**Kilowatt Process and Automation Plan**

This document outlines the various operational processes for Kilowatt, detailing the steps involved, the responsible party (manual or automated), and key decisions required to finalize the workflow.

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**New Account Process**

A diagram of a new account process

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**Process Description:**

* This process is triggered either by an email with a bill pay attached or by a new account being listed in a management company's mapping file.
* A new account is created in the account table, including the associated management company and manager.
* If the management company from the email does not exist in the system, the bot sends an alert to the Kilowatt team for review.
* If the management company does exist, the bot extracts information from the bill pay and adds the corresponding meters (ESIIDs) to the ESIID table. Each ESIID is linked to the correct account.
* The bot logs into Centerpoint, enters the new ESIIDs, and waits for the usage report.
* Upon receiving the report, the bot normalizes the Excel sheet and builds a pricing profile based on the usage data.
* The usage data is updated in the ESIID table for each respective meter.
* An averaged usage profile is created and stored at the account level.
* The bot sends a confirmation email to Kilowatt with instructions to fill out any other needed information.
* The bot automatically sends a confirmation email to the manager, notifying them that the account has been added.
* The manager's "last contacted" status is updated.

**Roles & Responsibilities:**

* **Manual Steps (Kilowatt Team):**
  + Potentially moving bill pay emails to a designated folder (pending decision).
  + Filling out a form in the app and uploading the bill pay (if not fully automated).
  + Verifying new accounts when prompted by the bot.
  + Reviewing and addressing alerts for non-existent management companies.
* **Automated Steps (The Bot/App):**
  + Monitoring email inbox or a specific folder for new account triggers.
  + Creating new account records in the database.
  + Sending alerts to the Kilowatt team.
  + Parsing bill pay data to create ESIID records.
  + Logging into Centerpoint to retrieve usage data.
  + Normalizing data and creating usage/pricing profiles.
  + Sending confirmation emails to managers.
  + Updating manager contact statuses.

**Process Overview**

When there is a new account that needs to be added, you will either go fill out a form in the app manually, or you’ll forward the email/upload the bill pay and then go into the app to verify the new account once it’s been auto added. Sometimes, the management companies will send a mapping file with all the accounts and managers. If there’s a new account listed there, then that will also trigger this process. Either way, a new account will be created in the account table. We will add a management company and manager that are lookups to the manager and management tables. If the management company that the original email is from doesn’t exist, then the bot will send an email to the kilowatt team asking them to take a look. Then the bot will pull information form the bill pay and add meters to the ESIID table. Each meter/ESIID will have a lookup to the account table and then the management table too based on the account information. Then the bot will log into centerpoint and enter in all the ESIIDs for the new account. The bot will wait for the report and then take that excel sheet and normalize it for import. The bot will build a pricing profile based on the usage data. The usage data will go to the ESIID table for each row. (Decision: Do you want specific usage data at each ESIID row and then make an averaged usage for the account row? I think this makes the most sense). The bot will also take the usage data and put the usage profile at the account level. Then the bot will automatically send out an email letter the manager know we have added the account to the system. The bot will also update the manager’s last contacted status as well.

**Manual Manager Change Process**

A diagram of a change process

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**Process Description:**

* A Kilowatt user is notified of or discovers a single manager change.
* The user finds the relevant account in the application and manually changes the manager.
* This action triggers an automatic pop-up in the app.
* The pop-up asks if the manager has left the company entirely.
  + If "Yes," the app automatically changes a status field for all accounts associated with that manager (e.g., adds a '?' to the name or sets status to "Pending Manager").
  + If "No," the pop-up simply closes.

**Roles & Responsibilities:**

* **Manual Steps (Kilowatt Team):**
  + Identifying the need for a manager change.
  + Finding the account and changing the manager in the app.
  + Answering the question in the pop-up window.
* **Automated Steps (The Bot/App):**
  + Displaying the pop-up when a manager field is changed.
  + If the manager left the company, automatically updating the status for all associated accounts.

**Process Overview**

Kilowatt user will get notified or realize the manager has changed for an account. They will go into the account dashboard and change the manager. Then automatically, there will be a pop up because the manager changed. This will ask if the manager left the company or was changed for any other accounts. If so, then we’ll mark all accounts for that manager as pending manager. If not, then the popup will close.

**Automated Manager Change**

A diagram of a company

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**Process Description:**

* The bot monitors an email inbox for manager mapping files from management companies.
* When a file is received, the bot normalizes it for processing.
* The bot loops through each row in the file.
  + If the account listed does not exist, the information is passed to the "New Account Process."
  + If the account exists, the bot checks if the manager has changed.
  + If the manager has *not* changed, the bot updates the "Last Manager Confirmation Date."
  + If the manager *has* changed, the bot updates the manager for that account and checks if the new manager already exists in the manager table.
    - If the manager is new, they are added to the table, and a welcome email is drafted.
    - If the manager exists, the bot checks if they came from a different management company and drafts a specific email template accordingly.
* After looping through all accounts, the bot sends a summary email to the Kilowatt team, including all drafted emails that are ready for review.
* The Kilowatt team reviews, adjusts, and sends the drafted emails.

**Roles & Responsibilities:**

* **Manual Steps (Kilowatt Team):**
  + Reviewing the drafted manager change notification emails.
  + Editing and sending the emails as needed.
* **Automated Steps (The Bot/App):**
  + Monitoring email for mapping files.
  + Normalizing and parsing the files.
  + Identifying new accounts and triggering the New Account Process.
  + Updating existing accounts with new manager information.
  + Adding new managers to the database.
  + Drafting all necessary email communications based on the context of the change.
  + Sending a summary/task email to the Kilowatt team.

**Process Description**

The bot will monitor the email for when a management company sends an email with all the account mapping. The bot will normalize that excel sheet and then loop through it. For each account listed, we’ll look to see if the account already exists. If it doesn’t then pass all the information to the “New Account” process. If the account does exist, then check to see if the manager has changed. If the manager hasn’t changed, the bot will automatically update the “Last Manager Confirmation Date” to that day. If the manager has changed, then the bot will update the manager for the account, then it will look at the manager table, check to see if we have the manager in the manager table, if we don’t then we’ll add the manager to the table and draft an email alerting them of who Kilowatt is, but if we do have the manager in the table, we’ll check to see if the manager came from another management company, if no then we’ll draft an email saying we see they are the ones taking care of the account now, if the manager did come from another management company, then we’ll draft a specific email alerting them to double check certain things like billing info are updated correctly. After all this the bot will update the manager status in the database with and track this knowledge, then we’ll see if there are more accounts in the table. If so then loop back through. If not, then the bot will send Kilowatt team an email of all the changes and email drafts waiting for them. The kilowatt team will go through all the drafts and make changes or send them depending on what they want to do.

**Daily Pricing Import**

A diagram of a product

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**Process Description:**

* The bot monitors an email inbox for new pricing sheets from providers.
* As each sheet arrives, it is assigned to the correct provider.
* The bot checks if the data is in megawatts; if not, it converts it.
* The bot checks if pricing is in cents; if not, it converts it to dollars.
* The spreadsheet is normalized for a standardized format.
* The clean data is imported into the pricing database table, ensuring up-to-date pricing is always available.

**Roles & Responsibilities:**

* **Manual Steps (Kilowatt Team):**
  + None. This process is fully automated.
* **Automated Steps (The Bot/App):**
  + Monitoring the email inbox.
  + Assigning sheets to providers.
  + Performing necessary data conversions (megawatts, cents).
  + Normalizing the spreadsheet data.
  + Importing the final data into the database.

**Process Overview**

Each day, the bot will monitor the email inbox for pricing imports. As each pricing sheet comes in, we’ll assign the pricing sheet to a provider. We’ll check to see if it’s in megawatts, if it’s not then we’ll convert it. Then make sure it’s in cents, and if it’s not then we’ll make it cents. We’ll normalize the spreadsheet, and then import it into the database. That way we can pull the pricing data based on usage for clients, and it’s always up to date.

**Commission Schedule and Tracking**

A diagram of a company

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This process has two parallel paths for tracking projected versus actual commissions.

* **Path 1: Actual Commissions**
  + Kilowatt receives a monthly activity report from providers showing actual usage and commission paid for every ESIID.
  + The bot normalizes this report.
  + The data is imported into the "true commission schedule" table at the ESIID level.
  + This allows for reporting on actual commissions received by ESIID, account, and management company.
* **Path 2: Projected Commissions**
  + When an email confirmation for a new booked contract is received, the contract data is entered into the system.
  + This data populates the "commission schedule" table with the *projected* monthly commission for each ESIID.
  + This allows for reporting on expected future revenue.
* Both sets of data can be visualized in reports comparing projected vs. actual commission.

**Roles & Responsibilities:**

* **Manual Steps (Kilowatt Team):**
  + Entering contract data from confirmation emails to generate projected commissions (pending clarification).
* **Automated Steps (The Bot/App):**
  + Normalizing and importing the monthly provider activity reports for actual commissions.
  + Linking all commission data to the correct ESIID, account, and management company.
  + Generating reports that visualize actual vs. projected commissions.

**Process Overview**

There are two paths here. The first is that kilowatt will receive an activity report which shows usage and commission for every ESIID for that month. The bot will normalize that report and bring in the commission data at the ESIID level. This is the true commission data. We’ll have a report that shows each account and the true commission data from it. That true commission data will be on it’s own table, but have lookups to the ESIID table. Those ESIIDs are tied to the accounts by lookups. Those accounts are tied to management companies as well. So we can report on all of that. The other path, is when we get an email confirmation for every contract booked. We enter that contract data into the commission schedule form. This will go to the contracts table and the commission schedule table. This way we can track contract data and the projected commissions. We can use this data to see expected commissions. Again, it’s at the esiid level. Then we can report on account or even management company by going up the data.

**ESIID Profile and Usage Retrieval**

A diagram of a software flowchart

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**Process Description:**

* For each account, the bot checks if its contract is set to expire within a predefined timeframe (e.g., 1 year).
* If the contract is not expiring soon, the bot moves to the next account.
* If the contract is expiring, the bot checks if the account is already in the "Needs Provider Choice" table (meaning usage has been retrieved recently).
* If usage has not been recently updated, the bot logs into Centerpoint and enters all ESIIDs for that account.
* The bot retrieves the resulting usage report.
* It organizes the data by ESIID, updates the usage information for each meter to create a new load profile.
* The account is then added to the "Needs Provider Choice" table.

**Roles & Responsibilities:**

* **Manual Steps (Kilowatt Team):**
  + None. This process is fully automated.
* **Automated Steps (The Bot/App):**
  + Iterating through all accounts daily.
  + Checking contract expiration dates.
  + Logging into Centerpoint to pull usage data.
  + Organizing and importing usage data at the ESIID level.
  + Updating the "Needs Provider Choice" table.

**Process Overview**

For each account, the bot will check to see if the contract is expiring in 1 year. This time threshold can be changed through a config file. If the contract isn’t going to expire in a year, then we move to the next contract. If it is going to expire, then the bot will check to see if we’ve gotten the usage recently (if the account is in the ready for pricing table). If we haven’t, then the bot will log into centerpoint and enter all the ESIIDs that belong to that account. The bot will wait for the report to run and then grab the excel sheet. From there, the bot will organize the data by ESIID and update the usage information for each ESIID to create the updated load profile. It will then add that account to the “Ready for Pricing” table.

**Pricing Sheet and Email Creation**

A diagram of a company's pricing

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**Process Description:**

* For each account in the "Needs Provider Choice" table, the bot checks if a pricing email has been sent within the last month. If so, it moves to the next account.
* If an email is needed, the bot assesses the client's size profile.
* **For Small Clients:** The bot pulls current pricing, generates a pricing PDF, and automatically sends it to the manager. It then updates the database with the email sent date.
* **For Large Clients:** The bot checks if the preferred providers for the account have been verified by the Kilowatt team.
  + If providers are not verified, the bot sends an internal email to the Kilowatt team, prompting them to select the providers in the app.
  + If providers are verified, the bot generates a pricing sheet and drafts an email. This drafted email is added to a queue for the Kilowatt team to review.
* The Kilowatt team reviews, adjusts, and sends the drafted email. Once sent, the database is updated to prevent a new email from being sent for another month.

**Roles & Responsibilities:**

* **Manual Steps (Kilowatt Team):**
  + For large clients, going into the app to choose the 5 preferred providers.
  + Reviewing, editing, and sending drafted pricing emails for large clients.
  + Marking an account with a new provider selection to move it out of this process.
* **Automated Steps (The Bot/App):**
  + Checking which accounts need pricing emails.
  + For small clients, fully generating and sending pricing PDFs and emails.
  + For large clients, sending internal alerts to the Kilowatt team if providers aren't selected.
  + For large clients, generating pricing sheets and drafting emails for review.
  + Updating the database after emails are sent.

**Process Overview**

For each account that needs new pricing, the bot will check to see if we need to send a pricing update. If the bot has sent a pricing table within the month, then it will move to the next account in the table. If it hasn’t sent an email, then the bot will look at the client size profile. If the client is small, then the bot will pull the pricing information from the pricing table that is updated daily, create the pricing pdf and send the email to the manager. Then it will move to the next account in the ready for pricing table. If the client isn’t small, then the bot will check to see if the providers have been verified. If the providers haven’t been verified, then the bot will send an email to the Kilowatt team asking them to go to the app and choose the 5 providers for this account. If the providers have been verified, then the bot will pull the usage and pricing information together and create a pricing sheet. All of these pricing sheets will be stored on an excel sheet. That excel sheet is updated with the most recent pricing data and turned into a pdf every time we need to send an email update. Then it will draft an email and add this account to the list of drafted emails that need to be completed and sent. Once the kilowatt team comes through and finishes the email and hits send, we’ll update the database that we don’t need a new email sent until next month. It will check for another account on the needs pricing table and redo this process. The way for an account to be moved from this needs pricing table is for someone from Kilowatt to come in and choose the account and say what the new provider will be. That will start the Contract Creation process.

**Contract Creation Process**

A diagram of a contract creation

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**Process Description:**

* This process begins when a client chooses a new provider. A member of the Kilowatt team goes to the account in the app, selects the new provider and contract terms, and clicks "Draft Contract."
* The app then checks the client's size.
* **For Small Clients:** The bot auto-drafts the contract based on the selected provider and current pricing. It then sends an email with a DocuSign link and updates the account dashboard to "Pending Contract."
* **For Large Clients:** The bot auto-drafts the contract and a corresponding email but does not send it. It places the draft in a queue for the Kilowatt team.
* The Kilowatt team can then review, edit, and send the contract email. The bot then updates the dashboard status.

**Roles & Responsibilities:**

* **Manual Steps (Kilowatt Team):**
  + Initiating the process by selecting the new provider and contract length in the app.
  + For large clients, reviewing, editing, and sending the drafted contract email.
* **Automated Steps (The Bot/App):**
  + For small clients, automatically drafting and sending the contract email with DocuSign.
  + For large clients, automatically drafting the contract and email for manual review.
  + Updating the account dashboard with the correct status (e.g., "Pending Contract").

**Process Overview**

When a client/manager emails saying who their client chooses as a provider, the kilowatt team will go to the account in the app and choose the new provider and contract length then hit draft contract. If it’s a small client, then the bot will auto draft the contract based on the new provider and today’s pricing. It will send the email with a docusign link and update the account dashboard saying pending contract with the email date and contract link attached. If it’s a large client, then the bot will just create the contract and draft the email. Then the kilowatt team can come in and make any edits to the email and verify the contract. After edits, they can hit send email. Then the bot will track this in the dashboard.

**Contract Management**

**A diagram of a work flow

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**Process Description:**

* For each expiring or expired contract, the bot checks if a follow-up email was sent recently (within a configurable timeframe).
* If an email was sent recently, the bot moves to the next account.
* If a follow-up is needed, the bot checks how many follow-ups have already been sent.
* If fewer than the maximum number of follow-ups have been sent (e.g., 3), the bot sends the contract again.
* If the maximum has been reached, the bot applies a "super flag" to the account, indicating it needs immediate manual attention.
* The bot updates the main dashboard with any status changes (e.g., new follow-up sent, super flag added).

**Roles & Responsibilities:**

* **Manual Steps (Kilowatt Team):**
  + Manually calling or contacting accounts that have been "super flagged."
* **Automated Steps (The Bot/App):**
  + Checking the follow-up status for all expiring contracts.
  + Sending automated follow-up emails with pricing links.
  + Applying "super flags" to accounts that are unresponsive.
  + Updating the central dashboard with all status changes.

**Process Overview**

For each expiring or expired contract, the bot will check to see if an email was sent recently. If an email was sent recently ( this time threshold can be decided and changed manually for every client), then the bot will move to the next account. If an update email needs to be sent, then the bot will see how many follow-ups have been sent already. If there haven’t been more then 3, then the bot will generate a new contract with the new pricing and send it out. If we’ve sent multiple updates, then the bot will super flag this account. This means the contract is very soon to expiring. It will update the dashboard with any changes and move to the next account. After a superflag, it will be a manual process to chase the account down and get it signed.

**Signed Contract Update**

A diagram of a contract update

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A diagram of a bill payment

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**Process Description:**

* When a signed contract is received via email, a Kilowatt team member drops the file into the correct account folder.
* This action triggers the bot to read and verify the contract details.
* The bot updates the account status and all relevant decision information from the contract (e.g., new provider, contract end date).
* The bot sends a confirmation email to the client, thanking them.

**Roles & Responsibilities:**

* **Manual Steps (Kilowatt Team):**
  + Receiving the signed contract and moving it to the correct account folder.
* **Automated Steps (The Bot/App):**
  + Detecting the new file in the folder.
  + Reading the contract to extract key data.
  + Updating the account status and information in the database.
  + Emailing the client to confirm receipt of the signed contract.

**Process Overview**

Once a signed contract occurs, the Kilowatt team will take the signed contract and drop it into the contract folder for that account. That will trigger the bot to verify the contract and provider selection. The bot will update the account with all this information. Updating the account row will update the account dashboard.

**Contract Confirms**

A diagram of email

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**Process Description:**

* When a contract confirmation is received via email, a Kilowatt team member will drop that in the necessary email folder with the necessary subject.
* This action triggers the bot to read and verify the confirm details.
* The bot updates the account status, commission data, and all relevant decision information from the confirm (e.g., broker fee, mills, tax exempt).
* The bot sends a confirmation email to Kilowatt confirming the upload.

**Roles & Responsibilities:**

* **Manual Steps (Kilowatt Team):**
  + Receiving the confirm and moving it to the correct folder.
* **Automated Steps (The Bot/App):**
  + Detecting the new email/file.
  + Reading the email to extract key data.
  + Updating the account status and information in the database.
  + Emailing Kilowatt to confirm receipt of the signed contract.