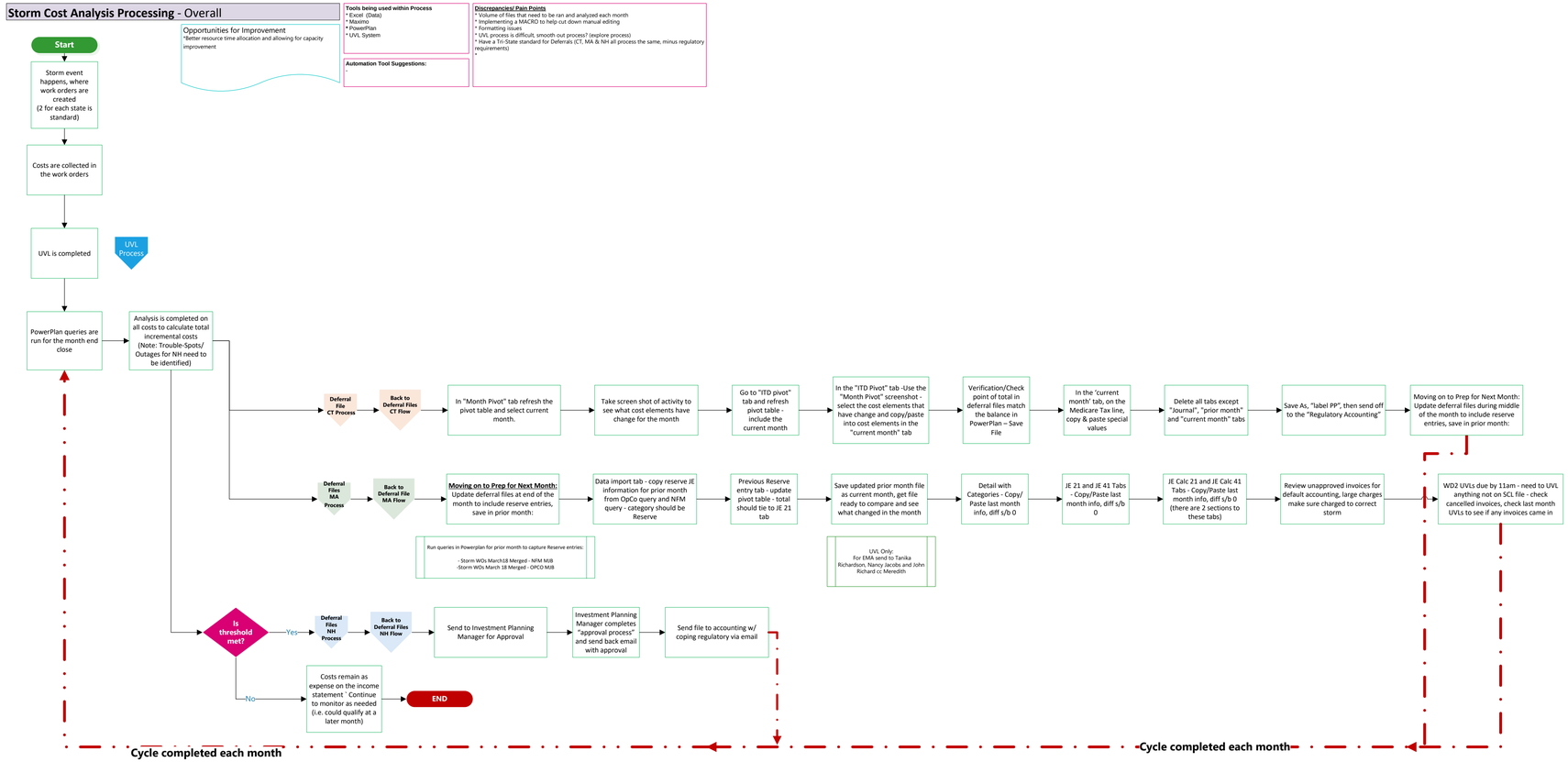

Storm Cost Analysis Processing - Overall
Opportunities for Improvement
*Better resource time allocation and allowing for capacity improvement
Tools being used within Process
* Excel (Data)
* Maximo
* PowerPlan
* UVL System
Automation Tool Suggestions:
-
Discrepancies/ Pain Points
* Volume of files that need to be ran and analyzed each month
* Implementing a MACRO to help cut down manual editing
* Formatting issues
* UVL process is difficult, smooth out process? (explore process)
* Have a Tri-State standard for Deferrals (CT, MA & NH all process the same, minus regulatory requirements)
*
Start
Storm event happens, where work orders are created (2 for each state is standard)
Costs are collected in the work orders
UVL is completed
UVL Process
PowerPlan queries are run for the month end close
Analysis is completed on all costs to calculate total incremental costs (Note: Trouble-Spots/ Outages for NH need to be identified)
Deferral File CT Process
Back to Deferral Files CT Flow
In "Month Pivot" tab refresh the pivot table and select current month.
Take screen shot of activity to see what cost elements have change for the month
Go to "ITD pivot" tab and refresh pivot table - include the current month
In the "ITD Pivot" tab -Use the "Month Pivot" screenshot - select the cost elements that have change and copy/paste into cost elements in the "current month" tab
Verification/Check point of total in deferral files match the balance in PowerPlan – Save File
In the 'current month' tab, on the Medicare Tax line, copy & paste special values
Delete all tabs except "Journal", "prior month" and "current month" tabs
Save As, "label PP", then send off to the "Regulatory Accounting"
Moving on to Prep for Next Month: Update deferral files during middle of the month to include reserve entries, save in prior month:
Deferral Files MA Process
Back to Deferral File MA Flow
Moving on to Prep for Next Month: Update deferral files at end of the month to include reserve entries, save in prior month:
Data import tab - copy reserve JE information for prior month from OpCo query and NFM query - category should be Reserve
Previous Reserve entry tab - update pivot table - total should tie to JE 21 tab
Save updated prior month file as current month, get file ready to compare and see what changed in the month
Detail with Categories - Copy/ Paste last month info, diff s/b 0
JE 21 and JE 41 Tabs - Copy/Paste last month info, diff s/b 0
JE Calc 21 and JE Calc 41 Tabs - Copy/Paste last month info, diff s/b 0 (there are 2 sections to these tabs)
Review unapproved invoices for default accounting, large charges make sure charged to correct storm
WD2 UVLs due by 11am - need to UVL anything not on SCL file - check cancelled invoices, check last month UVLs to see if any invoices came in
Run queries in Powerplan for prior month to capture Reserve entries:
-Storm WOs March18 Merged - NFM MJB
-Storm WOs March 18 Merged - OPCO MJB
UVL Only:
For EMA send to Tanika Richardson, Nancy Jacobs and John Richard cc Meredith
Is threshold met?
Yes
No
Deferral Files NH Process
Back to Deferral Files NH Flow
Send to Investment Planning Manager for Approval
Investment Planning Manager completes "approval process" and send back email with approval
Send file to accounting w/ coping regulatory via email
Costs remain as expense on the income statement ` Continue to monitor as needed (i.e. could qualify at a later month)
END
Cycle completed each month
Cycle completed each month

Storm Cost Analysis Processing – Storm Deferral Process - CT

Tools being used within Process
* Excel (Data)
* Maximo (BOT process)
* PowerPlan

Automation Tool Suggestions:
- PowerBI Reports?
- Power Automate?

Discrepancies/ Pain Points
* Manual process, time consuming and robust
* Source Deferral Files - need to be more consistency on how the files are created and kept (over time) – no formal work instructions or SOP (Standard Operation Procedures)

Opportunities for Improvement
*create macros / powerbi reporting? (CG to follow up)

Deferral Files CT Process

Start

Enter into PowerPlan, navigate the following path "CR -Queries -All Details - Saved Queries - "Major Storm All CCC Monthly Deferral".

Add any new major storm FWO's that occurred in the month, Update to current month -click "Summarize", right click and export to excel, then save in current month folder.

Format file to reflect to Calibri and 8", freeze top row, highlight the AMT column then format the column to "accounting", then sort by amount (Smallest to Largest), removing all zero's.

In the deferral file complete the following:
- Sort on catalog description field-Move 'Catalog description" column to "Description" column -delete "category desc" column
- Sort by journal ID-uncheck zeros -take "line description" column move to "description" column
- Sort by "description 73"(UVL line description) column and move to "description" column -delete "description 73 column"
- Sort by "Mims purchase order" move "mims purchase order" (UVL purchase order) to "purchase order number" -delete "mims purchase order" column
- Delete "GL batch description" column (not needed)

While still in deferral file, complete the following:
- Sort by "Mims Vendor ID" and move "Mims Vendor ID" to "vendor code" -delete "mims vendor code" column
- Sort on "vendor code 257" and move it to "vendor code" column and delete "vendor code 257"
- Sort on "Vendor Name 260" and move "vendor name 260" to "vendor name" and delete "vendor name 260"
- Sort by "employee name" -move to "description" column and delete "employee name" column
- Sort by "journal id" column -filter on everything but zeros -in the description column look for "SPARKSEN-000/13063248/911115656881" to separate: data -text to columns -other "/" -ALL Text -change to column "vendor code" -move invoice number to "invoice number" PO number to "purchase order number"

Highlight column c,d,e and insert column, then open prior storm deferral file and copy/paste column header, C,D,E.

Sort by "source cc" and add level sort by intercompany
Filter on "source cc" and exclude "000" -copy formula from existing storm file for columns C,D,E and paste down

Is there are "N/A's" open "CCC lookup table" (located in 2022 storms)?

Yes

Open current CCC Structure file (file gets emailed first business day of the month by Emily DiGiovanni)

No

Find the new cost center in the "CCC structure" file - and go back to "CCC lookup table" and add a row in the same business area (Coo Engineering)

In "CCC lookup table" fill in column C (Yes if there's an employee) -column D (incremental if blue sky role doesn't support CL&P (entity 11) (look at default labor accounting), Column E -open "CCC structure" file and see if they roll up to COO org.

Filter on "source cc" "000" and intercompany "00" - input operating company as "01-CL&P" and "source org" as "default" and "COO" as "Yes" then back in the current month deferral file -Insert columns in H-I-J

Filter on "source cc" "000" and intercompany "00" - input operating company as "01-CL&P" and copy H-I-J headers from prior deferral file, then sort by "summary point 19, 18, 17 and cost element

copy/paste a line from a prior deferral "incr* column" to the new deferral file and drag down

To determine if "direct or indirect" -filter on "summary point 19" on "Z00: Allocations" and type in "Indirect" and copy down

"Summary point 19" column filter on the other two (labor, non labor) and type in "direct" copy down Put "incremental" in cell I2 and copy down.

Identify the non-incremental which is service company and CL&P base labor and overheads

Filter "Summary point 19", "L00: Labor-General Use" filter "Summary Point 18" to "L01:Labor" and filter "Summary point 17" on "L10: Straight Labor" and filter "inc*" on "No" and then change "incremental" to "Non Incremental" and copy down

Filter "Summary point 19", "Z00: Allocations" filter "and filter "inc*" on "No" and then "incremental" to "Non Incremental" and copy down.

While filtered on "Allocations" filter on "Summary Point 17" "Z09:Allocations-SL" and change "Incr*" column to "No" and change "incremental" to "Non Incremental"

Insert two columns in column "O" label "cost category" and "service type"

Sort on 19, 18,17 cost element -in prior deferral file filter on cost category and service type.

In the new deferral file filter L10: Straight Labor" and in the old deferral file, filter on L10: Straight labor" and copy down

In the old deferral file, filter "service type" by "OT & Premiums" and copy both columns -In new deferral file filter column "Summary point 17" on "L20:Overtime" & "L40: Premium & Special" -paste down

In new file -Filter "summary point 17" on "E:10 Employee Expense" filter "cost element" on "E13" and in old deferral file filter "cost category" on "food & lodging" copy column O & P columns into new file.

In new file -Filter "summary point 17" on "E:10 Employee Expense" filter "cost element" on "E13" and in old deferral file filter "cost category" on "food & lodging" copy column O & P columns into new file.

In new deferral file filter on "summary point 17" on "M10: Materials and Equipment" in the old deferral file filter "cost category" on "5. Materials & Supplies" -filter "service type" by "purchased" "cost element" on "M11"and copy and paste into new file -do the same for "M12" (stores)

"in new file filter column N on Allocation-NPT" & "Allocation-PR' "Allocation GCBL" in old deferral file filter "cost category" on "Labor-indirect", copy and paste in new deferral file.

In old deferral file filter "cost category" on "Material Loaders" in the new file filter column N on "Allocations-LS" & "Allocation-SL" copy "cost element" "ZLO" for "Material Loaders" "lobby stock" and "ZST" for "Material Loaders" "Stores OH"

In the new deferral file -for "cost category" material loaders - stores OH is "Non Incremental" Lobby Stock is Incremental

In new file filter on "summary point 17" "Z13:Allocations Vehicle" "cost element" and in old deferral file filter "cost category" on "Vehicles" and paste into new file. Do the same for remaining cost elements

In new file filter "summary point 17" on "S10:Outside Services" and "ESO:Environmental Outside Services" in old deferral file filter column "cost category" on outside services and copy line and paste into new file.

For UVL's that don't have vendor code, (no dash followed by numbers) we overwrite the vendor code with "ACCRUAL" and copy into "vendor name" column

In the new deferral file check for N/A's in the "cost category" and "service type" columns. LEFT OFF ON THIS STEP: ON COST ELEMENT S68

Check for vendor code and vendor name blanks and fill it using jeffs vendor category lookup file "\\nu.com\data\SharedData\RBGCNTLR\CL&P and YG Business Services Group Work\CL&P Finance\2018\Storms\Vendor Category Lookup.xlsx"

For the "A10:Misc Accounting" in the new deferral file put "2. Outside Services" for column "cost category" and "Other" for "service type" (look at the vendor and determine what it should be)

In Column K filter on "Payroll" and put "ESEMPLOY" in "vendor code" and "ES EMPLOYEES" in "vendor name"
Sort by "summary point 19,18,17" and "time code"

For "L10: Straight Labor" regular pay but "Time Codes" in "EXCESS16IN2.0, RESTTIMETAKEN1_5, RESTWORKINSIDE2.0, SCHEDULECHANGE1.5" will need to remove the incremental pay out
Take time code in the "EXCESS16IN2.0" rows create a few rows on top and bottom of data set -copy/paste the rows

Make copied rows light blue -change to "INCREMENTAL" and zero out hours
In the other set of data rows enter formula (=AS/2) and copy down -in column AT enter formula (=AS/AR) to get hourly rate.

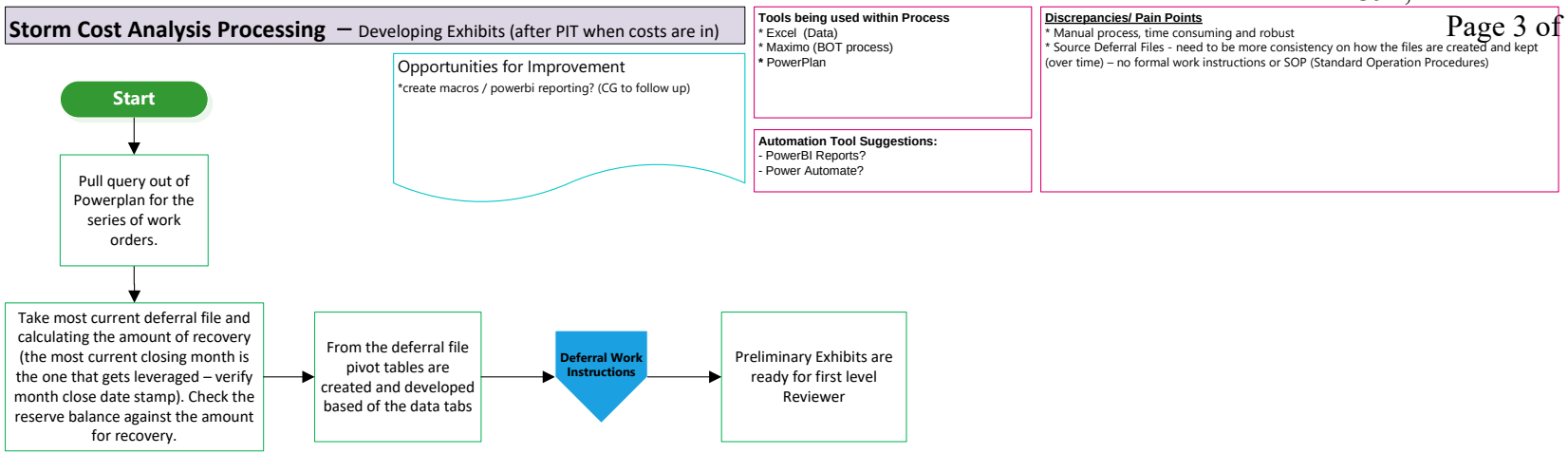
In the light blue section enter formula in column AT (=AS487-AT5265) to get the incremental amount then copy / paste down into blue section in column AS then "Save file."

Is threshold met?

No

Back to Deferral Files CT Flow

Costs remain as expense on the income statement ` Continue to monitor as needed (i.e. could qualify at a later month)


Storm Cost Analysis Processing – Developing Exhibits (after PIT when costs are in)
Opportunities for Improvement
*create macros / powerbi reporting? (CG to follow up)
Tools being used within Process
* Excel (Data)
* Maximo (BOT process)
* PowerPlan
Automation Tool Suggestions:
- PowerBI Reports?
- Power Automate?
Discrepancies/ Pain Points
* Manual process, time consuming and robust
* Source Deferral Files - need to be more consistency on how the files are created and kept (over time) – no formal work instructions or SOP (Standard Operation Procedures)
Start
Pull query out of Powerplan for the series of work orders.
Take most current deferral file and calculating the amount of recovery (the most current closing month is the one that gets leveraged – verify month close date stamp). Check the reserve balance against the amount for recovery.
From the deferral file pivot tables are created and developed based of the data tabs
Deferral Work Instructions
Preliminary Exhibits are ready for first level Reviewer

Deferral Work Instructions

*Deferral file for the specific event can be located in the individual folders in this location: \\nu.com\data\SharedData\NU-NSTAR Budget and Reporting\Budget & Mgmt Rep 1\Storms\Exhibits

1) In the deferral file create pivot tables off of the data tab - refer to 'by Cost Category' tab in the MS21C file. Double check that the pivot table amount ties to the total on the journal tab. These amounts will be the amounts on all the individual schedules in each storm exhibit.

Also open the file 'CT Storm COO Report Nov 2022' and check the total for the event against the total on the Journal tab in the deferral file. If the cost category is not tying to the je tab, try inserting the 'Account Type' field in the filter section of the pivot table, then choose expense. If they don't match - please let me know before proceeding

2) Based on the Cost Category amount, create a new tab for each category in the deferral file:
- Employee Expenses
- Food and Lodging
- Outside Contractors - Vendors
- Vehicles
- Payroll Overheads
- Materials
- Labor

3) Using MS21C deferral file (orange tabs) or MS20L exhibit as a guide, in each new tab create pivot tables using the same selections

4) Employee Expenses - copy and paste values from the pivot table to the schedule. Delete rows with a zero value and highlight rows that zero out.

5) Food and Lodging - identify capitalized amounts, add together and put on the last row. Delete rows with a zero value and highlight rows that zero out.

6) Outside Contractors
- a) Create pivot table by Service type
- b) Identify Vendor Code 'Capital', 'STORMCAP', 'Frontier'
- c) Next pivot is by Vendor Code, excluding the vendor codes identified in b) above.
- d) copy and paste values from c, then modify the service type to be consistent with the vendor category summary table at the top of the tab
- e) create a pivot off of the values just pasted, with vendor code as the first column
- f) copy and paste values from the last pivot table to the schedule. Delete rows with a zero value and highlight rows that zero out.

7) Vehicles - should total the Direct and Indirect amount for Vehicles
- a) Create pivot table by Op-Co, source CCC Desc
- b) copy and paste values from the pivot table you create, then modify the Op-Co values to be consistent with the names in the summary table at the top of the tab
- c) If a line in the Service Company section has 'Default' as the source cc description, double click on it to get more details.
- d) In the 'vendor name' field, if you see ES Contractor Fleet or Internal Fleet please highlight that and note.
- e) copy and paste values into the schedule. Update the line noted above from default to ES Contractor Fleet. Delete rows with a zero value and highlight rows that zero out.

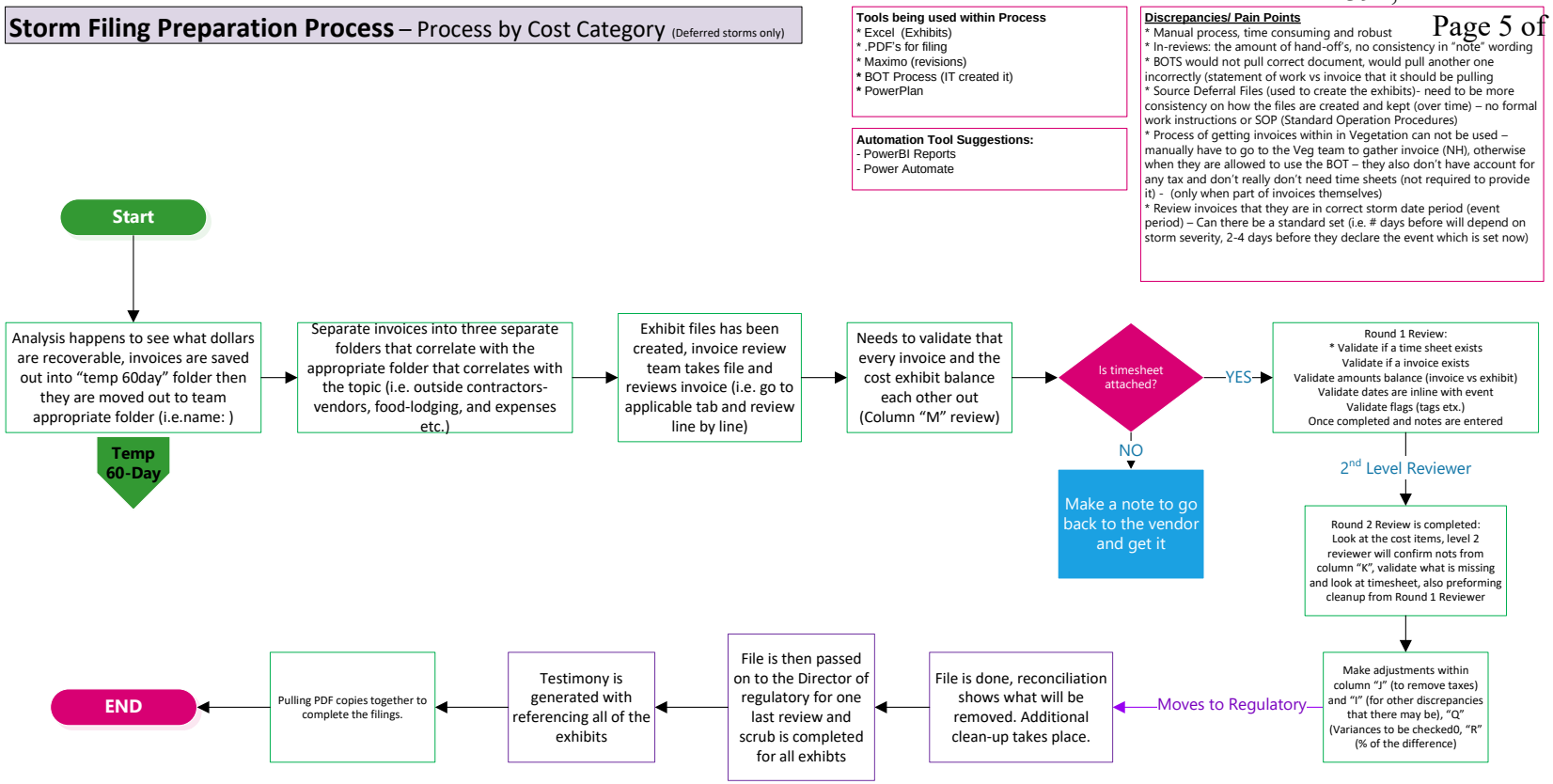
8) Payroll Overheads - do not need to input anything on this tab

9) Materials - should total the Direct and Indirect amount for Materials
- a) Create pivot table by Service type, exclude vendor code 'Capital', 'STORMCAP', 'XFRMRCAP'
- b) Identify Vendor Code 'Capital', 'STORMCAP', 'XFRMRCAP'
- c) Create pivot table for service type = Stores and exclude the vendor codes from b above for capitalization. Should total the Stores amount in table a
- d) Create pivot table for service type = Purchased. Should total the Purchased amount in table a
- e) Create pivot table for all service types, but just the vendor codes identified in b above to get just the capital lines
- f) Copy and paste values from steps c-e to the schedule. Delete rows with a zero value and highlight rows that zero out.
- g) Add a row for the lobby stock amount
- h) The total schedule should equal the total amount for direct and indirect material
- i) Update formulas in the Summary table at the top

10) Labor - should total the Direct amount
- a) Create pivot table by Op-Co, employee title.
- b) identify any lines for Call Center and capitalization
- c) Copy and paste values from step b, replace Op-Cp values with values in the Summary, and update the descriptions for the call center and capitalization rows
- d) Copy and paste into the schedule
- e) Update formulas in the Summary table at the top

11) Summary - double check that the totals for each category are correct
- a) On the line 'Payroll-related Overheads - type in the amount for Labor Indirects from Step 2

12) Update headers on each tab


Storm Filing Preparation Process – Process by Cost Category (Deferred storms only)
Tools being used within Process
* Excel (Exhibits)
* .PDF's for filing
* Maximo (revisions)
* BOT Process (IT created it)
* PowerPlan
Automation Tool Suggestions:
- PowerBI Reports
- Power Automate
Discrepancies/ Pain Points
* Manual process, time consuming and robust
* In-reviews: the amount of hand-off's, no consistency in "note" wording
* BOTS would not pull correct document, would pull another one incorrectly (statement of work vs invoice that it should be pulling
* Source Deferral Files (used to create the exhibits)- need to be more consistency on how the files are created and kept (over time) – no formal work instructions or SOP (Standard Operation Procedures)
* Process of getting invoices within in Vegetation can not be used – manually have to go to the Veg team to gather invoice (NH), otherwise when they are allowed to use the BOT – they also don't have account for any tax and don't really don't need time sheets (not required to provide it) - (only when part of invoices themselves)
* Review invoices that they are in correct storm date period (event period) – Can there be a standard set (i.e. # days before will depend on storm severity, 2-4 days before they declare the event which is set now)
Start
Analysis happens to see what dollars are recoverable, invoices are saved out into "temp 60day" folder then they are moved out to team appropriate folder (i.e.name:)
Temp 60-Day
Separate invoices into three separate folders that correlate with the appropriate folder that correlates with the topic (i.e. outside contractors-vendors, food-lodging, and expenses etc.)
Exhibit files has been created, invoice review team takes file and reviews invoice (i.e. go to applicable tab and review line by line)
Needs to validate that every invoice and the cost exhibit balance each other out (Column "M" review)
Is timesheet attached?
YES
NO
Make a note to go back to the vendor and get it
Round 1 Review:
* Validate if a time sheet exists
Validate if a invoice exists
Validate amounts balance (invoice vs exhibit)
Validate dates are inline with event
Validate flags (tags etx.)
Once completed and notes are entered
2nd Level Reviewer
Round 2 Review is completed: Look at the cost items, level 2 reviewer will confirm nots from column "K", validate what is missing and look at timesheet, also preforming cleanup from Round 1 Reviewer
Make adjustments within column "J" (to remove taxes) and "I" (for other discrepancies that there may be), "Q" (Variances to be checked0, "R" (% of the difference)
Moves to Regulatory
File is done, reconciliation shows what will be removed. Additional clean-up takes place.
File is then passed on to the Director of regulatory for one last review and scrub is completed for all exhibts
Testimony is generated with referencing all of the exhibits
Pulling PDF copies together to complete the filings.
END

Temp 60-Day

Distribution Rates – Robotic Process Automation v. September 2022

Instructions for Requesting the BOT:

Robotic Process Automation (aka BOT) is used to retrieve a copy of the invoice and or all attachments uploaded into Maximo for payment processing. The Bot should be used when such invoices are needed as documentation to be provided either for reviewing or filing purposes.

The Requester must create a folder within the Company's Temp-60 Days path: **\\nu.com\Data\SharedData\Temp60Day** for the Bot to have a location to save out all invoices and or attachments to be pulled from Maximo.

The requester must also have access to the following path to submit a report for the Bot to process and pull invoices:
\\nu.com\data\SharedData\Robotic Process Automation-Production\Non-Customer Group\PostStormReporting

Within the path for the Bot is a template for the requester to create and complete, with data, for the Bot.

Step 1: To create and complete the Bot Invoice Report

- The Bot Invoice Excel Template (Bot Invoice Report) consists of two worksheet within, named as follow: **(Please do not rename these worksheet)**
  - Tab 1:
    - Cell A1, input the link to the Temp 60-Day
    - Cell B1, input the State abbreviation
  - Sheet 1: (**Please note that this worksheet cannot contain more than 400 Line Entries i.e., rows of data)**
    - Column D (vendor_name) through Column H (amount), data to be provided by requester.
    - These data should be provided from a Query Report from PowerPlan where the following Data is needed:
      - Column D vendor_name
      - Column E vendor_invoice_number
      - Column F invoice_number
      - Column G month_number
      - Column H amount
    - Then the data should be sort by Column D vendor_name then Column F invoice_number
- The Bot Invoice Report should be saved and named accordingly.

Step 2: To save the Bot Invoice Report and Check

- Once the Bot Invoice Report is ready, it should be placed to the following path **N:\Robotic Process Automation - Production\Non-Customer Group\Post Storm Reporting** within the folder of the current year and then Input Files.

- Please note that the Bot runs every **Monday through Friday from 7 am to 7pm**.

- The Bot also will run the reports in order of how it is saved out in the path.

- Once the Bot Invoice Report is placed in the path, the next day, the Requestor should check the Temp 60-Day path, the one created for the Bot to save out the invoices, to ensure that the Bot has started the process and saving out the invoices on the report.

- If there are invoices being saved out to the Temp 60-Days path, then the Bot is working and will go through your report line by line and save out the invoices and any attachments uploaded to that line item in Maximo. Depending on how much data is within the report and what is attached in Maximo to each line item, it could take the Bot anywhere from a day or a few days to complete.

- If there are NO invoices being saved out to the Temp 60-Days path, and there is only the report(s) that you placed in there, then the Bot may need to be asked to be activated. An e-mail should be sent to GRP RPA_Support (**grprpa_support@eversource.com**).
  - E-mail Subject Line should be: Bot Activation Needed and the e-mail content should advise that on *date* the following *name of report* was placed for the Bot to save out invoices in Maximo. Please activate the Bot to start the process.

- Once the Bot completes the report, it will save out it's version of the excel, providing information in Column I (approver) and possibly providing information in Column C (completion_status).
  - Column C (completion_status) – the Bot will note "No invoice attachments", which means that nothing was uploaded in Maximo and therefore nothing was pulled and saved over.

Storm Invoice Processing – Vegetation Costs by Category

(Deferred storms only)

Opportunities for Improvement

*Creating a "team" structure for deployments, in rotational type of environment
*collaborate with partnering teams to change process
*document SOP's (new)
*Establish KPI's (after process has been corrected and implemented, along with documented)
*Utilize tools such as RACI, Process Flows, Work Instructions w/ versioning
*communication among teams

Tools being used within Process

* Excel (Exhibits)
* .PDF's for filing
* Maximo (revisions)
* PowerPlan
* Work Mgmt System (TWMS)

Automation Tool Suggestions:

- PowerBI Reports?
- Power Automate

Discrepancies/ Pain Points

* Manual process, time consuming and robust
* In-reviews: the amount of hand-off's, no consistency in "note" wording
* BOTS would not pull correct document, would pull another one incorrectly (statement of work vs invoice that it should be pulling
* Source Deferral Files (used to create the exhibits)- need to be more consistency on how the files are created and kept (over time) – no formal work instructions or SOP (Standard Operation Procedures)
* Process of getting invoices within in Vegetation can not be used – manually have to go to the Veg team to gather invoice (NH), otherwise when they are allowed to use the BOT – they also don't have account for any tax and don't really don't need time sheets (not required to provide it) - (only when part of invoices themselves)
* Review invoices that they are in correct storm date period (event period) – Can there be a standard set (i.e. # days before will depend on storm severity, 2-4 days before they declare the event which is set now)
* Pain Point: They are not using a reference number

