Preparing for your Predominant Use Study

Introduction

Manufacturers get a significant tax break in Texas, allowing the use of electricity and natural gas free of sales and use tax. However, this tax break is specific to how power is used: equipment used directly in manufacturing is exempt from taxes, while other uses, such as administration, are not. To qualify for this exemption, the Texas Comptroller’s Office has set requirements for proving a manufacturer’s use of power at their facility, including the preparation of a “Predominant Use Study”, certified by a licensed engineer in the State of Texas.

The study, once completed, can represent significant tax savings, because all the equipment used on a given meter qualifies for tax-free status as long as a majority of the uses on that meter are tax-exempt, that is, if the meter’s use is *predominantly* manufacturing. Furthermore, companies are eligible for up to 48 months refund on sales taxes paid once their study is completed and certified.

The *Application Name [Saltware Predominant Use Study application]* lowers the cost of preparing a Predominant Use Study by allowing you to pre-certify your facility, and assists you in data collection. The final study is then submitted to our offices, where a certified engineer will review and certify your results, and issue you a Certified Predominant Use Study. The certified study may then be filed with your utility provider when requesting tax-exempt status, and may be used as a defense during Texas Comptroller’s Office audits. Dan Martinez & Associate certified studies has never been overturned by the Comptroller’s Office, and we are very proud to stand beside our results.

Preparing Your Study – Overview

After creating an account on our website, here are the suggested steps toward starting and completing your study:

1. Identify the individual or team who will be surveying all equipment at your facility
2. Collect 12 months worth of bills on all the meters at your site
3. Learn how to identify equipment and their consumption ratings
4. Learn how to assess equipment average *workloads*, in hours per week.
5. Learn how to assess equipment average *duty factors*
6. Survey your facility for all equipment in use – organize equipment by meter. Enter survey results, and bills
7. Balance the total estimated equipment consumption with actual billed consumption
8. Submit your study

1. Identify your Study Team

Often, a company will use their in-house electrician to conduct data collection for their study. While not necessary, it is useful to use an individual or team that is familiar with natural gas or electric equipment, can identify equipment and find consumption ratings, and is well organized and thorough.

For an accurate study, all equipment in your facility must be included, so it may be helpful to prepare a map or layout of your site, allowing your team to thoroughly walk through and identify all connected equipment.

2. Bills

For either a natural gas or electric study, you must include 12 months of past bills to be certified. Retrieve these bills from your records, or request a copy from your utility company. Organize your bills by meter (all utility companies will submit a separate bill for each meter at your facility).

For the study itself, identify the total monthly consumption for each meter. For electrical studies, you are interested in total kilowatt hours consumed; for natural gas, look for MBTUs (thousand British Thermal Units) consumed in a month.

Go ahead and enter this data into the application. Go to [] to create all your meters, then beside each meter, click “Bills”, and on the Bill edit screen enter the past 12 months worth of consumption data.

3. Identify equipment

We have thousands of natural gas and electrical equipment in our database, developed from several past predominant use studies for manufacturers, including name-brand as well as generic equipment types. So, likely there’s nothing more you need to identify with your equipment than its name brand and model, as well as the quantity in use at your site.

However, if the equipment is not in our database, you’ll have to collect more information about the item. Consumption, or “rating”, information can often be found in the owner’s manual, engineering drawings, or other documentation about your equipment. Most electrical equipment will also have a faceplate with electrical specifications, either indicating its wattage, horsepower, or volts and amperage. Some equipment is 3-phase electrical, so learn how to identify them as well (most heavier equipment is 3-phase).
4. Workload

A light bulb may burn 100 watts an hour, but it is not on 24 hours a day. Some equipment may be on and functioning all day, 7 days a week, but most equipment is functionally only during working shifts at your facility. For estimating purposes, your study should indicate your estimate of how many hours per week a particular piece of equipment is on and functioning (our engineer may modify this estimate during the certification stage of the study, based on his knowledge of equipment use or actual field observations).

To make workload estimating easy, we recommend categorizing your equipment into “shifts”. Administrative equipment, for example, is typically used by weekday office workers, 8 hours a day, thus 40 hours a week. Typical workload estimates to use:

- Single shift, weekdays (administrative, office, weekday manufacturing)
  - 40 hours/week
- Single shift, + Saturdays (typical manufacturing)
  - 48
- Single shift, 7 days/week (manufacturing)
  - 56
- Double shift, weekdays (busy manufacturing)
  - 80
- Double shift, 7 days/week (full-scale manufacturing)
  - 112
- Round-the-clock, weekdays (process manufacturing, security lights)
  - 120
- 24 hour operations, 7 days/week (process manufacturing, security lights)
  - 168

5. Duty Factors

Even when on, not all equipment runs 100% of the time. Many motors, air conditioners for example, cycle on and off during their period of operation. Some equipment are programmed to “sleep” when not in use for a long period of time, thus reducing power consumption. Also, motors may run at different speeds, so depending on the typical settings used, a different duty factor may be estimated. Equipment duty factors, expressed as a percentage between 1 and 100%, are an estimate of how often the equipment is on and drawing power.

Some typical duty factors include:

- Construction Cranes 40%
- Small motors 60%
- HVAC 25%

Our database contains average duty cycles for such equipment, based on experience with several manufacturing sites across the state. If all the equipment at your facility is chosen from our standard equipment list, it is rare that you will have to worry about duty factors. If you have to add a new
piece of equipment to our database, consult with an engineer to estimate its duty factor, or base your estimate on similar equipment in its category.

6. Survey your facility

It is now time to begin your facility survey. If you have a laptop or mobile device, you can directly add meters, buildings, and client equipment to your [Saltware] survey page while you’re physically walking through the building identifying and counting equipment. If that’s not handy, prepare a worksheet with which to tally equipment types, models, locations, and quantities. A sample worksheet is provided in Appendix A. After you’ve completed your survey and identified all equipment, the worksheet data can then be added to your [Saltware] survey.

On the [Saltware] survey page, you will first be prompted to enter Meters. Identify the meter by meter or account number Enter 12 months of bills for this meter first. Then, go ahead and add Buildings to the meter, and add equipment to each building.

7. Balance

On the Survey summary page, an indicator will show you the percentage difference between billed usage and computed usage. As long as that number is greater than 5%, you likely need to add more equipment to your buildings, until the total consumption balances with billed consumption. There may be cases where equipment has been thoroughly identified and counted, yet the percentage difference is still high. In these cases, it may be prudent to change your workload or duty factor estimates to a number more realistic with actual use. Consult with your own engineers for guidance, or go ahead and submit the study so our engineers can study this difference in more detail.

9. Submit your Study for Certification

After completing your facility survey and entering all equipment, it is now time to submit your study for certification. At this point, the survey will become non-editable. A note will be sent to one of our engineers will study your data and estimate, schedule a site visit, and make modifications to your study data for completeness. A bill estimate will be sent to you as well; the fee will be computed based on the size of your facility and the quantity of equipment at your site, and the potential for tax savings. We guarantee tax savings from all our certified Predominant Use Studies – if there are no tax savings, your company does not pay.
After a survey is completed by our engineers, a certified copy will be sent to you, to keep for your files. A copy should also be sent to your utility provider to gain tax exempt status, and the certified survey can also be used to request refunds from the State: up to 4 years of past paid sales taxes can be refunded to your company for all qualified manufacturer sites, so the tax savings can be significant. Call us at (713) 981-6500 for details on Predominant Use Study certification, tax exemption and tax refunds.

Consult our Help Guide (www.danmartinez.com/puse/help) for details on how to use each screen of our application.