	[.598]
Monday:6 p.m.	-9.93855	4.1194	-2.41262	[.016]
Monday:8 p.m.	-4.04397	8.26769	-0.48913	[.625]
Monday:9 p.m.	-5.03829	10.1641	-0.495693	[.620]
Monday:11 p.m.	4.51724	12.548	0.359997	[.719]
Tuesday:1 a.m.	0.761765	8.55449	0.089049	[.929]
Tuesday:2 a.m.	0.508091	7.97313	0.063725	[.949]
Tuesday:3 a.m.	1.04052	7.82805	0.132923	[.894]
Tuesday:4 a.m.	1.25646	8.04795	0.156122	[.876]
Tuesday:5 a.m.	-1.71831	8.06897	-0.212952	[.831]
Tuesday:7 a.m.	0.594879	6.86804	0.086616	[.931]
Tuesday:9 a.m.	-1.87889	3.54729	-0.529671	[.596]
Tuesday:10 a.m.	-2.30108	3.68382	-0.624647	[.532]
Tuesday:11 a.m.	-1.02017	2.74187	-0.372072	[.710]
Tuesday:12 noon	-3.64484	3.82833	-0.95207	[.341]
Tuesday:1 p.m.	-3.95932	4.08718	-0.968718	[.333]
Tuesday:3 p.m.	0.906103	5.24721	0.172683	[.863]
Tuesday:4 p.m.	-1.07143	5.16161	-0.207576	[.836]
Tuesday:6 p.m.	-0.467994	4.78531	-0.097798	[.922]
Tuesday:8 p.m.	1.78981	8.90193	0.201058	[.841]
Tuesday:9 p.m.	3.02187	9.90981	0.304938	[.760]
Tuesday:11 p.m.	4.01708	12.9356	0.310545	[.756]
Wednesday:12 midnight	-2.94228	8.34923	-0.352401	[.725]
Wednesday:1 a.m.	-0.985442	8.37737	-0.117631	[.906]
Wednesday:2 a.m.	-0.516159	8.31747	-0.062057	[.951]
Wednesday:3 a.m.	-0.568663	8.26709	-0.068786	[.945]
Wednesday:4 a.m.	-0.416062	8.15426	-0.051024	[.959]
Wednesday:5 a.m.	-2.53883	8.39883	-0.302283	[.762]
Wednesday:6 a.m.	2.34667	8.46217	0.277313	[.782]
Wednesday:7 a.m.	-2.2989	6.94489	-0.33102	[.741]
Wednesday:8 a.m.	0.917191	2.34823	0.390589	[.696]
Wednesday:9 a.m.	-2.33954	2.92912	-0.798717	[.424]
Wednesday:10 a.m.	-0.724737	3.19524	-0.226818	[.821]
Wednesday:11 a.m.	-1.72963	3.04987	-0.567115	[.571]
Wednesday:12 noon	-2.30372	4.51059	-0.510734	[.610]
Wednesday:1 p.m.	-1.82783	4.68056	-0.390516	[.696]
Wednesday:2 p.m.	2.55925	6.23297	0.410599	[.681]
Wednesday:3 p.m.	3.15092	5.46251	0.576826	[.564]
Wednesday:4 p.m.	8.75792	4.97849	1.75915	[.079]
Wednesday:5 p.m.	12.711	3.47889	3.65374	[.000]
Wednesday:6 p.m.	6.52095	3.54357	1.84022	[.066]
Wednesday:7 p.m.	7.08539	7.6048	0.9317	[.351]
Wednesday:8 p.m.	4.23614	9.25659	0.457635	[.647]
Wednesday:9 p.m.	3.09659	9.68714	0.31966	[.749]
Wednesday:10 p.m.	1.6531	12.7715	0.129437	[.897]
Wednesday:11 p.m.	4.80816	12.8901	0.373011	[.709]

	Estimated parameter	Standard deviation	t-statistic	P-value
Thursday:12 midnight	-4.4858	7.98216	-0.561978	[.574]
Thursday:1 a.m.	-2.58415	7.90136	-0.327051	[.744]
Thursday:2 a.m.	-2.50079	7.8738	-0.317609	[.751]
Thursday:3 a.m.	-2.57315	7.79641	-0.330042	[.741]
Thursday:4 a.m.	-3.52612	7.84964	-0.449208	[.653]
Thursday:5 a.m.	-6.2029	8.40592	-0.737921	[.461]
Thursday:6 a.m.	-4.03634	7.51844	-0.536858	[.591]
Thursday:7 a.m.	-9.49571	6.96408	-1.36353	[.173]
Thursday:8 a.m.	-12.7166	3.21016	-3.96135	[.000]
Thursday:9 a.m.	-10.7769	3.81822	-2.82249	[.005]
Thursday:10 a.m.	-9.89405	3.37282	-2.93347	[.003]
Thursday:11 a.m.	-8.50897	3.28843	-2.58755	[.010]
Thursday:12 noon	-8.59484	3.99204	-2.153	[.031]
Thursday:1 p.m.	-9.55543	4.19751	-2.27645	[.023]
Thursday:2 p.m.	-13.6617	5.82582	-2.34502	[.019]
Thursday:3 p.m.	-12.6022	5.54155	-2.27413	[.023]
Thursday:4 p.m.	-14.0819	5.49136	-2.56438	[.010]
Thursday:5 p.m.	-5.95691	3.62893	-1.64151	[.101]
Thursday:6 p.m.	-6.45346	3.76235	-1.71527	[.086]
Thursday:7 p.m.	-1.851	7.28905	-0.253943	[.800]
Thursday:8 p.m.	1.22802	7.30728	0.168054	[.867]
Thursday:9 p.m.	0.129473	8.49124	0.015248	[.988]
Thursday:10 p.m.	-0.205331	11.669	-0.017596	[.986]
Thursday:11 p.m.	3.99486	12.7718	0.312789	[.754]
Friday:1 a.m.	1.67294	8.15946	0.205031	[.838]
Friday:2 a.m.	1.64427	7.93382	0.207248	[.836]
Friday:3 a.m.	1.80839	7.97684	0.226705	[.821]
Friday:4 a.m.	1.21329	8.00833	0.151504	[.880]
Friday:5 a.m.	-1.79437	8.57009	-0.209376	[.834]
Friday:7 a.m.	-1.80383	10.1157	-0.178321	[.858]
Friday:9 a.m.	-4.3402	1.46919	-2.95413	[.003]
Friday:10 a.m.	-7.5755	1.94755	-3.88975	[.000]
Friday:11 a.m.	-14.7175	2.92474	-5.03206	[.000]
Friday:12 noon	-17.4072	4.31658	-4.03263	[.000]
Friday:1 p.m.	-19.4663	5.10853	-3.81054	[.000]
Friday:3 p.m.	-0.884935	7.60771	-0.116321	[.907]
Friday:4 p.m.	-0.428123	7.67208	-0.055803	[.955]
Friday:6 p.m.	4.51496	4.85252	0.930437	[.352]
Friday:8 p.m.	-0.89905	9.05938	-0.09924	[.921]
Friday:9 p.m.	2.43031	9.60552	0.253012	[.800]
Friday:11 p.m.	6.27742	12.3223	0.509435	[.610]
Saturday:1 a.m.	0.752112	7.74194	0.097148	[.923]
Saturday:2 a.m.	0.04491	7.35804	6.10E-03	[.995]
Saturday:3 a.m.	-3.78284	7.16982	-0.527605	[.598]
Saturday:4 a.m.	-7.79419	7.14582	-1.09073	[.275]
Saturday:5 a.m.	-14.7124	6.97869	-2.1082	[.035]
Saturday:7 a.m.	-11.6088	4.43908	-2.61513	[.009]
Saturday:9 a.m.	2.88165	4.191	0.68758	[.492]
Saturday:10 a.m.	3.89282	4.41428	0.881871	[.378]
Saturday:11 a.m.	5.55273	4.60488	1.20584	[.228]
Saturday:12 noon	7.89399	4.80864	1.64163	[.101]
Saturday:1 p.m.	8.06902	4.64877	1.73573	[.083]
Saturday:3 p.m.	3.04274	6.28004	0.48451	[.628]
Saturday:4 p.m.	6.63801	6.5307	1.01643	[.309]
Saturday:6 p.m.	-3.15142	5.50341	-0.572631	[.567]
Saturday:8 p.m.	2.75632	6.7611	0.407673	[.684]
Saturday:9 p.m.	5.30175	7.25437	0.730834	[.465]
Saturday:11 p.m.	3.29383	7.34067	0.44871	[.654]

	Estimated parameter	Standard deviation	t-statistic	P-value
Sunday:12 midnight	2.09795	8.87699	0.236336	[.813]
Sunday:1 a.m.	1.93425	8.82261	0.219238	[.826]
Sunday:2 a.m.	5.13563	8.14462	0.630555	[.528]
Sunday:3 a.m.	0.598257	8.23134	0.07268	[.942]
Sunday:4 a.m.	-1.10585	8.24247	-0.134164	[.893]
Sunday:5 a.m.	-2.00356	8.21059	-0.244021	[.807]
Sunday:6 a.m.	-20.4543	7.54565	-2.71074	[.007]
Sunday:7 a.m.	-26.6368	7.79847	-3.41564	[.001]
Sunday:8 a.m.	-10.9727	5.9037	-1.85862	[.063]
Sunday:9 a.m.	-9.51872	6.23082	-1.52768	[.127]
Sunday:10 a.m.	-9.08072	6.5506	-1.38624	[.166]
Sunday:11 a.m.	-8.16776	6.67115	-1.22434	[.221]
Sunday:12 noon	-7.19059	6.7342	-1.06777	[.286]
Sunday:1 p.m.	-6.63946	6.59122	-1.00732	[.314]
Sunday:2 p.m.	14.193	13.001	1.09168	[.275]
Sunday:3 p.m.	14.27	12.8195	1.11314	[.266]
Sunday:4 p.m.	12.5608	12.3037	1.02089	[.307]
Sunday:5 p.m.	-2.83314	11.1912	-0.253159	[.800]
Sunday:6 p.m.	-1.17587	10.5799	-0.111142	[.912]
Sunday:7 p.m.	0.364903	13.0821	0.027893	[.978]
Sunday:8 p.m.	3.66838	13.4813	0.272108	[.786]
Sunday:9 p.m.	5.65233	14.1353	0.399873	[.689]
Sunday:10 p.m.	-5.64438	15.6276	-0.361179	[.718]
Sunday:11 p.m.	-4.08145	15.0905	-0.270465	[.787]

Appendix C

Model statistics

Total number of observation = 33697

Number of observations used in estimation = 29287

Log likelihood = -577543.

Schwarz B.I.C. = 588898.

Demand equation for Sweden

Dependent variable: Demand Sweden

Mean of dep. var. = 16563.5

Std. dev. of dep. var. = 3687.02

Sum of squared residuals = 0.642751E+10

Variance of residuals = 219466.

Std. error of regression = 468.472

R-squared = 0.983855

Demand equation for Norway

Dependent variable: Demand Norway

Mean of dep. var. = 13307.0

Std. dev. of dep. var. = 3016.66

Sum of squared residuals = 0.318594E+10

Variance of residuals = 108783.

Std. error of regression = 329.823

R-squared = 0.988046

Price equation

Dependent variable: Spot price Sweden

Mean of dep. var. = 208.252

Std. dev. of dep. var. = 112.831

Sum of squared residuals = .393133E+08

Variance of residuals = 1342.35

Std. error of regression = 36.6380

R-squared = .894556