Data Needs Sheet

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Introduction

For data gathering, you will be working with me, Carl Brown, carl1@gettinggreatrates.com, (573) 619-3411.

On your side:

- You may task a billing clerk or finance director to give us rates, usage data, balance sheet(s), income and expense statements, that sort of thing.
- You may have the public works director, utilities superintendent or similar operations-related person give us a repair and replacement schedule, system improvement needs and other things they deal with.
- If you need to do capital improvements and already have a consulting engineer on-board, you may have that firm give us data and information they generate.

Here's the key point. Whoever you want to give us data and information, assign it to them and tell me who those contacts will be. I will only share information about your project with those people.

What is your "test year?"

Before gathering any data, decide on your "test year." The test year is the one-year period from which you will pull most data. Usually, it works best to use your last completed fiscal year as the test year. It will simplify data gathering. So, decide the test year first, then gather data.

If you are not sure of what data to send me, don't guess and waste your time. CALL ME and I will talk you through it. For some kinds of information, we will need to have a conversation or two on the phone. Rate analysis is not just about data.

If possible, send "numbers" data in Microsoft Excel format and "text" information in Microsoft Word or Rich Text format.

Now, to the actual data. You may want to print the following page, a checklist, and check off items as you send them to me. Or you may want to assign data gathering tasks to others by the numbers. All will be explained in later pages.

List of documents, data, and information we need

If we are analyzing water and sewer rates for you, which is most common, we will model each utility's rates separately. Thus, you need to send us the following things separately for each utility. If you have combined financial statements for water and sewer but they clearly show water incomes and expenses in one column and sewer in another column, that works, too. But if the incomes and expenses for both utilities are blended together – not split out to water or sewer – we need you to separate them for us or tell us how to separate them. The same goes for other data and other types of utilities or services. More on that later. Now, the checklist.

1. Rate and fee tables or rate ordinances, as well as policies and preferences (preferred timing of adjustments?) related to rates,
2. Agreements with special (wholesale) customers and service providers (water source, contracted treatment provider), or special "deals" you give to certain customers,
3. Tell us the cash and cash equivalents balance at the start of the test year, and the original value of plant – the hard assets. We can try to interpret the system's balance sheet, but we are confident you can do that better than us, so tell us the balances to assure data accuracy.
4. Detailed income and expense statement; test year and projected budget for the following year(s), if you have a budget prepared,
5. Debt schedule(s); existing debt and expected future debt,
6. Capital improvements plan (CIP),
7. Equipment repair and replacement (R&R) schedule, or a listing of R&R needs,
8. For the test year, master metered flow volume produced or purchased (water) or volume received at or discharged from the treatment plant (sewer),
9. Count of the number of each meter size served by the system, if meter size is not included in Item 12 below,
10. New customers – numbers and meter sizes, connected during the test year and growth expected in future years,
11. Wildcards – lawsuits, adding new staff in the future, funding options for new plant to build in five years, anything big not in the above items, and,
12. Volume usage file(s).

Explanations of the data

Data discussed here is for water and sewer. Data for stormwater, electric, trash collection and other services is nearly the same, just with different units of measure, different equipment, different rate structures and such.

We analyze using spreadsheets (Microsoft Excel) and we write using a word processor (Microsoft Word), so send us everything you can in those formats. Granted, if you got a debt payment schedule from a lender in Portable Document Format (pdf), send it to us in pdf. But the more data we can get in Excel and Word, the better. Most accounting and billing programs will "Save As" in these formats or "Export" to these formats.

Send data like this:

- Attach data files less than 10 MB in size to e-mails and e-mail to Carl1@gettinggreatrates.com. Usage data is probably the largest file you will have but even that one should be less than 10 MB.
- If a file is larger or you don't know how big it is, e-mail me and tell me you need a link to my OneDrive account. I will reply with a link. You can then save the file(s) or even a folder full of files to that account.

A reminder: Nearly all data needs to represent what happened during the test year, or what was in effect during the test year.

Data details

Items that are mostly rates-related:

1. Rate and fee tables or rate ordinances. Are these on-line? Give us links.
    a) If rates changed during the test year, give us the before and after rates, or the before and after ordinances, and tell us on what date you began to bill under the new rates.
    b) If you adjusted rates after the test year ended (which should be the year we are in right now), tell us those rates, too, or give us those ordinances.
    c) If you send us the actual rate ordinances, we will find what we need there. We need the test year rates so we can do an accuracy check, to make sure revenues from rates we will calculate will actually get collected. And we need the now current rates (if you changed rates since the end of the test year) because we will make some tables and line graphs to compare the modeled rates with the now current rates. People want to know how new rates will affect their current bills, not bills they paid a year ago.

2. If the volume usage file(s) you send us include the rate "class" or "code" for each customer, we need a key for what those codes mean. For example, if the billing program data file you send us has a "Rate Code" column that lists "R-1," "C-1" and "I-1," meaning, Residential Class 1, Commercial Class 1, and Industrial Class 1, tell us how R-1, C-1 and I-1 relate to the rates in your ordinances. We need to be able to match up every data point of volume usage with the rates in your ordinances.
3. We calculate rates based on service location. Many utilities do not base their billing records on service location. Rather, they base it on who pays the bill. Thus, when a property changes hands, they create a new "customer," but the service location is the same. If that is the case for your usage data, tell us how to differentiate between a brand-new service location (growth) and a location that just changed hands. (Most indicate changing hands with a small change to the account number.)
4. Policies and preferences related to rates: If your governing body already has strong rate setting preferences, such as they like conservation rates, or declining rates, a usage allowance, a high or low minimum charge, they always adjust rates on January 1, or July 1, or anything else that might impact how we model new rates; tell us about it. If it is practical and advisable, we will try to accommodate those preferences. *Translation: I don't want to waste your and my time building a model that assumes rates with no usage allowance and those rates will be adjusted on January 1, if the city council ALWAYS, NO EXCEPTIONS makes new rates effective July 1, and they just will not accept rates without an allowance.* It will be easiest for you to just call me to talk about these things.
5. Agreements with special customers and service providers
    a) Tell us about any special "deals" – rates, fees, demand surcharges, etc. assessed to certain meters or service locations (free water to you – the city or district?); or discounts, waivers, free service because the customer granted an easement for your transportation line, limits on future rate increases or any "deals" – you give to certain customers. Now, if the deal was for one low-volume, small meter customer, we don't need to know about that. Those situations do not affect revenues much and you can keep those going on your own. We just need to know about the "big deals."
6. Wholesale or otherwise contracted meters or service locations, or "troublesome" customers:
    a) If you have any contracted supply agreements, meters, or service locations (like you are a city selling water to a water district), give us a copy of the current contract(s).
    b) If a contracted customer, or any other important customer, has a "beef" about their rates, tell us about it. If it would be practical, reasonable and fair; and desired by you, we will try to model rates that will make the "beef" go away.
    c) If someone has threatened a lawsuit, or filed a lawsuit against you, or you against them, tell us all about that situation. Again, we want to make it go away, if we can, or reduce your risk if we can't.

Tell us your balances or send a balance sheet

1. Without accurate test year starting balances, we cannot calculate rates accurately. Balance sheets are usually hard for us to interpret. Our preference? You just tell us your test year starting balances. Include:
   a) Cash and cash equivalents, and
   b) Hard assets (original, undepreciated) value, if you track it.
   c) Some utilities also have reserves for equipment repair and replacement, capital improvements, debt coverage, and other things. If you do, too, give us the balances for each of those things. Or just lump them into cash and cash equivalents, your choice.
2. Not our preference, but alternatively, send us your balance sheet(s). But be sure to also tell us what your names, account numbers, or acronyms mean, so we can interpret correctly.

Detailed income and expense statement(s)

1. Regardless of how you organize your financial statements, we need incomes collected and expenses paid during the test year. The statements in your audited financials will not work. Those are too summarized. The income and expense statements need to show this level of detail:
   a) Income items like user charge fees, new connection or system development charges collected, penalties collected, interest earned on deposits, etc. We cannot analyze your water rates if you give us the expense statement for the town's entire public works department, so show each utility we are analyzing separately.
   b) Other categories of cost to show include office-related costs; electricity to operate the system; chemicals to treat water; system maintenance costs; cost of water purchased under a wholesale contract; equipment purchased; equipment repairs and maintenance, etc.
   c) If you have water and sewer utilities, and maybe another utility or two, you probably have some operations employees who work in several of them and equipment used in several of them. Likewise, administration and billing staff may support several utilities and other functions. Give us the dollar amount of such shared expenses split out by utility.
      (1) If your entity is a town or city and it does not "bill" the water utility for staff time, computers, office space and other costs the town incurs to have town staff administer, bill, collect and otherwise do work for the utility, you should. In this case, tell us how much to add for work the town does for the utility.

2. If you have a projected budget for the year following the test year (which is a normal format for a budget that includes actual incomes and expenses for last year, this year and the budget for the next year), give us that.

    a) Beyond the later years' budgets, we will add inflation, but we also need income and expense changes that you think will come along in the next ten years that are not just inflation. You probably can write these into a column on the right side of your income and expense statements or budget, or tell us in an e-mail what to adjust, when and how. Common big changes like this include a plan to add another operator position three years out, or to start buying water from a supplier in five years after you retire an ailing well. We will handle inflationary cost increase calculations, but we need you to tell us about relatively big changes that will/may happen to costs, too.

Debt schedules

1. If you have existing debt, send us the debt payment schedule for each loan or lease the lender gave you. If you have a State Revolving Fund (SRF) loan, the payments are probably level or nearly so from year to year. In that case, just tell us the total amount paid each year and tell us payments will remain (nearly) the same until whatever year (tell us) the loan is paid off.
2. If you have taken on debt but payments have not yet started, send us the payment schedule the lender gave you. On a related note, if you got grants for that same project, or you have had grants committed to you, tell us about those, too.
3. If you sold bonds to pay for a combination of water, sewer, town hall improvements and something for parks, for example, tell us what percentage of the debt payments in the schedule you sent us to attribute to water and what percentage to sewer. Likewise, if the payment schedule the lender gave you has a name like, "Series 2023-B Revenue Bond," tell us if that bond is for water, sewer, or whatever else it is for.

Capital improvement plans (CIP)

1. For this year and the next ten years, we need estimated capital improvement needs, timing, costs and how you plan to pay those costs. (If you don't have such a plan yet, don't worry, the analysis will point the way on CIP funding.) Include your "must-have" items, but also your "wish list" items. We will model rates that cover your "must-have" items. And, if your new rates can comfortably handle it, we will model doing your wish list projects, too.
2. If you do not have a written out or "formal" CIP yet, we recommend you start putting one together now. We created a do-it-yourself CIP template for that. Visit https://gettinggreatrates.com/CIPPlanner and download the CIP Planner, enter your data, identify the "wish list" items somehow and e-mail the spreadsheet back to us. Or, if you have lots of "wish list" items, just put those into a separate sheet, identify it and send us both sheets.

Repair and replacement schedule (R&R)

1. We need your equipment repair and replacement (R&R) schedule for the next 20 years, if you have one. What goes into an R&R schedule? R&R items are not expensive enough or of the nature that you might get grants and loans for them. However, they generally are too expensive or occur too infrequently to comfortably work into the regular annual budget. (Think, water tower repaints, motor and pump replacements, rolling stock replacements.) Thus, R&R covers the in-between items. To schedule these things:
    a) We need estimated equipment replacement needs, timing, and costs.
    b) If you do not have an R&R schedule yet, we recommend you start putting one together now. To make that easier for you (and for us to get your data), we extracted the R&R schedule from our rate analysis template and made it into a do-it-yourself R&R scheduling spreadsheet. Download the ReplacementScheduler spreadsheet at https://gettinggreatrates.com/ReplacementScheduler, enter your data and e-mail the spreadsheet back to us. Otherwise, just send us what you have.
    c) Some R&R items are shared across two or more utilities or services (trucks, tractors, computers, shops, etc.). Be sure to identify those and only include the water portion of the cost in the water R&R schedule, the sewer portion of the cost in the sewer R&R schedule, and so on. The ReplacementScheduler instructions give more detail on this.
    d) If you just handle R&R in your regular budget and you want to keep it that way, tell us how much R&R should cost in a typical year if you were to replace everything you should replace when needed. We will model rates that will recover that amount, with inflation, every year.
    e) If we must, we will estimate R&R costs based on a percentage of operating costs that we have found to be common, but that should be the last resort for R&R costing.

Master metered flows

1. This is the volume produced and/or purchased (water) or volume received at or discharged from the treatment plant(s) (sewer). You report these volumes to the State primacy agency, so you probably can just send us a copy of the report, if it corresponds to the test year. If the reporting year and the test year are not the same, send us the master metered flow volume that corresponds to the volumes you billed for during the test year. Operations staff probably track master metered flows in a spreadsheet; maybe daily but at least monthly, so you can just send us the whole sheet and we will find flows for the date range we need.

Count of meters, by size

1. Unless you are able to take advantage of the "Data Shortcut" that starts on the bottom of page 10, we will need a count of how many meters of each size are on the system. If that data is in your usage data file(s), we will pull that data from that file ourselves.

Otherwise, you can go to https://gettinggreatrates.com/CustomerCount, download the "Customer Count Worksheet," enter your data and e-mail the spreadsheet back to us. If new connections in the test year are representative of what you would expect in future years, note that. Otherwise, enter some notes in the sheet to tell me what to plan on for future growth. If you err, be conservative.

Wildcards

Some things or events can affect rates drastically, but they are not included in a balance sheet or income and expense statement. Give us a description of important things that will or might change, or would affect how rates should be modeled, like:

1. If you have been given the growth plan of a manufacturing plant you serve that uses 10 percent of your water, and that plan calls for the plant to double its water use in five years, tell us about that. If the plant plans to shut down, DEFINITELY tell us about that.
2. If your wholesale water supplier will be increasing the rates charged to you each year for the next five years by five percent per year, tell us.
3. If you plan to enter into a new wholesale water purchase agreement within the next 10 years, we need to know the particulars of that potential deal. In fact, we will make recommendations about how to structure the pricing in such a contract because that is the one subject for which we most frequently see one party sue the other. Consider those recommendations before entering into such a deal. Please read much more about this in Chapter 10 of the Rate Setting Issues Guide https://gettinggreatrates.com/RSIG.
4. If you plan to add a new operations employee in three years, we need to know the annual salary you expect to pay them. If the new employee will get about the same benefits as existing employees, just tell us that and we will proportionately gross up benefits, etc. to cover the new employee, too. If their benefits will be different, tell us how they will be different.
5. If someone has threatened a lawsuit, or filed a lawsuit against you, or you against them, tell us about that situation. We want to make that go away, if we can, or reduce your risk if we can't. This might be the biggest issue we need to help you solve.

Usage and customer data

To accurately predict revenues from new rates, one must start with a good basis for projections – accurate customer and usage data.

Usage discussed here is for water and sewer. If this analysis is for trash collection, stormwater, or something else, you still have usage. It is just measured differently, so read this section for an overview, but then let's talk about how you can get to me the data I need for your analysis.

Water and sewer usage is measured in gallons, cubic feet, or some other units. Usage data is used to calculate the unit charge(s) – how many dollars to charge for use.

Customer data is the count of customers, their meter sizes, and occasionally some other billing criteria. Customer data is used to calculate minimum charges, system development (new connection) fees and other things related to the customer but not their usage.

Place-based Billing

Water and sewer are place-based services. They happen at a place which is nearly permanent. The person/company who pays the bill can change and they do change. It is better to track service provision in the billing program by place than payer. Thus, when a property changes hands, you change the billing information to the new payer, but the place of service stays the same.

Data Shortcut

We can use this shortcut if:

- In your current rates, you have no usage allowance ("give-away" volume). To arrive at the greatest rate structure fairness, we recommend no usage allowance.
- You assess a level unit charge for all volume used by all customers, and you want to stick with that structure (again, that is our usual recommendation). And,
- You do not have and do not want minimum charges or connection fees based on meter size. Or if you do, you can just give us an accurate count of meters served by size.

If this is your situation you do not need to export any data from your billing program (lucky you). You can just send this data to us in the body of a short e-mail message. It may read like this:

> *"During the test year, we sold 31,560,000 gallons of water. We averaged 526 meters in-town: 500 were 3/4-inch meters, the rest were one-inch meters. We have no out-of-town customers. We billed monthly. The minimum charge was $32.50 for each customer. The unit charge was $5.25 per 1,000 gallons. There was no usage allowance – we billed for all volume. And we did not change rates during the test year."*

If your situation cannot be described like that, we will need data exported from your billing program.

Data we need and good formats for that data

Data we need, and more, are in your billing program, which is a database. I analyze using Microsoft Excel applications. Therefore, I must receive your database data in a format that Excel can read. Billing programs and Excel often do not play well together, but whether getting that data is simple or hard, it will come out of the billing program and go into Excel.

The three data points we need for each service location or meter number are these:

1. The meter size at each service location,

2. The rate code, which represents the rates that each meter or location is assessed, and
3. The volume (gallons, cubic feet) billed to each meter or location during each billing period of the test year. For example, for monthly billing, most customers' data will include 12 bills (some have fewer because they moved in, moved out, moved around, or made some other change that affected their billing).

You do not need to filter all other data out before sending the file(s) to us. We can do that. But we do need the above data for almost all analyses. And each of the data points for each customer needs to be in separate cells of the spreadsheet – they cannot be merged with other data or text and cannot be scattered randomly across the columns. More on this later.

If we are analyzing both water and sewer rates for you, send us two sets of usage data. One for water. Another for sewer.

Data in the file(s) you send us will look something like the two following examples. There may be tens of thousands of lines of data in a dozen or so columns in either report. The data shown in the examples is only that data we need. The file(s) you send us will probably include more, and that is OK. We will find the data we need. Now, to the formats.

Columnar Formatted Data
(Last 6 months of year left out to shorten example table)

Rate Class	Customer	Meter Size	Bill Date	Gallons
100	John Jones	0.75	1/1/2019	5,000
100	John Jones	0.75	2/1/2019	5,500
100	John Jones	0.75	3/1/2019	4,000
100	John Jones	0.75	4/1/2019	6,000
100	John Jones	0.75	5/1/2019	7,000
100	John Jones	0.75	6/1/2019	7,000
100	Next Cust	0.75	1/1/2019	10,000
and so on for each customer for each month				

We prefer this format. Columnar formatted data runs the usage volume for each billing period for all customers down a single column. In this arrangement, other repeating data and information (rate code, customer number, address, etc.) about each customer should repeat down the other columns. If the constant information (Account Number, Rate Class, etc.) does not repeat down the columns, the cells where it does not repeat need to be left blank.

Next up, row formatted reports include the same data, but all data for each customer is shown on one row, placing usage for each billing period in successive columns.

Row Formatted Data
(Last 6 months of year left out to shorten example table)

			Bill Dates and Gallons					
Rate Class	Customer	Meter Size	1/1/2019	2/1/2019	3/1/2019	4/1/2019	5/1/2019	6/1/2019
100	John Jones	0.75	5,000	5,500	4,000	6,000	7,000	7,000
100	Next Cust	0.75	10,000	More volumes				
and so on for each customer for each month								

Thus, for monthly billing, there would be a "January" column for that month's use running down a column, a "February" column, a "March" column, and so on.

Now, how can you get this data?

Data exporting options

Three options for data export from your billing program follow. It takes six words to describe Option 1. It takes two pages to describe Options 2 and 3. If you are skilled at exporting customer data from your billing program to Excel, you might skip to Option 3. Otherwise, we recommend Option 1.

Option 1: Let the software company do it. Your billing software provider knows their software inside and out and can do this easily, and probably quickly. They may charge you a small fee for this service, but it may save you hours of trying to figure out how to do this yourself. Or, hours of us trying to explain to you the problems with the data you sent and explain how you might be able to export workable data.

Option 1 is simple. You just call or e-mail the software company; tell them the three data points you need from the "Data We Need…" section above and tell them the time period you need that data from. They will do the rest.

Option 2: Export to a delimited text file. If you are going to export this data yourself, but because you do not have experience exporting directly to Excel, the safer technique is to export data as a delimited text file. More on that after describing Option 3.

Option 3: Export directly to Excel. Unless you have prior experience doing this and you know the data will not be compromised when directly exported to Excel, we do not recommend this option. It can cause data errors that you may not be able to see. But if you go this route, use a "canned" report for the export. Or if the program has a report writer, use that.

How to export data using Option 2

If you are doing the exporting, do the following in the "Report Writer," "Print," "Save" or similar output menu of the program:

1. Select the type of report you want, or build the report,
2. Set the time period of the report to cover the "test year." Normally, we use the last completed fiscal year as the analysis starting place,
3. Open or run the report and review it to make sure it has what we need. See the tables above. The file will be very long. If it has all the data, you now need to save it.
4. For Windows-based billing programs (most now are), select "Export" or "Save As." For another type, probably use its print menu. If you are saving the file as text (Option 2), continue down this list. If you are saving the file directly to Excel format (Option 3), skip to the Option 3 subsection below.
5. Select "Change File Type," then select "Text." Next set the format option to "Tab Delimited." The Tab Delimited format is very important because it keeps data in multiple cells from being merged, making the file unusable for spreadsheets.

6. After selecting the formatting option, export or save the file with an appropriate name. If by now you are tapped out on exporting, e-mail the file to us and we will inspect it. Otherwise…
7. To see if the export worked well, open Excel, click "File," click "Open" or "Browse" and navigate to the folder where you saved the file. Excel will not see the file until you tell it to look for other file types (not Excel). So,
8. Open the "File Type" dropdown box and select "Text File" or "All File Types." The file you saved will now show up.
9. Click to open the file. Excel will take you through a couple more dialog boxes to convert the file. When the format options come up, select "Tab Delimited." How the exported file looks will be different from the billing program version, and there will be no column headers, but the data should all show in individual cells, not be merged and not be scattered about. If the export went well, add the column headers for us, save the file again and e-mail it to us.
10. If the export did not go well, most likely some cells of data got merged or some data got scattered across the worksheet page. Formatting can probably be cleaned up with these steps. Go back to Step 7 above, but this time, open the text file with Notepad (a Microsoft application that is good at fixing or not creating formatting problems).
    - To find Notepad, click the Windows icon in the bottom tray of our computer screen, click the "All Aps" button and scroll down to Notepad.
    - Open Notepad, and from within Notepad open the text file.
    - Then save that file, now a Notepad text file, with a new name.
    - Repeat Step 7 again, but this time open the Notepad version of the file with Excel. If Notepad fixed the problems, save that file in Excel format and send that file to us. If that still did not fix the errors, you better go back to Option 1 and call your billing software provider.

How to export data using Option 3

Follow the first four steps for Option 2. At Step 5, instead of saving the file as a text document, you will save it as an Excel Workbook. If that spreadsheet does not come out well, use the rest of the steps in Option 2. But if the file does look good, e-mail that to us and you are done.

The Easy all-data work-around

Call me. I can probably talk you through any data issue.