# INTRODUCTION TO ENERGY SCREENING TABLES

The following worksheets are used to evaluated the potential impacts of a project.

## **Table 1 Definition of Project**

This Table is used to establish the proposed development parameters that are used the calculation of energy usage. The independent variable to be entered is identified by shading. For residential development, the number of housing units should be entered in the shaded area. For non-residential development, the total floor area of development should be entered in the shaded area.

#### **Tables 2 Summary of Project Impacts**

Consumption/Generation Rates. This table indicates the development's projected electrical consumption, natural gas consumption, water consumption, effluent generation, and solid waste generation. No modifications should be made to this table.

## **Tables 3 through 4 Calculation of Project Impacts**

Tables 3 through 4 indicate the results of the analysis.

**Table 3 Electrical Consumption** - This Table calculates the projected electrical consumption for new development. Default generation rates provided in the shaded areas may be changed.

**Table 4 Natural Gas Consumption** - This Table calculates the projected natural gas useagefor new development. Default generation rates provided in the shaded areas may be changed.

## Table 1 Project Name:

**HESP 023** 

**Definition of Project Parameters -** Enter independent variable (no. of units or floor area) in the shaded area. The independent variable to be entered is the number of units (for residential development) or the gross floor area (for non-residential development).

Land Use	Independent	Factor
Residential Uses	Variable	Total Units
Single-Family Residential	No. of Units	0
Medium Density Residential	No. of Units	0
Multiple-Family Residential	No. of Units	0
Mobile Home	No. of Units	0
Office Uses	Variable	Total Floor Area
Office	Sq. Ft.	0
Medical Office Building	Sq. Ft.	0
Office Park	Sq. Ft.	0
Bank/Financial Services	Sq. Ft.	0
Commercial Uses	Variable	Floor Area/Rooms
Specialty Retail Commercial	Sq. Ft.	0
Convenience Store	Sq. Ft.	0
Movie Theater	Sq. Ft.	0
Shopping Center	Sq. Ft.	0
Sit-Down Restaurant	Sq. Ft.	0
Fast-Food Restaurant	Sq. Ft.	0
Hotel	Rooms	0
Manufacturing Uses	Variable	Total Floor Area
Industrial Park	Sq. Ft.	0
Manufacturing	Sq. Ft.	0
General Light Industry	Sq. Ft.	1,515
Warehouse	Sq. Ft.	0
Public/Institutional	Variable	Total Floor Area
Public/Institutional	Sq. Ft.	0
Open Space	Sq. Ft.	0

Table 2: Projected	Fneray Consi	umption and	Generation
Table 2. FIDIECLEU	LIIGIUV CUIISI	JIIIDUOII AIIV	Generation

Summary of Project Impacts - Results of analysis identified below. No modifications should be made to this Table.

Utilities Consumption and Generation	Factor	Rates

Electrical Consumption	kWh/day	2,114.6
Natural Gas Consumption	cubic feet/day	237.4

Project	Units of			Projected
Component	Measure	Consumption	n Factor	Consumption
Residential Uses	No. of Units	kWh	Variable	kWh/Day
Single-Family Residential	0	5,625.00	kWh/Unit/Year	0.0
Medium Density Residential	0	5,625.00	kWh/Unit/Year	0.0
Multiple-Family Residential	0	5,625.00	kWh/Unit/Year	0.0
Mobile Home	0	4,644.00	kWh/Unit/Year	0.0
Office Uses	Sq. Ft.	kWh	Variable	kWh/Day
Office	0	20.80	kWh/Sq. Ft./Year	0.0
Medical Office Building	0	14.20	kWh/Sq. Ft./Year	0.0
Office Park	0	20.80	kWh/Sq. Ft./Year	0.0
Bank/Financial Services	0	20.80	kWh/Sq. Ft./Year	0.0
Commercial Uses	Sq. Ft./Rooms	kWh	Variable	kWh/Day
Specialty Retail Commercial	0	16.00	kWh/Sq. Ft./Year	0.0
Convenience Store	0	16.00	kWh/Sq. Ft./Year	0.0
Movie Theater	0	16.00	kWh/Sq. Ft./Year	0.0
Shopping Center	0	35.90	kWh/Sq. Ft./Year	0
Sit-Down Restaurant	0	49.10	kWh/Sq. Ft./Year	0.0
Fast-Food Restaurant	0	49.10	kWh/Sq. Ft./Year	0.0
Hotel	0	8,955.00	kWh/Sq. Ft./Year	0.0
Manufacturing Uses	Sq. Ft.	kWh	Variable	kWh/Day
Industrial Park	0	4.80	kWh/Sq. Ft./Year	0.0
Manufacturing	0	4.80	kWh/Sq. Ft./Year	0.0
General Light Industry	160,800	4.80	kWh/Sq. Ft./Year	2,114.6
Warehouse	0	4.80	kWh/Sq. Ft./Year	0.0
Public/Institutional	Sq. Ft.	kWh	Variable	kWh/Day
Public/Institutional	0	4.80	kWh/Sq. Ft./Year	0.0
Open Space	0	0.00	kWh/Sq. Ft./Year	0.0

#### Sources:

Residential rates were derived from the SCAQMD's CEQA Air Quality Handbook (April 1993).

All other rates are from Common Forecasting Methodology VII Demand Forms, 1989

	Table 4: Na	atural Gas Consu	ımption	
Project	Units of			Projected
Component	Measure	Consumption	Factor	Consumption
Residential Uses	No. of Units	Cu. Ft. of Nat. Gas	Variable	Cu. Ft./Day
Single-Family Residential	0	6,665.00	Cu. Ft./Mo./Unit	0.0
Medium Density Residential	0	4,011.50	Cu. Ft./Mo./Unit	0.0
Multiple-Family Residential	0	4,011.50	Cu. Ft./Mo./Unit	0.0
Mobile Home	0	4,011.50	Cu. Ft./Mo./Unit	0.0
Office Uses	Sq. Ft.	Cu. Ft. of Nat. Gas	Variable	Cu. Ft./Day
Office	0	2.00	Cu. Ft./Mo./Sq. Ft.	0.0
Medical Office Building	0	2.00	Cu. Ft./Mo./Sq. Ft.	0.0
Office Park	0	2.00	Cu. Ft./Mo./Sq. Ft.	0.0
Bank/Financial Services	0	2.00	Cu. Ft./Mo./Sq. Ft.	0.0
Commercial Uses	Sq. Ft./Rooms	Cu. Ft. of Nat. Gas	Variable	Cu. Ft./Day
Specialty Retail Commercial	0	2.90	Cu. Ft./Mo./Sq. Ft.	0.0
Convenience Store	0	2.90	Cu. Ft./Mo./Sq. Ft.	0.0
Movie Theater	0	2.90	Cu. Ft./Mo./Sq. Ft.	0.0
Shopping Center	0	2.90	Cu. Ft./Mo./Sq. Ft.	0.0
Sit-Down Restaurant	0	2.90	Cu. Ft./Mo./Sq. Ft.	0.0
Fast-Food Restaurant	0	2.90	Cu. Ft./Mo./Sq. Ft.	0.0
Hotel	0	2.90	Cu. Ft./Mo./Room	0.0
Manufacturing Uses	Sq. Ft.	Cu. Ft. of Nat. Gas	Variable	Cu. Ft./Day

Industrial Park	0	4.70	Cu. Ft./Mo./Sq. Ft.	0.0
Manufacturing	0	4.70	Cu. Ft./Mo./Sq. Ft.	0.0
General Light Industry	1,515	4.70	Cu. Ft./Mo./Sq. Ft.	237.4
Warehouse	0	4.70	Cu. Ft./Mo./Sq. Ft.	0.0
Public/Institutional Use	Sq. Ft.	Cu. Ft. of Nat. Gas	Variable	Cu. Ft./Day
Public/Institutional	0	2.90	Cu. Ft./Mo./Sq. Ft.	0.0
Open Space	0	2.90	Cu. Ft./Mo./Sq. Ft.	0.0

Total Daily Natural Gas Consumption (cubic feet/day)

237.4

#### Sources:

South Coast Air Quality Management District, CEQA Air Quality Handbook. April 1993

## INTRODUCTION TO UTILITY SCREENING TABLES

The following worksheets are used to evaluated the potential impacts of a project.

### **Table 1 Definition of Project**

This Table is used to establish the proposed development parameters that are used the calculation of utilities usage. The independent variable to be entered is identified by shading. For residential development, the number of housing units should be entered in the shaded area. For non-residential development, the total floor area of development should be entered in the shaded area.

#### Tables 2 Summary of Project Impacts

Consumption/Generation Rates. This table indicates the development's projected electrical consumption, natural gas consumption, water consumption, effluent generation, and solid waste generation. No modifications should be made to this table.

## **Tables 3 through 5 Calculation of Project Impacts**

Tables 3 through 7 indicate the results of the analysis.

**Table 3 Water Consumption** - This Table calculates the projected water consumption ratesfor new development. Default generation rates provided in the shaded areas may be changed.

**Table 4 Sewage Generation** - This Table calculates the projected effluent generation rates for new development. Default generation rates provided in the shaded areas may be changed.

**Table 5 Solid Waste Generation** - This Table calculates the projected waste generation for new development. Default generation rates provided in the shaded areas may be changed.

## Table 1 Project Name:

**HESP 023** 

**Definition of Project Parameters** - Enter independent variable (no. of units or floor area) in the shaded area. The independent variable to be entered is the number of units (for residential development) or the gross floor area (for non-residential development).

Land Use	Independent	Factor
Residential Uses	Variable	Total Units
Single-Family Residential	No. of Units	0
Medium Density Residential	No. of Units	0
Multiple-Family Residential	No. of Units	0
Mobile Home	No. of Units	0
Office Uses	Variable	Total Floor Area
Office	Sq. Ft.	0
Medical Office Building	Sq. Ft.	0
Office Park	Sq. Ft.	0
Bank/Financial Services	Sq. Ft.	0
Commercial Uses	Variable	Floor Area/Rooms
Specialty Retail Commercial	Sq. Ft.	0
Convenience Store	Sq. Ft.	0
Movie Theater	Sq. Ft.	0
Shopping Center	Sq. Ft.	0
Sit-Down Restaurant	Sq. Ft.	0
Fast-Food Restaurant	Sq. Ft.	0
Hotel	Rooms	0
Manufacturing Uses	Variable	Total Floor Area
Industrial Park	Sq. Ft.	0
Manufacturing	Sq. Ft.	0
General Light Industry	Sq. Ft.	1,515
Warehouse	Sq. Ft.	0
Public/Institutional	Variable	Total Floor Area
Public/Institutional	Sq. Ft.	0
Open Space	Sq. Ft.	0

# **Table 2: Projected Utility Consumption and Generation**

Summary of Project Impacts - Results of analysis identified below. No modifications should be made to this Table.

Utilities Consumption and Generation	Factor	Rates
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Water Consumption	gallons/day	455
Sewage Generation	gallons/day	303
Solid Waste Generation	pounds/day	14

Project Component	Units of Measure	Consumption		Projected Consumption
Residential Uses	No. of Units	Gals. of Water	Variable	Gals./Day
Single-Family Residential	0	390.000	Gals./Day/Unit	0.0
Medium Density Residential	0	300.000	Gals./Day/Unit	0.0
Multiple-Family Residential	0	234.000	Gals./Day/Unit	0.0
Mobile Home	0	234.000	Gals./Day/Unit	0.0
Office Uses	Sq. Ft.	Gals. of Water	Variable	Gals./Day
Office	0	0.300	Gals./Day/Sq. Ft.	0.0
Medical Office Building	0	0.300	Gals./Day/Sq. Ft.	0.0
Office Park	0	0.300	Gals./Day/Sq. Ft.	0.0
Bank/Financial Services	0	0.150	Gals./Day/Sq. Ft.	0.0
Commercial Uses	Sq. Ft./Room	Gals. of Water	Variable	Gals./Day
Specialty Retail Commercial	0	0.150	Gals./Day/Sq. Ft.	0.0
Convenience Store	0	0.150	Gals./Day/Sq. Ft.	0.0
Movie Theater	0	0.195	Gals./Day/Sq. Ft.	0.0
Shopping Center	0	0.495	Gals./Day/Sq. Ft.	0.0
Sit-Down Restaurant	0	1.500	Gals./Day/Sq. Ft.	0.0
Fast-Food Restaurant	0	0.120	Gals./Day/Sq. Ft.	0.0
Hotel	0	187.500	Gals./Day/Room.	0.0
Manufacturing Uses	Sq. Ft.	Gals. of Water	Variable	Gals./Day
ndustrial Park	0	0.300	Gals./Day/Sq. Ft.	0.0
Manufacturing	0	0.300	Gals./Day/Sq. Ft.	0.0
General Light Industry	1,515	0.300	Gals./Day/Sq. Ft.	454.5
Warehouse	0	0.045	Gals./Day/Sq. Ft.	0.0
Public/Institutional Use	Sq. Ft.	Gals. of Water	Variable	Gals./Day
Public/Institutional	0	0.120	Gals./Day/Sq. Ft.	0.0
Open Space	0	0.120	Gals./Day/Sq. Ft.	0.0

	Table 4	: Sewage Gener	ation	
Project Component	Units of Measure		Generation Factor	
Residential Uses	# of Units	Gals. of Effluent	Variable	Gals./Day
Single-Family Residential	0	260.000	Gals./Day/Unit	0.0
Medium Density Residential	0	200.000	Gals./Day/Unit	0.0
Multiple-Family Residential	0	156.000	Gals./Day/Unit	0.0
Mobile Home	0	156.000	Gals./Day/Unit	0.0
Office Uses	Sq. Ft.	Gals. of Effluent	Variable	Gals./Day
Office	0	0.200	Gals./Day/Sq. Ft.	0.0
Medical Office Building	0	0.200	Gals./Day/Sq. Ft.	0.0
Office Park	0	0.200	Gals./Day/Sq. Ft.	0.0
Bank/Financial Services	0	0.100	Gals./Day/Sq. Ft.	0.0
Commercial Uses	Sq. Ft./# Rooms	Gals. of Effluent	Variable	Gals./Day
Specialty Retail Commercial	0	0.100	Gals./Day/Sq. Ft.	0.0
Convenience Store	0	0.100	Gals./Day/Sq. Ft.	0.0
Movie Theater	0	0.130	Gals./Day/Sq. Ft.	0.0
Shopping Center	0	0.330	Gals./Day/Sq. Ft.	0.0
Sit-Down Restaurant	0	1.000	Gals./Day/Sq. Ft.	0.0
Fast-Food Restaurant	0	0.080	Gals./Day/Sq. Ft.	0.0
Hotel	0	125.000	Gals./Day/Room.	0.0
Manufacturing Uses	Sq. Ft.	Gals. of Effluent	Variable	Gals./Day
Industrial Park	0	0.200	Gals./Day/Sq. Ft.	0.0
Manufacturing	0	0.200	Gals./Day/Sq. Ft.	0.0
General Light Industry	1,515	0.200	Gals./Day/Sq. Ft.	303.0
Warehouse	0	0.025	Gals./Day/Sq. Ft.	0.0
Public/Institutional Use	Sq. Ft.	Gals. of Effluent	Variable	Gals./Day
Public/Institutional	0	0.096	Gals./Day/Sq. Ft.	0.0
Open Space	0	0.096	Gals./Day/Sq. Ft.	0.0

Total Daily Sewage Generation (gallons/day)	303.0
Source: Los Angeles County Sanitation Districts.	

Project Component	Units of Measure	Generation Factor Lbs.of Waste Variable		Projected Generation Lbs./Day
Residential Uses	# of Units			
Single-Family Residential	0	12.23	Lbs./Day/Unit	0.0
Medium Density Residential	0	12.23	Lbs./Day/Unit	0.0
Multiple-Family Residential	0	12.23	Lbs./Day/Unit	0.0
Mobile Home	0	12.23	Lbs./Day/Unit	0.0
Office Uses	Sq. Ft.	Lbs.of Waste	Variable	Lbs./Day
Office	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
Medical Office Building	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
Office Park	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
Bank/Financial Services	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
Commercial Uses	Sq. Ft./# Rooms	Lbs.of Waste	Variable	Lbs./Day
Specialty Retail Commercial	0	42.00	Lbs./Day/1,000 Sq. Ft.	0.0
Convenience Store	0	42.00	Lbs./Day/1,000 Sq. Ft.	0.0
Movie Theater	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
Shopping Center	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
Sit-Down Restaurant	0	6.00	Lbs./Day/1,000 Sq. Ft.	0.0
Fast-Food Restaurant	0	42.00	Lbs./Day/1,000 Sq. Ft.	0.0
Hotel	0	6.00	Lbs./Day/Room	0.0
Manufacturing Uses	Sq. Ft.	Lbs.of Waste	Variable	Lbs./Day
Industrial Park	0	8.93	Lbs./Day/1,000 Sq. Ft.	0.0
Manufacturing	0	8.93	Lbs./Day/1,000 Sq. Ft.	0.0
General Light Industry	1,515	8.93	Lbs./Day/1,000 Sq. Ft.	13.5
Warehouse	0	8.93	Lbs./Day/1,000 Sq. Ft.	0.0
Public/Institutional Use	Sq. Ft.	Lbs.of Waste	Variable	Lbs./Day
Public/Institutional	0	4.00	Lbs./Day/1,000 Sq. Ft.	0.0
Open Space	0	3.00	Lbs./Day/1,000 Sq. Ft.	0.0
Total Daily Solid Waste Generation				13.5