# UTILITY ALLOWANCE STUDY SECTION 8 Lee County

#### **Prepared For:**

## The Housing Authority of the City of Fort Myers

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#### 1 Basis for Utility Allowance - Section 8

This utility allowance study for the Section 8 tenant-based assistance: housing choice voucher program conforms to 24CFR982.517 which follows:

982.517 Utility allowance schedule.

- (a) Maintaining schedule. (1) The PHA must maintain a utility allowance schedule for all tenant-paid utilities (except telephone), for cost of tenant supplied refrigerators and ranges, and for other tenant-paid housing services (e.g., trash collection (disposal of waste and refuse)). (2) The PHA must give HUD a copy of the utility allowance schedule. At HUD's request, the PHA also must provide any information or procedures used in preparation of the schedule.
- (b) How allowances are determined. (1) The utility allowance schedule must be determined based on the typical cost of utilities and services paid by energy conservative households that occupy housing of similar size and type in the same locality. In developing the schedule, the PHA must use normal patterns of consumption for the community as a whole and current utility rates. (2)(i) a PHA's utility allowance schedule, and the utility allowance for an individual family, must include the utilities and services that are necessary in the locality to provide housing that complies with the housing quality standards. However, the PHA may not provide any allowance for non-essential utility costs, such as costs of cable or satellite television. (ii) In the utility allowance schedule, the PHA must classify utilities and other housing services according to the following general categories: space heating; air conditioning; cooking; water heating; water; sewer; trash collection (disposal of waste and refuse); other electric; refrigerator (cost of tenant- supplied refrigerator); range (cost of tenant-supplied range); and other specified housing services. The PHA must provide a utility allowance for tenant-paid air-conditioning costs if the majority of housing units in the market provide centrally air-conditioned units or there is appropriate wiring for tenant-installed air conditioners. (3) The cost of each utility and housing service category must be stated separately. For each of these categories, the utility allowance schedule must take into consideration unit size (by number of bedrooms), and unit types (e.g., apartment, row-house, townhouse, single-family detached, and manufactured housing) that are typical in the community. (4) The utility allowance schedule must be prepared and submitted in accordance with HUD requirements on the form prescribed by HUD.
- (c) Revisions of utility allowance schedule. (1) a PHA must review its schedule of utility allowances each year, and must revise its allowance for a utility category if there PHAs been a change of 10 percent or more in the utility rate since the last time the utility allowance schedule was revised. The PHA must maintain information supporting its annual review of utility allowances and any revisions made in its utility allowance schedule. (2) At HUD's direction, the PHA must revise the utility allowance schedule to correct any errors, or as necessary to update the schedule.
- (d) Use of utility allowance schedule. (1) The PHA must use the appropriate utility allowance for the size of dwelling unit actually leased by the family (rather than the family unit size as determined under the PHA subsidy standards). (2) At reexamination, the PHA must use the PHA current utility allowance schedule.

(e) Higher utility allowance as reasonable accommodation for a person with disabilities. On request from a family that includes a person with disabilities, the PHA must approve a utility allowance which is higher than the applicable amount on the utility allowance schedule if a higher utility allowance is needed as a reasonable accommodation in accordance with 24 CFR part 8 to make the program accessible to and usable by the family member with a disability.

#### 2 Introduction

The The Housing Authority of the City of Fort Myers provides vouchers for zero through five bedroom units in a variety of configurations including mobile homes, single family homes, duplexes, townhouses and multi-story, multi-family units. Each unit within each type can vary in age, size and configuration.

This Utility Allowance Study was performed for the purpose of complying with Federal Register 24 CFR Part 982. These regulations apply to allowances for all applicable types of utilities, regardless on the methodology used to calculate the allowances.

The study was performed with the assistance of the Utility Allowance Guidebook 7420.10G. This study uses the engineering-based methodology, one of two suggested methods that can be used to establish utility allowances. This method is based on engineering calculations and other technical information that is used to estimate the amount of energy or water a household should reasonable require.

The tenants are responsible for individual metered electric, natural gas, bottled gas (propane), water and sanitary sewer utilities. The tenants can also be responsible for non-metered utility services, such as trash collection.

The age and configuration of unit only has a significant effect on heating and air conditioning. Typical configurations of mobile homes, single family homes, duplexes, low rise / townhouses and multi-story, multi-family are used to estimate these costs. Considerations for allowances such as cooking, lighting and water consumption are typical to the same number of bedrooms and average occupancy. These allowances were developed for each number of bedrooms, zero through five and are based on a typical unit.

## 3 Utility Allowance Recommendations 3.1 Mobile Home

| Monthly Utility A | llowance                | 0 BR | 1 BR | 2 BR  | 3 BR  | 4 BR  | 5 BR  |
|-------------------|-------------------------|------|------|-------|-------|-------|-------|
|                   | Nat. Gas                | \$5  | \$6  | \$7   | \$9   | \$10  | \$15  |
| Heating           | Propane                 | \$18 | \$23 | \$24  | \$32  | \$39  | \$54  |
| Heating           | Electric                | \$9  | \$12 | \$13  | \$17  | \$20  | \$28  |
|                   | Electric -<br>HP        | \$4  | \$5  | \$5   | \$6   | \$8   | \$11  |
|                   | Nat. Gas                | \$6  | \$8  | \$12  | \$13  | \$16  | \$19  |
| Cooking           | Propane                 | \$21 | \$30 | \$38  | \$46  | \$59  | \$68  |
|                   | Electric                | \$7  | \$10 | \$13  | \$16  | \$21  | \$27  |
| Other Electric    |                         | \$32 | \$38 | \$45  | \$50  | \$62  | \$69  |
| Air Condition     | Air Conditioning        |      | \$22 | \$24  | \$32  | \$38  | \$52  |
|                   | Nat. Gas                | \$33 | \$39 | \$45  | \$51  | \$61  | \$67  |
| Water Heating     | Propane                 | \$70 | \$92 | \$115 | \$137 | \$170 | \$192 |
| water neating     | Electric                | \$23 | \$32 | \$41  | \$50  | \$73  | \$84  |
|                   | Electric<br>HP          | \$6  | \$8  | \$10  | \$13  | \$18  | \$21  |
| Water             |                         | \$31 | \$39 | \$51  | \$62  | \$81  | \$117 |
| Sewer             |                         | \$60 | \$76 | \$91  | \$107 | \$131 | \$146 |
| Trash Collec      | Trash Collection        |      | \$0  | \$0   | \$0   | \$0   | \$0   |
| Range (Tenant S   | Range (Tenant Supplied) |      | \$6  | \$6   | \$6   | \$6   | \$6   |
| Refrig. (Tenant S | upplied)                | \$6  | \$6  | \$6   | \$6   | \$6   | \$6   |
| Oxygen Conce      | ntrator                 | \$38 | \$38 | \$38  | \$43  | \$43  | \$43  |

#### 3.2 Single Family

| Monthly Utility A | llowance                | 0 BR | 1 BR | 2 BR  | 3 BR  | 4 BR  | 5 BR  |
|-------------------|-------------------------|------|------|-------|-------|-------|-------|
|                   | Nat. Gas                | \$8  | \$8  | \$9   | \$10  | \$12  | \$19  |
| Heating           | Propane                 | \$28 | \$31 | \$32  | \$38  | \$45  | \$70  |
| Heating           | Electric                | \$15 | \$16 | \$17  | \$19  | \$23  | \$36  |
|                   | Electric -<br>HP        | \$6  | \$6  | \$6   | \$7   | \$9   | \$14  |
|                   | Nat. Gas                | \$6  | \$8  | \$12  | \$13  | \$16  | \$19  |
| Cooking           | Propane                 | \$21 | \$30 | \$38  | \$46  | \$59  | \$68  |
|                   | Electric                | \$7  | \$10 | \$13  | \$16  | \$21  | \$27  |
| Other Electric    |                         | \$32 | \$38 | \$45  | \$50  | \$62  | \$69  |
| Air Condition     | Air Conditioning        |      | \$25 | \$30  | \$34  | \$42  | \$52  |
|                   | Nat. Gas                | \$33 | \$39 | \$45  | \$51  | \$61  | \$67  |
| Water Heating     | Propane                 | \$70 | \$92 | \$115 | \$137 | \$170 | \$192 |
| Water Heating     | Electric                | \$23 | \$32 | \$41  | \$50  | \$73  | \$84  |
|                   | Electric<br>HP          | \$6  | \$8  | \$10  | \$13  | \$18  | \$21  |
| Water             |                         | \$31 | \$39 | \$51  | \$62  | \$81  | \$117 |
| Sewer             |                         | \$60 | \$76 | \$91  | \$107 | \$131 | \$146 |
| Trash Collec      | Trash Collection        |      | \$0  | \$0   | \$0   | \$0   | \$0   |
| Range (Tenant S   | Range (Tenant Supplied) |      | \$6  | \$6   | \$6   | \$6   | \$6   |
| Refrig. (Tenant S | upplied)                | \$6  | \$6  | \$6   | \$6   | \$6   | \$6   |
| Oxygen Conce      | ntrator                 | \$38 | \$38 | \$38  | \$43  | \$43  | \$43  |

#### 3.3 Duplex

| Monthly Utility A | llowance         | 0 BR | 1 BR | 2 BR  | 3 BR  | 4 BR  | 5 BR  |
|-------------------|------------------|------|------|-------|-------|-------|-------|
|                   | Nat. Gas         | \$6  | \$6  | \$7   | \$8   | \$9   | \$17  |
| Heating           | Propane          | \$21 | \$22 | \$25  | \$30  | \$34  | \$63  |
| пеаціід           | Electric         | \$11 | \$12 | \$13  | \$15  | \$17  | \$33  |
|                   | Electric -<br>HP | \$4  | \$4  | \$5   | \$6   | \$7   | \$13  |
|                   | Nat. Gas         | \$6  | \$8  | \$12  | \$13  | \$16  | \$19  |
| Cooking           | Propane          | \$21 | \$30 | \$38  | \$46  | \$59  | \$68  |
|                   | Electric         | \$7  | \$10 | \$13  | \$16  | \$21  | \$27  |
| Other Electric    |                  | \$32 | \$38 | \$45  | \$50  | \$62  | \$69  |
| Air Condition     | Air Conditioning |      | \$22 | \$27  | \$31  | \$37  | \$50  |
|                   | Nat. Gas         | \$33 | \$39 | \$45  | \$51  | \$61  | \$67  |
| Water Heating     | Propane          | \$70 | \$92 | \$115 | \$137 | \$170 | \$192 |
| Water Heating     | Electric         | \$23 | \$32 | \$41  | \$50  | \$73  | \$84  |
|                   | Electric<br>HP   | \$6  | \$8  | \$10  | \$13  | \$18  | \$21  |
| Water             |                  | \$31 | \$39 | \$51  | \$62  | \$81  | \$117 |
| Sewer             |                  | \$60 | \$76 | \$91  | \$107 | \$131 | \$146 |
| Trash Collec      | Trash Collection |      | \$0  | \$0   | \$0   | \$0   | \$0   |
| Range (Tenant S   | upplied)         | \$6  | \$6  | \$6   | \$6   | \$6   | \$6   |
| Refrig. (Tenant S | upplied)         | \$6  | \$6  | \$6   | \$6   | \$6   | \$6   |
| Oxygen Conce      | ntrator          | \$38 | \$38 | \$38  | \$43  | \$43  | \$43  |

#### 3.4 Low Rise / Townhouse / Garden Apartment

| Monthly Utility A | llowance                | 0 BR | 1 BR | 2 BR  | 3 BR  | 4 BR  | 5 BR  |
|-------------------|-------------------------|------|------|-------|-------|-------|-------|
|                   | Nat. Gas                | \$6  | \$7  | \$8   | \$13  | \$15  | \$16  |
| Heating           | Propane                 | \$22 | \$26 | \$29  | \$49  | \$54  | \$57  |
| Heating           | Electric                | \$11 | \$13 | \$15  | \$25  | \$28  | \$30  |
|                   | Electric -<br>HP        | \$4  | \$5  | \$6   | \$10  | \$11  | \$11  |
|                   | Nat. Gas                | \$6  | \$8  | \$12  | \$13  | \$16  | \$19  |
| Cooking           | Propane                 | \$21 | \$30 | \$38  | \$46  | \$59  | \$68  |
|                   | Electric                | \$7  | \$10 | \$13  | \$16  | \$21  | \$27  |
| Other Electric    |                         | \$32 | \$38 | \$45  | \$50  | \$62  | \$69  |
| Air Condition     | Air Conditioning        |      | \$25 | \$29  | \$39  | \$45  | \$48  |
|                   | Nat. Gas                | \$33 | \$39 | \$45  | \$51  | \$61  | \$67  |
| Water Heating     | Propane                 | \$70 | \$92 | \$115 | \$137 | \$170 | \$192 |
| Water Heating     | Electric                | \$23 | \$32 | \$41  | \$50  | \$73  | \$84  |
|                   | Electric<br>HP          | \$6  | \$8  | \$10  | \$13  | \$18  | \$21  |
| Water             |                         | \$31 | \$39 | \$51  | \$62  | \$81  | \$117 |
| Sewer             |                         | \$60 | \$76 | \$91  | \$107 | \$131 | \$146 |
| Trash Collec      | Trash Collection        |      | \$0  | \$0   | \$0   | \$0   | \$0   |
| Range (Tenant S   | Range (Tenant Supplied) |      | \$6  | \$6   | \$6   | \$6   | \$6   |
| Refrig. (Tenant S | Supplied)               | \$6  | \$6  | \$6   | \$6   | \$6   | \$6   |
| Oxygen Conce      | ntrator                 | \$38 | \$38 | \$38  | \$43  | \$43  | \$43  |

### 3.5 High Rise / Multi-Family, Multi-Story

| Monthly Utility Allowance |                         | 0 BR | 1 BR | 2 BR  | 3 BR  | 4 BR  | 5 BR  |
|---------------------------|-------------------------|------|------|-------|-------|-------|-------|
|                           | Nat. Gas                | \$4  | \$6  | \$7   | \$8   | \$9   | \$12  |
| Heating                   | Propane                 | \$16 | \$20 | \$27  | \$30  | \$35  | \$45  |
| Heating                   | Electric                | \$8  | \$11 | \$14  | \$15  | \$18  | \$23  |
|                           | Electric -<br>HP        | \$3  | \$4  | \$5   | \$6   | \$7   | \$9   |
|                           | Nat. Gas                | \$6  | \$8  | \$12  | \$13  | \$16  | \$19  |
| Cooking                   | Propane                 | \$21 | \$30 | \$38  | \$46  | \$59  | \$68  |
|                           | Electric                | \$7  | \$10 | \$13  | \$16  | \$21  | \$27  |
| Other Electric            |                         | \$32 | \$38 | \$45  | \$50  | \$62  | \$69  |
| Air Condition             | Air Conditioning        |      | \$26 | \$29  | \$35  | \$42  | \$48  |
|                           | Nat. Gas                | \$33 | \$39 | \$45  | \$51  | \$61  | \$67  |
| Water Heating             | Propane                 | \$70 | \$92 | \$115 | \$137 | \$170 | \$192 |
| Water Heating             | Electric                | \$23 | \$32 | \$41  | \$50  | \$73  | \$84  |
|                           | Electric<br>HP          | \$6  | \$8  | \$10  | \$13  | \$18  | \$21  |
| Water                     |                         | \$31 | \$39 | \$51  | \$62  | \$81  | \$117 |
| Sewer                     |                         | \$60 | \$76 | \$91  | \$107 | \$131 | \$146 |
| Trash Collec              | tion                    | \$0  | \$0  | \$0   | \$0   | \$0   | \$0   |
| Range (Tenant S           | Range (Tenant Supplied) |      | \$6  | \$6   | \$6   | \$6   | \$6   |
| Refrig. (Tenant S         | upplied)                | \$6  | \$6  | \$6   | \$6   | \$6   | \$6   |
| Oxygen Conce              | ntrator                 | \$38 | \$38 | \$38  | \$43  | \$43  | \$43  |

#### **4 Utilities Cost**

#### 4.1 Electricity

**Space Heating** 

| Monthly Electric Cost        | 0 BR    | 1 BR    | 2 BR    | 3 BR    | 4 BR    | 5 BR    |
|------------------------------|---------|---------|---------|---------|---------|---------|
| Mobile Home                  | \$9.45  | \$11.73 | \$12.63 | \$16.72 | \$19.91 | \$27.83 |
| Single Family Home           | \$14.59 | \$16.19 | \$16.65 | \$19.44 | \$23.01 | \$35.94 |
| Duplex                       | \$10.63 | \$11.62 | \$13.09 | \$15.48 | \$17.37 | \$32.78 |
| Low Rise /<br>Townhouse      | \$11.19 | \$13.28 | \$14.77 | \$25.43 | \$27.79 | \$29.62 |
| Multi-Story Multi-<br>Family | \$8.24  | \$10.53 | \$14.17 | \$15.41 | \$18.05 | \$23.17 |

**Space Heating (Heat Pump)** 

| <u> </u>                     | · · · · · · · · · · · · · · · · · · · |        |        |        |         |         |
|------------------------------|---------------------------------------|--------|--------|--------|---------|---------|
| Monthly Electric<br>Cost     | 0 BR                                  | 1 BR   | 2 BR   | 3 BR   | 4 BR    | 5 BR    |
| Mobile Home                  | \$3.63                                | \$4.51 | \$4.86 | \$6.43 | \$7.66  | \$10.70 |
| Single Family Home           | \$5.61                                | \$6.23 | \$6.40 | \$7.48 | \$8.85  | \$13.82 |
| Duplex                       | \$4.09                                | \$4.47 | \$5.04 | \$5.96 | \$6.68  | \$12.61 |
| Low Rise /<br>Townhouse      | \$4.31                                | \$5.11 | \$5.68 | \$9.78 | \$10.69 | \$11.39 |
| Multi-Story Multi-<br>Family | \$3.17                                | \$4.05 | \$5.45 | \$5.93 | \$6.94  | \$8.91  |

Cooking

| Monthly Electric<br>Cost | 0 BR   | 1 BR    | 2 BR    | 3 BR    | 4 BR    | 5 BR    |
|--------------------------|--------|---------|---------|---------|---------|---------|
| Total Electric           | \$7.40 | \$10.37 | \$13.33 | \$16.29 | \$20.73 | \$27.13 |

#### **Other Electric**

| Monthly Electric<br>Cost   | 0 BR    | 1 BR    | 2 BR    | 3 BR    | 4 BR    | 5 BR    |
|----------------------------|---------|---------|---------|---------|---------|---------|
| Customer Charge            | \$14.89 | \$14.89 | \$14.89 | \$14.89 | \$14.89 | \$14.89 |
| Lighting and Refrigeration | \$16.83 | \$23.56 | \$30.29 | \$35.54 | \$47.12 | \$53.85 |
| Total Electric             | \$31.72 | \$38.45 | \$45.18 | \$50.43 | \$62.01 | \$68.74 |

**Air Conditioning** 

| Monthly Electric<br>Cost     | 0 BR    | 1 BR    | 2 BR    | 3 BR    | 4 BR    | 5 BR    |
|------------------------------|---------|---------|---------|---------|---------|---------|
| Mobile Home                  | \$19.23 | \$22.47 | \$24.38 | \$31.88 | \$37.90 | \$51.71 |
| Single Family Home           | \$23.05 | \$25.14 | \$29.71 | \$34.46 | \$41.93 | \$52.05 |
| Duplex                       | \$19.94 | \$21.56 | \$26.98 | \$31.36 | \$36.59 | \$49.85 |
| Low Rise /<br>Townhouse      | \$20.50 | \$24.76 | \$29.33 | \$38.85 | \$45.04 | \$47.64 |
| Multi-Story Multi-<br>Family | \$17.71 | \$25.76 | \$29.12 | \$35.26 | \$41.61 | \$47.64 |

**Water Heating** 

| Monthly Electric<br>Cost | 0 BR    | 1 BR    | 2 BR    | 3 BR    | 4 BR    | 5 BR    |
|--------------------------|---------|---------|---------|---------|---------|---------|
| Total Electric           | \$22.88 | \$32.04 | \$41.19 | \$50.35 | \$73.36 | \$83.84 |
| Electric Heat Pump       | \$5.72  | \$8.01  | \$10.30 | \$12.59 | \$18.34 | \$20.96 |

**Oxygen Concentrator** 

| Monthly Electric<br>Cost | 0 BR    | 1 BR    | 2 BR    | 3 BR    | 4 BR    | 5 BR    |
|--------------------------|---------|---------|---------|---------|---------|---------|
| Total Electric           | \$37.83 | \$37.83 | \$37.83 | \$43.31 | \$43.31 | \$43.31 |

#### 4.1.1 Electric Rates

FPL serves Fort Myers. FPL rates can be found at www.fpl.com FPL rates are as follows:

Customer Charge: \$11.33

Energy Charge (First 1,000kWh) = \$0.14390 Energy Charge (All additional kWh) = \$0.16661

Lee County Electric Cooperative (LCEC) serves Lee County. LCEC rates can be found at www.LCEC.net LCEC rates are as follows:

Customer Charge: \$18.46

Energy Charge (First 500kWh) = \$0.12000 Energy Charge (Next 500kWh) = \$0.13067 Energy Charge (All additional kWh) = \$0.14164 A consolidated rates of the two utilities are as follows:

Customer Charge: \$14.89

Energy Charge (First 1,000kWh) = \$0.13461 Energy Charge (All additional kWh) = \$0.15413

Three, Four and Five bedroom units use more than 1,000 kWh/month if all electric appliances are used. Therefore, the following allowances were calculated using the higher electric rate:

3, 4 & 5 Bedroom - Oxygen Concentrator4 & 5 Bedroom - Water Heating5 Bedroom - Cooking

#### 4.1.2 Monthly Energy Charge

**Space Heating (Mobile Home)** 

| Space Heating             | 0BR      | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|---------------------------|----------|----------|----------|----------|----------|----------|
| Electric (kWh)            | 70       | 87       | 94       | 124      | 148      | 207      |
| Energy Charge<br>(\$/kWh) | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 |
| Energy Cost               | \$9.45   | \$11.73  | \$12.63  | \$16.72  | \$19.91  | \$27.83  |

**Space Heating (Single Family)** 

| Space Heating             | 0BR      | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|---------------------------|----------|----------|----------|----------|----------|----------|
| Electric (kWh)            | 108      | 120      | 124      | 144      | 171      | 267      |
| Energy Charge<br>(\$/kWh) | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 |
| Energy Cost               | \$14.59  | \$16.19  | \$16.65  | \$19.44  | \$23.01  | \$35.94  |

**Space Heating (Duplex)** 

| Space Heating             | 0BR      | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|---------------------------|----------|----------|----------|----------|----------|----------|
| Electric (kWh)            | 79       | 86       | 97       | 115      | 129      | 243      |
| Energy Charge<br>(\$/kWh) | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 |
| Energy Cost               | \$10.63  | \$11.62  | \$13.09  | \$15.48  | \$17.37  | \$32.78  |

**Space Heating (Low Rise / Townhouse)** 

| Space Heating             | 0BR      | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|---------------------------|----------|----------|----------|----------|----------|----------|
| Electric (kWh)            | 83       | 99       | 110      | 189      | 206      | 220      |
| Energy Charge<br>(\$/kWh) | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 |
| Energy Cost               | \$11.19  | \$13.28  | \$14.77  | \$25.43  | \$27.79  | \$29.62  |

**Space Heating (Multi-Family, Multi-Story)** 

| Space Heating             | 0BR      | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|---------------------------|----------|----------|----------|----------|----------|----------|
| Electric (kWh)            | 61       | 78       | 105      | 114      | 134      | 172      |
| Energy Charge<br>(\$/kWh) | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 |
| Energy Cost               | \$8.24   | \$10.53  | \$14.17  | \$15.41  | \$18.05  | \$23.17  |

#### **Heat Pump**

**Space Heating (Mobile Home)** 

| Space Heating             | 0BR      | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|---------------------------|----------|----------|----------|----------|----------|----------|
| Electric (kWh)            | 27       | 34       | 36       | 48       | 57       | 80       |
| Energy Charge<br>(\$/kWh) | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 |
| Energy Cost               | \$3.63   | \$4.51   | \$4.86   | \$6.43   | \$7.66   | \$10.70  |

**Space Heating (Single Family)** 

|                           | <u> </u> |          |          |          |          |          |
|---------------------------|----------|----------|----------|----------|----------|----------|
| Space Heating             | 0BR      | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
| Electric (kWh)            | 42       | 46       | 48       | 56       | 66       | 103      |
| Energy Charge<br>(\$/kWh) | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 |
| Energy Cost               | \$5.61   | \$6.23   | \$6.40   | \$7.48   | \$8.85   | \$13.82  |

Space Heating (Duplex)

| Space Heating             | 0BR      | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|---------------------------|----------|----------|----------|----------|----------|----------|
| Electric (kWh)            | 30       | 33       | 37       | 44       | 50       | 94       |
| Energy Charge<br>(\$/kWh) | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 |
| Energy Cost               | \$4.09   | \$4.47   | \$5.04   | \$5.96   | \$6.68   | \$12.61  |

Space Heating (Low Rise / Townhouse)

| Space Heating             | 0BR      | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|---------------------------|----------|----------|----------|----------|----------|----------|
| Electric (kWh)            | 32       | 38       | 42       | 73       | 79       | 85       |
| Energy Charge<br>(\$/kWh) | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 |
| Energy Cost               | \$4.31   | \$5.11   | \$5.68   | \$9.78   | \$10.69  | \$11.39  |

Space Heating (Multi-Family, Multi-Story)

| Space Heating             | 0BR      | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|---------------------------|----------|----------|----------|----------|----------|----------|
| Electric (kWh)            | 24       | 30       | 40       | 44       | 52       | 66       |
| Energy Charge<br>(\$/kWh) | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 |
| Energy Cost               | \$3.17   | \$4.05   | \$5.45   | \$5.93   | \$6.94   | \$8.91   |

Cooking

| Cooking                   | 0 BR     | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|---------------------------|----------|----------|----------|----------|----------|----------|
| Electric (kWh)            | 55       | 77       | 99       | 121      | 154      | 176      |
| Energy Charge<br>(\$/kWh) | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1541 |
| Energy Cost               | \$7.40   | \$10.37  | \$13.33  | \$16.29  | \$20.73  | \$27.13  |

**Lighting and Refrigeration** 

| Miscellaneous<br>Appliances | 0 BR     | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|-----------------------------|----------|----------|----------|----------|----------|----------|
| Electric (kWh)              | 125      | 175      | 225      | 264      | 350      | 400      |
| Energy Charge<br>(\$/kWh)   | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 |
| Energy Cost                 | \$16.83  | \$23.56  | \$30.29  | \$35.54  | \$47.12  | \$53.85  |

**Air Conditioning (Mobile Home)** 

| Air Conditioning          | 0 BR     | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|---------------------------|----------|----------|----------|----------|----------|----------|
| Electric (kWh)            | 143      | 167      | 181      | 237      | 282      | 384      |
| Energy Charge<br>(\$/kWh) | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 |
| Energy Cost               | \$19.23  | \$22.47  | \$24.38  | \$31.88  | \$37.90  | \$51.71  |

Air Conditioning (Single Family)

| Air Conditioning          | 0 BR     | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|---------------------------|----------|----------|----------|----------|----------|----------|
| Electric (kWh)            | 171      | 187      | 221      | 256      | 311      | 387      |
| Energy Charge<br>(\$/kWh) | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 |
| Energy Cost               | \$23.05  | \$25.14  | \$29.71  | \$34.46  | \$41.93  | \$52.05  |

**Air Conditioning (Duplex)** 

| 7 til 0 0 11 til 1 til 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | <u>u.p.e.,</u> |          |          |          |          |          |
|--|----------------|----------|----------|----------|----------|----------|
| Air Conditioning   | 0 BR           | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
| Electric (kWh)   | 148            | 160      | 200      | 233      | 272      | 370      |
| Energy Charge<br>(\$/kWh)                                    | \$0.1346       | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 |
| Energy Cost  | \$19.94        | \$21.56  | \$26.98  | \$31.36  | \$36.59  | \$49.85  |

Air Conditioning (Low Rise / Townhouse)

| Air Conditioning          | 0 BR     | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|---------------------------|----------|----------|----------|----------|----------|----------|
| Electric (kWh)            | 152      | 184      | 218      | 289      | 335      | 354      |
| Energy Charge<br>(\$/kWh) | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 |
| Energy Cost               | \$20.50  | \$24.76  | \$29.33  | \$38.85  | \$45.04  | \$47.64  |

**Air Conditioning (Multi-Family, Multi-Story)** 

| Air Conditioning          | 0 BR     | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|---------------------------|----------|----------|----------|----------|----------|----------|
| Electric (kWh)            | 132      | 191      | 216      | 262      | 309      | 354      |
| Energy Charge<br>(\$/kWh) | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 |
| Energy Cost               | \$17.71  | \$25.76  | \$29.12  | \$35.26  | \$41.61  | \$47.64  |

#### **Domestic Hot Water**

| Domestic Hot Water        | 0 BR     | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|---------------------------|----------|----------|----------|----------|----------|----------|
| Electric (kWh)            | 170      | 238      | 306      | 374      | 476      | 544      |
| Energy Charge<br>(\$/kWh) | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1541 | \$0.1541 |
| Energy Cost               | \$22.88  | \$32.04  | \$41.19  | \$50.35  | \$73.36  | \$83.84  |

**Domestic Hot Water (Heat Pump)** 

|                           | _        |          |          |          |          |          |
|---------------------------|----------|----------|----------|----------|----------|----------|
| Domestic Hot Water        | 0 BR     | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
| Electric (kWh)            | 43       | 60       | 77       | 94       | 119      | 136      |
| Energy Charge<br>(\$/kWh) | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1541 | \$0.1541 |
| Energy Cost               | \$5.72   | \$8.01   | \$10.30  | \$12.59  | \$18.34  | \$20.96  |

**Oxygen Concentrator** 

| Oxygen<br>Concentrator    | 0 BR     | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|---------------------------|----------|----------|----------|----------|----------|----------|
| Electric (kWh)            | 281      | 281      | 281      | 281      | 281      | 281      |
| Energy Charge<br>(\$/kWh) | \$0.1346 | \$0.1346 | \$0.1346 | \$0.1541 | \$0.1541 | \$0.1541 |
| Energy Cost               | \$37.83  | \$37.83  | \$37.83  | \$43.31  | \$43.31  | \$43.31  |

#### 4.2 Bottled Gas (Propane)

**Space Heating** 

| Monthly Propane<br>Cost | 0 BR    | 1 BR    | 2 BR    | 3 BR    | 4 BR    | 5 BR    |
|-------------------------|---------|---------|---------|---------|---------|---------|
| Mobile Home             | \$18.27 | \$22.68 | \$24.42 | \$32.34 | \$38.51 | \$53.83 |
| Single Family Home      | \$28.23 | \$31.31 | \$32.20 | \$37.61 | \$44.50 | \$69.51 |
| Duplex                  | \$20.57 | \$22.48 | \$25.33 | \$29.95 | \$33.61 | \$63.40 |
|                         |         |         |         |         |         |         |
| Low Rise /<br>Townhouse | \$21.65 | \$25.68 | \$28.56 | \$49.18 | \$53.76 | \$57.29 |

Cooking

| Monthly Propane<br>Cost | 0 BR    | 1 BR    | 2 BR    | 3 BR    | 4 BR    | 5 BR    |
|-------------------------|---------|---------|---------|---------|---------|---------|
| Total Propane           | \$21.13 | \$29.59 | \$38.04 | \$46.50 | \$59.18 | \$67.63 |

**Water Heating** 

| Monthly Propane<br>Cost | 0 BR    | 1 BR    | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|-------------------------|---------|---------|----------|----------|----------|----------|
| Customer Charge         | \$14.71 | \$14.71 | \$14.71  | \$14.71  | \$14.71  | \$14.71  |
| Commodity Cost          | \$55.48 | \$77.67 | \$99.86  | \$122.05 | \$155.34 | \$177.53 |
| Total Propane           | \$70.19 | \$92.38 | \$114.57 | \$136.77 | \$170.05 | \$192.25 |

#### 4.2.1 Propane Rates

Propane rates are based on Ferrell Gas. Ferrell Gas can be reached at (239) 332-7422. If they don't provide try South Florida Gas at (239) 334-3131.

Tank Rental (\$/Month) \$14.71

Commodity Charge: \$/Gallon = \$4.86

#### 4.2.2 Monthly Energy Charge

**Space Heating (Mobile Home)** 

| Space Heating                | 0 BR     | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|------------------------------|----------|----------|----------|----------|----------|----------|
| Propane (Gallons)            | 3.76     | 4.67     | 5.02     | 6.65     | 7.92     | 11.07    |
| Commodity Charge (\$/Gallon) | \$4.8610 | \$4.8610 | \$4.8610 | \$4.8610 | \$4.8610 | \$4.8610 |
| Commodity Cost               | \$18.27  | \$22.68  | \$24.42  | \$32.34  | \$38.51  | \$53.83  |

**Space Heating (Single Family Home)** 

| Space Heating                | 0 BR     | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|------------------------------|----------|----------|----------|----------|----------|----------|
| Propane (Gallons)            | 5.81     | 6.44     | 6.62     | 7.74     | 9.15     | 14.30    |
| Commodity Charge (\$/Gallon) | \$4.8610 | \$4.8610 | \$4.8610 | \$4.8610 | \$4.8610 | \$4.8610 |
| Commodity Cost               | \$28.23  | \$31.31  | \$32.20  | \$37.61  | \$44.50  | \$69.51  |

**Space Heating (Duplex)** 

| Space Heating                | 0 BR     | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|------------------------------|----------|----------|----------|----------|----------|----------|
| Propane (Gallons)            | 4.23     | 4.62     | 5.21     | 6.16     | 6.91     | 13.04    |
| Commodity Charge (\$/Gallon) | \$4.8610 | \$4.8610 | \$4.8610 | \$4.8610 | \$4.8610 | \$4.8610 |
| Commodity Cost               | \$20.57  | \$22.48  | \$25.33  | \$29.95  | \$33.61  | \$63.40  |

Space Heating (Low Rise/Townhouse)

| Space Heating                | 0 BR     | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|------------------------------|----------|----------|----------|----------|----------|----------|
| Propane (Gallons)            | 4.45     | 5.28     | 5.88     | 10.12    | 11.06    | 11.78    |
| Commodity Charge (\$/Gallon) | \$4.8610 | \$4.8610 | \$4.8610 | \$4.8610 | \$4.8610 | \$4.8610 |
| Commodity Cost               | \$21.65  | \$25.68  | \$28.56  | \$49.18  | \$53.76  | \$57.29  |

**Space Heating (Multi-Family Multi-Story)** 

| Space Heating                | 0 BR     | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|------------------------------|----------|----------|----------|----------|----------|----------|
| Propane (Gallons)            | 3.28     | 4.19     | 5.64     | 6.13     | 7.18     | 9.22     |
| Commodity Charge (\$/Gallon) | \$4.8610 | \$4.8610 | \$4.8610 | \$4.8610 | \$4.8610 | \$4.8610 |
| Commodity Cost               | \$15.93  | \$20.36  | \$27.41  | \$29.80  | \$34.92  | \$44.81  |

#### **Domestic Hot Water**

| Domestic Hot Water           | 0 BR     | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|------------------------------|----------|----------|----------|----------|----------|----------|
| Propane (Gallons)            | 11.41    | 15.98    | 20.54    | 25.11    | 31.96    | 36.52    |
| Commodity Charge (\$/Gallon) | \$4.8610 | \$4.8610 | \$4.8610 | \$4.8610 | \$4.8610 | \$4.8610 |
| Commodity Cost               | \$55.48  | \$77.67  | \$99.86  | \$122.05 | \$155.34 | \$177.53 |

Cooking

| - COUNTY                     |          |          |          |          |          |          |
|------------------------------|----------|----------|----------|----------|----------|----------|
| Cooking                      | 0 BR     | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
| Propane (Gallons)            | 4.35     | 6.09     | 7.83     | 9.57     | 12.17    | 13.91    |
| Commodity Charge (\$/Gallon) | \$4.8610 | \$4.8610 | \$4.8610 | \$4.8610 | \$4.8610 | \$4.8610 |
| Commodity Cost               | \$21.13  | \$29.59  | \$38.04  | \$46.50  | \$59.18  | \$67.63  |

#### 4.3 Natural Gas

**Space Heating** 

| Monthly Natural<br>Gas Cost  | 0 BR   | 1 BR   | 2 BR   | 3 BR    | 4 BR    | 5 BR    |
|------------------------------|--------|--------|--------|---------|---------|---------|
| Mobile Home                  | \$4.95 | \$6.14 | \$6.61 | \$8.75  | \$10.42 | \$14.57 |
| Single Family Home           | \$7.64 | \$8.47 | \$8.71 | \$10.18 | \$12.04 | \$18.81 |
| Duplex                       | \$5.57 | \$6.08 | \$6.85 | \$8.10  | \$9.09  | \$17.16 |
| Low Rise /<br>Townhouse      | \$5.86 | \$6.95 | \$7.73 | \$13.31 | \$14.55 | \$15.50 |
| Multi-Story Multi-<br>Family | \$4.31 | \$5.51 | \$7.42 | \$8.06  | \$9.45  | \$12.13 |

Cooking

| Monthly Natural<br>Gas Cost | 0 BR   | 1 BR   | 2 BR    | 3 BR    | 4 BR    | 5 BR    |
|-----------------------------|--------|--------|---------|---------|---------|---------|
| Total Natural Gas           | \$5.78 | \$8.10 | \$11.71 | \$12.72 | \$16.19 | \$18.50 |

**Water Heating** 

| Monthly Natural          |         |         |         |         |         |         |
|--------------------------|---------|---------|---------|---------|---------|---------|
| ,                        | 0 BR    | 1 BR    | 2 BR    | 3 BR    | 4 BR    | 5 BR    |
| Gas Cost                 | 0 5. (  | . 5. \  | 2 5. (  | 0 5. (  | . 5. (  | 0 5. (  |
| Customer Charge          | \$18.04 | \$18.04 | \$18.04 | \$18.04 | \$18.04 | \$18.04 |
| Commodity Cost           | \$15.18 | \$21.25 | \$27.32 | \$33.39 | \$42.50 | \$48.57 |
| <b>Total Natural Gas</b> | \$33.22 | \$39.29 | \$45.36 | \$51.43 | \$60.54 | \$66.61 |

#### 4.3.1 Natural Gas Rates

TECO Peoples Gas serves natural gas in Fort Myers. TECO Peoples Gas rates can be found at www.peoplesgas.com. Natural gas utility rates for TECO Peoples Gas are as follows:

Customer Charge: \$18.04

Commodity Charge: \$/Therms = \$1.4456

#### 4.3.2 Monthly Commodity Charge

Space Heating (Mobile Home)

| Space Heating               | 0 BR     | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|-----------------------------|----------|----------|----------|----------|----------|----------|
| Natural Gas<br>(Therms)     | 3.42     | 4.25     | 4.57     | 6.05     | 7.21     | 10.08    |
| Commodity Charge (\$/Therm) | \$1.4456 | \$1.4456 | \$1.4456 | \$1.4456 | \$1.4456 | \$1.4456 |
| Commodity Cost              | \$4.95   | \$6.14   | \$6.61   | \$8.75   | \$10.42  | \$14.57  |

**Space Heating (Single Family Home)** 

| Space Heating               | 0 BR     | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|-----------------------------|----------|----------|----------|----------|----------|----------|
| Natural Gas<br>(Therms)     | 5.28     | 5.86     | 6.03     | 7.04     | 8.33     | 13.01    |
| Commodity Charge (\$/Therm) | \$1.4456 | \$1.4456 | \$1.4456 | \$1.4456 | \$1.4456 | \$1.4456 |
| Commodity Cost              | \$7.64   | \$8.47   | \$8.71   | \$10.18  | \$12.04  | \$18.81  |

Space Heating (Duplex)

| Space Heating               | 0 BR     | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|-----------------------------|----------|----------|----------|----------|----------|----------|
| Natural Gas<br>(Therms)     | 3.85     | 4.21     | 4.74     | 5.61     | 6.29     | 11.87    |
| Commodity Charge (\$/Therm) | \$1.4456 | \$1.4456 | \$1.4456 | \$1.4456 | \$1.4456 | \$1.4456 |
| Commodity Cost              | \$5.57   | \$6.08   | \$6.85   | \$8.10   | \$9.09   | \$17.16  |

Space Heating (Low Rise/Townhouse)

| Space Heating               | 0 BR     | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|-----------------------------|----------|----------|----------|----------|----------|----------|
| Natural Gas<br>(Therms)     | 4.05     | 4.81     | 5.35     | 9.21     | 10.06    | 10.72    |
| Commodity Charge (\$/Therm) | \$1.4456 | \$1.4456 | \$1.4456 | \$1.4456 | \$1.4456 | \$1.4456 |
| Commodity Cost              | \$5.86   | \$6.95   | \$7.73   | \$13.31  | \$14.55  | \$15.50  |

**Space Heating (Multi-Family Multi-Story)** 

| Space Heating               | 0 BR     | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|-----------------------------|----------|----------|----------|----------|----------|----------|
| Natural Gas<br>(Therms)     | 2.98     | 3.81     | 5.13     | 5.58     | 6.54     | 8.39     |
| Commodity Charge (\$/Therm) | \$1.4456 | \$1.4456 | \$1.4456 | \$1.4456 | \$1.4456 | \$1.4456 |
| Commodity Cost              | \$4.31   | \$5.51   | \$7.42   | \$8.06   | \$9.45   | \$12.13  |

#### **Domestic Hot Water**

| Domestic Hot Water          | 0 BR     | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|-----------------------------|----------|----------|----------|----------|----------|----------|
| Natural Gas<br>(Therms)     | 10.50    | 14.70    | 18.90    | 23.10    | 29.40    | 33.60    |
| Commodity Charge (\$/Therm) | \$1.4456 | \$1.4456 | \$1.4456 | \$1.4456 | \$1.4456 | \$1.4456 |
| Commodity Cost              | \$15.18  | \$21.25  | \$27.32  | \$33.39  | \$42.50  | \$48.57  |

Cooking

| Cooking                     | 0 BR     | 1 BR     | 2 BR     | 3 BR     | 4 BR     | 5 BR     |
|-----------------------------|----------|----------|----------|----------|----------|----------|
| Natural Gas<br>(Therms)     | 4.00     | 5.60     | 8.10     | 8.80     | 11.20    | 12.80    |
| Commodity Charge (\$/Therm) | \$1.4456 | \$1.4456 | \$1.4456 | \$1.4456 | \$1.4456 | \$1.4456 |
| Commodity Cost              | \$5.78   | \$8.10   | \$11.71  | \$12.72  | \$16.19  | \$18.50  |

#### 4.4 Water

#### **Monthly Water Cost**

| Monthly Water Cost | 0 BR    | 1 BR    | 2 BR    | 3 BR    | 4 BR    | 5 BR     |
|--------------------|---------|---------|---------|---------|---------|----------|
| Customer Charge    | \$14.05 | \$14.05 | \$14.05 | \$14.05 | \$14.05 | \$14.05  |
| Water Charge       | \$17.10 | \$25.42 | \$36.55 | \$47.80 | \$67.20 | \$102.76 |
| Total Water        | \$31.15 | \$39.47 | \$50.60 | \$61.85 | \$81.24 | \$116.81 |

#### 4.4.1 Water Rates

Water Charge, 0 gal to 6,000 gal (\$/1000 gal):

Water Charge, 6,001 gal to 12,000 gal (\$/1000 gal):

Water Charge, 12,001 gal to 18,000 gal (\$/1000 gal):

Three utilities, City of Fort Myers Utilities, City of Cape Coral and Lee County, serve the majority of Lee County's water needs.

City of Fort Myers Utilities can be found at www.cityftmyers.com. Their rates are as follows:

| Base Rate:   | \$10.16                      |
|--|------------------------------|
| Water Charge, 0 gal to 5,000 gal (\$/1000 gal): Water Charge, 5,001 gal to 10,000 gal (\$/1000 gal): Water Charge,10,001 gal to 20,000 gal (\$/1000 gal):  | \$5.48<br>\$10.96<br>\$15.33 |
| City of Cape Coral Utilities can be found at www.capecoral.net. Their rates are a  | s follows:                   |
| Customer Charge:   | \$17.84                      |
| Water Charge, 0 gal to 5,000 gal (\$/1000 gal): Water Charge, 5,001 gal to 10,000 gal (\$/1000 gal): Water Charge, 10,001 gal to 15,000 gal (\$/1000 gal): | \$3.82<br>\$5.72<br>\$7.63   |
| Lee County Utilities can be found at www.leegov.com. Their rates are as follows  | :                            |
| Customer Charge:   | \$14.14                      |

\$3.53

\$4.42

\$5.30

For this study a consolidated rate, the averages of the three utilities, was used:

| Customer Charge (\$/mo):                            | \$14.05 |
|---|---------|
| Water Charge 0 to 5,000 gal (\$/1000 gal):          | \$4.28  |
| Water Charge 5,001 gal to 6,000 gal (\$/1000gal):   | \$6.74  |
| Water Charge 6,001 gal to 10,000 gal (\$/1000gal):  | \$7.03  |
| Water Charge 10,001 gal to 12,000 gal (\$/1000gal): | \$9.13  |
| Water Charge 12,001 gal to 15,000 gal (\$/1000gal): | \$9.42  |

**4.4.2 Monthly Water Charge** 

| Water                                     | 0 BR    | 1 BR    | 2 BR    | 3 BR    | 4 BR    | 5 BR     |
|---|---------|---------|---------|---------|---------|----------|
| Water Consumption (gal)                   | 4,000   | 5,600   | 7,200   | 8,800   | 11,200  | 12,800   |
| Water Charge (0 to 5,000 gal)             | \$17.10 | \$21.38 | \$21.38 | \$21.38 | \$21.38 | \$21.38  |
| Water Charge (5,001 to 6,000 gal)         | \$0.00  | \$4.04  | \$6.74  | \$6.74  | \$6.74  | \$6.74   |
| Water Charge<br>(6,001 to 10,000<br>gal)  | \$0.00  | \$0.00  | \$8.44  | \$19.69 | \$28.13 | \$28.13  |
| Water Charge<br>(10,001 to 12,000<br>gal) | \$0.00  | \$0.00  | \$0.00  | \$0.00  | \$10.95 | \$18.26  |
| Water Charge<br>(12,001 to 15,000<br>gal) | \$0.00  | \$0.00  | \$0.00  | \$0.00  | \$0.00  | \$28.26  |
| Total Water Charge                        | \$17.10 | \$25.42 | \$36.55 | \$47.80 | \$67.20 | \$102.76 |

#### 4.5 Sewer & Stormwater

#### **Monthly Sewer Cost**

| Monthly Sewer Cost | 0 BR    | 1 BR    | 2 BR    | 3 BR     | 4 BR     | 5 BR     |
|--------------------|---------|---------|---------|----------|----------|----------|
| Customer Charge    | \$20.38 | \$20.38 | \$20.38 | \$20.38  | \$20.38  | \$20.38  |
| Sewer Charge       | \$39.40 | \$55.16 | \$70.92 | \$86.68  | \$110.32 | \$126.08 |
| Total Sewer        | \$59.78 | \$75.54 | \$91.30 | \$107.06 | \$130.70 | \$146.46 |

#### 4.5.1 Sanitary Sewer & Storm Water Rates

Three utilities, City of Fort Myers Utilities, City of Cape Coral and Lee County, serve the majority of Lee County's sewer needs.

City of Fort Myers Utilities can be found at www.cityftmyers.com. Their rates are as follows:

Customer Charge: \$15.96

Sewer Charge (\$/1000 gal): \$14.19

City of Cape Coral Utilities can be found at www.capecoral.net. Their rates are as follows:

Customer Charge: \$23.09

Sewer Charge (\$/1000 gal): \$9.04

Lee County Utilities can be found at www.leegov.com. Their rates are as follows:

Customer Charge: \$22.08

Sewer Charge (\$/1000 gal): \$6.32

For this study a consolidated rate, the average of the three utilities, was used:

Customer Charge (\$/mo): \$20.38

Sewer Charge (\$/1000 gal): \$9.85

4.5.2 Monthly Sanitary Sewer Charge

| Sewer                   | 0 BR    | 1 BR    | 2 BR    | 3 BR    | 4 BR     | 5 BR     |
|-------------------------|---------|---------|---------|---------|----------|----------|
| Water Consumption (gal) | 4,000   | 5,600   | 7,200   | 8,800   | 11,200   | 12,800   |
| Total Sewer Charge      | \$39.40 | \$55.16 | \$70.92 | \$86.68 | \$110.32 | \$126.08 |

#### 4.6 Trash Collection

| Monthly Trash Collection Cost | 0 BR   | 1 BR   | 2 BR   | 3 BR   | 4 BR   | 5 BR   |
|-------------------------------|--------|--------|--------|--------|--------|--------|
| Total Trash<br>Collection     | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |

#### 4.6.1 Trash Collection Rates

Trash collection is collected on the property tax bills in the City of Fort Myers, City of Cape Coral and Lee County. Because tenants do not pay this bill directly, no utility allowance for trash collection can be provided.

Customer Charge (\$/month):

\$0.00

#### 4.7 Appliance Depreciation Allowance

Should the tenant provide their own range or refrigerator, the Housing Authority is required to reimburse the tenant for the cost of the appliance(s) over the life of the appliance. The following schedule provides the monthly allowance for providing their personal range and/or stove.

**Appliance Allowance** 

| Appliance    | Estimated Cost | Expectant Life (Yrs) | Monthly Allowance |
|--------------|----------------|----------------------|-------------------|
| Range        | \$683          | 10                   | \$6               |
| Refrigerator | \$775          | 10                   | \$6               |

#### **5 Consumption Studies**

#### 5.1 Space Heating Consumption

The following monthly energy consumption is based on the methodology recommended in the Utility Allowance Guidebook:

| Design Outdoor Air Temperature (F): | 42      |
|-------------------------------------|---------|
| Design Indoor Air Temperature (F):  | 72      |
| Heating Degree Days:                | 418     |
| Heat of Electricity (BTU/kWh)       | 3,412   |
| Heat Pump COP                       | 2.6     |
| Furnace Efficiency:                 | 70%     |
| Heat of Propane (BTU/gal)           | 91,000  |
| Heat of Natural Gas (BTU/Therm)     | 100,000 |
|                                     |         |

#### **Monthly Energy Consumption Requirements for Heating (Mobile Home)**

| Heating                 | 0 BR    | 1 BR    | 2 BR    | 3 BR    | 4 BR    | 5 BR    |
|-------------------------|---------|---------|---------|---------|---------|---------|
| Design Load<br>(BTU/hr) | 8,593   | 10,665  | 11,484  | 15,206  | 18,107  | 25,315  |
| Energy (BTU's)          | 239,458 | 297,198 | 320,021 | 423,741 | 504,582 | 705,445 |
| Electricity (kWh)       | 70      | 87      | 94      | 124     | 148     | 207     |
| Heat Pump (kWh)         | 27      | 34      | 36      | 48      | 57      | 80      |
| Propane (gal)           | 3.76    | 4.67    | 5.02    | 6.65    | 7.92    | 11.07   |
| Natural Gas<br>(Therms) | 3.42    | 4.25    | 4.57    | 6.05    | 7.21    | 10.08   |

#### **Monthly Energy Consumption Requirements for Heating (Single Family)**

| monany energy concampation resquirements for floating (enigle) and y |         |         |         |         |         |         |
|--|---------|---------|---------|---------|---------|---------|
| Heating  | 0 BR    | 1 BR    | 2 BR    | 3 BR    | 4 BR    | 5 BR    |
| Design Load<br>(BTU/hr)  | 13,275  | 14,722  | 15,140  | 17,686  | 20,927  | 32,688  |
| Energy (BTU's)   | 369,930 | 410,253 | 421,901 | 492,850 | 583,166 | 910,906 |
| Electricity (kWh)  | 108     | 120     | 124     | 144     | 171     | 267     |
| Heat Pump (kWh)  | 42      | 46      | 48      | 56      | 66      | 103     |
| Propane (gal)  | 5.81    | 6.44    | 6.62    | 7.74    | 9.15    | 14.30   |
| Natural Gas<br>(Therms)  | 5.28    | 5.86    | 6.03    | 7.04    | 8.33    | 13.01   |

**Monthly Energy Consumption Requirements for Heating (Duplex)** 

| Heating                 | 0 BR    | 1 BR    | 2 BR    | 3 BR    | 4 BR    | 5 BR    |
|-------------------------|---------|---------|---------|---------|---------|---------|
| Design Load<br>(BTU/hr) | 9,672   | 10,570  | 11,910  | 14,083  | 15,803  | 29,813  |
| Energy (BTU's)          | 269,526 | 294,551 | 331,892 | 392,446 | 440,377 | 830,789 |
| Electricity (kWh)       | 79      | 86      | 97      | 115     | 129     | 243     |
| Heat Pump (kWh)         | 30      | 33      | 37      | 44      | 50      | 94      |
| Propane (gal)           | 4.23    | 4.62    | 5.21    | 6.16    | 6.91    | 13.04   |
| Natural Gas<br>(Therms) | 3.85    | 4.21    | 4.74    | 5.61    | 6.29    | 11.87   |

**Monthly Energy Consumption Requirements for Heating (Low Rise)** 

| monanty = 110.95 = 0110amparon 110 quit onto 101 110 am 9 (= 011 11100) |         |         |         |         |         |         |
|---|---------|---------|---------|---------|---------|---------|
| Heating   | 0 BR    | 1 BR    | 2 BR    | 3 BR    | 4 BR    | 5 BR    |
| Design Load<br>(BTU/hr)   | 10,181  | 12,077  | 13,432  | 23,128  | 25,280  | 26,939  |
| Energy (BTU's)  | 283,711 | 336,546 | 374,305 | 644,500 | 704,469 | 750,700 |
| Electricity (kWh)   | 83      | 99      | 110     | 189     | 206     | 220     |
| Heat Pump (kWh)   | 32      | 38      | 42      | 73      | 79      | 85      |
| Propane (gal)   | 4.45    | 5.28    | 5.88    | 10.12   | 11.06   | 11.78   |
| Natural Gas<br>(Therms)   | 4.05    | 4.81    | 5.35    | 9.21    | 10.06   | 10.72   |

Monthly Energy Consumption Requirements for Heating (Multi Story)

| <u> </u>                |         |         |         | <u> </u> | <u> </u> |         |
|-------------------------|---------|---------|---------|----------|----------|---------|
| Heating                 | 0 BR    | 1 BR    | 2 BR    | 3 BR     | 4 BR     | 5 BR    |
| Design Load<br>(BTU/hr) | 7,492   | 9,576   | 12,891  | 14,014   | 16,422   | 21,072  |
| Energy (BTU's)          | 208,777 | 266,851 | 359,229 | 390,523  | 457,626  | 587,206 |
| Electricity (kWh)       | 61      | 78      | 105     | 114      | 134      | 172     |
| Heat Pump (kWh)         | 24      | 30      | 40      | 44       | 52       | 66      |
| Propane (gal)           | 3.28    | 4.19    | 5.64    | 6.13     | 7.18     | 9.22    |
| Natural Gas<br>(Therms) | 2.98    | 3.81    | 5.13    | 5.58     | 6.54     | 8.39    |

#### **5.2 Cooking Consumption**

The following is the monthly energy consumption requirements for cooking as recommended in the Utility Allowance Guidebook:

**Monthly Energy Consumption Requirements for Cooking** 

| Cooking                 | 0 BR | 1 BR | 2 BR | 3 BR | 4 BR  | 5 BR  |
|-------------------------|------|------|------|------|-------|-------|
| Electricity (kWh)       | 55   | 77   | 99   | 121  | 154   | 176   |
| Propane (gal)           | 4.35 | 6.09 | 7.83 | 9.57 | 12.17 | 13.91 |
| Natural Gas<br>(Therms) | 4    | 5.6  | 8.1  | 8.8  | 11.2  | 12.8  |

#### 5.3 Lighting and Refrigeration Consumption

The following is the monthly energy consumption requirements for lighting and refrigeration as recommended in the Utility Allowance Guidebook:

Monthly Energy Consumption Requirements for Lighting and Refrigeration

| Refrigeration     | 0 BR | 1 BR | 2 BR | 3 BR | 4 BR | 5 BR |
|-------------------|------|------|------|------|------|------|
| Electricity (kWh) | 125  | 175  | 225  | 264  | 350  | 400  |

#### 5.4 Air Conditioning Consumption

The following monthly energy consumption requirements for air conditioning consumption are based on calculations in HUD's Life Cycle Cost Analysis Handbook 7418.1 CHG-1. The calculations assume the following:

Unit Efficiency (BTU/Watt) 9.7 Equivalent Full Load Hours 1700

**Monthly Energy Consumption Requirements for Air Conditioning (Mobile Home)** 

| Air Conditioning        | 0 BR  | 1 BR   | 2 BR   | 3 BR   | 4 BR   | 5 BR   |
|-------------------------|-------|--------|--------|--------|--------|--------|
| Design Load<br>(BTU/hr) | 9,783 | 11,428 | 12,399 | 16,214 | 19,278 | 26,302 |
| Electricity (kWh)       | 143   | 167    | 181    | 237    | 282    | 384    |

**Monthly Energy Consumption Requirements for Air Conditioning (Single Family Home)** 

| Air Conditioning        | 0 BR   | 1 BR   | 2 BR   | 3 BR   | 4 BR   | 5 BR   |
|-------------------------|--------|--------|--------|--------|--------|--------|
| Design Load<br>(BTU/hr) | 11,725 | 12,786 | 15,110 | 17,530 | 21,326 | 26,475 |
| Electricity (kWh)       | 171    | 187    | 221    | 256    | 311    | 387    |

**Monthly Energy Consumption Requirements for Air Conditioning (Duplex)** 

|                         |        |        |        |        | <u> </u> |        |
|-------------------------|--------|--------|--------|--------|----------|--------|
| Air Conditioning        | 0 BR   | 1 BR   | 2 BR   | 3 BR   | 4 BR     | 5 BR   |
| Design Load<br>(BTU/hr) | 10,143 | 10,964 | 13,722 | 15,949 | 18,612   | 25,354 |
| Electricity (kWh)       | 148    | 160    | 200    | 233    | 272      | 370    |

Monthly Energy Consumption Requirements for Air Conditioning (Low Rise)

| Air Conditioning        | 0 BR   | 1 BR   | 2 BR   | 3 BR   | 4 BR   | 5 BR   |
|-------------------------|--------|--------|--------|--------|--------|--------|
| Design Load<br>(BTU/hr) | 10,427 | 12,595 | 14,920 | 19,759 | 22,911 | 24,233 |
| Electricity (kWh)       | 152    | 184    | 218    | 289    | 335    | 354    |

#### Monthly Energy Consumption Requirements for Air Conditioning (Multi-Family Multi-Story)

| Air Conditioning        | 0 BR  | 1 BR   | 2 BR   | 3 BR   | 4 BR   | 5 BR   |
|-------------------------|-------|--------|--------|--------|--------|--------|
| Design Load<br>(BTU/hr) | 9,007 | 13,101 | 14,813 | 17,937 | 21,167 | 24,233 |
| Electricity (kWh)       | 132   | 191    | 216    | 262    | 309    | 354    |

#### 5.5 Domestic Hot Water Consumption

The following is the monthly energy consumption requirements for water heating as recommended in the Utility Allowance Guidebook:

Monthly Energy Consumption Requirements for Domestic Hot Water

| Domestic Hot Water      | 0 BR  | 1 BR  | 2 BR  | 3 BR  | 4 BR  | 5 BR  |
|-------------------------|-------|-------|-------|-------|-------|-------|
| Electricity (kWh)       | 170   | 238   | 306   | 374   | 476   | 544   |
| Heat Pump (kWh)         | 43    | 60    | 77    | 94    | 119   | 136   |
| Propane (gal)           | 11.41 | 15.98 | 20.54 | 25.11 | 31.96 | 36.52 |
| Natural Gas<br>(Therms) | 10.50 | 14.70 | 18.90 | 23.10 | 29.40 | 33.60 |

#### 5.6 Water Consumption

The following is the monthly energy consumption requirements for water consumption as recommended in the Utility Allowance Guidebook:

**Monthly Water Consumption** 

| Monthly Water Consumption | 0 BR  | 1 BR  | 2 BR  | 3 BR  | 4 BR   | 5 BR   |
|---------------------------|-------|-------|-------|-------|--------|--------|
| Water (Gal)               | 4,000 | 5,600 | 7,200 | 8,800 | 11,200 | 12,800 |