

**CITY OF NEWARK  
DELAWARE**

**COUNCIL MEETING MINUTES**

**April 25, 2011**

Those present at 7:00 pm:

Presiding: Mayor Vance A. Funk, III  
District 1, Mark Morehead  
District 2, Jerry Clifton  
District 3, Doug Tuttle  
District 4, David J. Athey  
District 5, Ezra J. Temko  
District 6, A. Stuart Markham

Staff Members: City Manager Kyle Sonnenberg  
City Secretary Patricia Fogg  
City Solicitor Bruce Herron  
Finance Director Dennis McFarland  
Planning & Development Director Roy Lopata

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1. The regular Council meeting began with a moment of silent meditation and pledge to the flag.

2. MOTION BY MR. CLIFTON, SECONDED BY MR. MARKHAM: THAT ITEMS 6-D, BILL 11-05 - AN ORDINANCE AMENDING THE ZONING MAP OF THE CITY OF NEWARK, DELAWARE, BY REZONING FROM BL (BUSINESS LIMITED) TO BB (CENTRAL BUSINESS DISTRICT) .85 ACRES LOCATED AT 206, 208, 220 AND 224 EAST DELAWARE AVENUE, 7-A, REQUEST OF CAMPUS EDGE, LLC, FOR THE MAJOR SUBDIVISION, WITH SITE PLAN APPROVAL, FOR THE REDEVELOPMENT OF THE .85 ACRE PROPERTIES LOCATED AT 206, 208, 220 AND 224 EAST DELAWARE AVENUE, IN ORDER TO DEMOLISH THE EXISTING BUILDINGS ON THE SITE AND TO CONSTRUCT A FIVE-STORY MIXED USE BUILDING WITH 12,116 SQ. FT. OF FIRST FLOOR COMMERCIAL SPACE AND 39 UPPER FLOOR APARTMENTS, TO BE KNOWN AS CAMPUS EDGE, AND 7-B, REQUEST OF CAMPUS EDGE, LLC, FOR A SPECIAL USE PERMIT TO PERMIT 39 UPPER FLOOR APARTMENTS IN THE PROPOSED FIVE-STORY COMMERCIAL/RESIDENTIAL MIXED USE BUILDING TO BE CONSTRUCTED AT 206, 208, 220 AN 224 EAST DELAWARE AVENUE, TO BE KNOWN AS CAMPUS EDGE BE REMOVED FROM THE AGENDA AND BE RESCHEDULED TO THE MAY 23, 2011 CITY COUNCIL MEETING.

MOTION PASSED UNANIMOUSLY: VOTE: 7 to 0.

Aye – Athey, Clifton, Funk, Markham, Morehead, Temko, Tuttle.  
Nay – 0.

MOTION BY MR. ATHEY, SECONDED BY MR. CLIFTON: THAT ITEM 7-C, REQUEST OF UNIVERSITY GARDEN ASSOCIATES FOR THE MAJOR SUBDIVISION OF A PORTION OF THE 4.2126 ACRE PROPERTY LOCATED ON THE WEST SIDE OF BEVERLY ROAD, DIRECTLY ADJACENT TO 212 BEVERLY ROAD, IN ORDER TO ADD A NEW EIGHT UNIT GARDEN APARTMENT BUILDING TO THE

EXISTING UNIVERSITY GARDEN APARTMENTS COMPLEX, BE MOVED TO ITEM 20.

MOTION PASSED UNANIMOUSLY: VOTE: 7 to 0.

Aye – Athey, Clifton, Funk, Markham, Morehead, Temko, Tuttle.  
Nay – 0.

**3. 1. ITEMS NOT ON PUBLISHED AGENDA**

A. Public

**01:39**

Nancy Willing, a Newark resident, was alarmed to read that a portion of Academy Street might be closed to vehicular traffic by the University of Delaware for pedestrian access. She also issued an alert about the PLUS hearing on 4/27/11 of the proposed shopping center at Possum Park and Kirkwood Highway. Her concern was that in addition to traffic congestion, the development would lead to retail development on White Clay Creek.

4. John Kowalko, a State representative and Newark resident, was also concerned about the possible closing of Academy Street which he stated would cause further restrictions to traffic flow throughout the City.

5. Robyn Harland, a Newark resident, said she was on a fixed income and was totally opposed to the proposed change in electric rates. With regard to Academy Street, she agreed that Newark could not afford to have the street closed.

6. Connie Merlet, a Newark resident, loved walking around Main Street and expressed displeasure at the idea of closing Academy Street. She said walking the Green provided plenty of walking space. If there was a problem getting students across Academy, the University could build a walking bridge. In addition, Academy Street provided 38 parking spaces the City could not afford to lose.

**7. 1-B. UNIVERSITY**

**06:26**

1. Administration

Mr. Armitage reported there would be a presentation by Nancy Chase from the Wellspring group at the May 9 Council meeting regarding what works in dealing with students and off-campus behaviors. Chief of Police Pat Ogden will discuss other ideas from the University Police to help the City address some of the off-campus lifestyle issues. Tracy Downs, first director of the Robert Wood Johnson program, will also attend the presentation.

Regarding changes to Academy Street, Mr. Armitage mentioned the idea came about during the capacity study of the campus as UD looked at their capital program moving forward into the future. There will be a request for proposal for a consultant to explore the idea in the spring. If this idea was to happen, Mr. Armitage felt it was five to seven years out. The stakeholders who would be affected by the closure and/or making the street more pedestrian friendly while still open to emergency vehicles will be contacted to be part of the study.

Mr. Clifton advised Mr. Armitage that he heard concerns about the crosswalk at the Mall on Delaware Avenue. He asked if the University could help alleviate traffic delays for vehicles on Delaware Avenue caused by pedestrian crossings. Mr. Armitage will discuss the situation with Chief Ogden. Mr. Funk added that he brought the same issue to WILMAPCO's attention several months ago to ask for a signalization study of several crosswalks where a green light would be required for pedestrian crossings. Mr. Clifton felt the Hawk System on Library Avenue/Rt. 72 at the University farm was a potential hazard because it

does not operate regularly. He suggested a better use for the signal would be in a high pedestrian area such as the Mall.

**8. 1-B-2. STUDENT BODY REPRESENTATIVE**

There were no comments forthcoming.

**9. 1-C. COUNCIL MEMBERS**

**11:15**

**Mr. Temko**

- Requested an update at the 5/9/11 Council meeting on the Green Energy Subscription Program. He was interested in hearing whether the City had made the transition to wind instead of biomass and whether changes were made about the timing or amount of allowable purchases.
- Requested staff feedback about the use of Curtis Paper Mill as an option for parking which was suggested by a downtown business owner.

**10. Mr. Tuttle**

- Acknowledged those who participated in the Nefosky Run/Walk on 4/15 as well as the event organizers.

**11. Mr. Markham**

- Issued a reminder about the National Prescription Drug Take Back Day on 4/30 from 10 am to 2 pm at the University of Delaware Public Safety Office on Academy Street.
- Welcomed new District 1 City Council member Mark Morehead.

**12. Mr. Morehead**

- Thanked all the residents who participated in the election for City Council and took part in the democratic voting process.

**13. Mr. Athey**

- Welcomed Mr. Morehead to Council.
- Welcomed Bruce Herron, newly appointed City Solicitor, who formerly served as Deputy City Solicitor.
- Echoed Mr. Tuttle's comments about the Nefosky 5K Run/Walk and said the City always does a great job with the event which also highlights the reservoir.

**14. Mr. Clifton**

- Received positive comments and appreciation from a Kelway Plaza property owner regarding assistance from Code Enforcement Supervisor Steve Wilson who went above and beyond the call of duty. He also acknowledged the four police officers present that night for their very professional assistance.

**15. 2. APPROVAL OF CONSENT AGENDA**

**14:57**

- A.** Approval of Regular Council Meeting Minutes – March 28, 2011
- B.** Approval of Organizational Meeting Minutes – April 19, 2011
- C.** Receipt of Alderman's Report – April 4, 2011 and April 19, 2011

- D. Appointment of Horacio D. Lewis, 1000 Fountainview Circle, Suite 216, to the Community Development/Revenue Sharing Committee – 3 Year Term to Expire March 2014
- E. Real Estate Tax Assessment Quarterly Supplemental Roll

Ms. Fogg read the Consent Agenda in its entirety.

MOTION BY MR. CLIFTON, SECONDED BY MR. TUTTLE: THAT THE CONSENT AGENDA BE APPROVED AS SUBMITTED.

MOTION PASSED UNANIMOUSLY: VOTE: 7 to 0.

Aye – Athey, Clifton, Funk, Markham, Morehead, Temko, Tuttle.  
Nay – 0.

- 16. **3. ITEMS NOT FINISHED AT PREVIOUS MEETING** – None
- 17. **4. FINANCIAL STATEMENT** – None
- 18. **5. RECOMMENDATIONS ON CONTRACTS & BIDS** – None
- 19. **6. ORDINANCES FOR SECOND READING & PUBLIC HEARING**
  - A. **Bill 11-06** – An Ordinance Amending Chapter 20, Motor Vehicles and Traffic, Code of the City of Newark, Delaware, By Bringing the Code Into Conformity with the State Code Regarding An Exception to the Ban of the Use of An Electronic Communication Device While Driving a Motor Vehicle

**15:55**

MOTION BY MR. MARKHAM, SECONDED BY MR. ATHEY: THAT THIS BE THE SECOND READING AND FINAL PASSAGE OF BILL 11-06.

The Chair opened the discussion to the public. There being no comments forthcoming, the discussion was returned to the table.

Question on the Motion was called.

MOTION PASSED UNANIMOUSLY: VOTE: 7 to 0.

Aye – Athey, Clifton, Funk, Markham, Morehead, Temko, Tuttle.  
Nay – 0.

**(ORDINANCE NO. 11-04)**

- 20. **7-C. REQUEST OF UNIVERSITY GARDEN ASSOCIATES FOR THE MAJOR SUBDIVISION OF A PORTION OF THE 4.2126 ACRE PROPERTY LOCATED ON THE WEST SIDE OF BEVERLY ROAD, DIRECTLY ADJACENT TO 212 BEVERLY ROAD, IN ORDER TO ADD A NEW EIGHT UNIT GARDEN APARTMENT BUILDING TO THE EXISTING UNIVERSITY GARDEN APARTMENTS COMPLEX (RESOLUTION & AGREEMENT PRESENTED)**

**16:40**

MOTION BY MR. CLIFTON, SECONDED BY MR. TUTTLE: THAT THE RESOLUTION BE APPROVED AS PRESENTED.

Lisa Goodman, Esq., represented University Garden Associates. She explained this was an application for one additional building at University Garden Apartments which was zoned RM and was referred to as a “by right” plan since it was properly zoned and met all Code requirements. The plan was Code compliant as to parking with more parking than required. Stormwater on the property was upgraded from an old retention basin to a new green technology basin. The area was currently an open parking lot, and the proposal was to reconfigure the parking to construct one new building with eight units. Additional

landscaping would be added and also took into account suggestions made by Mr. Athey. The apartment complex was built in 1950 and was upgraded with new electrical service, new fixtures in all the units, a punch pad security system in all front doors, oil burners replaced with high efficiency gas and new kitchen cabinets and windows in every unit. The new unit will have super insulation in the roof and walls, a cool roof design, Energy Star appliances, windows and HVAC and high efficiency water fixtures. The building design would match the existing buildings. The Board of Adjustment granted a variance to permit the eight new units.

During Mr. Athey's outreach to area neighbors concerns were expressed about property values and more off-campus housing in the quiet residential community. In this instance, however, Mr. Athey said Council could not vote the project down since it was a Code compliant subdivision. On a positive note he learned there were only two police calls at the site in the last 12 months and he also appreciated the additional landscaping which would serve as a buffer.

The Chair opened the discussion to the public.

Kate Robinson lived on Beverly Road for 23 years. When she moved to Newark, she and her husband chose their property because it was one of the last neighborhoods near UD that was not filled with student housing. She felt more units added to Beverly Road would increase the number of students on the street creating noise and parking problems and thereby seriously impacting property values. She talked to neighbors who agreed with her objections to the project and signed a petition to that effect. (Secretary's note: Petition is attached to the minutes.)

There being no further comments forthcoming, the discussion was returned to the table.

Mr. Clifton agreed with the by right issue but said there was a lot of recent discussion about the proliferation of student housing and housing that was built strictly to become rentals for students. He thought Council needed to seriously examine the direction the City was going in and explore what was allowed under the comprehensive land use plans to address the issue.

Mr. Athey concurred this issue should be looked at in a much bigger picture as he felt this could (or had) become a quality of life issue in his neighborhood. He said although this was a by right plan, every Council member did not have to vote for it. As a matter of principle and in light of the petition from the neighbors, he would not support the project.

Mr. Temko suggested the possibility of a block party coordinated by the Town & Gown Committee to help foster a collegial relationship between students and residents.

Mr. Funk acknowledged this was a by right plan and said the project was just down the street from him. He had not experienced any problems with the tenants living at University Gardens and added they were well behaved. He did not appreciate the fact that a large tree was taken down before the plan was approved. Ms. Goodman explained the City asked for the tree to be taken down because it was in very bad condition. Mr. Funk pointed out that the City already had an excessive amount of student housing and felt it was odd that the housing being built was suitable for undergraduates when the University was emphasizing graduate students.

Mr. Markham said while Council was never thrilled with more apartments in the City, there will be difficulties in trying to balance property rights versus making changes. Further, the City encouraged infill in different areas.

Question on the Motion was called.

MOTION PASSED: VOTE: 6 to 1.

Aye – Clifton, Funk, Markham, Morehead, Temko, Tuttle.  
Nay – Athey.

**(RESOLUTION NO. 11-F)**

**21. 6-B. BILL 11-07 – AN ORDINANCE AMENDING CHAPTER 11, ELECTRICITY, CODE OF THE CITY OF NEWARK, DELAWARE, BY REVISING THE ELECTRIC RATES EFFECTIVE JUNE 1, 2011**

**31:34**

Mr. McFarland introduced the ordinance which he said would restructure the electric rates for all the customer classes for the City's electric utility and would afford a \$2.8 million rate reduction for the larger customer classes. The genesis of the proposal dated back to 2009 when Council asked staff to re-evaluate the City's current rate design for electric rates. There were six policy objectives the rate redesign was intended to address. Three of those policy objectives were fairly common to all rate studies, and three objectives were particular to the direction provided by Council to staff at that time. The three traditional rate objectives were that the rates should recover all the costs of the electric utility, the rates should be fair and reasonable to all classes of customers and the rate should be competitive with utilities in the surrounding geographic area. Beyond those objectives the three additional policy objectives set were that the new rates should encourage energy conservation, the rates should support economic development within the City and the proposed rates should decrease the City's sensitivity to fluctuations in consumption levels.

In late 2009 staff sent an RFP requesting consulting services. Over 15 responses were received, and the bid was awarded to Black and Veatch, a nationally known consulting firm from Kansas City, MO. They began their analysis in the early part of 2010, and in late summer and early fall, staff together with Black and Veatch assembled a group of stakeholders who were used as a sounding board for various rate design mechanisms being considered. The stakeholder group was comprised of representatives of various customer classes including the City's three largest customers, the local development community, small businesses, a residential class representative and a representative from the Conservation Advisory Commission.

In August 2010 a Council workshop was held presenting the rate mechanisms that were being evaluated and how they related to policy goals. The workshop was followed up in September 2010 with a staff report to Council which laid out some of the specifics that would be incorporated into the proposal.

Mr. McFarland reported the rates were proposed to go into effect June 1. The City's intent was to provide at least thirty days notice to customers before the rates became effective.

Craig Brown of Black and Veatch reviewed the specifics of the rate redesign proposal with a PowerPoint presentation. (Secretary's note: The Electric Rate Study final report dated March 2011 is attached to the minutes.)

Mr. Morehead questioned the residential rate. He said meters were currently read once every three months, and he wanted to arrange for his meter to be read in the wintertime. Mr. McFarland said they worked feverishly over the last two months to increase the frequency of electric meter readings as it was realized there had to be more frequent reads to effectuate this rate design. At this time, more than 90+% of meters were being read monthly, and consumption would be prorated if the meter read fell within a month. Mr. Morehead referenced the heat wave last year when, based on the cycle of the actual read, a number of customers got hit with two low months and then a very high month because of

the rotating read schedule. Mr. McFarland said that problem will not re-occur based on the monthly reads.

Mr. Clifton asked Mr. McFarland when the change to monthly meter readings occurred. Mr. McFarland said a vendor was found who provided a mobile meter reader that picked up signals from those meters already in place with technology capable of sending a signal to the handheld. One meter reader will do the mobile reads (about 60% of the City), and the other meter readers will handle the remaining 40%. Mr. Clifton questioned how the City's rates compared with Delmarva under the proposed rate structure. Mr. McFarland said within the residential class the City would be about 7% over Delmarva on the typical monthly bill which resulted from the City's wholesale cost of power vs. Delmarva's wholesale cost of power and the City's distribution-specific cost vs. Delmarva's distribution-specific cost. Newark's wholesale power costs were currently higher than Delmarva, but he anticipated that situation would be rectified within the next two years and would become much closer. In the long run the City's distribution costs would be a bit higher than Delmarva's because they get an economy of scale with their system that the City does not have. Up until a year and a half ago, the City was typically four to five percent below Delmarva and was trying to get back to that differential.

Mr. Athey clarified that the City would be 7% over Delmarva with the new rates. Mr. McFarland reported the new rates would not change the revenues collected from the residential class, so the typical customer's bill would not change under this proposal. Mr. Athey noted that residents were pleased with the conservation pricing but questioned why it only applied in the summertime. Mr. McFarland explained there was the generic good of energy conservation, and there was also a specific good for the City and conservation in terms of reducing summer peak. To the extent that peak could be held down, there were real cost savings to the City. Thus, there was a greater benefit to shave the peak in the summer than in the winter. The general feeling was that customers had greater capability to conserve in the summer than in the winter because they can change the temperature on their air conditioner while most of the City's customers had natural gas heat. Therefore, that option was not available to them in the winter. Further, in the base rate there was an advantage to the all-electric customers because they would save more money in the winter than any other customer.

Mr. Markham commented that three funds were alluded to earlier in the rate study – the budget balance reserve, the contingency reserve and the rate stabilization reserve. If these were funded by the City, revenues should be more stable and less likely to show rate changes, especially the revenue stabilization fund. Mr. McFarland said those three reserve funds were adopted as part of the financial policies about two years ago and currently were not funded at all. This rate structure change proposed to begin doing that. He added that the only way to stabilize the City's financial results would be if Council acted to draw upon those reserves for a particular time period. That was an option for Council to utilize although it would not be an automatic action. Mr. Markham clarified that Council would have the option to use that fund rather than changing the RSA/PPCA.

Mr. Markham questioned the range of the months chosen for summer and winter and how that was read. He noted April would have some March usage, so winter would bleed over into April. Mr. McFarland said the winter/summer break was in the tariff for a long period of time. He did not think there would be a material difference whether the period started in April or May. Mr. Tuttle added the most significant usage in terms of the summer peak would kick in during the true summer.

Mr. Temko thanked Mr. McFarland for his efforts during the past three years. He questioned the over and under-recovery percentages and asked if these were surprising or were predicted. Mr. McFarland said they were not surprising to him. However, it had been a long time since the City did a full-

blown cost of services study, and it was the first time anyone currently at the City became aware of how those cost of service results came out. He would have expected that the larger customers were paying more and the residential customers were paying less because traditionally, that was the way utilities were handled. He said the best run utilities tended not to do that anymore because of the pressure for economic development and competitiveness.

Regarding the RSA process, Mr. Temko noted when this was discussed at the Council workshop, Council talked about the potential for having more standardization such as an automatic adjustment once a quarter to eliminate large fluctuations. Mr. McFarland said that decision would be at Council's discretion. The proposed ordinance attempted to more accurately put a label on that clause to reflect both tracked changes in wholesale power costs and to track the budgeted margin.

Mr. Temko also remarked on Mr. Athey's comment about lowering the seasonal peak demand in the summer. He said not only would that save the City money, but the idea from an environmental perspective was if the peak demand was lowered, then an extra power plant was not required, thereby providing environmental benefits.

Mr. Tuttle expressed his appreciation for the amount of time and the thorough examination devoted to the study because there was a time when rates were set arbitrarily and adjusted to attempt to insulate customers from the market. This process cost the City a lot of money.

Amy Roe, a Newark resident, said the City was a government utility serving the customers of Newark. If the City was going to be an investor in utilities, she wanted oversight from the Public Service Commission. She also wanted to have energy choice so she could choose her own provider. According to Ms. Roe, the City had a monopoly and a responsibility to act for the benefit of its citizens. She felt the cost of service study did not take into account the purpose of the electric utility but instead assumed the reason the utility existed was to provide energy services to the citizens of the town. She stated that the purpose of the City's utility was to collect revenue and keep property taxes down. Thus she said the cost of service study was the wrong methodology for designing the electric rates and privileged the large industrial customers such as the University of Delaware. Further, the residents' tax dollars provided all the evidence the University needed to say they were overpaying for their electric.

Another area of concern for Ms. Roe was changing the PPCA to the Revenue Stabilization Adjustment. With no PPCA, she said rates could not be changed when wholesale prices increased. She advised that was the problem in the summer of 2009 when the PPCA suddenly went up 2.7 cents per Kwh and customers were impacted with higher electric rates at the end of August which were then applied retroactively. Ms. Roe also pointed out that Council never approved the PPCA as this was at the sole discretion of the Finance Director. She noted in the February Financial Statement that customers overpaid last year in the PPCA, and she was still waiting for her refund.

Ms. Roe also felt there had not been adequate community involvement in the process and felt citizens were left out of the decision making about their own utilities. She filed a request with the Attorney General's office to determine whether the City violated the Freedom of Information Act when it held its public stakeholder meetings in private. While she was told the City did not violate FOIA, she did not believe adequate outreach had been done by the City to engage the public.

Nancy Willing, a Newark resident, remarked that the University of Delaware already received a favorable rate for their electric. While the University was an economic engine, she said they did not pay property taxes and occupied more than 33% of the land mass. If the University was not in the City, perhaps

someone else would be paying taxes, and there would be less reliance on the electric rate for the City's viability. She felt the public was left out of the process and thought the rate revision should be tabled to provide more opportunity for public participation.

John Kowalko, State representative and Newark resident, distributed a chart comparing utility rates across the State of Delaware as of February 1, 2011, which showed Newark with the highest rates. He requested that Council table the bill and schedule a town hall-type public discussion to allow back and forth dialogue with rate payers and other stakeholders. He had several concerns with the proposal and urged caution in moving to a decoupling mechanism. He said decoupling mechanisms were being considered throughout the country, but none had been adequately tested or proven to accomplish the goals of proponents. He also disagreed with the oversimplification that high-usage customers were subsidizing low-usage customers. He said the theory that this new policy will encourage energy conservation was flawed and would instead penalize necessary usage by lower income and lower usage customers. Mr. Kowalko added that the Black and Veatch study found the revenue being collected was higher than the revenue needed, fueling speculation that utility revenue was being used to balance the City's budget. To return the majority of the overage to Rohm & Haas and UD ignored the reality that to a large extent the University provided very little tax revenue to the City and was being given an inordinate additional subsidy at the expense of the residential users. He said solutions to retrieve necessary expenditures with alternative revenue devices should be a priority of the City's financial management plan. The necessary revenue for a balanced and stable budget should come from a legitimate tax increase that would not exclude new plans to recover revenue from the University and would not be dependent on utility fee increases. None of the fee impositions were deductible as a property tax would be, and utility fee increases were regarded as the most aggressive form of taxation. Thus he believed the City reached the tipping point where the utility revenue and legitimate revenue needed to balance the budget were interwoven and tipped the imbalance toward regressive taxation of the users of the utilities.

Bruce Harvey, a Newark resident, said the people paying residential rates were subsidizing Newark City government. As of January 1, 2007, the PPCA was zero and from that time to the proposed rates, the PPCA was adjusted up to 22%. He asked what to expect over the next four years through simple Revenue Stabilization Adjustment increases and suggested control on that adjustment.

Rick Armitage spoke on behalf of the University of Delaware and thanked the City for completing the cost of service study. From the University's point of view, this was an important first step in addressing the structure of Newark's electric rates. Results of the study confirmed that significant inequities existed in the current rate structure. He said it was important to note the study determined that users like UD, Rohm & Haas and large light and power rate classes were being overcharged by nearly \$5 million per year while other classes were not paying for the actual amount it cost to provide power and being undercharged or subsidized by nearly \$2.5 million per year. Although the proposed ordinance will decrease electric rates for users who were overpaying, Mr. Armitage stated that large electric consumers will still continue to pay more than it costs to serve them, and the residential and the general service customers will still be paying less than it costs to provide that service.

Given these findings, the University supported the City's efforts to adjust the electric rates of classes who were overpaying. However, the University remained concerned about the cost of electric power and the City's dependency on electric revenue and the application of the PPCA which will now be referred to as the RSA in the proposed ordinance.

Mr. Armitage added that as a major economic engine in the City, the University will continue to contribute directly to the City as well as provide

significant economic benefits to the local and regional economy. Beyond its economic contributions, the University remained committed to partnering with the City and its neighbors in programs like the neighborhood mortgage assistance program, maintaining a robust police department, maintaining a leadership role in community events and working with groups such as the Downtown Newark Partnership to continually revitalize the City. Further, the University was committed to fulfilling its mission in the most cost effective manner and will continue to work collaboratively with the community with respect to energy issues.

Robert Davis, a Newark resident, said electric bills were a joke in his neighborhood since they were constantly increasing. Some residents in his community were living paycheck to paycheck and did not know how they were going to pay their next electric bill. He commented that the revenue was overdone by \$2.8 million and looked forward to getting a rebate. Regarding the continuing increases in the PPCA, he did not understand how his bill could go up while he used fewer kilowatts a day. When Mr. Davis compared last year's bill to this year's bill, he said it was \$22 compared to \$77. He felt the City should take care of its residents and not give money away to the University.

Martin Bolte, a Newark resident, tried to reduce his electric bills by installing energy saving bulbs inside and out. He did not feel he should have to subsidize anyone else's electric bill.

Connie Merlet, a Newark resident, said one thing she learned was never to argue with a statistician because you will never win. While she had great respect for the study, she felt depending on how the study was set up and the answers you wanted, the results would come out differently. Since the UD was shut down in the summer, she noted it will look like they were conserving during the warm months as compared to residents occupying their homes for twelve months. She asked if there was anybody in the room who thought the University was overpaying for anything.

Willett Kempton, a Newark resident, conducts research at UD on electric vehicles. His comments were on electric vehicles in relation to a new block rate structure. By substituting electricity for gasoline, he pointed out that money was kept in the local community and pollution was reduced immediately. He reported there was an electric vehicle manufacturer in New Castle doing retrofits, and there will be one at the Boxwood Road plant, so he thought encouraging residents to buy electric vehicles was consistent with the goals of promoting energy conservation and economic development. However, purchasing an electric vehicle will mean increasing usage into the higher inclining block rate category based on the electricity required to operate the vehicle. As a way to deal with that he suggested an RSEV rate. To qualify for the rate an owner would have to certify that they owned an electric vehicle which was registered at the same address as the meter address. He estimated that it took about 250 Kwh to operate an electric vehicle per month, so the initial rate tier could be set at 500 rather than 250 Kwh per month to compensate for the use of the electric vehicle without pushing a customer into higher rate classes. He recommended a staff analysis of how that might be done in the simplest way and suggested an amendment to add an RSEV rate in the future.

There being no further comments forthcoming, the discussion was returned to the table.

Mr. Clifton said he was not pleased with some components of the rate redesign but felt whatever rate was enacted, there would always be an aggrieved party (unless costs went down). He saw this as an ethical issue and if any party was being overcharged, he felt the City had a responsibility to bring this back in balance. He thought that was accomplished. He said a key component of the revised rate structure was that it aided energy conservation although he recognized there would be stakeholders who could not necessarily reduce their

consumption. In looking at the rate structure and the format provided, to a great extent he thought it would be revenue neutral for the majority of the City's stakeholders. Mr. Clifton believed this was a matter of fairness and a matter of equity that the City needed to address, so he planned to support the proposal.

Mr. Athey wanted to dispel the notion that this was the first time the electric rate study was reviewed in public as it was the focus of a Council workshop held in September 2010. He asked Mr. McFarland the plans for refunding the over-collection to customers. Mr. McFarland said the over-collection from calendar 2010 was about \$300,000, and it was cleaner to refund the money once Council approved the rate revision and the Revenue Stabilization Adjustment was set to zero.

Mr. Athey's perspective was anytime you deal with public policy there will be conflicting goals. The word decoupling had come up a number of times, and he thought it was very important for the City to decouple to get away from being a consumption based utility. He referenced the cool wet summer in 2009 where utility revenues plummeted and the year finished in the red. He said the City cannot be weather dependent, and the only way to accomplish that was to adopt a fixed structure as proposed. He noted the Black and Veatch study justified a \$33 customer charge which Council reduced to \$10 while understanding this charge would disproportionately affect the low usage customers.

Regarding the University, Mr. Athey said while the report had assumptions, Black and Veatch came in with an unbiased opinion. He would not call this a pre-determined outcome and did not buy the argument that the University was being given a major break, certainly not on the back of residents. He also stated there was a fixed and a variable component, and the fixed component included the margin which was the cost to operate the City services, not the electricity actually flowing through the lines. There were complaints about the size of the bills and the rising PPCA, and Council was painfully aware of those bills since they paid them as well. Council understood the escalating costs and made several attempts in the past few years to cut services, but residents were not complaining about services they received. Although Mr. Athey supported the proposal, he would not have a problem tabling it to another meeting. However, he was not sure a significantly different outcome would be reached.

Mr. Morehead echoed Mr. Clifton's comments. He stated that the City faced many challenges, and he found it disappointing that the public was not more involved in this process. He pointed out that the Black and Veatch study was on the City's website where it was available to the public. The various meetings held before his time on Council had been open to the public, and he encouraged members of the public with an opinion to discuss it with Council. His email was on the City's website, and he urged residents to feel free to contact him as well. Mr. Morehead planned to support the rate revision as he thought it was the right thing to do to position the City's finances to move forward reliably for the future.

Mr. Markham said it was apparent to him that some type of rate study was called for in late 2006 when it was realized that the electric utility lost \$6.5 million in 2005-06 and the City subsidized the rates to all its customers. He felt the electric rates were an important piece of the City's financial puzzle. Mr. Markham said he was a heavy all electric user. When he looked at how he would fare under the new residential rates, he calculated he would pay an additional \$60 in the summer and would pay \$100 less in the winter. He wanted to see the budget balance reserve, the contingency reserve and the rate stabilization reserve funds adequately funded to avoid increases in the revenue stabilization amount. A requirement for him was the monthly reads; otherwise, costs would be shifted into the wrong months. Mr. Markham did not know what the outcome of the study would be but thought Mr. McFarland knew the outcome based on his

background in utilities. Mr. Markham said he would support the rate revision but if Council wanted to table it, he would not have a problem with that decision.

Mr. Tuttle disclosed that he was employed by the University of Delaware as a faculty member in the School of Public Policy and Administration. He did not see a need to recuse himself as he did not think the University's electric power costs had any particular impact on him. He was pleased the issue was addressed as the City's reliance on electric revenues was a concern to him for quite some time, and the change in the rate structure would reduce the City's overall revenue from electric services. He thought that was a step in the right direction but added he did not think this was the last conversation on this topic. He did not see a reason to table the item because it was a conversation that started months ago. However, he felt there were still inequities in the new rate structure and said the City remained dependent on an overhead charge tacked onto electric revenue to fund the operation of the City. He thought those two items should be revisited in the future but believed this was a step in the right direction.

Mr. Temko received a number of emails on this topic. Some were in support from an environmental perspective and some were from electric heat users. He believed the 10% of the City's residential population who were electric heat users would be pleased that the City was taking a step in the right direction. The main opposition he heard regarded the change in the University's rates. He felt due diligence was done on the study and that it was done very responsibly, and he rejected the idea that the City used residents' tax dollars to benefit UD. He was surprised by the scale of the over-recovery of costs from UD and the large users. While the proposal had a reduction for those large customers, that would not stop Council from addressing a policy regarding subsidies between customer classes, and he continued to support a differential in that subsidy. He also rejected the University's use of the term "over-charged" rather than over-recovery. Mr. Temko remarked that the University was an asset to the community, and he looked forward to a continued partnership and hoped they would collaborate as they said they wanted to which involved working with the community and Council on a variety of issues and negotiating a new contract in good faith.

Regarding the PPCA/RSA, Mr. Temko thought there were some good questions on it and some allegations that were slightly misconstrued. While there were issues with the process that could be discussed in the future, he offered to discuss in more detail the concept behind the RSA and defend it from an environmental and a financial perspective. He believed that was a separate issue from the rate design.

Mr. Temko agreed there were many opportunities for public involvement. He felt this issue would not have been raised if the rate revision was voted on in December during the budget process. However the process was postponed while Council awaited the conclusion of UD contract negotiations. He believed scheduling a community meeting at this point would be a disservice because of the amount of work and due diligence put into the study, and he said it was unclear whether anything would be accomplished from another meeting.

Mr. Temko said the City was already decoupled through the RSA/PPCA and thought the fixed charge of \$10 had a similar goal of decoupling. He felt it was unfortunate to look at the financial statement and say it was a really hot summer (meaning the City made money because people used more electricity) or people conserved (meaning the City was not making as much money.) The more that can be separated from the equation so the City recovers its fixed costs, the less important it will be if customers use less energy, and the City will be better equipped to promote energy conservation.

Mr. Temko thought an RSEV customer rate should be explored in the future so the City could be on the forefront of attracting exciting opportunities.

Overall he though the electric rate represented a lot of hard work and some exciting steps forward. He thought having inclining block rates, seasonal rates and returning to where we were five years ago so electric heat customers no longer had \$500-\$600 electric bills in the winter was a positive step forward, and he would support this revision.

Mr. Funk was glad the study recognized the problem with the University's charges. He said in 2015 the University did not have to buy electricity from the City if they felt they were not being treated fairly which would require the City to increase property taxes by 40% to 50%. Clearly it was in the City's best interest to work together to come to a reasonable goal. Mr. Funk believed the City should use property taxes to pay expenses rather than raising utility rates and this would make for a wiser and thriftier government. He thought Council members did a good job enumerating all the issues, and felt the consultant's findings should be supported because they were independent and unbiased.

Mr. Athey supported the idea of investigating an RSEV rate.

Question on the Motion was called.

MOTION PASSED UNANIMOUSLY: VOTE: 7 to 0.

Aye – Athey, Clifton, Funk, Markham, Morehead, Temko, Tuttle.  
Nay – 0.

**(ORDINANCE NO. 11-07)**

**22. 6-C. BILL 11-08 – AN ORDINANCE AMENDING CHAPTER 7, BUILDING, CODE OF THE CITY OF NEWARK, DELAWARE, WITH REGARD TO CONTRACTOR'S BONDING REQUIREMENTS**

**2:14**

Ms. Fogg read Bill 11-08 by title only.

MOTION BY MR. MARKHAM, SECONDED BY MR. TUTTLE: THAT THIS BE THE SECOND READING AND FINAL PASSAGE OF BILL 11-08.

The Chair opened the discussion to the public. There being no comments forthcoming, the discussion was returned to the table.

Question on the Motion was called.

MOTION PASSED UNANIMOUSLY: VOTE: 7 to 0.

Aye – Athey, Clifton, Funk, Markham, Morehead, Temko, Tuttle.  
Nay – 0.

**(ORDINANCE NO. 11-06)**

**23. 6-D. BILL 11-05 - AN ORDINANCE AMENDING THE ZONING MAP OF THE CITY OF NEWARK, DELAWARE, BY REZONING FROM BL (BUSINESS LIMITED) TO BB (CENTRAL BUSINESS DISTRICT) .85 ACRES LOCATED AT 206, 208, 220 AND 224 EAST DELAWARE AVENUE**

**(RESCHEDULED TO MAY 23, 2011 COUNCIL MEETING)**

**24. 7. PLANNING COMMISSION/DEPARTMENT RECOMMENDATIONS**

- A. Request of Campus Edge, LLC, for the Major Subdivision, with Site Plan Approval, for the Redevelopment of the .85 acre Properties Located at 206, 208, 220 and 224 East Delaware Avenue, In Order to Demolish the Existing Buildings on the Site and to Construct a Five-Story Mixed Use Building with 12,116 sq. ft. of First Floor Commercial Space and 39 Upper Floor Apartments, to be Known as Campus Edge

**(RESCHEDULED TO MAY 23, 2011 COUNCIL MEETING)**

- 25. 7-B. REQUEST OF CAMPUS EDGE, LLC, FOR A SPECIAL USE PERMIT TO PERMIT 39 UPPER FLOOR APARTMENTS IN THE PROPOSED FIVE-STORY COMMERCIAL/RESIDENTIAL MIXED USE BUILDING TO BE CONSTRUCTED AT 206, 208, 220 AN 224 EAST DELAWARE AVENUE, TO BE KNOWN AS CAMPUS EDGE**

**(RESCHEDULED TO MAY 23, 2011 COUNCIL MEETING)**

- 26. 7-C. REQUEST OF UNIVERSITY GARDEN ASSOCIATES FOR THE MAJOR SUBDIVISION OF A PORTION OF THE 4.2126 ACRE PROPERTY LOCATED ON THE WEST SIDE OF BEVERLY ROAD, DIRECTLY ADJACENT TO 212 BEVERLY ROAD, IN ORDER TO ADD A NEW EIGHT UNIT GARDEN APARTMENT BUILDING TO THE EXISTING UNIVERSITY GARDEN APARTMENTS COMPLEX**

**(SEE ITEM 20)**

- 27. 8. ITEMS SUBMITTED FOR PUBLISHED AGENDA**

A. Council Members: None

- 28. 8-B. OTHERS: None**

- 29. 9. SPECIAL DEPARTMENTAL REPORTS:**

A. Special Reports from Manager & Staff: None

- 30. Meeting adjourned at 9:13 pm.**

Alice Van Veen  
Deputy City Secretary

/av  
Att.

**BUILDING A WORLD OF DIFFERENCE®**



CITY OF NEWARK, DELAWARE  
ELECTRIC UTILITY

**Electric Rate Study**

**Final Report**

March 2011



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March 17, 2011

Mr. Dennis McFarland  
Director of Finance  
City of Newark, Delaware  
220 Elkton Road  
Newark, Delaware 19711

Dear Mr. McFarland:

We are pleased to present our *Electric Rate Study* for the City of Newark, Delaware. An introduction and executive summary of the principal findings and recommendations precede the detailed text of the report.

We wish to acknowledge the cooperation and assistance of the City's staff in providing guidance and information for the study. It is a pleasure to be of service to the City in this matter.

Very truly yours,

BLACK & VEATCH CORPORATION

Russell A. Feingold  
Vice President

Craig E. Brown  
Project Manager

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ELECTRIC RATE STUDY

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# INTRODUCTION

## 1.0 INTRODUCTION

The City of Newark, Delaware (the City) owns and operates the electric power distribution system (Electric Utility) serving residential, commercial, and industrial customers located within the City. The Electric Utility uses a fiscal year (FY) ending December 31 (calendar year).

### 1.1 Purpose

The purpose of this report is to evaluate the adequacy of the Electric Utility's existing rate charges and to recommend fair and equitable adjustments to the rates, if deemed necessary. Black & Veatch designed utility rate studies encompass three principal steps, each intended to answer questions typically asked by City Councils, utility commissions, and utility management. These steps are:

- **Revenue Requirements** – What is the overall adjustment in rates needed to meet forecast cash requirements of the utility, meet capital requirements, and maintain appropriate cash reserves?
- **Cost of Service** – What is each class's equitable share of the utility revenue requirements?
- **Rate Design** – How should rates be adjusted to meet utility revenue requirements and remain sensitive to customer rate impacts?

### 1.2 Scope

This report presents the results of a comprehensive rate study of the Electric Utility and includes a projection of financial operations of the electric utility for the five-year period FY 2011 through FY 2015, a determination the overall adequacy of existing rates, a cost of service analysis, and rate design recommendations for the utility.

The financial forecast of the electric utility reflects projections developed in collaboration with Electric Utility staff and our analysis of trends in sales, revenues, and costs. Forecast operating conditions and cost levels recognize the amount and degree of service, cost of system expansion and replacement, prudent operating expenses and capital expenditures, anticipated cost escalations, implementing the current policy on operating reserves, and other factors relevant to the utility.

A cost of service analysis of the electric utility's principal rate classes is presented that allocates the revenue requirements, or total cost of service to be recovered in rates, based on cost causation principles. Using the cost of service results as a guideline, along with policy goals of the Electric Utility, rates are designed for each of the Electric Utility's rate classes.

### 1.3 Disclaimer

Subject to the limitations set forth herein, this report was prepared for the City of Newark, Delaware by Black & Veatch Corporation (B&V) and is based on information not within the control of B&V. B&V has not been requested to make an independent analysis, to verify the information provided to it, or to render an independent judgment of the validity of the information provided by others. As such, B&V cannot, and does not, guarantee the accuracy thereof to the extent that such information, data, or opinions were based on information provided by others.

B&V prepared this report in March 2011 based on information and conditions prevailing at that time. Any changes in that information or prevailing conditions may affect the conclusions, recommendations, assumptions, and forecasts set forth in this report. B&V makes no warranty, express or implied, regarding the reasonableness of any information, recommendation, or forecast set forth herein under any conditions other than those assumed in making such projections.

In conducting our analysis and in forming an opinion of the data summarized in this report, B&V has made certain assumptions with respect to conditions, events, and circumstances that may occur in the future. The methodologies utilized in performing the analysis and making the recommendations follow generally

# INTRODUCTION

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CITY OF NEWARK, DELAWARE  
ELECTRIC RATE STUDY

accepted industry practices. While it is believed that such assumptions and methodologies, as summarized in this report, are reasonable and appropriate for the purpose for which they are used; depending upon conditions, events, and circumstances that actually occur but are unknown at this time, actual results may materially differ from those shown. Such factors may include, but are not limited to, the regional and national economic climate and growth in the service area.

# EXECUTIVE SUMMARY

CITY OF NEWARK, DELAWARE  
ELECTRIC RATE STUDY

## 2.0 EXECUTIVE SUMMARY

The Electric Utility of the City of Newark provides service to residential, commercial, industrial, and private lighting customers, along with the electric needs of the City's various municipal departments. The Electric Utility currently serves approximately 12,000 customers with projected rate revenues under existing rates for 2011 of \$58.8 million. Total retail energy sales are forecast to be 399,235 megawatt-hours (MWh).

This report presents the results of a comprehensive rate study of the Electric Utility and includes a projection of financial operations of the electric utility for the five-year period FY 2011 through FY 2015, a determination the overall adequacy of existing rates, a cost of service analysis, and rate design recommendations for the utility.

### 2.1 Revenues and Revenue Requirements

Overall adequacy of existing rates is tested by comparing revenues under existing rates with forecast revenue requirements. This is accomplished by first developing a forecast of customer growth and electric sales and calculating how much revenue will be generated during the forecast period.

The financial forecast of the electric utility reflects projections developed in collaboration with Electric Utility staff and our analysis of trends in sales, revenues, and costs. Forecast operating conditions and cost levels recognize the amount and degree of service, cost of system expansion and replacement, prudent operating expenses and capital expenditures, anticipated cost escalations, implementing the current policy on operating reserves, and other factors relevant to the utility.

As discussed in detail in Section 3, revenue under existing rates exceeds current revenue requirements. As shown in Table 2-1, we recommend a 4.75 percent decrease in revenue from rates in 2011. Included in the overall adjustment of rates is an increase in the City's tariff rates, plus resetting the Purchased Power Cost Adjustment (PPCA) to zero. The net effect is an overall revenue decrease in 2011 of \$2.8 million.

Table 2-1  
Summary of Revenue Requirements

Line No.	Description	2010 Under Current Rates	2011 Under Current Rates	2011 Under Recommended Rates
1	Rate Revenue from Tariff Rates	\$ 48,043,539	\$ 48,386,263	\$ 58,758,700
2	PPCA	\$ 8,174,061	\$ 10,372,437	\$ -
3	Change in Rate Revenue	\$ -	\$ -	\$ (2,791,000)
4	Total Revenue from Rates	\$ 56,217,600	\$ 58,758,700	\$ 55,967,700
5	% Change in 2011 Recommended Revenue			-4.75%
6	Energy Sales (MWh)	396,545	399,235	399,235

# EXECUTIVE SUMMARY

## 2.2 Cost of Service Analysis

A cost of service analysis of the electric utility's principal rate classes is presented in Section 4 that allocates the revenue requirements, or total cost of service to be recovered in rates, based on cost causation principles.

The Black & Veatch cost of service analysis is a two-dimensional cost matrix that allocates the electric utility's total cost of service to each rate class. The unbundled cost of service is analyzed first by function (power supply, distribution, or customer) in order to properly categorize costs to the various utility functions. These functions are further classified to energy, capacity, customer, and direct assignments. Functional costs are then allocated to classes on the basis of each class' cost responsibility for energy, capacity, and customer related costs.

The resultant class cost of service requirements are divided by the class billing units to develop unbundled unit costs of service, which may be used to guide the design of rates specific to the rate class.

Energy related costs are considered to be expenses that vary with the number of kilowatt-hours sold. Capacity related costs include a portion of power supply, plus plant investment in distribution system substations, line transformers, and the primary portion of distribution lines, as well as the associated operation and maintenance expense attributable to this plant. Customer related costs include plant elements that are generally related to the number and type of customers served. Examples of customer related plant are services, meters, and the secondary portion of distribution system lines.

The unbundled cost of service results by class can be summarized by comparing the revenue under existing rates for each class with the unbundled cost of service. By calculating the percentage difference between the two numbers, the indicated change in revenue for each class is determined. The cost of service summary is shown below on Table 2-2.

**Table 2-2  
Cost of Service Study Results**

Line	Description	[A] Revenue Under Existing Rates \$	[B] Unbundled COS \$	Test Year 2011	
				[C] (Over)/Under Recovery Amount [B] - [A]	[D] Percent [C] / [A]
1	RS RATE - RESIDENTIAL	\$15,110,455	\$17,636,045	\$2,525,590	16.7%
2	GS RATE - GENERAL SERVICE	\$3,264,503	\$3,448,047	\$183,544	5.6%
3	GSD RATE - GENERAL SERVICE DEMAND	\$8,020,832	\$7,312,899	(\$707,933)	-8.8%
4	P RATE - LG LIGHT AND POWER	\$10,624,533	\$8,174,781	(\$2,449,752)	-23.1%
5	U RATE - UNIV OF DELAWARE	\$17,697,500	\$15,679,178	(\$2,018,322)	-11.4%
6	U RATE - ROHM & HAAS	\$3,981,568	\$3,634,332	(\$347,236)	-8.7%
7	RETAIL STREET LIGHTS	\$59,292	\$82,618	\$23,326	39.3%
8	TOTAL SYSTEM	\$58,758,683	\$55,967,900	(\$2,790,783)	-4.7%

## EXECUTIVE SUMMARY

CITY OF NEWARK, DELAWARE  
ELECTRIC RATE STUDY

### 2.3 Rate Design

Rates have been redesigned for all of the principal rate classes. The Electric Utility had certain goals for the rate design proposal. The following list highlights the list provided to Black & Veatch of some guiding principles to be used in the design of rates.

1. The rates should be fair and reasonable to all classes of customers.
2. The rates should recover the City's costs including its operating and capital costs and a fair margin.
3. The rates to all customers should be competitive to the maximum extent possible.
4. The rates should encourage energy conservation for all customer classes.
5. The rates should support economic development within the City by attracting and retaining large commercial and industrial customers.
6. The rates should "decouple" the City's financial interests from consumption levels.

We considered these guidelines as we developed our rate proposal. It should be noted that not all goals are applicable to each customer class, and that certain goals are conflicting with others. For example, revenue decoupling is not usually considered to promote conservation. These conflicts were considered in our proposed rates and discussed in the following sections.

The rate process began with a review of the class cost of service results. The results shown on Table 2-2 show that the Residential and General Service (GS) classes are effectively being subsidized by the larger commercial and industrial classes. Overall, there is about \$2.8 million decrease in revenue that needs to be distributed among customer classes. There were multiple options considered; the primary options we considered are:

- Implement cost of service based rates and develop target revenue based on the cost of service results
- Apply an across the board decrease of 4.75% to all classes for simplicity purposes
- Spread the \$2.8 million only to the classes that are currently over recovering their costs of service with no change in the overall level of revenues for classes that under recover their cost of service.

It was determined in collaboration with City staff that the third option is in the best interests of the electric utility and its customers. It accomplished the goal of working towards more equitable rates without any extreme changes to any particular classes. A further decision was then made on how to spread the \$2.8 million among the three classes that will share in the reduction. It was decided that each class should receive an equal percentage decrease from its existing rates.

The detailed rate proposal is presented in Section 5. Highlights of rate design changes include establishing a fixed customer charge for each rate class, seasonal energy rates for the Residential class, including an inclining block structure in the summer period, and creating a new class for the Electric Utility's largest customer, the University of Delaware.

# REVENUES AND REVENUE REQUIREMENTS

## 3.0 REVENUES AND REVENUE REQUIREMENTS

The Electric Utility of the City of Newark provides service to residential, commercial, industrial, and private lighting customers, along with the electric needs of the City's various municipal departments. The Electric Utility currently serves approximately 12,000 customers with projected rate revenues under existing rates for 2011 of \$58.8 million. Total retail energy sales are forecast to be 399,235 megawatt hours (MWh). This section summarizes our forecast of Electric Utility revenue and revenue requirements for the period 2011 through 2015.

Overall adequacy of existing rates is tested by comparing revenues under existing rates with forecast revenue requirements, as presented in Table 3-6. To test the reasonableness of cost recovery by customer class rate schedules, electric utility revenue requirements are allocated to cost functions and to customer classes and compared to class revenues. The cost of service analysis for the utility is presented in section 4.0.

### 3.1 *Revenues Under Existing Rates*

The revenue forecast under existing rates was generated by applying the existing rates, plus the current Purchased Power Cost Adjustment (PPCA) to the forecast of rate class billing determinants. The sales forecast of rate class billing determinants was prepared by applying specific growth rates by year to the 2009 actual billing determinants.

Growth rates were developed based on an analysis of historical billing data from the years 2007 to 2009 to determine trends, use per customer, customer growth and a general understanding of weather conditions in those years. Since 2009 was a milder summer than a typical year, the sales increase in 2010 was adjusted higher than the historic growth rate to account for weather. In Table 3-1, we show projected increases in numbers of customers and energy sales by customer class. These escalation factors were applied to 2009 customer counts and load for each of the rate classes to develop a forecast for the years 2010 through 2015. Total energy sales, including City of Newark usage, in 2010 are estimated at 404.9 GWh which is approximately 1.8 percent higher than 2009. Growth in the following years averages approximately 0.7 percent. Historic and forecast energy sales by class are shown on Table 3-2.

# REVENUES AND REVENUE REQUIREMENTS

CITY OF NEWARK, DELAWARE  
ELECTRIC RATE STUDY

Table 3-1  
Load and Customer Growth Forecast

Line	Description	[A]	[B]	[C]	[D]	[E]	[F]
		2010	2011	2012	2013	2014	2015
For Fiscal Year Ending							
	<b>RS RATE - RESIDENTIAL</b>						
1	Customers	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
2	Usage	3.00%	1.50%	1.50%	1.50%	1.50%	1.50%
	<b>GS RATE - GENERAL SERVICE</b>						
3	Customers	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
4	Usage	1.50%	1.00%	1.00%	1.00%	1.00%	1.00%
	<b>GSD RATE - GENERAL SERVICE DEMAND</b>						
5	Customers	0.00%	0.50%	0.50%	0.50%	0.50%	0.50%
6	Usage	3.00%	0.50%	0.50%	0.50%	0.50%	0.50%
	<b>P RATE - LG LIGHT AND POWER</b>						
7	Customers	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
8	Usage	2.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	<b>U RATE - UNIV OF DELAWARE</b>						
9	Customers	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
10	Usage	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
	<b>U RATE - ROHM &amp; HAAS</b>						
11	Customers	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12	Usage	2.00%	1.00%	1.00%	1.00%	1.00%	1.00%
	<b>Retail Street Lighting</b>						
13	Customers	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
14	Usage	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	<b>City of Newark Usage</b>						
15	Customers	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16	Usage	2.00%	1.50%	1.50%	1.50%	1.50%	1.50%

# REVENUES AND REVENUE REQUIREMENTS

CITY OF NEWARK, DELAWARE  
ELECTRIC RATE STUDY

Table 3-2  
Historic and Projected Electric Sales (MWh)

Line No.	Description	Historical			Projected					
		2007	2008	2009	2010	2011	2012	2013	2014	2015
Forecast of Energy Sales by Class (MWh)										
1	Residential	93,501	90,474	88,009	90,650	92,009	93,390	94,790	96,212	97,655
2	General Service (GS)	18,797	18,450	18,287	18,561	18,747	18,934	19,124	19,315	19,508
3	General Service Demand (GSD)	56,900	53,562	51,168	52,703	52,966	53,231	53,497	53,765	54,033
4	Large Light & Power (P Rate)	98,276	102,761	78,347	69,207	69,207	69,207	69,207	69,207	69,207
5	U Rate - Univ of Delaware	133,617	134,277	135,247	135,923	136,603	137,286	137,973	138,662	139,356
6	U Rate - Rohm & Haas (1)	-	-	18,210	29,205	29,407	29,611	29,818	30,026	30,236
7	Retail Lighting	295	295	295	295	295	295	295	295	295
8	City of Newark Usage	9,565	9,393	8,183	8,347	8,472	8,599	8,728	8,859	8,992
9	Total Energy Sales	410,951	409,212	397,747	404,892	407,708	410,554	413,432	416,342	419,283

(1) Rohm & Haas moved from the P Rate to the U Rate in June 2009

# REVENUES AND REVENUE REQUIREMENTS

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Revenues under existing rates reflect the two current sources of revenue: electric rate revenue and other revenue, where electric rates are the existing rates that have been in effect since January 1, 2007. The forecast of operating revenues under existing rates are shown in Table 3-3. Rate revenue shown on Line 8 ranges from \$56.2 million in 2010 to \$60.4 million in 2015. The revenue under existing rates includes the current PPCA of \$0.026/kWh. Other revenue from operating and non-operating sources is shown on line 14 and ranges from \$292,000 in 2010 to \$345,000 in 2015.

Total revenue under existing rates is summarized on line 15 of Table 3-3 and ranges from \$56.5 million in 2010 to \$60.8 million in 2015.

**Table 3-3**  
**Projected Revenue Under Existing Rates**

Line No.	Description	2010	2011	2012	2013	2014	2015
		\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
<b>Rate Revenue</b>							
1	Residential	\$14,354	\$15,111	\$15,337	\$15,567	\$15,801	\$16,038
2	General Service (GS)	3,118	3,265	3,297	3,330	3,363	3,397
3	General Service Demand (GSD)	7,692	8,021	8,060	8,094	8,133	8,172
4	Large Light & Power (P Rate)	10,240	10,625	10,625	10,625	10,625	10,625
5	U Rate - Univ of Delaware	16,939	17,698	17,787	17,877	17,968	18,059
6	U Rate - Rohm & Haas	3,816	3,982	4,011	4,041	4,071	4,102
7	Retail Lighting	59	59	59	59	59	59
8	<b>Total Rate Revenue</b>	<b>\$56,218</b>	<b>\$58,759</b>	<b>\$59,176</b>	<b>\$59,593</b>	<b>\$60,020</b>	<b>\$60,451</b>
<b>Other Revenue</b>							
9	Penalties	\$111	\$111	\$111	\$111	\$111	\$111
10	Service Fees	54	54	54	54	54	54
11	New Services	49	49	49	49	49	49
12	Investment Earnings	34	41	43	54	64	86
13	Miscellaneous Revenue	44	44	44	44	44	44
14	<b>Total Other Revenue</b>	<b>\$292</b>	<b>\$299</b>	<b>\$301</b>	<b>\$312</b>	<b>\$322</b>	<b>\$345</b>
15	<b>Total Revenue</b>	<b>\$56,509</b>	<b>\$59,058</b>	<b>\$59,477</b>	<b>\$59,905</b>	<b>\$60,342</b>	<b>\$60,796</b>

## 3.2 Revenue Requirements

The overall adequacy of the existing rates is tested by comparing revenues under existing rates with revenue requirements. Revenue requirements are developed on a cash basis and consist primarily of purchase power, operation and maintenance (O&M) expenses, transfer to the general fund, capital plan spending, and other non-operating expenses. The forecast of annual revenue requirements is shown in Table 3-4 and discussed in the following sections.

### 3.2.1 Power Supply

The electric utility receives all of its power from, and is a full requirements member of, the Delaware Municipal Electric Corporation (DEMEC). DEMEC is a joint action electric agency consisting of nine municipalities, including Newark. It is organized to provide key services to member utilities to develop and improve public power initiatives in Delaware. These are technical assistance, legislative and regulatory support, negotiations for service and purchase contracts, and wholesale power supply and transmission services.

# REVENUES AND REVENUE REQUIREMENTS

CITY OF NEWARK, DELAWARE  
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The electric utility pays DEMEC for all purchased power on a dollars per kWh basis. The current charge in 2010 is \$0.0933/kWh. This rate is used for the entire forecast period. The forecast of annual purchased power expense is shown on Line 1 of Table 3-4.

## 3.2.2 Operation and Maintenance Expense

Operation and Maintenance (O&M) expenses in the forecast period are based on the 2010 approved budget and escalated on the following assumptions:

- Labor escalation from 2011 – 2015 is 3 percent annually.
- Labor burden and benefits are escalated at the rate of 10 percent annually. This is representative of a recent trend of significant increases in health insurance, City pension costs, and post employment benefits.
- All other increases in O&M (non-labor) expenses escalate at 3 percent annually. This classification generally covers materials and supplies, contractual services, and other miscellaneous expenses. Exceptions to this category include:
  - Merchant Fees include an additional \$250,000 to cover the University of Delaware paying by a credit card. These fees are escalated by 0.5 percent annually.
  - Bad Debt expenses are forecasted for 2011 based on a 5 year average and escalated at 3 percent annually thereafter.

The City prepared an Indirect Cost Allocation analysis to allocate the cost of certain shared services to the various city departments. The services provided to the electric utility that are covered with this allocation include the Finance Department, which includes customer service, billing, meter reading, and accounting; the Administration Department, which includes human resources, purchasing, and general administration; as well as the Planning and Development, Legislative, and Space (Facilities) departments.

O&M expenses are summarized on lines 2 through 8 of Table 3-4.

## 3.2.3 Capital Improvement Plan

The Capital Improvement Plan (CIP) is from the 2010 Budget, which provides a six-year (2010 through 2015) schedule of capital projects. The primary and preferred source of funds to finance the electric utility CIP is with annual operating revenues. The utility has no outstanding debt and currently finances its entire CIP with annual operating revenues.

The detailed CIP is shown in Table 3-5. Major capital expenditures include a new transformer and lines at the Phillips substation in 2011 (\$1.2 million), a new unit substation in 2015 (\$1.7 million) as well as \$1.2 million in vehicle / equipment replacement from 2012 to 2015.

# REVENUES AND REVENUE REQUIREMENTS

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Table 3-4  
Revenue Requirements

Line	Description	2009	2010	2011	2012	2013	2014	2015
		\$	\$	\$	\$	\$	\$	\$
<b>REVENUE REQUIREMENTS (\$)</b>								
1	Purchase Power	38,537,400	40,200,600	40,480,200	40,762,800	41,048,500	41,337,400	41,629,500
2	Operations and Maintenance							
3	Personnel Services	2,042,800	2,358,900	2,485,900	2,622,300	2,769,100	2,927,000	3,097,200
4	Materials and Supplies	177,700	168,800	173,800	179,000	184,400	190,000	195,700
5	Contractual Services	464,700	653,200	793,000	808,900	825,200	842,000	859,200
6	Other Charges	105,500	84,600	112,000	115,400	118,800	122,400	126,100
7	Indirect Cost Allocation	994,700	1,170,200	1,205,300	1,241,500	1,278,700	1,317,100	1,356,600
8	Total Operations and Maintenance	3,785,400	4,435,700	4,770,000	4,967,100	5,176,200	5,398,500	5,634,800
9	Capital Expenditures							
10	Current Resources	577,000	593,900	1,476,600	439,000	400,000	430,000	2,320,500
11	Capital Reserves	20,000	-	-	-	-	-	-
12	Equipment Replacement	22,600	49,700	-	253,500	404,000	244,500	244,500
13	Total Capital Expenditures	619,600	643,600	1,476,600	692,500	804,000	674,500	2,565,000
14	Other Expenditures and Transfers							
15	Transfer to General Fund	11,435,200	10,685,800	12,426,600	12,372,300	12,312,400	12,245,000	12,178,400
16	Transfer to Budget Balance Reserve			0	100,000	100,000	100,000	155,000
17	Transfer to Contingency Fund			0	100,000	100,000	150,000	260,000
18	Transfer to Rate Stabilization Reserve			0	300,000	250,000	250,000	450,000
19	Investment Transactions (1)	(1,817,985)						
20	Total Other Expenditures and Transfers	9,617,215	10,685,800	12,426,600	12,872,300	12,762,400	12,745,000	13,043,400
21	Gross Revenue Requirement	52,559,615	55,965,700	59,153,400	59,294,700	59,791,100	60,155,400	62,872,700

Notes:

(1) Adjustment entry to account for cumulative impact of non-operating transactions from statement of cash flows and tie to 2009 end of year cash balance

Table 3-5  
Capital Improvement Plan (CIP)

Line	Description	2010	2011	2012	2013	2014	2015	Total
1	E1101 New Lines & Services	\$150,000	\$156,600	\$125,000	\$125,000	\$125,000	\$125,000	\$806,600
2	E1102 Conductor Upgrades	-	40,000	-	-	-	-	40,000
3	E1103 Radio Replacements and Reprogramming	-	-	28,000	-	-	-	28,000
4	E1104 Spacer Cable Replacement	-	-	-	-	50,000	50,000	100,000
5	E1105 New Unit Substation	-	-	-	-	-	1,700,000	1,700,000
6	E1106 34.5 KV Backfeeds	-	-	80,000	-	-	-	80,000
7	E1002 New Unit and Lines-Phillips Substation	100,000	1,200,000	95,000	25,000	-	-	1,420,000
8	E1003 Spare 15,000 Volt Circuit Breaker	50,000	-	-	-	-	-	50,000
9	E1004 Police Station HVAC Controller	25,500	-	-	-	-	-	25,500
10	E1005 Reinforce Underground Feeders	-	30,000	-	-	-	-	30,000
11	E1007 Electric System Study and Upgrade	100,000	-	-	-	-	-	100,000
12	E0903 12KV Changeover	-	-	40,000	65,000	-	-	105,000
13	E0905 34.5KV Recloser Installation	-	-	-	135,000	-	-	135,000
14	E0906 Nottingham Green Distribution Upgrades	70,000	-	-	-	-	-	70,000
15	E0703 New Bucket Truck	48,400	-	-	-	-	-	48,400
16	E0503 SCADA & Automatic Switching	50,000	50,000	50,000	50,000	255,000	370,000	825,000
17	E8510 Transformer Maintenance (B.F.#6)	147,800	-	-	-	-	-	147,800
18	EEQSF Vehicle/Equipment Replacement Program	49,700	-	274,500	404,000	244,500	320,000	1,292,700
19	Total Electric Projects	\$791,400	\$1,476,600	\$692,500	\$804,000	\$674,500	\$2,565,000	\$7,004,000

# REVENUES AND REVENUE REQUIREMENTS

CITY OF NEWARK, DELAWARE  
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## 3.2.4 Other Expenditures and Transfers

The Electric Utility is a major source of revenue for the City's general fund. This is done through transfers of the utility's operating margins. The target amount of the transfer is 90 percent of the net operating revenues (revenues available after purchased power and O&M expenses). Forecast transfers to the general fund are shown on Line 16 of Table 3-4.

The Electric Utility has a policy to maintain the following three operating reserve funds. To date, none of these have been funded. One goal of this rate study is to fund these reserves to the minimum indicated target percentage by 2015, the end of the study period. By gradually building up these reserves over time, the impact on rates will be minimized. It should be noted that these reserves will need to continue to be funded beyond the study period to reach a stable level of reserves in the mid-range of the target percentages. Each reserve fund is described below:

- The Budget Balance Reserve should maintain a reserve of between 8% and 12% of annual operating expenses<sup>1</sup>, excluding purchased power expense. The purpose is to meet temporary fluctuations in cash flow and to provide a cushion for loss of revenues until operating changes can be implemented. The 2015 target for this fund is \$451,000.
- The Contingency Reserve should maintain a balance of at least 1% of current year operating revenues. The City may only use monies in the Contingency Reserve to cover emergencies of a non-recurring nature that are over and above the normal course of operations. The 2015 target for this fund is \$608,000.
- The goal of the Rate Stabilization Reserve is to level off the fluctuations rates due to fluctuations in the wholesale power supply market and in turn provide more stable rates to customers. The balance should be maintained between 3% and 10% of the annual forecast of purchased power expense. The 2015 target for this fund is \$1,250,000.

## 3.3 Projected Operating Results Under Existing Rates

Table 3-6 combines the forecast of revenue under existing rates with the forecast of revenue requirements to present an operating cash flow that projects operating results under existing rates. Based on the results shown, the revenue forecast from the existing electric rates plus the current PPCA will exceed the revenue requirements of the utility. While the annual cash flows appear stable in most years (line 27), the current PPCA will over-recover the cost of purchased power in the study period and the City would receive a windfall because the transfer to the general fund is based on 90% of net operating revenues. As such, we believe a reduction in rates is appropriate in 2011, in coordination with resetting the PPCA to zero. The existing rates per the tariff will increase, but the combined effect of resetting the PPCA to zero will be an overall decrease in revenue generated from rates.

<sup>1</sup> The Financial Policies document (April 13, 2009) states that the Budget Balance Reserve should be 8% to 12% of operating revenue, not expenses. This was clarified by the City and it should be based on operating expenses.

# REVENUES AND REVENUE REQUIREMENTS

CITY OF NEWARK, DELAWARE  
ELECTRIC RATE STUDY

Table 3-6  
Projected Operating Results Under Existing Rates

Line	Description	2009	2010	2011	2012	2013	2014	2015
		\$	\$	\$	\$	\$	\$	\$
<b>REVENUES (\$)</b>								
1	Total Rate Revenue	50,694,428	56,217,600	58,758,700	59,176,100	59,592,900	60,019,700	60,451,300
2	Total Other Revenue	351,991	291,800	298,800	300,800	312,200	321,800	344,500
3	<b>Total Revenue</b>	<b>51,046,419</b>	<b>56,509,400</b>	<b>59,057,500</b>	<b>59,476,900</b>	<b>59,905,100</b>	<b>60,341,500</b>	<b>60,795,800</b>
<b>REVENUE REQUIREMENTS (\$)</b>								
5	Purchase Power	38,537,400	40,200,600	40,480,200	40,762,800	41,048,500	41,337,400	41,629,500
6	Operations and Maintenance							
7	Personnel Services	2,042,800	2,358,900	2,485,900	2,622,300	2,769,100	2,927,000	3,097,200
8	Materials and Supplies	177,700	168,800	173,800	179,000	184,400	190,000	195,700
9	Contractual Services	464,700	653,200	793,000	808,900	825,200	842,000	859,200
10	Other Charges	105,500	84,600	112,000	115,400	118,800	122,400	126,100
11	Indirect Cost Allocation	994,700	1,170,200	1,205,300	1,241,500	1,278,700	1,317,100	1,356,600
12	<b>Total Operations and Maintenance</b>	<b>3,785,400</b>	<b>4,435,700</b>	<b>4,770,000</b>	<b>4,967,100</b>	<b>5,176,200</b>	<b>5,398,500</b>	<b>5,634,800</b>
13	<b>Net Operating Revenue</b>	<b>8,723,619</b>	<b>11,873,100</b>	<b>13,807,300</b>	<b>13,747,000</b>	<b>13,680,400</b>	<b>13,605,600</b>	<b>13,531,500</b>
14	Capital Expenditures							
15	Current Resources	577,000	593,900	1,476,600	439,000	400,000	430,000	2,320,500
16	Capital Reserves	20,000	-	-	-	-	-	-
17	Equipment Replacement	22,600	49,700	-	253,500	404,000	244,500	244,500
18	<b>Total Capital Expenditures</b>	<b>619,600</b>	<b>643,600</b>	<b>1,476,600</b>	<b>692,500</b>	<b>804,000</b>	<b>674,500</b>	<b>2,565,000</b>
19	Other Expenditures and Transfers							
20	Transfer to General Fund	11,435,200	10,685,800	12,426,600	12,372,300	12,312,400	12,245,000	12,178,400
21	Transfer to Budget Balance Reserve			0	100,000	100,000	100,000	155,000
22	Transfer to Contingency Fund			0	100,000	100,000	150,000	260,000
23	Transfer to Rate Stabilization Reserve			0	300,000	250,000	250,000	450,000
24	Investment Transactions (1)	(1,817,985)						
25	<b>Total Other Expenditures and Transfers</b>	<b>9,617,215</b>	<b>10,685,800</b>	<b>12,426,600</b>	<b>12,872,300</b>	<b>12,762,400</b>	<b>12,745,000</b>	<b>13,043,400</b>
26	<b>Gross Revenue Requirement</b>	<b>52,559,615</b>	<b>55,965,700</b>	<b>59,153,400</b>	<b>59,294,700</b>	<b>59,791,100</b>	<b>60,155,400</b>	<b>62,872,700</b>
27	<b>Net Annual Cash Flow</b>	<b>(1,513,196)</b>	<b>543,700</b>	<b>(95,900)</b>	<b>182,200</b>	<b>114,000</b>	<b>186,100</b>	<b>(2,076,900)</b>
28	Operating Cash Balance							
29	Beginning Balance	1,873,520	360,324	904,024	808,124	990,324	1,104,324	1,290,424
30	Annual Cash Flow	(1,513,196)	543,700	(95,900)	182,200	114,000	186,100	(2,076,900)
31	<b>End Cash Balance</b>	<b>360,324</b>	<b>904,024</b>	<b>808,124</b>	<b>990,324</b>	<b>1,104,324</b>	<b>1,290,424</b>	<b>(786,476)</b>

Notes:

(1) Adjustment entry to account for cumulative impact of non-operating transactions from statement of cash flows and tie to 2009 end of year cash balance

# REVENUES AND REVENUE REQUIREMENTS

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CITY OF NEWARK, DELAWARE  
ELECTRIC RATE STUDY

### ***3.4 Recommended Rate Adjustments***

Based on the projected operating results under existing rates, we recommend a decrease in rate revenue of 4.75% in 2011. No change in rates is indicated for the period 2012 through 2014. A 5% increase is indicated in 2015.

### ***3.5 Projected Operating Results Under Recommended Rates***

The forecast of financial operations under recommended rates are presented in Table 3-7. The recommended 4.75% decrease in revenue results in a decrease of \$2.8 million in revenue in 2011. While the annual net cash flows, as shown on line 41 are negative in some years due to fluctuations in capital spending and funding of operating reserves, the operating cash balance (line 45) is positive in all years and the reserve funds are funded to the minimum requirements by 2015. The total amount in reserve funds in 2015 is \$2,315,000.

# REVENUES AND REVENUE REQUIREMENTS

CITY OF NEWARK, DELAWARE  
ELECTRIC RATE STUDY

Table 3-7  
Projected Operating Results Under Recommended Rates

Line	Description	2009	2010	2011	2012	2013	2014	2015
		\$	\$	\$	\$	\$	\$	\$
	Retail Energy Sales (MWh)	389,563	396,545	399,235	401,955	404,704	407,482	410,291
<u>REVENUES (\$)</u>								
1	Total Rate Revenue Under Existing Rates	50,694,428	56,217,600	58,758,700	59,176,100	59,592,900	60,019,700	60,451,300
2	Adjustment to Rate Revenue							
3	<u>Date rate increase effective</u>							
4	January 1, 2011			(2,791,000)	(2,810,900)	(2,830,700)	(2,850,900)	(2,871,400)
5	January 1, 2012							
6	January 1, 2013							
7	January 1, 2014							
8	January 1, 2015							2,879,000
9	Recommended Revenue Adjustment			(2,791,000)	(2,810,900)	(2,830,700)	(2,850,900)	7,600
10	Total Rate Revenue	50,694,428	56,217,600	55,967,700	56,365,200	56,762,200	57,168,800	60,458,900
11	Other Revenue							
12	Penalties	113,677	110,700	110,700	110,700	110,700	110,700	110,700
13	Service Fees	53,468	54,100	54,100	54,100	54,100	54,100	54,100
14	New Services	34,450	49,100	49,100	49,100	49,100	49,100	49,100
15	Investment Earnings	104,064	33,500	40,500	42,500	53,900	63,500	86,200
16	Miscellaneous Revenue	46,333	44,400	44,400	44,400	44,400	44,400	44,400
17	Total Other Revenue	351,991	291,800	298,800	300,800	312,200	321,800	344,500
18	Total Revenue	51,046,419	56,509,400	56,266,500	56,666,000	57,074,400	57,490,600	60,803,400
<u>REVENUE REQUIREMENTS (\$)</u>								
19	Purchase Power	38,537,400	40,200,600	40,480,200	40,762,800	41,048,500	41,337,400	41,629,500
20	Operations and Maintenance							
21	Personnel Services	2,042,800	2,358,900	2,485,900	2,622,300	2,769,100	2,927,000	3,097,200
22	Materials and Supplies	177,700	168,800	173,800	179,000	184,400	190,000	195,700
23	Contractual Services	464,700	653,200	793,000	808,900	825,200	842,000	859,200
24	Other Charges	105,500	84,600	112,000	115,400	118,800	122,400	126,100
25	Indirect Cost Allocation	994,700	1,170,200	1,205,300	1,241,500	1,278,700	1,317,100	1,356,600
26	Total Operations and Maintenance	3,785,400	4,435,700	4,770,000	4,967,100	5,176,200	5,398,500	5,634,800
27	Net Operating Revenue	8,723,619	11,873,100	11,016,300	10,936,100	10,849,700	10,754,700	13,539,100
28	Capital Expenditures							
29	Current Resources	577,000	593,900	1,476,600	439,000	400,000	430,000	2,320,500
30	Capital Reserves	20,000	-	-	-	-	-	-
31	Equipment Replacement	22,600	49,700	-	253,500	404,000	244,500	244,500
32	Total Capital Expenditures	619,600	643,600	1,476,600	692,500	804,000	674,500	2,565,000
33	Other Expenditures and Transfers							
34	Transfer to General Fund	11,435,200	10,685,800	9,914,700	9,842,500	9,764,700	9,679,200	10,163,200
35	Transfer to Budget Balance Reserve			0	100,000	100,000	100,000	155,000
36	Transfer to Contingency Fund			0	100,000	100,000	150,000	260,000
37	Transfer to Rate Stabilization Reserve			0	300,000	250,000	250,000	450,000
38	Investment Transactions (1)	(1,817,985)						
39	Total Other Expenditures and Transfers	9,617,215	10,685,800	9,914,700	10,342,500	10,214,700	10,179,200	11,028,200
40	Gross Revenue Requirement	52,559,615	55,965,700	56,641,500	56,764,900	57,243,400	57,589,600	60,857,500
41	Net Annual Cash Flow	(1,513,196)	543,700	(375,000)	(98,900)	(169,000)	(99,000)	(54,100)
42	Operating Cash Balance							
43	Beginning Balance	1,873,520	360,324	904,024	529,024	430,124	261,124	162,124
44	Annual Cash Flow	(1,513,196)	543,700	(375,000)	(98,900)	(169,000)	(99,000)	(54,100)
45	End Cash Balance	360,324	904,024	529,024	430,124	261,124	162,124	108,024

Notes:

(1) Adjustment entry to account for cumulative impact of non-operating transactions from statement of cash flows and tie to 2009 end of year cash balance

# COST OF SERVICE ANALYSIS

CITY OF NEWARK, DELAWARE  
ELECTRIC RATE STUDY

## 4.0 COST OF SERVICE ANALYSIS

This section presents the unbundled class cost of service analysis for the Electric Utility based on projected 2011 test year revenues and costs.

Table 4-1 presents a summary of the electric utility's 2011 test year revenue requirements, or cost of service to be allocated to classes. Gross revenue requirements include purchased power, O&M expenses, capital expenditures and reserve fund obligations. Credits to the cost of service include other revenues, which reduce gross revenue requirements.

Pro forma adjustments, shown in Table 4-1, Column B, reclassify the line items for funding capital projects, the transfer to the general fund, and the annual change in cash balances to a category for Depreciation and Return. There is no net increase or decrease to the total cost of service due to this adjustment.

The total cost of service to be allocated to the electric utility's customer classes is \$56.0 million, as shown on line 31 of Table 4-1.

The detailed development of unbundled cost of service is discussed in the following sections.

# COST OF SERVICE ANALYSIS

CITY OF NEWARK, DELAWARE  
ELECTRIC RATE STUDY

Table 4-1  
2011 Test Year Cost of Service - Electric Utility

Line	Description	[A] 2011 Test Year	[B] Pro Forma Adjustment	[C] Notes	[D] Test Year COS
	CASH BASIS	\$	\$		\$
<b>REVENUE REQUIREMENTS:</b>					
1	Purchase Power	\$40,480,200			\$40,480,200
2	Operations and Maintenance				\$2,485,900
3	Personnel Services	\$2,485,900			173,800
4	Materials and Supplies	173,800			793,000
5	Contractual Services	793,000			112,000
6	Other Charges	112,000			1,205,300
7	Indirect Cost Allocation	1,205,300			\$4,770,000
8	Total Operations and Maintenance	\$4,770,000	\$0		\$45,250,200
9	Total Operating Expenses	\$45,250,200	\$0		
10	Capital Expenditures				\$0
11	Current Resources	\$1,476,600	(\$1,476,600)	(a)	-
12	Capital Reserves	-			-
13	Equipment Replacement	-			\$0
14	Total Capital Expenditures	\$1,476,600	(\$1,476,600)		
15	Other Expenditures and Transfers				\$0
16	Transfer to General Fund	\$9,914,700	(\$9,914,700)	(a)	-
17	Transfer to Budget Balance Reserve	-			-
18	Transfer to Contingency Fund	-			-
19	Transfer to Rate Stabilization Reserve	-			-
20	Change in Fund Balance	(375,000)	\$375,000	(a)	\$0
21	Total Other Expenditures and Transfers	\$9,539,700	(\$9,539,700)		\$11,016,300
22	Depreciation and Return	\$0	\$11,016,300		\$56,266,500
23	Gross Revenue Requirement	\$56,266,500	\$0		
24	Less Other Revenue				\$110,700
25	Penalties	\$110,700			54,100
26	Service Fees	54,100			49,100
27	New Services	49,100			40,500
28	Investment Earnings	40,500			44,400
29	Miscellaneous Revenue	44,400			\$298,800
30	Total Other Revenue	\$298,800	\$0		\$55,967,700
31	Net Revenue Requirement	\$55,967,700	\$0		
32	<b>REVENUES:</b>				\$58,758,700
33	Total Rate Revenue Under Existing Rates	\$58,758,700			
34	Indicated Rate Increase				(\$2,791,000)
35	Amount	(\$2,791,000)			-4.7%
36	Percent	-4.7%			

Notes:

(a) Reclassify as Depreciation and Return

# COST OF SERVICE ANALYSIS

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CITY OF NEWARK, DELAWARE  
ELECTRIC RATE STUDY

## **4.1 Basis of Cost of Service Allocations**

The Black & Veatch cost of service analysis is a two-dimensional cost matrix that allocates the electric utility's total cost of service to each rate class. The unbundled cost of service is analyzed first by function (power supply, distribution, or customer) in order to properly categorize costs to the various utility functions. These functions are further classified to energy, capacity, customer, and direct assignments. Functional costs are then allocated to classes on the basis of each class' cost responsibility for energy, capacity, and customer related costs.

The resultant class cost of service requirements are divided by the class billing units to develop unbundled unit costs of service, which may be used to guide the design of rates specific to the rate class.

Energy related costs are considered to be expenses that vary with the number of kilowatt-hours sold. Capacity related costs include a portion of power supply, plus plant investment in distribution system substations, line transformers, and the primary portion of distribution lines, as well as the associated operation and maintenance expense attributable to this plant. Customer related costs include plant elements that are generally related to the number and type of customers served. Examples of customer related plant are services, meters, and the secondary portion of distribution system lines.

## **4.2 Functional Cost Allocations**

The allocation of costs to functional cost components generally begins with a functional classification of the utility's fixed assets, or plant in service. The functionalized fixed assets are then used as a proxy to functionalize the revenue requirements, or specific expenses related to the assets. The Electric Utility has limited detail in its fixed asset records to thoroughly functionalize the fixed asset records for this purpose. As an alternative, we used a sample of fixed asset records and operating expense records by Federal Energy Regulatory Commission (FERC) account for three investor-owned utilities, including the closest utility to Newark, Delmarva Power and Light Company. We used this sample data to develop relative relationships in distribution and customer related expenses and fixed assets to use as a proxy for functionalizing costs for the Electric Utility.

The functional classification of power supply is based on an analysis of components of the power supply bills. The electric utility purchases its power from DEMEC on a straight energy (or \$/kWh) basis. The nature of the power supply function (in this case representing both generation and transmission functions) is a combination of both energy and capacity. Despite the fact that the electric utility incurs costs for power supply strictly on an energy basis, we do not believe it appropriate to allocate cost in the same manner. In order to identify a portion of the power supply costs that are capacity related, we rely on the annual budget report from DEMEC that provides a breakdown of the cost included in the \$0.0933/kWh rate for the electric utility. In the report, \$0.068/kWh is identified as "Energy Only". This amounts to 73% of the total charge, which we classify as energy related. The remaining cost are classified as capacity related, and include costs related to transmission, capacity charges, congestion, and ancillary fees.

The functionalized fixed assets are shown on Table 4-2, followed by the functionalized revenue requirement, shown on Table 4-3.

**COST OF SERVICE ANALYSIS**

CITY OF NEWARK, DELAWARE  
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**Table 4-2  
Functional Classification of Plant in Service  
Page 1 of 2**

Line	Description	Func. Class	Power Supply			Capacity			Distribution			Customers			Customer Accounts and Service			Merchant Fees	Allocation Method
			Total	EnerG	Average	Excess	Substation	Line Transformers	Lines	Laterals	Services	Meters	Customer Accounts and Service	Street Lights	Traffic Lights	Merchant Fees			
1	ELECTRIC SUB-STATION (S1 1621)	1	10,482,251	0	0	0	0	488	0	0	0	0	0	0	0	0	0	0	0
2	TRUCK SHED-PHILLIPS AVENUE ELECTRIC TRUCKS (S1)	3	16,801	0	0	0	1,317	0	0	0	0	0	0	0	0	0	0	0	0
3	Total		10,499,052	0	0	0	1,317	488	0	0	0	0	0	0	0	0	0	0	0
4	Machinery & Equipment:																		
5	ESRI ArcCAD Invo Bundle	1	7,465	0	0	0	585	181	2,133	1,498	438	0	0	0	0	0	0	0	0
6	Microgrid II 15kV-48, Luth Stand	2	3,110	0	0	0	244	76	889	624	170	0	0	0	0	0	0	0	0
7	Das Logger 256K AC Current Regulators	3	2,840	0	0	0	0	515	962	562	257	0	0	0	0	0	0	0	0
8	ArcCAD Upgrades	1	1,709	0	0	0	156	42	494	347	95	0	0	0	0	0	0	0	0
9	Gateway MA Pd-D-06 PC (Police Air Handler)	3	2,029	0	0	0	0	49	580	407	111	0	0	0	0	0	0	0	0
10	HP DesignJet 750C Plus E-size. Red/Ink	3	6,168	0	0	0	484	130	1,763	1,238	337	0	0	0	0	0	0	0	0
11	Gateway E-4500D, 15" FS Monitor, MS Office (CAD)	3	1,491	0	0	0	117	36	426	299	82	0	0	0	0	0	0	0	0
12	Gateway E-4500D, 15" FS Monitor, MS Office (Dns)	3	1,295	0	0	0	102	31	370	260	71	0	0	0	0	0	0	0	0
13	Gateway E-4500D, 15" FS Monitor, MS Office (Assist Dns)	3	1,491	0	0	0	117	36	426	299	82	0	0	0	0	0	0	0	0
14	Eagle Wireless Power Quality Monitor	2	6,347	0	0	0	0	1,396	2,285	1,523	698	0	0	0	0	0	0	0	0
15	Gateways M463-E Laptop for Quality Monitor	2	1,288	0	0	0	0	283	464	309	142	0	0	0	0	0	0	0	0
16	Motorola 45 Watt Base Station	3	2,401	0	0	0	188	58	686	482	131	0	0	0	0	0	0	0	0
17	Two TKT210 Radio Repairs, CAD 1007300 (E00-3)	3	12,730	0	0	0	998	309	3,638	2,555	696	0	0	0	0	0	0	0	0
18	Multi-Amp Units, Protect, Relay	3	5,630	0	0	0	0	1,279	2,027	1,351	619	0	0	0	0	0	0	0	0
19	Cable Fault Locator	2	11,650	0	0	0	0	2,563	4,194	2,796	1,282	0	0	0	0	0	0	0	0
20	Diagnostic Assessor, Detector	3	2,660	0	0	0	0	65	760	534	146	0	0	0	0	0	0	0	0
21	4504 Customized Pole Drawer (107)	2	6,386	0	0	0	209	65	724	534	146	0	0	0	0	0	0	0	0
22	Cooling Tower for Clip Hill	3	12,805	0	0	0	1,064	311	3,660	2,370	700	0	0	0	0	0	0	0	0
23	Relay Accuracy Verifier	4	4,231	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	Single Red Cable Trailer (Out 112)	2	8,950	0	0	0	0	1,969	3,222	2,148	985	0	0	0	0	0	0	0	0
25	Full Wizard Underground Cable Tester	2	8,054	0	0	0	0	1,767	2,892	1,928	884	0	0	0	0	0	0	0	0
26	Watt Hour Meter Test System with A-Base Adapter (E0403)	4	20,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	Watt Hour Meter Test System with A-Base Adapter (E0403)	4	6,530	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	ERT Meters Installed	4	59,377	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	Total		196,325	0	0	0	4,343	12,525	34,122	23,111	8,620	0	0	0	0	0	0	0	0
30	Utility Line & Streets																		
31	ELECTRIC LINES (S1 1801)	2	12,921,918	0	0	0	0	2,842,822	4,651,891	3,101,260	1,421,411	0	0	0	0	0	0	0	0
32	Total		12,921,918	0	0	0	0	2,842,822	4,651,891	3,101,260	1,421,411	0	0	0	0	0	0	0	0



# COST OF SERVICE ANALYSIS

CITY OF NEWARK, DELAWARE  
ELECTRIC RATE STUDY

Table 4-3  
Functional Classification of Cost of Service  
Page 1 of 2

Line	Description	Total	Allocation Reference	Power Supply Capacity			Distribution Capacity			Customer Capacity			Customer Accounts and Service	Meters	Street Lights	Traffic Lights	Merchandise Fees
				Energy	Average	Excess	Substations	Line Transformers	Lines	Lateral	Services	Meters					
1	Revenue Requirements:																
	Purchase Power	\$ 40,480,200	2			4,983,313	0	0	0	0	0	0	0	0	0	0	0
2	Operations and Maintenance																
	PERSONNEL SERVICES																
3	Line Maintenance	\$ 971,800	5														
4	Other Personnel Services	600,200	13														
5	Line Maintenance Benefits	516,200	5														
6	Other Personnel Services Benefits	347,700	13														
	MATERIALS AND SUPPLIES																
7	Line Maintenance	86,700	5														
8	Station Maintenance	21,800	3														
9	Meter Testing & Repairs	2,400	10														
10	Traffic Signal Maintenance	1,000	7														
11	Street Light Maintenance	17,100	7														
12	House Service Maintenance	10,000	9														
13	Other Materials and Supplies	34,800	12														
	CONTRACTUAL SERVICES																
14	Merchandise Fees and Discounts	317,000	14														
15	Line Maintenance	29,400	5														
16	Station Maintenance	34,200	3														
17	Traffic Signal Maintenance	2,100	7														
18	Tree Removal	172,000	4														
19	Other Contractual Services	238,400	6														
	OTHER CHARGES																
20	Bad Debt Expense	88,700	11														
21	Interest Expense	15,500	11														
	Indirect Cost Allocation																
22	Finance	8,300	11														
23	Customer Service	322,200	11														
24	Utility Billing	111,400	11														
25	Meter Readers	135,700	11														
26	Other Finance	434,900	11														
27	Administration	93,000	15														
28	Planning & Development	12,000	15														
29	Legislative	62,900	15														
	Space	35,200	15														
	Total Operation & Maintenance Expense	\$ 4,770,200															

**COST OF SERVICE ANALYSIS**

CITY OF NEWARK, DELAWARE  
ELECTRIC RATE STUDY

Table 4-3  
Functional Classification of Cost of Service  
Page 2 of 2

Line	Description	Total	Allocation Reference	Power Supply			Capacity			Distribution			Customer Accounts and Service	Street Lights	Traffic Lights	Merchant Fees
				Energy	Average	Excess	Substations	Line Transformers	Lines	Laterals	Service	Meters				
1	Revenue Requirements:															
	Purchase Power	\$ 40,480,200	2	29,550,546	\$ 946,541	4,983,113	0	0	0	0	0	0	0	0	0	0
30	Depreciation and Return	\$ 11,016,300	6	0	0	0	0	0	0	0	0	0	0	0	0	0
31	Total Gross Revenue Requirements	\$ 56,266,700		\$ 29,550,546	\$ 946,541	4,983,113	0	0	0	0	0	0	0	0	0	0
32	Less Other Revenue															
33	Revenues	\$ 110,700	11	0	0	0	0	0	0	0	0	0	0	0	0	0
34	Service Fees	\$ 54,100	11	0	0	0	0	0	0	0	0	0	0	0	0	0
35	New Services	\$ 49,100	9	0	0	0	0	0	0	0	0	0	0	0	0	0
36	Investment Earnings	\$ 40,500	6	0	0	0	0	0	0	0	0	0	0	0	0	0
37	Miscellaneous Revenue	\$ 44,400	11	0	0	0	16,375	4,825	7,973	5,118	2,426	2,315	92	1,059	120	0
38	Total Other Revenue	\$ 298,800		0	0	0	16,375	4,825	7,973	5,118	2,426	2,315	92	1,059	120	0
39	Total Net Revenue Requirements	\$ 85,967,900		\$ 29,550,546	\$ 946,541	4,983,113	4,807,085	1,406,839	3,142,204	2,125,669	794,335	767,181	345,939	56,021	317,000	0
40	Allocation Reference															
41	AED		1	0.00%	54.42%	45.58%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
42	Purchase Power		2	73.00%	14.09%	12.31%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
43	Substations		3	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
44	Line & Laterals		4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
45	Electric Lines		5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
46	Total OC Plant		6	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
47	Energy		7	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
48	Services		8	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
49	Meters		9	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
50	Account & Cust Service		10	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
51	Other Materials and Supplies		11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
52	Other Personnel		12	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
53	Merchant Processing Fees		13	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
54	Supervised O&M before General		15	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

# COST OF SERVICE ANALYSIS

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CITY OF NEWARK, DELAWARE  
ELECTRIC RATE STUDY

## 4.3 Units of Service

The allocation of functionalized plant and cost of service components to classes is based upon the development of allocation factors in Tables 4-4 and 4-5. Table 4-4 shows the development of energy and capacity (demand) related allocation factors and Table 4-5 shows the development of customer related allocation factors.

The energy allocator (ENR1), shown in Column D of Table 4-4, is based on projected sales for test year 2011, including an allowance for system energy losses. The average loss factor (Column B) for the City's electric system is nominally 6 percent. When adjusting for the City of Newark's energy usage, the loss factor is nominally 8 percent. Energy losses vary by class of customer to reflect the delivered energy losses to serve secondary voltage and primary voltage connected customers.

The average and excess demand (AED) method for allocation of system capacity costs is used because it gives recognition to both peak demand and the annual average demand (proportional to annual energy use) use of system capacity designed to deliver energy. Under this method, a 100 percent load factor service class is allocated only the portion of the plant costs equal to its share of the capacity. Off-peak service classes, such as lighting, are assigned no excess demand and are allocated costs based on their average demand (energy use). Annual load factors for each customer class (Column F) are based on our experience with other utilities and consideration of class demand metered billing data obtained from the City.

In the AED method, each customer class is responsible for contributing to the system peak demand equal to at least the class average demand during the test year. System peak for firm load projected by the City is 91,000 kW. The difference between system peak demand and system average demand is system excess demand and is allocated to customer classes in proportion to respective class non-coincident excess demands (Table 4-4, Column K). The total demand responsibility of each customer class is the sum of the class average demand plus allocated excess demand. Column R shows the average and excess demand responsibility for each customer class. Retail Street Lighting is not assigned excess capacity responsibility to reflect the off-peak nature of the load.

Customer related plant investment and expenses generally vary with the number of customers or the number of bills rendered. The development of customer related allocation factors is shown on Table 4-5. In order to recognize relative cost differences between facilities used to serve individual customers in the various customer classes, the number of customers is weighted using appropriate weighting factors based on our experience. We have developed allocation factors for customer related costs, services, meters, and laterals.

**COST OF SERVICE ANALYSIS**

CITY OF NEWARK, DELAWARE  
ELECTRIC RATE STUDY

**Table 4-4  
Energy and Capacity Allocation Factors**

Line	Customer Class	2011 Energy Sales kWh	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]	[P]	[Q]	[R]	Allocation Reference																								
																					Energy Responsibility Amount	Energy Responsibility Percent	ENR1	ENR2																					
																						Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent				
																						(A)/(1-[B])	(C)/(D)	(E)/(F)	(G)/(H)	(I)/(J)	(K)/(L)	(M)/(N)	(O)/(P)	(Q)/(R)	(S)/(T)	(U)/(V)	(W)/(X)	(Y)/(Z)	(AA)/(AB)	(AC)/(AD)	(AE)/(AF)	(AG)/(AH)	(AI)/(AJ)	(AK)/(AL)	(AM)/(AN)	(AO)/(AP)	(AQ)/(AR)	(AS)/(AT)	
1	RS RATE - RESIDENTIAL	92,069,377	9.00%	101,169,206	23.31%	11,542	40%	28,855	29.94%	36,069	80%	36,069	29.95%	36,069	51.89%	17,313	36.99%	15,341	16.883	19.54%	15,341	16.883	19.54%																						
2	GS RATE - GENERAL SERVICE	18,746,716	9.00%	20,600,787	4.75%	2,532	40%	5,880	6.19%	7,350	80%	7,350	6.10%	7,350	10.57%	3,528	7.54%	3,126	5.478	6.02%	3,126	5.478	6.02%																						
3	GSD RATE - GENERAL SERVICE DEMAND	52,966,183	8.50%	57,886,538	13.34%	6,608	50%	13,216	13.71%	16,520	80%	16,520	13.72%	16,520	23.77%	6,608	14.12%	5,855	12.463	13.70%	5,855	12.463	13.70%																						
4	P RATE - LG LIGHT AND POWER	25,102,000	8.50%	27,433,880	17.31%	3,112	60%	5,220	5.42%	6,525	80%	6,525	5.42%	6,525	9.39%	2,088	4.46%	1,850	4.982	5.47%	1,850	4.982	5.47%																						
5	Secondary	44,105,174	7.50%	47,681,269	17.31%	5,443	60%	9,072	9.41%	11,340	80%	11,340	9.42%	11,340	16.60%	3,629	7.75%	3,216	8.659	9.52%	3,216	8.659	9.52%																						
6	Total	69,207,174	7.85%	75,115,147	17.31%	8,575	60%	14,292	14.83%	17,865	80%	17,865	14.83%	17,865	25.76%	5,717	12.21%	5,046	15.641	14.99%	5,046	15.641	14.99%																						
7	U RATE - UNIV OF DELAWARE	136,603,089	7.00%	146,855,041	33.86%	16,768	62%	27,045	28.00%	33,806	80%	33,806	28.07%	33,806	48.00%	10,277	21.96%	9,106	25.874	28.17%	9,106	25.874	28.17%																						
8	Secondary	9,907,346	8.50%	10,827,701	7.36%	1,256	52%	2,377	2.47%	2,971	80%	2,971	2.47%	2,971	4.27%	1,141	2.44%	1,011	2.247	2.47%	1,011	2.247	2.47%																						
9	Primary	19,900,000	7.50%	21,081,081	7.36%	2,407	52%	4,629	4.80%	5,786	80%	5,786	4.80%	5,786	8.11%	2,222	4.75%	1,969	4.376	4.81%	1,969	4.376	4.81%																						
10	Total	29,407,346	7.84%	31,908,782	7.36%	3,663	52%	7,006	7.27%	8,757	80%	8,757	7.27%	8,757	12.38%	3,363	7.19%	2,980	6.623	7.28%	2,980	6.623	7.28%																						
11	RETAIL STREET LIGHTS	295,372	8.00%	321,057	0.07%	37	50%	74	0.08%	93	100%	93	0.08%	93	0.11%	0	0.00%	0	0	0.04%	0	0	0.04%																						
12	Total	359,235,256	8.00%	433,836,560	100.00%	49,525	100.00%	96,368	100.00%	120,442	100.00%	120,442	100.00%	120,442	100.00%	46,806	100.00%	41,475	91,000	100.00%	41,475	91,000	100.00%																						
																						System Peak Demand		91,000																					
																						System Excess Demand		41,475																					

# COST OF SERVICE ANALYSIS

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**Table 4-5  
Customer Related Allocation Factors**

Line	Customer Class	[A] Average Number of Meters	Cust. Related Responsibility			Services			Meters			Laterals and Secondary		
			[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]
			Weighting Factors	Weighted Meters	Percent	Weighting Factors	Weighted Meters	Percent	Weighting Factors	Weighted Meters	Percent	Weighting Factors	Weighted Meters	Percent
"Allocation Reference"														
1	RS RATE - RESIDENTIAL	10,709	1.00	10,709	69.82%	1.00	10,709	82.07%	1.00	10,709	64.45%	1.00	10,709	81.65%
2	GS RATE - GENERAL SERVICE	1,108	2.00	2,216	14.45%	1.50	1,662	12.74%	1.50	1,662	10.00%	1.50	1,662	12.67%
3	GSD RATE - GEN SVC DEMAND	282	5.00	1,410	9.19%	2.00	564	4.32%	10.00	2,820	16.97%	2.00	564	4.30%
P RATE - LG LIGHT AND POWER														
4	Secondary	36	7.50	270	1.76%	2.50	90	0.69%	15.00	540	3.25%	4.00	144	1.10%
5	Primary	8	10.00	80	0.52%	0.00	-	0.00%	20.00	160	0.96%	0.00	-	0.00%
6	Total	44	7.95	350	2.28%	1.93	90	0.69%		700	4.21%	2.00	144	1.10%
7	U RATE - UNIV OF DELAWARE (	22	20.00	440	2.87%	0.00	-	0.00%	25.00	550	3.31%	0.00	-	0.00%
U RATE - ROHM & HAAS (2)														
8	Secondary	9	7.50	68	0.44%	2.50	23	0.18%	15.00	135	0.81%	4.00	36	0.27%
9	Primary	2	10.00	20	0.13%	0.00	-	0.00%	20.00	40	0.24%	0.00	-	0.00%
10	Total	11	7.95	88	0.57%	1.93	23	0.18%		175	1.05%		36	0.27%
11	Retail Street Lighting	251	0.50	126	0.82%	0.00	-	0.00%	0.00	-	0.00%	0.00	-	0.00%
12	TOTAL ALL GROUPS	12,427		15,339	100.00%		13,048	100.00%		16,616	100.00%		13,115	100.00%

**Notes**

- (1) University of Delaware receives one bill for 22 meters billed conjunctively
- (2) Rohm & Haas receives one bill for 11 meters billed conjunctively

# COST OF SERVICE ANALYSIS

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## **4.4 Unbundled Cost of Service**

A summary of the allocation factors used to allocate the functionalized revenue requirement to each of the customer classes is shown on Table 4-6. The allocation reference for each functional area is shown on line 1 and refers back to the headings on Tables 4-4 and 4-5.

The unbundled cost of service is calculated by taking the total cost of service by function (Table 4-3, line 39) and multiplying by the allocation factors from Table 4-6. This step allocates the functional costs to each of the rate classes. The total cost of service for each class is the sum of functionalized costs allocated to it, as shown in Table 4-7.

Table 4-8 presents the unit costs of service by class. This table takes the results of Table 4-6 and divides the costs by appropriate class billing units to determine unit costs of service. For example, customer related costs are divided by the number of bills. Energy related costs are divided by kWh billing units. Capacity related costs are divided by kWh or kW billing units appropriate to the metering basis of the class. These unit costs may then be used as a guideline in designing rates for each class.

**COST OF SERVICE ANALYSIS**

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**Table 4-6  
Summary of Allocation Factors by Function**

Line	Customer Class	Power Supply			Capacity			Distribution			Customer Accounts			Merchant Fees		
		Energy	Average	Excess	Substation	Transformers	Lines	Laterals	Services	Meters	Street Lights	Traffic Lights	TL	MF	TL	MF
1	COS_Units Reference	ENR1	ENR1	CAP2	CAP1	CAP3-P	CAP3	CUS4	CUS2	CUS3	CUS1	SL	TL	MF		
2	RS RATE - RESIDENTIAL	23.31%	23.31%	36.99%	29.94%	31.89%	29.95%	81.65%	82.07%	64.45%	69.82%	65.57%	69.82%	20.08%		
3	GS RATE - GENERAL SERVICE	4.75%	4.75%	7.54%	6.10%	10.37%	6.10%	12.67%	12.74%	10.00%	14.45%	13.00%	14.45%	1.06%		
4	GSD RATE - GENERAL SERVICE DEMAND	13.34%	13.34%	14.12%	13.71%	23.77%	13.72%	4.30%	4.32%	16.97%	9.19%	8.27%	9.19%			
5	P RATE - LG LIGHT AND POWER	17.31%	17.31%	12.21%	14.83%	9.39%	14.83%	1.10%	0.69%	4.21%	2.38%	2.05%	2.38%			
6	U RATE - UNIV OF DELAWARE	33.86%	33.86%	21.96%	28.06%	0.10%	28.07%	0.10%	0.09%	3.31%	2.87%	2.58%	2.87%	78.86%		
7	U RATE - ROHM & HAAS	7.36%	7.36%	7.19%	7.27%	4.27%	7.27%	0.27%	0.18%	1.05%	0.57%	0.52%	0.57%			
8	RETAIL STREET LIGHTS	0.07%	0.07%	0.00%	0.08%	0.11%	0.06%	0.00%	0.00%	0.00%	0.82%	10.00%	0.82%	0.10%		
9	TOTAL	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%		

**Table 4-7  
Unbundled Cost of Service**

Line	Customer Class	Power Supply			Capacity			Distribution			Customer Accounts			Merchant Fees		
		Energy	Average	Excess	Substation	Transformers	Lines	Laterals	Services	Meters	Street Lights	Traffic Lights	TL	MF	TL	MF
1	RS RATE - RESIDENTIAL	17,636,945	6,887,168	1,385,925	1,843,194	1,439,346	730,024	941,002	1,755,299	651,942	494,447	1,203,611	219,925	40,508	63,654	3,360
2	GS RATE - GENERAL SERVICE	3,448,047	1,403,237	282,377	375,602	293,306	148,762	191,753	269,312	101,179	76,737	249,061	44,979	8,382	3,360	-
3	GSD RATE - GENERAL SERVICE DEMAND	7,312,899	3,942,988	793,459	703,506	659,742	334,359	430,988	91,391	34,335	130,203	158,474	28,620	5,334	-	-
4	P RATE - LG LIGHT AND POWER	8,174,781	5,116,559	1,029,820	608,647	712,912	132,064	466,080	23,334	5,479	32,320	39,338	7,104	1,324	1,664	249,986
5	U RATE - UNIV OF DELAWARE	15,679,178	10,005,324	2,913,380	1,094,122	1,349,961	-	881,963	-	-	25,394	49,453	8,931	1,786	333	-
6	U RATE - ROHM & HAAS	3,634,332	2,173,502	437,380	358,037	349,471	60,153	228,483	5,834	1,900	8,080	9,891	1,786	333	-	-
7	RETAIL STREET LIGHTS	82,618	21,867	4,400	-	3,692	1,498	1,929	-	-	14,161	31,594	477	-	-	-
8	Total Cost of Service	55,967,900	29,550,545	5,946,541	4,983,108	4,807,010	1,406,840	3,142,200	2,125,170	794,335	767,181	1,723,989	345,939	58,022	317,006	3,360

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Table 4-8  
Unit Cost of Service

Line	Customer Class	Units	Power Supply		Capacity			Distribution			Customer Accounts and Service			Merchant Fees	Total	
			Energy	Average	Excess	Substations	Transformers	Lines	Laterals	Services	Meters	Street Lights	Traffic Lights			
Energy Sales (\$/MWh)																
1	RS RATE - RESIDENTIAL	92,009	74,853	15,063	20,033	15,643	7,934	10,227						143,753		
2	GS RATE - GENERAL SERVICE	18,747	74,852	15,063	20,036	15,646	7,955	10,229						145,761		
3	GSD RATE - GENERAL SERVICE DEMAND	52,966	74,443	14,980										89,423		
4	P RATE - LG LIGHT AND POWER	69,207	73,931	14,877										88,808		
5	U RATE - UNIV OF DELAWARE	136,603	73,243	14,739										87,982		
6	U RATE - ROHM & HAAS	29,407	73,910	14,875										88,783		
7	RETAIL STREET LIGHTS	295	74,052	14,876										88,928		
Demand (Annual \$/kW)																
8	RS RATE - RESIDENTIAL													151,84		
9	GS RATE - GENERAL SERVICE													133,12		
10	GSD RATE - GENERAL SERVICE DEMAND	14,016		50,20	47,04	23,86	30,75							158,72		
11	P RATE - LG LIGHT AND POWER	14,421		42,21	40,44	9,16	32,32							183,81		
12	U RATE - UNIV OF DELAWARE	20,950		52,23	64,40	-	42,10									
13	U RATE - ROHM & HAAS	5,419		66,07	64,49	11,10	42,16									
14	RETAIL STREET LIGHTS															
Customer Bills (Monthly \$/bill)																
15	RS RATE - RESIDENTIAL	128,508							13,50	5,07	3,85	9,37	1,71	0,32	0,50	34,31
16	GS RATE - GENERAL SERVICE	13,296							20,26	7,61	5,77	18,73	3,38	0,63	0,25	56,63
17	GSD RATE - GENERAL SERVICE DEMAND	3,384							27,01	10,15	38,48	46,83	8,46	1,58	-	132,49
18	P RATE - LG LIGHT AND POWER	528							44,19	10,38	61,21	74,50	13,46	2,51	-	206,25
19	U RATE - UNIV OF DELAWARE	12							-	-	2,116,17	4,121,08	744,25	138,67	20,832,17	27,952,33
20	U RATE - ROHM & HAAS	12							486,17	116,67	673,33	824,25	148,83	27,75	-	2,277,00
21	RETAIL STREET LIGHTS	3,012							-	-	-	4,70	11,49	0,16	-	16,35

# COST OF SERVICE ANALYSIS

CITY OF NEWARK, DELAWARE  
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## 4.5 Summary of Cost of Service

The unbundled cost of service results by class can be summarized by comparing the revenue under existing rates for each class with the unbundled cost of service. By calculating the percentage difference between the two numbers, the indicated change in revenue for each class is determined. The cost of service summary is shown on Table 4-9.

While the over recovery of cost of service for the total system of \$2.8 million (Column C, line 8) is equal to the revenue decrease on the projected operating results, certain interclass subsidies exist and should be acknowledged. In general, the smaller classes (Residential, GS and Street Lights) are paying less than their share of cost of service, and the larger customers are paying more than their allocated share of the revenue requirement.

Table 4-9  
Summary of Cost of Service

Line	Description	[A] Revenue Under Existing Rates \$	[B] Unbundled COS \$	[C] (Over)/Under Recovery Amount Percent	
				[D] Test Year 2011 [B] - [A]	[C] / [A]
1	RS RATE - RESIDENTIAL	\$15,110,455	\$17,636,045	\$2,525,590	16.7%
2	GS RATE - GENERAL SERVICE	\$3,264,503	\$3,448,047	\$183,544	5.6%
3	GSD RATE - GENERAL SERVICE DEMAND	\$8,020,832	\$7,312,899	(\$707,933)	-8.8%
4	P RATE - LG LIGHT AND POWER	\$10,624,533	\$8,174,781	(\$2,449,752)	-23.1%
5	U RATE - UNIV OF DELAWARE	\$17,697,500	\$15,679,178	(\$2,018,322)	-11.4%
6	U RATE - ROHM & HAAS	\$3,981,568	\$3,634,332	(\$347,236)	-8.7%
7	RETAIL STREET LIGHTS	\$59,292	\$82,618	\$23,326	39.3%
8	TOTAL SYSTEM	\$58,758,683	\$55,967,900	(\$2,790,783)	-4.7%

## 5.0 RATE DESIGN

### 5.1 *Rate Design Theory*

A number of rate design principles or objectives find broad acceptance in regulatory and policy literature. These include:

1. Efficiency;
2. Cost of Service;
3. Value of Service;
4. Stability;
5. Non-Discrimination;
6. Administrative Simplicity;
7. Balanced Budget.

These rate design principles draw heavily on the “Attributes of a Sound Rate Structure” developed by James Bonbright in Principles of Public Utility Rates. Each of these principles plays an important role in analyzing the rate proposals developed in this section. To understand the role these principles play, the following discusses each of the principles.

The principle of efficiency broadly incorporates both economic and technical efficiency. As such, this principle has both a pricing dimension and an engineering dimension. Economically efficient pricing promotes good decision-making by electric producers and consumers, fosters efficient expansion of production and delivery capacity, results in efficient capital investment in customer facilities and facilitates the efficient use of existing electric supply and delivery resources. The efficiency principle benefits stakeholders by creating outcomes for regulation consistent with the long-run benefits of competition while permitting the economies of scale consistent with the best cost of service. Technical efficiency means that the development of the system is designed and constructed to meet the peak load requirements of customers using the most economic equipment and technology to deliver low cost energy. Efficiency recognizes that load diversity increases as the facilities move further away from the customer.

The principles of cost of service and value of service each relate to designing rates that recover the total revenue requirement without causing inefficient choices by consumers. The cost of service principle contrasts with the value of service principle when certain transactions do not occur at price levels determined by embedded cost of service. In essence, the value of service acts as a ceiling on prices. Where prices are set at levels higher than the value of service, consumers will not purchase the service.

The calculation of a “true” cost of service is complicated by the fact that for network industries like the electric industry, the provision of public utility service often involves joint and common costs which must be allocated (rather than directly assigned) to specific customer classes or rate schedules to develop a full cost of service study. While a good fully distributed cost of service analysis can be performed using principles of cost causation, informed judgment is nonetheless required to perform such a study. A fully distributed cost of service study, properly reflecting cost causation principles and employing sound methods, provides a reasonable tool for the allocation of the total revenue requirement to customer classes (interclass distribution) and within the customer classes (intra-class distribution).

The principle of stability typically applies to customer rates. This principle suggests that reasonably stable and predictable prices are important objectives of a proper rate design. This principle also means avoiding unreasonable changes in bills resulting from redesigning rates.

# RATE DESIGN

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The concept of non-discrimination requires prices designed to promote fairness and avoid undue discrimination. Fairness requires no undue subsidization either between customers in the same class or across different classes of customers.

The principle of administrative simplicity as it relates to rate design requires prices reasonably simple to administer and understand. This concept includes price transparency within the constraints of the ratemaking process. Prices are transparent when customers are able to reasonably calculate and predict bill levels and interpret details about the charges resulting from the application of the tariff.

Finally, there is the critical principle that rate design permits the utility a reasonable opportunity to recover the allowed revenue requirement. This is the principle of a balanced budget. Proper design of utility rates is a necessary condition to enable an effective opportunity to recover the cost of providing service included in the revenue authorized by the regulatory authority. This principle is very similar to the stability objective previously discussed from the perspective of customer rates.

At times, these principles like most principles that have broad application can compete with each other. This competition or tension requires further judgment to strike the right balance between the principles. Detailed evaluation of rate design alternatives and rate design recommendations must recognize the potential and actual competition between these principles. Indeed, Bonbright discusses this tension in detail. Rate design recommendations must deal effectively with such tension. For example, as noted above, there are tensions between cost and value of service principles.

There are potential conflicts between simplicity and non-discrimination and between value of service and non-discrimination. Other potential conflicts arise where companies face unique circumstances that must be considered as part of the rate design process. In addition, the development of rates must consider existing rates and the customer impact of modifications to the rates.

In each case, rates are designed in an effort to provide the utility with a reasonable opportunity to recover the authorized level of revenue (or earnings) during the "Rate Effective Period". The Rate Effective Period is typically the first twelve months after the new rates take effect.

## **5.2 Rate Design Practice**

In practice, rates must be designed to recover the target revenues during the Rate Effective Period. The design of the rates includes not only the determination of the rate elements but also various rate provisions. The Electric Utility had certain goals for the rate design proposal. The following list highlights the list provided to Black & Veatch of some guiding principles to be used in the design of rates.

1. The rates should be fair and reasonable to all classes of customers.
2. The rates should recover the City's costs including its operating and capital costs and a fair margin.
3. The rates to all customers should be competitive to the maximum extent possible.
4. The rates should encourage energy conservation for all customer classes.
5. The rates should support economic development within the City by attracting and retaining large commercial and industrial customers.
6. The rates should "decouple" the City's financial interests from consumption levels.

We considered these guidelines as we developed our rate proposal. It should be noted that not all goals are applicable to each customer class, and that certain goals are conflicting with others. For example, revenue decoupling is not usually considered to promote conservation. These conflicts were considered in our proposed rates and discussed in the following sections.

# RATE DESIGN

The rate process began with a review of the class cost of service results. The results shown on Table 4-9 show that the Residential and General Service (GS) classes are effectively being subsidized by the larger commercial and industrial classes. Overall, there is about \$2.8 million decrease in revenue that needs to be distributed among customer classes. There were multiple options considered; the primary options we considered are:

- Implement cost of service based rates and develop target revenue based on the cost of service results
- Apply an across the board decrease of 4.75% to all classes for simplicity purposes
- Spread the \$2.8 million only to the classes that are currently over recovering their costs of service with no change in the overall level of revenues for classes that under recover their cost of service.

It was determined in collaboration with City staff that the third option is in the best interests of the electric utility and its customers. It accomplished the goal of working towards more equitable rates without any extreme changes to any particular classes. A further decision was then made on how to spread the \$2.8 million among the three classes that will share in the reduction. It was decided that each class should receive an equal percentage decrease from its existing rates. The results of this distribution of the \$2.8 million and the target revenues for rate design for each class are shown on Table 5-1.

**Table 5-1**  
**Allocation of Revenue Reduction and Target Revenue by Class**

Description	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]
	Revenue Under Existing Rates \$1,000	Unbundled COS \$1,000	(Over)/Under Recovery Amount B - A	Percent C / A	Target % Change in Revenue	Target Revenue A * (1 + E)	Change in Revenue F - A	% (Over)/Under Recovery of COS B / F - 1
RESIDENTIAL	\$15,110	\$17,636	\$2,526	16.7%	0.0%	\$15,110	\$0	16.7%
GS RATE	\$3,265	\$3,448	\$184	5.6%	0.0%	\$3,265	\$0	5.6%
GSD RATE	\$8,021	\$7,313	(\$708)	-8.8%	-6.9%	\$7,466	(\$555)	-2.0%
P RATE	\$10,625	\$8,175	(\$2,450)	-23.1%	-6.9%	\$9,889	(\$735)	-17.3%
U RATE - UD	\$17,697	\$15,679	(\$2,018)	-11.4%	-6.9%	\$16,473	(\$1,225)	-4.8%
U RATE - ROHM & HAAS	\$3,982	\$3,634	(\$347)	-8.7%	-6.9%	\$3,706	(\$276)	-1.9%
RETAIL STREET LIGHTS	\$59	\$83	\$23	39.3%	0.0%	\$59	\$0	39.3%
TOTAL SYSTEM	\$58,759	\$55,968	(\$2,791)	-4.7%	-4.7%	\$55,968	(\$2,791)	0.0%

Columns A through D are the same as Table 4-9. In column E we show that each of the General Service Demand (GSD), Large Light and Power (P) and U Rate classes will receive a 6.9% decrease from their existing revenues. The resultant target revenues shown in Column F are the basis for designing rates for each class. The dollar reduction for each class is shown in Column G and the adjusted variance from cost of service is in Column H.

## 5.2.1 Residential Rate Class

The residential class is under recovering its cost of service by 16.7 percent. As previously discussed, the Residential Class will have no change in overall revenues generated from the class. However, certain rate design components are proposed to match the goals of the Electric Utility. The proposed rates include the

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addition of a Customer Charge. The Customer Charge is designed to cover the costs incurred to allow the customer to access and use power from the system. This change is designed to more accurately reflect the costs the utility incurs in order for customers to access the system. Although this charge does not cover all of the costs of access, the rate is designed to move toward recovery of some of the costs. The proposed charge is \$10.00 per month. At this level, the charge represents about 30 percent of the cost of access. This charge also fits with the electric utility's goal of more revenue decoupling, as less of the revenue for the class is dependent on volumetric charges.

The energy charge portion of the residential rate consists of three seasonally differentiated energy blocks. This is a change from the existing rate structure that consists of a flat rate with no seasonal differential. Our recommended blocks are: first 250 kWh, next 750 kWh, and over 1,000 kWh. We base our recommendation on a bill frequency analysis of sample data to determine the appropriate breaks in the blocks. The recommended energy charges have an inclining block structure in the summer months and a flat rate, equal to the first summer block, in the winter months. This has the effect of promoting conservation in the summer by sending an increasing price signal as volume increases. In addition, by having an inclining block structure in the summer, the first block is significantly lower than it would be under a flat rate design. This helps low use customers and offsets some of the impact of introducing a customer charge. The existing and recommended rates are shown in Table 5-2.

**Table 5-2  
Present and Recommended Residential Rates**

Description	Present Rate	Recommended Rate
<b>Customer Charge (\$/bill)</b>	\$ -	\$ 10.00
<b>Existing Energy Charge plus PPCA (\$/kWh)</b>		
First 30 kWh	\$ 0.2393	
Over 30 kWh	\$ 0.1610	
<b>Recommended Energy Charge (\$/kWh)</b>		
Summer		
First 250 kWh		\$ 0.1450
Next 750 kWh		\$ 0.1565
Over 1,000 kWh		\$ 0.1700
Winter		
First 250 kWh		\$ 0.1450
Next 750 kWh		\$ 0.1450
Over 1,000 kWh		\$ 0.1450

## 5.2.2 General Service (GS Rate)

The General Service (GS) class is under recovering its cost of service by 5.6 percent. As previously discussed, the GS class will have no change to revenues generated for the class. However, certain rate design components are proposed to match the goals of the electric utility. The proposed rates include the addition of a Customer Charge. Like the Residential class, the Customer Charge is designed to cover the costs incurred to allow the customer to access and use power from the system. The proposed charge is \$17.50 per month. At this level, the charge represents about 30 percent of the cost of access. This charge also fits with the

# RATE DESIGN

electric utility's goal of more revenue decoupling, as less of the revenue for the class is dependent on volumetric charges.

The recommended energy charges for the GS class are a flat rate that is seasonally differentiated. This change is consistent with the electric utility's goal of promoting conservation because the existing rate structure is a declining block rate that decreases as volumes increase. The rate has a seasonal differential of 2 cents/kWh. The existing and recommended rates are shown in Table 5-3.

**Table 5-3**  
**Present and Recommended General Service Rates**

Description	Present Rate	Recommended Rate
<b>Customer Charge (\$/bill)</b>	\$ -	\$ 17.50
<b>Existing Energy Charge plus PPCA (\$/kWh)</b>		
Summer		
First 100 kWh	\$ 0.1860	
Next 9,900 kWh	\$ 0.1840	
Over 10,000 kWh	\$ 0.1730	
Winter		
First 100 kWh	\$ 0.1860	
Next 9,900 kWh	\$ 0.1630	
Over 10,000 kWh	\$ 0.1630	
<b>Recommended Energy Charge (\$/kWh)</b>		
Summer (all kWh)		\$ 0.1720
Winter (all kWh)		\$ 0.1520

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### 5.2.3 General Service Demand (GSD Rate)

The General Service Demand (GSD) class is over recovering its cost of service by 8.8 percent. The GSD class will share in the rate reduction and have rates designed to produce a 6.9 percent decrease in revenue. We recommend a Customer Charge of \$50 per month for the GSD class.

We recommend the Capacity Charge continue to be a seasonally differentiated charge with a minimum first block of 20 kW. The minimum bill for this class will be the Customer Charge and the Demand Charge. For the energy charge, we recommend moving from a declining block rate to a flat block. The recommended rates for the GSD class are shown in Table 5-4.

**Table 5-4  
Present and Recommended General Service Demand Rates**

Description	Present Rate	Recommended Rate
<b>Customer Charge (\$/bill)</b>	\$ -	\$ 50.00
<b>Capacity Charge</b>		
Summer		
First 20 kW	\$ 260.00	\$ 160.00
Per kW Over 20 kW	\$ 13.00	\$ 8.00
Winter		
First 20 kW	\$ 219.00	\$ 130.00
Per kW Over 20 kW	\$ 10.95	\$ 6.50
<b>Existing Energy Charge plus PPCA (\$/kWh)</b>		
First 100 kWh	\$ 0.3760	
Next 9,900 kWh	\$ 0.1160	
Over 10,000 kWh	\$ 0.1080	
<b>Recommended Energy Charge (\$/kWh)</b>		
All kWh		\$ 0.1150

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## 5.2.4 Large Light and Power (P Rate)

The Large Light and Power (P Rate) class has the largest over recovery of its cost of service of any class: 23.1 percent. The P Rate class will share in the rate reduction and have rates designed to produce a 6.9 percent decrease in revenue. We recommend a Customer Charge of \$185 per month for the P Rate.

We recommend the Capacity Charge continue to be a seasonally differentiated charge with a minimum first block of 150 kW. The minimum bill for this class will be the Customer Charge and the Demand Charge. For the energy charge, we recommend moving from a declining block rate to a flat block. The recommended rates for the P Rate class are shown in Table 5-5.

**Table 5-5  
Present and Recommended Large Light and Power Rates**

Description	Present Rate	Recommended Rate
<b>Customer Charge (\$/bill)</b>	\$ -	\$ 185.00
<b>Capacity Charge</b>		
Summer		
First 150 kW	\$ 2,400.00	\$ 2,025.00
Per kW Over 150 kW	\$ 16.00	\$ 13.50
Winter		
First 150 kW	\$ 2,145.00	\$ 1,800.00
Per kW Over 150 kW	\$ 14.30	\$ 12.00
<b>Existing Energy Charge plus PPCA (\$/kWh)</b>		
Summer (all kWh)	\$ 0.1210	
Winter (all kWh)	\$ 0.1110	
<b>Recommended Energy Charge (\$/kWh)</b>		
All kWh		\$ 0.1100

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## 5.2.5 U Rate

There are currently two customers on the electric utility's U Rate: the University of Delaware (UD) and Rohm & Haas. These two customers are the largest customers of the electric utility, with the University's annual electric consumption being about one third of the entire system's sales. Currently there are no barriers defined in the electric tariff that prevent a P Rate customer from petitioning for U Rate charges. Rohm & Haas did so and in 2009 moved to the U Rate. We recommend that because of the significant differences in size and usage characteristics, the current U Rate customers be separated and a new class be created for the UD. In addition, we recommend the peak load levels be further defined in the electric tariff. Currently, a customer with a peak demand over 150 kW qualifies for the P Rate or the U Rate. We recommend the P Rate be defined as customers with demands between 150 kW and 4,000 kW, the U Rate be defined as demands between 4,001 kW and 20,000 kW and the new UD Rate be defined as peak demands over 20,000 kW. In this report, we will refer to these rates as the U Rate for Rohm & Haas and the UD Rate for the University of Delaware.

The U Rate (Rohm & Haas) is over recovering its cost of service by 8.7 percent. The U Rate will share in the rate reduction and have rates designed to produce a 6.9 percent decrease in revenue. We recommend a Customer Charge of \$4,100 per month for the U Rate. The structure of the Capacity Charge remains the same. For the energy charge, we recommend moving from a flat rate to a declining block rate, with the second block being usage over 750,000 kWh per month. The second block of \$0.10/kWh is set at the loss-adjusted cost of purchased power, which can be used as a selling point in economic development activities for potential large customers.

Table 5-6  
Present and Recommended U Rates

Description	Present Rate	Recommended Rate
Customer Charge (\$/bill)	\$ -	\$ 4,100.00
<b>Capacity Charge</b>		
First 150 kW	\$ 1,650.00	\$ 1,612.50
Per kW Over 150 kW	\$ 11.00	\$ 10.75
<b>Existing Energy Charge plus PPCA (\$/kWh)</b>		
All kWh	\$ 0.1111	
<b>Recommended Energy Charge (\$/kWh)</b>		
First 750,000 kWh		\$ 0.1020
Over 750,000 kWh		\$ 0.1000

## 5.2.6 UD Rate

The UD Rate (University of Delaware) is over recovering its cost of service by 11.4 percent. The UD Rate will share in the rate reduction and have rates designed to produce a 6.9 percent decrease in revenue. Contract negotiations are currently ongoing with the University relating to certain issues, including rate design. We recommend a Customer Charge of \$25,000 per month for the UD Rate, which is slightly less than the

# RATE DESIGN

customer related costs supported by the cost of service analysis. The structure of the Capacity and Energy Charges remains the same. The recommended energy charge is a flat rate set at the UD's loss adjusted cost of energy.

**Table 5-7  
Present and Recommended UD Rates**

Description	Present Rate	Recommended Rate
<b>Customer Charge (\$/bill)</b>	\$ -	\$ 25,000
<b>Capacity Charge</b>		
First 150 kW	\$ 1,650.00	\$ 1,770.00
Per kW Over 150 kW	\$ 11.00	\$ 11.78
<b>Existing Energy Charge plus PPCA (\$/kWh)</b>		
All kWh	\$ 0.1111	
<b>Recommended Energy Charge (\$/kWh)</b>		
All kWh		\$ 0.0985

### 5.3 Typical Bill Comparison

Table 5-8 shows a comparison of existing and recommended rates at various usage and demand levels for the Residential, General Service, and General Service Demand classes. Table 5-9 shows a comparison of existing and recommended rates at various usage and demand levels for the P Rate, U Rate, and UD Rates.

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**Table 5-8  
Typical Monthly Bill Comparison  
Residential and GS and GSD Rate Classes**

Rate Class	Energy kWh	Demand kW	Existing	Recommended		
			Bill <sup>1</sup> \$	Bill <sup>1</sup> \$	Change \$	Change %
<b>Monthly</b>						
Residential - Winter	250		\$42.60	\$46.25	\$3.65	8.6%
Residential - Winter	500		\$82.85	\$82.50	(\$0.35)	-0.4%
Residential - Winter	750		\$123.10	\$118.75	(\$4.35)	-3.5%
Residential - Winter	1,000		\$163.35	\$155.00	(\$8.35)	-5.1%
Residential - Winter	1,500		\$243.85	\$227.50	(\$16.35)	-6.7%
Residential - Winter	2,000		\$324.35	\$300.00	(\$24.35)	-7.5%
Residential - Summer	250		\$42.60	\$46.25	\$3.65	8.6%
Residential - Summer	500		\$82.85	\$85.38	\$2.53	3.0%
Residential - Summer	750		\$123.10	\$124.50	\$1.40	1.1%
Residential - Summer	1,000		\$163.35	\$163.63	\$0.28	0.2%
Residential - Summer	1,500		\$243.85	\$248.63	\$4.78	2.0%
Residential - Summer	2,000		\$324.35	\$333.63	\$9.28	2.9%
General Service - Winter	500		\$83.80	\$93.50	\$9.70	11.6%
General Service - Winter	1,000		\$165.30	\$169.50	\$4.20	2.5%
General Service - Winter	1,500		\$246.80	\$245.50	(\$1.30)	-0.5%
General Service - Winter	2,500		\$409.80	\$397.50	(\$12.30)	-3.0%
General Service - Winter	5,000		\$817.30	\$777.50	(\$39.80)	-4.9%
General Service - Winter	8,000		\$1,306.30	\$1,233.50	(\$72.80)	-5.6%
General Service - Winter	15,000		\$2,447.30	\$2,297.50	(\$149.80)	-6.1%
General Service - Summer	500		\$92.20	\$103.50	\$11.30	12.3%
General Service - Summer	1,000		\$184.20	\$189.50	\$5.30	2.9%
General Service - Summer	1,500		\$276.20	\$275.50	(\$0.70)	-0.3%
General Service - Summer	2,500		\$460.20	\$447.50	(\$12.70)	-2.8%
General Service - Summer	5,000		\$920.20	\$877.50	(\$42.70)	-4.6%
General Service - Summer	8,000		\$1,472.20	\$1,393.50	(\$78.70)	-5.3%
General Service - Summer	15,000		\$2,705.20	\$2,597.50	(\$107.70)	-4.0%
General Service Demand - Winter	5,000	20	\$825.00	\$755.00	(\$70.00)	-8.5%
General Service Demand - Winter	15,000	35	\$2,109.25	\$2,002.50	(\$106.75)	-5.1%
General Service Demand - Winter	15,000	50	\$2,273.50	\$2,100.00	(\$173.50)	-7.6%
General Service Demand - Winter	30,000	70	\$4,112.50	\$3,955.00	(\$157.50)	-3.8%
General Service Demand - Winter	30,000	100	\$4,441.00	\$4,150.00	(\$291.00)	-6.6%
General Service Demand - Winter	50,000	110	\$6,710.50	\$6,515.00	(\$195.50)	-2.9%
General Service Demand - Winter	50,000	150	\$7,148.50	\$6,775.00	(\$373.50)	-5.2%
General Service Demand - Winter	75,000	150	\$9,848.50	\$9,650.00	(\$198.50)	-2.0%
General Service Demand - Summer	5,000	20	\$866.00	\$785.00	(\$81.00)	-9.4%
General Service Demand - Summer	15,000	35	\$2,181.00	\$2,055.00	(\$126.00)	-5.8%
General Service Demand - Summer	15,000	50	\$2,376.00	\$2,175.00	(\$201.00)	-8.5%
General Service Demand - Summer	30,000	70	\$4,256.00	\$4,060.00	(\$196.00)	-4.6%
General Service Demand - Summer	30,000	100	\$4,646.00	\$4,300.00	(\$346.00)	-7.4%
General Service Demand - Summer	50,000	110	\$6,936.00	\$6,680.00	(\$256.00)	-3.7%
General Service Demand - Summer	50,000	150	\$7,456.00	\$7,000.00	(\$456.00)	-6.1%
General Service Demand - Summer	75,000	150	\$10,156.00	\$9,875.00	(\$281.00)	-2.8%

(1) Monthly bill calculation includes base rates, plus PPCA of \$0.026/kWh for the Existing Bill calculation, but no taxes or fees

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**Table 5-9**  
**Typical Monthly Bill Comparison**  
**P Rate, U Rate and UD Rate Classes**

Rate Class	Energy kWh	Demand kW	Existing	Recommended		
			Bill <sup>1</sup> \$	Bill <sup>1</sup> \$	Change \$	Change %
<b>Monthly</b>						
P Rate - Winter	50,000	150	\$7,695	\$7,485	(\$210)	-2.7%
P Rate - Winter	100,000	200	\$13,960	\$13,585	(\$375)	-2.7%
P Rate - Winter	100,000	275	\$15,033	\$14,485	(\$548)	-3.6%
P Rate - Winter	200,000	425	\$28,278	\$27,285	(\$993)	-3.5%
P Rate - Winter	200,000	550	\$30,065	\$28,785	(\$1,280)	-4.3%
P Rate - Winter	400,000	850	\$56,555	\$54,385	(\$2,170)	-3.8%
P Rate - Winter	400,000	1,100	\$60,130	\$57,385	(\$2,745)	-4.6%
P Rate - Winter	700,000	1,500	\$99,150	\$95,185	(\$3,965)	-4.0%
P Rate - Summer	50,000	150	\$8,450	\$7,710	(\$740)	-8.8%
P Rate - Summer	100,000	200	\$15,300	\$13,885	(\$1,415)	-9.2%
P Rate - Summer	100,000	275	\$16,500	\$14,898	(\$1,603)	-9.7%
P Rate - Summer	200,000	425	\$31,000	\$27,923	(\$3,078)	-9.9%
P Rate - Summer	200,000	550	\$33,000	\$29,610	(\$3,390)	-10.3%
P Rate - Summer	400,000	850	\$62,000	\$55,660	(\$6,340)	-10.2%
P Rate - Summer	400,000	1,100	\$66,000	\$59,035	(\$6,965)	-10.6%
P Rate - Summer	700,000	1,500	\$108,700	\$97,435	(\$11,265)	-10.4%
U Rate	1,500,000	4,000	\$210,650	\$198,600	(\$12,050)	-5.7%
U Rate	2,000,000	5,500	\$282,700	\$264,725	(\$17,975)	-6.4%
U Rate	2,500,000	5,500	\$338,250	\$314,725	(\$23,525)	-7.0%
U Rate	2,500,000	6,750	\$352,000	\$328,163	(\$23,838)	-6.8%
U Rate	3,000,000	6,750	\$407,550	\$378,163	(\$29,388)	-7.2%
U Rate	3,500,000	7,500	\$471,350	\$436,225	(\$35,125)	-7.5%
UD Rate	7,500,000	14,000	\$987,250	\$928,670	(\$58,580)	-5.9%
UD Rate	10,000,000	18,000	\$1,309,000	\$1,222,040	(\$86,960)	-6.6%
UD Rate	12,500,000	23,000	\$1,641,750	\$1,527,190	(\$114,560)	-7.0%
UD Rate	15,000,000	27,000	\$1,963,500	\$1,820,560	(\$142,940)	-7.3%
UD Rate	17,500,000	32,000	\$2,296,250	\$2,125,710	(\$170,540)	-7.4%
UD Rate	20,000,000	37,000	\$2,629,000	\$2,430,860	(\$198,140)	-7.5%

(1) Monthly bill calculation includes base rates, plus PPCA of \$0.026/kWh for the Existing Bill calculation, but no taxes or fees

## Petition to Prevent Expansion of University Garden Apartments

We, the undersigned residents of Beverly Road, Newark, Delaware, <sup>Neighborhood</sup> are opposed to the addition of 8 new units to the Garden Apartment building at the University Garden Apartment complex.

NAME

ADDRESS

Christine Morris 214 Beverly Road 368 7545

Kathryn Robbins 216 Beverly Road 292-0982

Peter W. Mangue 224 Beverly Road (368-7017

Carol R. Buzby 242 Jewel Rd

Jean Meuser 134 Sunset Rd <sup>corner of</sup> Beverly 731-8969

Gene Corbett Wright 16 Townsend Rd. 456-0151

Regina Potts 274 Beverly Rd 369-4089

Roland R Pott 274 Beverly Rd 369-4089

Katherine Child 118 West Park Place 731-5936

Karen Engeseth 118 W. Park Pl. 731-5936

Nancy Rich 265 Beverly Rd 731-1380

Paul R 265 Beverly Rd 731-1380

Shirley Lynch 953 Alexandria Drive 456-0346

John 200 Sunset Rd 453-1131

