

BC Petrinex Inclusion Change Leader Meeting #1

26 September 2017

Agenda



- I. Introductions
- II. Project Overview
- III. Key Changes Introduced with PBCIP
- IV. Change Leader Roles & Steps to Readiness
- V. BC Government Stakeholder Updates
- VI. Next Steps

Petrinex Attendees



Ross Weaver: Manager, Petrinex Industry Team

Steve Freeman: Industry Coordinator

Christian Traue: Project Manager – Fujitsu Consulting

Sheryl Moody: Communications/Training Coordinator

Maria Matijevic: Service Desk Unit Manager

BC Stakeholder Attendees



Andrew Ritonja: Executive Director

Ministry of Finance – Mineral, Oil & Gas Revenue Branch

Geoff Turner: Director, Pricing, Tenure & Royalty Policy

Ministry of Energy, Mines & Petroleum Resources

Mike Janzen: Manager, Asset Integrity & Retirement

BC Oil & Gas Commission

Dave Rogers: Petrinex-BC Project Director

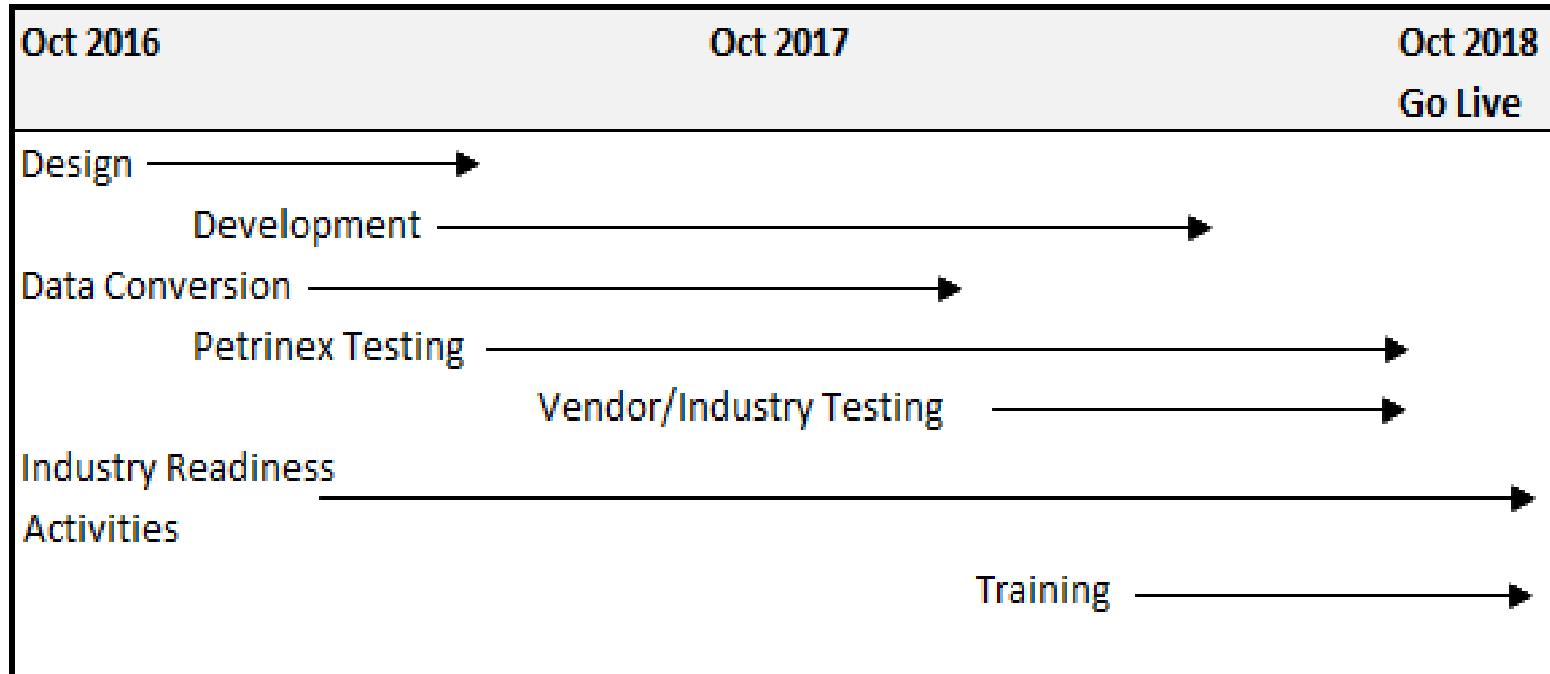
Ministry of Finance

Agenda



II. Project Overview

High Level Project Scope & Timing



High Level Project Scope & Timing



- Anticipated Petrinex Go-Live for BC is October 2018.
 - Companies will have received Petrinex login information (i.e. passwords) for Primary/Backup USAs. Companies can begin creating users and security roles.
 - Well & facility infrastructure information will also begin reporting in October 2018 (includes converted data as well as the creation of new infrastructure in Petrinex).
 - All other reporting (volumetric, royalty-related, etc.) will begin reporting in November 2018 (for October production month).

High Level Project Scope & Timing



- Design phase completed in May 2017.
- Development is underway and will continue until summer 2018.
- Data conversion has begun and will be ongoing throughout the project.
 - Data is refreshed at certain intervals to keep the testing environment as current as possible.
 - Data will be refreshed just before Go-Live so that Petrinex has the most current information for users.
 - More details on how Industry will be involved in the next section.
- SME testing has begun and will continue right up until Go-Live.
 - Current focus is on Infrastructure (Business Associate, Well & Facility Infrastructure).

Industry Readiness Activities



- Industry company SME identification and recruitment for design workshops
- BC “Official” information release
- Stakeholder and Change Leader identification and contact info for “Scorecard”
- BC Business Change Committee set-up and meetings
- Joint or independent non-producer meetings (e.g. vendors, pipelines, waste plants)
- New Company processes
- Petrinex website changes (including BC “Initiatives Page”)
- **Vendor specification release**
- **Industry Readiness Handbook**
- **Change Leader Meetings**
- **Acceptance Testing (testing has begun on Infrastructure functionality)**
- **Industry infrastructure data collection/prep activities (GS & MS Facilities)**
- **Vendor Interoperability and Industry Interoperability Testing**
- Training (Job Aids, training modules, videos)
- SMOR (Small and Medium Operator Readiness) activities
- Industry Team annual billing
- Updates to CAPP Accounting Committee, EPAC, Fiscal and BC EPGs, CAPPA etc.
- Training module content and release
- Scorecard tracking and follow-up (emails, call-out program)

PBCIP Initiatives Page



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Petrinex British Columbia Inclusion Project

Documents:

[Copy of BC Dec 20 News Release announcing BC's adoption of Petrinex](#)

[Copy of Jan 3, 2017 letter sent to BC operators of oil and/or gas facilities](#)

[Petrinex BC Inclusion Project Industry Readiness Handbook version 1.0](#)

Job Aids:

Change Leader Meeting Presentations:

The Initiatives Page is a place where future BC-Petrinex users can access readiness resources as they become available.

- PBCIP Industry Readiness Handbook
 - Intended to be the focal point for Industry preparation.
 - Evolving document updated with changes occurring throughout the project.
 - Everyone should review sections 1-3 and any appendices deemed appropriate.
- Tips & Job Aids
 - Job Aids are created to provide examples, templates, shortcuts, and other information that make using certain functions within Petrinex easier and more efficient.
 - Tips are communications intended to provide up-to-the-minute information and updates dealing with a variety of Petrinex issues.
- Change Leader Meeting Presentations
- Other relevant PBCIP documentation

- All Petrinex functionality has web-based training modules available on the Petrinex website.
 - Existing modules will be updated with BC content.
 - New modules will be created for new functionality developed exclusively for BC.
- Dates of availability will be communicated once they have been determined.

Interoperability Testing



- Industry Interoperability (IIO) Testing will provide companies a chance to submit batch files to the Petrinex Industry Team.
 - Files generated by PA Software systems (XML or CSV).
 - Manually created spreadsheets for uploading data to Petrinex (CSV).
- The Industry Team will run the submitted batch files in the test environment and provide feedback to the individual companies.
- Industry will not be engaged in testing online functionality.
- Companies will assess how much testing is appropriate.
 - Not every company will choose to engage in IIO testing.
 - All upload processes should be covered through various participants' test submissions.

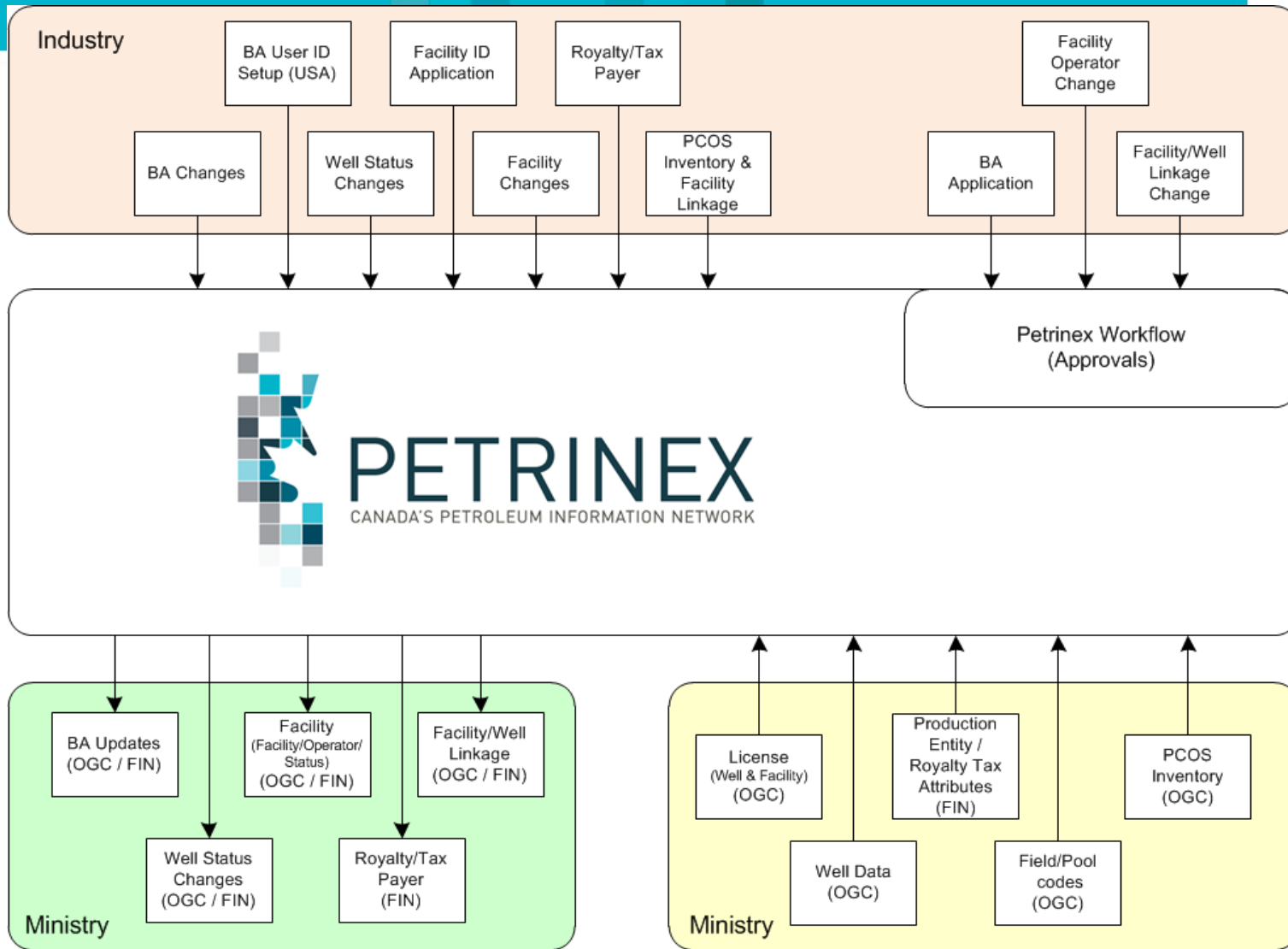
Interoperability Testing



- PA Software Vendors will begin testing prior to Industry to ensure that their systems are ready before handing over to clients.
- Can't begin interoperability testing until functionality has been released to test environment.
 - Starting in December 2017 with additions continuing until summer 2018.
 - Functionality must undergo some internal testing before accepting external test files.
- Change Leaders will be notified when the dates of the testing window are known.
- Review Appendix 12 of the Handbook for testing instructions and procedures.

III. Key Changes Introduced with PBCIP

Petrinex Infrastructure Overview



Infrastructure Data Conversion



- Commission related Infrastructure consists of:
 - Business Associate (BA) Information
 - Fields/Formations/Pools
 - Licence (Permit) Information (Well & Facility)
 - Well Information
 - Facility Information (OGC licensed)
 - PCOS Inventory (Gathering Lines)
- Finance related Infrastructure consists of:
 - Royalty Tax Attributes
 - Royalty Tax Payer Information
 - PCOS Inventory (All categories other than Gathering Lines)
- Industry will also be involved in some conversion
 - Verify and provide any missing Royalty Tax Payer Information
 - Petrinex will be working with Industry to identify and create gathering systems & mid-stream meter stations (currently unlicensed by OGC).
 - Verify/amend PCOS Inventory items converted to Petrinex and add AB Gathering Lines.
 - Providing the Petrinex Primary/Backup USA.

Business Associate: BC Forms Replaced



- OGC New Company Form
- OGC Company Change Form

Business Associate: Reporting Processes



- The MEM ID assigned by MOF will be converted as the BA ID in Petrinex. Companies that do not currently have a MEM ID will be assigned one.
- Business Associate information will be maintained on Petrinex.
- New applicants will apply for a BA ID by filling out the online application form found on the Petrinex website.
- The Commission will approve or reject new applications or changes to existing BA information through Petrinex.
- The Commission will set Amalgamation Dates for BA IDs in Petrinex. However, communication with the Commission regarding required amalgamation details is still conducted outside of Petrinex.
- Petrinex will require Primary USA and Backup USA information so that passwords can be communicated prior to Go-Live. Details will be communicated as soon as they are available.

Well/Facility Infrastructure: BC Forms Replaced



- BC-11 Notice of Suspension/Commencement of Operations
- Kermit processes to apply for facilities and NOI linkage changes, formerly requested on forms:
 - BC-20 Application for Production Facility
 - BC-21 Application for a Well or Facility to Facility Linkage

Well/Facility Infrastructure: Processes



- The Commission will adopt Petrinex processes:
 - Self Serve Model
 - Petrinex method of Well Statuses (Fluid/Mode/Status/Type)
 - Ex: GAS ACTIVE PROD N/A
 - Applicable Facility Types/Subtypes
 - Petrinex formats for Well/Facility IDs:
 - BC WI 200A001E001J0100
 - BC BT 1234567
- Petrinex will handle both DLS & NTS Locations

Well/Facility Infrastructure: Processes



- Industry will perform the following processes in Petrinex:
 - Well Status Changes
 - Includes commingling well events
 - Approval process remains outside of Petrinex
 - Facility Creation & Changes
 - Well to Facility Link Creation & Changes
 - Petrinex Facility Operator Changes
- Linking wells to another operator's facility and Petrinex facility operator changes require concurrence from the new operator.

Well/Well Event Information



- Even though BC-11 is being replaced, there will still be a process for the Commission to collect some of the same information, including Gross Completion Interval and Field/Pool.
- Necessary for the Commission to create UWIs and load to Petrinex in a timely manner.
- Depth information will also be collected through the new process and will be used by Finance to determine eligibility for marginal & ultra-marginal programs.
- More information on the new process will be communicated when it is available.

Well/Well Event Information



- Commission will proactively create UWIs when new completion reports are received.
 - Commission will provide GCI & Field/Pool information. This is a change from AB where Industry enters this information when putting the well on production.
- BC UWIs will not have all of the same data elements as AB. Most notably, BC will not have:
 - Perf & Packer information
 - Drill Stem Test data
 - Directional Drilling data
- There will be some new data elements for BC. Most notably:
 - Depths (TVD, TVDCP, MDTP, MDCP, TCD, TMD, IDD)
 - Re-entry & Completion dates
 - Commingling Flag, Type, Effective Date, Terminated Date
- OGC will set the Confidential Type flag and it will apply to all Well Events and the Facility status.
- VGWL (Volumetric Gas Well Liquid) is not required.

Well Event Commingling



- **Area-Based Commingling & Multi-Lateral:**
 - Industry will attach/commingle well events to a single reporting event.
 - The reporting well event is used for all volumetric reporting.
- **Single Well Commingling:**
 - The well will have a commingled status, however Industry will not attach/commingle well events.
 - Industry will have to report well event volumetrics according to the ratios provided by the Commission.

- Petrinex will generate unique Facility IDs which will be linked to the OGC Fac ID (through Facility Licence field).
 - Currently OGC Fac IDs may allow for multiple facilities to be created under the same ID.
 - Petrinex requires a unique ID for each facility. Can't have 2 facilities of the same type with the same ID (ex: BC BT0012345 assigned to 2 facilities).
 - The actual OGC Facility Permit number will be an attribute of the Facility Licence (OGC Fac ID).
 - All current OGC Fac IDs will be converted to Petrinex.
- Existing well to facility links will be converted to Petrinex based on the current S1/S2 reporting sent to Finance.

Mixed Oil/Gas Measurement Facilities



- OGC has created an Oil/Gas Mixed-Measurement Battery Subtype as a placeholder.
 - OGC may convert some existing batteries into this subtype.
 - Subtype is not available to Industry. Only OGC can create this type of facility.
 - OGC is working with Industry operators to split these batteries prior to Go-Live.
 - OGC is hoping that if operators can be ready, there may be no need for this subtype by Go-Live.

Mixed Measured/Prorated Facilities



- OGC will not have separate subtypes for Combined Measured/Prorated facilities.
 - Will follow AB/SK method of having only measured or prorated subtypes.
 - Existing BTs will be converted to either a measured or prorated subtype based on the S1/S2 submissions.
 - In cases where existing facilities have both types of wells, they will be defaulted to a prorated subtype.

Super Batteries!!



- Existing PG facilities comprised of multiple gas wells (sometimes hundreds) delivering to multiple facilities that have been listed as one Facility ID for reporting purposes.
 - New BT measured & prorated subtypes will be created in Petrinex for these facilities.
 - Existing facilities will be converted to Petrinex using these new subtypes.
 - Only the Commission will be able to create new facilities of these subtypes going forward in Petrinex.

Facility Attributes: Primary Gas Plant Flag

- BT Facilities will have a new field to enter a Primary Gas Plant facility ID.
- Necessary for situations where the primary plant is not associated with a particular process, but is needed for the weighted average royalty rate used in calculating the PCOS deduction:
 - Field condensate that goes through the Pipeline Splits/Oil Valuation process.
 - Allocations of C5 processed out at a gathering system as opposed to the plant.
 - Field Sales gas allocations (PURDISP).

Facility Attributes: Credit on Fuel Flag



- BT Facilities will utilize the Credit on Fuel and associated Royalty Trigger Facility field that currently exists in AB today.
 - Has application for Allocations (to be discussed later).
 - Check flag if BT receives return fuel that is eligible for a credit.
 - If flag is checked, must also provide a Gas Plant ID for credit purposes in the Royalty Trigger Facility field.
 - Gas Plant ID can be different than the plant identified in the Primary Gas Plant field.

Identification of Gathering Systems



- Will need to know all of Industry's Gathering Systems for conversion.
 - Gathering systems are currently not used in BC reporting.
 - Enbridge currently cascades to Receipt Points (RP) in their allocations.
 - Petrinex process is to cascade back to an actual Facility ID.
 - Enbridge RPs will become Gathering Systems.
 - Must also identify all gathering systems for non-Enbridge allocations.
 - Must coordinate with Industry to create all gathering systems in BC and assign operatorship.

Identification of Mid-Stream Meter Stations



- Gas moving onto and off of a pipeline is reported in Petrinex using a Meter Station ID (MS).
 - Residue gas moving from a gas plant or dry gas source to a downstream pipeline.
 - Gas returned to the field for Industry use (ex: return fuel).
- Meter stations are not currently licensed and can be set up by Industry in Petrinex.
- Working with mid-streamers to identify existing meter stations for conversion.

Royalty Tax Attributes



- Royalty tax information is maintained by Finance in their own systems.
- Some information will be made available in Petrinex for query purposes.
- Royalty Tax Attributes will be provided for:
 - Wells
 - Units
 - Net Profit Royalty Projects
 - Long Term Royalty Agreements
 - Revenue Sharing Agreements
- Each type has its own set of informational attributes.

Royalty Tax Payer: BC Forms Replaced



- BC-12 Royalty Interest Statement

Royalty Tax Payer Overview



- Royalty tax payer information is required for each stream (well, unit) and applicable product (oil/gas). The information collected for each entity includes:
 - Tract Number & Tract Factor (for units only) *New for BC*
 - Royalty Tax Payer BA ID
 - Ownership Type (Crown, Freehold, etc.)
 - RTP Percent (to 7 decimal places)
- BC will NOT require the Working Interest Owner column that is currently in SK.

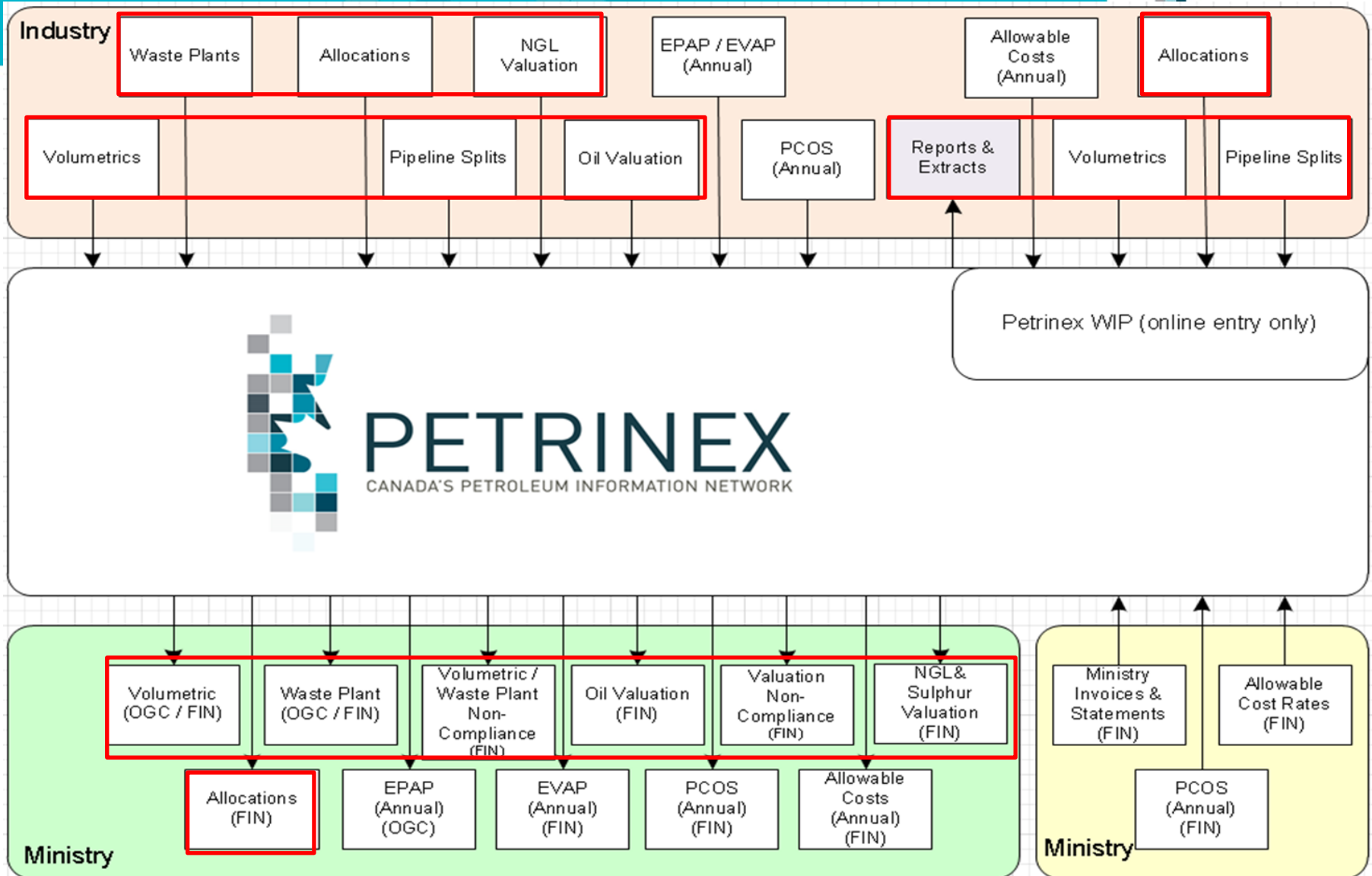
Royalty Tax Payer Overview



- Industry will create and maintain RTP data on Petrinex.
- Operator of stream in Petrinex is responsible for submitting/updating RTP information.
 - For new wells, the Licensee is considered to be the stream operator.
- Operatorship changes are done same way as facility operator changes.
- The sum of all RTP Type percentages in the RTP screen must match those provided by Finance in the Royalty Tax Attributes screen.
 - Ex: If CROWN Type = 60% for the stream in Royalty Tax Attributes, then the sum total of all CROWN percentages for all Royalty Tax Payers must total 60% of the stream in Royalty Tax Payer.

- RTP information is only collected for products of Oil and Gas and is used for the following purposes:
 - Oil: To assess oil royalties to the appropriate royalty tax payers based on the reported oil valuation figures.
 - Gas: To assess field condensate royalties to the appropriate royalty tax payers based on the reported oil valuation figures.
 - Gas: To apply the Producer Cost of Service (PCOS) Deduction against the appropriate royalty tax payers for their share of production volumes.

Monthly Reporting Overview



Volumetrics & Waste Plants: BC Forms Replaced



- BC-S1 Monthly Production Statement
- BC-S2 Monthly Disposition Statement
- BC-S18 Monthly Injection / Disposal Statement
- BC-19 Monthly Natural Gas Plant and Processing Statement (1st half of form)
- BC-35 Crude Oil & Condensate Monthly Pipeline Statement
- BC-36 Monthly Treating Plant Statement
- Form 15A Monthly Gas Injection Operations Report
- Form 20 Monthly Crude Oil and Condensates/Pentanes Plus Purchasers' Statement
 - *Discontinued in 2015*

Volumetrics & Waste Plants: Petrinex Reporting Process



- BC will utilize the same volumetric & waste plant reporting screens and processes as are currently used in AB/SK.
 - All active wells, facilities, and waste plants must report
 - Auto-population (DISP, INVOP)
 - Facility Balancing for all products
 - Full-form amendments
 - Non-compliance Reporting
 - Cross Border Balancing
 - Security
- The Volumetric/Waste reporting deadline is intended to be the same as Alberta & Saskatchewan (approx. 18th - 21st of month).

Volumetrics & Waste Plants: Reporting Changes



- Max Well-Head Pressure and Avg. Well-Head Temp. will be captured at Injection Facilities (IF).
- All wells must be linked to a BT.
- The following data will no longer be collected:
 - BC-S1: test values, only one monthly PROD volume, only one monthly PROD or INJ hours per well.
 - BC-S2: receipt & delivery types are replaced by product, activity, from/to combinations.
- Waste Oil will be reported as part of oil production.

Volumetrics & Waste Plants: Reporting Changes



- Field condensate that is trucked to a terminal/pipeline will be reported as a disposition of OIL and go through the Pipeline Splits/Oil Valuation process for royalty purposes.
 - The PROD can still be reported as product COND.
- Load oil can be reported at the well level in the same manner that is reported in AB/SK today.
- There is no reporting of load water. All recovered water from a well will be reported as production.

OGC Proposal for New Volumetric Warnings



- Past errors have been noted in the reporting of monthly water, oil or condensate volumes associated with oil and gas well production.
- Though well performance can change significantly over time, this is generally within a certain deviation range, following initial well clean-up flow-back.
- OGC has proposed that adding warning messages that compare volumetric data to previous month values may improve data quality.
- Most of the proposed performance rules are based on:
 - Calculating daily rates for oil, condensate, and water
 - Starting monthly comparisons in the 6th month of production to account for initial steep declines
 - Ignoring values for small daily rates as fluctuations in low production are not unusual month to month.

- LNG Facility will become a new Petrinex Facility Type (BC LN)
- LNG will be a new Product code.
 - LNG can DISP to new MV misc code (see below), rail car and tank TMs.
- Refrigerant will be reported as C2-MX or C3-MX, as appropriate.
 - Use of ammonia, amine, and nitrogen does not require reporting.
- Adding one new Misc code for From/To.
 - BC MV (Marine Vessel)
- No new activities needed.
 - Incinerate is FLARE
- Report volume and energy.

Waste Plant Reporting Process



- Waste Plants have a different screen for reporting volumetric activity.
- Waste Plant reporting embraces the same basic principles of volumetric reporting as other facilities, but also captures some different types of data:
 - Waste Codes that determine the nature of the waste.
 - Dangerous/Non-Dangerous classification
 - Ability to break out volumes of Oil, Solids, Water on one receipt.
 - Receipts from and dispositions to waste locations.

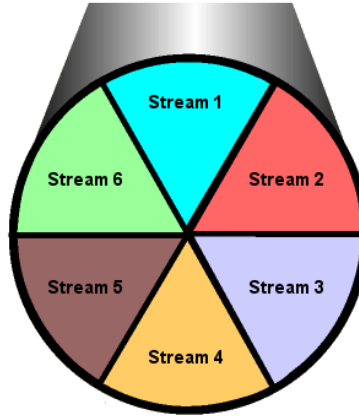
Allocations: BC Forms Replaced



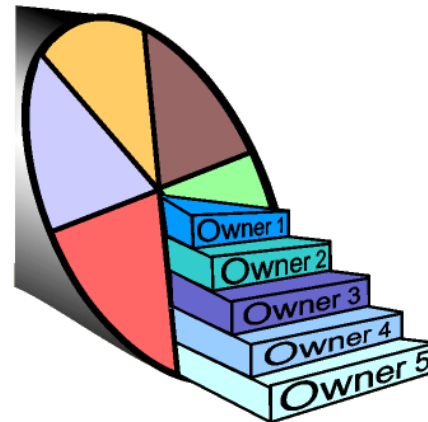
- BC-08 Marketable Gas & By-product Allocation Report
 - Marketable Gas & NGL/Sulphur Volumes handled by existing allocation functionality (PROC)
 - NGL/Sulphur valuation handled by new NGL/Sulphur valuation functionality.
 - Field condensate handled by Volumetrics/RTP functionality.
 - Field condensate valuation is handled by Pipeline Splits/Oil Valuation functionality.
- BC-19 Monthly Natural Gas Plant and Processing Statement (2nd half of form)
 - Raw/Marketable Gas & NGL/Sulphur Volumes handled by existing allocation functionality.

Allocations Concept

- **Stream Allocation back to well level.**



- **Owner Allocation at well level.**



Allocations Reporting is Similar to Alberta



- All Royalty Triggers must be reported
- All cascaded allocations must be reported
 - An operator may not know the streams associated with volumes received from non-operated facilities.
 - In this case, the operator cascades the non-operated volumes back to the delivering facilities.
 - Delivering facility operators are then responsible for the allocation. They must submit stream/owner allocations or cascade further.
- Full-form amendments
- Ensure Complete process
- Security
- Monthly extract of submitted data sent to Finance
- Can facilitate partner to partner reporting.

Allocations: Royalty Triggers



Raw Gas allocation (Cost of Service)

- BC facility disposition of gas to a Gas Plant (or dry gas source)
 - BC BT, GS, etc. DISP GAS BCGPxxxxxxx

Marketable Gas allocation (for royalty)

- Gas Plant (or dry gas source) disposition of gas to a meter station or a purchase disposition by the plant to an upstream facility.
 - BCGPxxxxxxx DISP GAS BCMSxxxxxxx
 - BCGPXXXXX PURDISP GAS BC BT

Return Fuel (for cost of service reduction/royalty volume credit)

- BC facility receiving gas from a GP or MS for use as fuel
 - BC BT, GS, etc REC GAS BC GP or MS
 - Facility receiving gas for purposes other than fuel – use BCNF99999

Allocations: Royalty Triggers



In-Field Gas Sales (for royalty)

- BC facility purchase disposition to another BC facility upstream of the meter station.
 - BC BTxxxxxxx PURDISP GAS BC BT, GS, etc.

NGL/Sulphur (for royalty)

- Processed volumes at the GP.
 - PROC of NGL/Sulphur allocated back to RTP level.

Allocations: Royalty Triggers



Deep Cut Gas Plants (for royalty)

- Gas Plant disposition of gas to a deep cut Gas Plant for further processing
- Typical Scenario:
 - The royalty tax payer pays gas royalties on the outlet of the deep cut plant (2nd plant) going to the MS.
 - Trigger already exists for a GP DISP GAS to MS. Don't need additional triggers.

- Younger Plant:
 - Younger is a deep cut plant that receives gas from 3 other plants.
 - There are scenarios where the royalty tax payer pays gas royalties on the inlet and/or the outlet of the deep cut plant.
 - Finance believes this is the only plant that has both inlet and outlet royalties.
 - A GP DISP GAS to GP trigger will be coded for this plant only.
 - RTP would receive a gas allocation cascade for both the outlet (GP2-MS) and inlet volume (GP1-GP2).
 - BC RP99999 is used to identify royalty-paid or non-royalty volumes.

Allocations: Changes

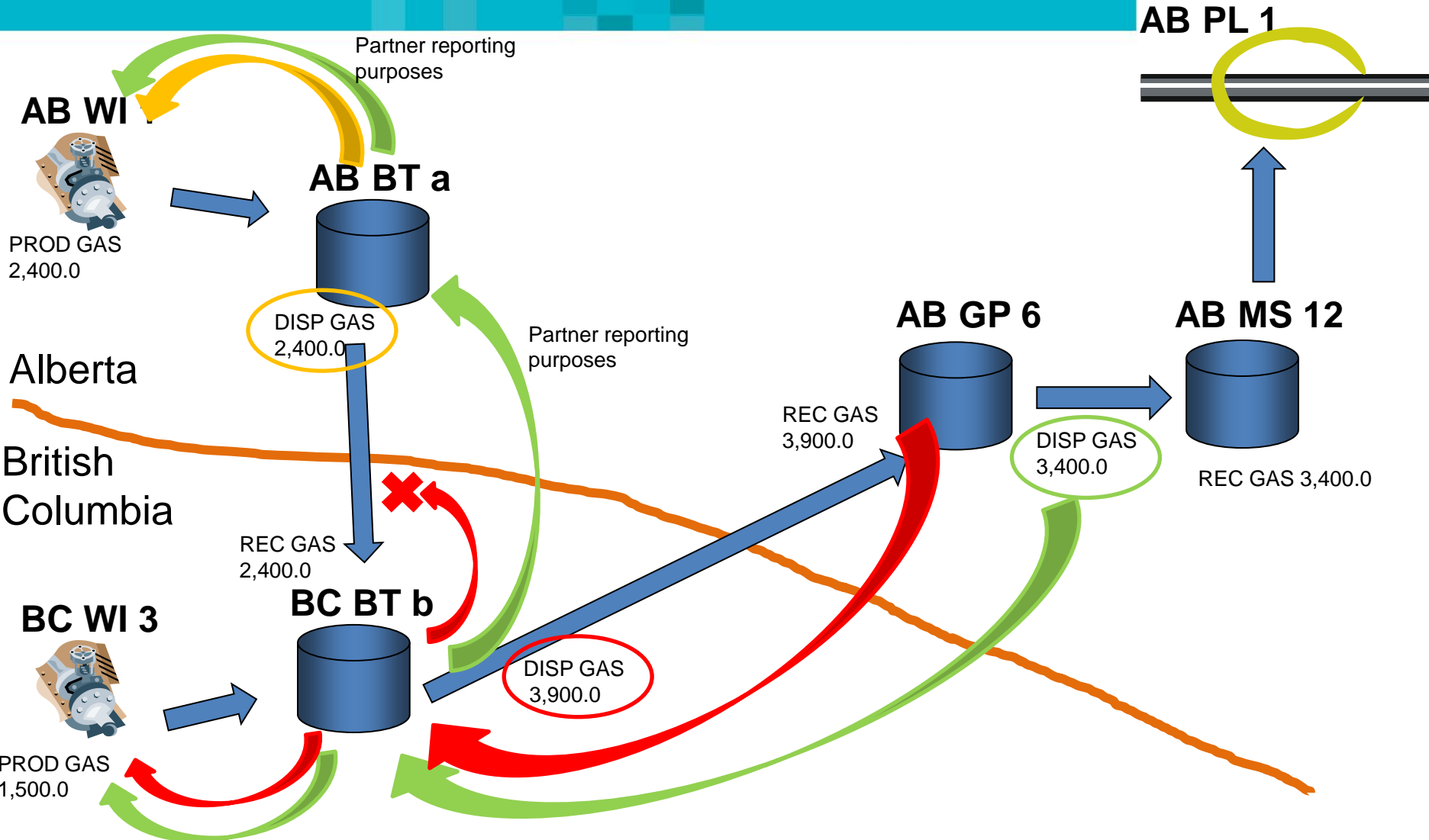


- Petrinex will display Royalty Trigger Facility (generally first GP or Dry Gas Facility) alongside volume/energy fields.
 - BC requires that the royalty trigger facility be maintained throughout cascade process so that it is present when allocations are extracted.
 - Will use the Primary Gas Plant or Royalty Trigger Facility provided in Facility Infrastructure for situations where allocations don't include a gas plant.
- New input fields for OAF/SOV submissions: Royalty Tax Payer (RTP) & Shipper ID
 - Each row will have an Owner ID, RTP ID, and Shipper ID associated with the stream along with volume and energy.
 - The Owner ID identifies the Working Interest Owner and is for partner to partner reporting.
 - The RTP ID is for Finance for royalty purposes.
 - The Shipper ID is required for pricing. A Shipper ID must be provided for all stream level allocations (not for cascades to facilities).

- There are 2 designations of Shipper ID.
 - If raw gas is delivered on to one of Enbridge's raw gas transmission (RGT) systems, then the BA who has the RGT contract is designated as the shipper in Petrinex.
 - If residue gas is delivered to a mainline transportation system from a BT, GS or GP (not RGT system), then the BA who has the residue gas transportation contract with the mainline transportation system is designated as the shipper in Petrinex.
- If there is no third party shipper, or the stream level allocation would not typically require a shipper (ex: return fuel), just use the same BA ID as the RTP.

- Petrinex will facilitate Cross-Border Allocations between AB and BC.
 - AB Plants will cascade BC produced gas back to BC facilities.
 - BC facility operators will cascade volume back to the well-level allocation.
 - Inlet volumes at well-level are needed for BC produced gas going to AB plants.
 - Gas produced in AB delivered into BC does not require a BC cascade for AB royalties.
 - Can still report marketable volumes from BC facilities back to AB facilities for partner to partner reporting purposes.
 - Allocations still due by 25th day of month following production for BC pricing purposes.

Cross-Border Allocations Schematic



What if an AB Plant receives BC gas through another AB facility?



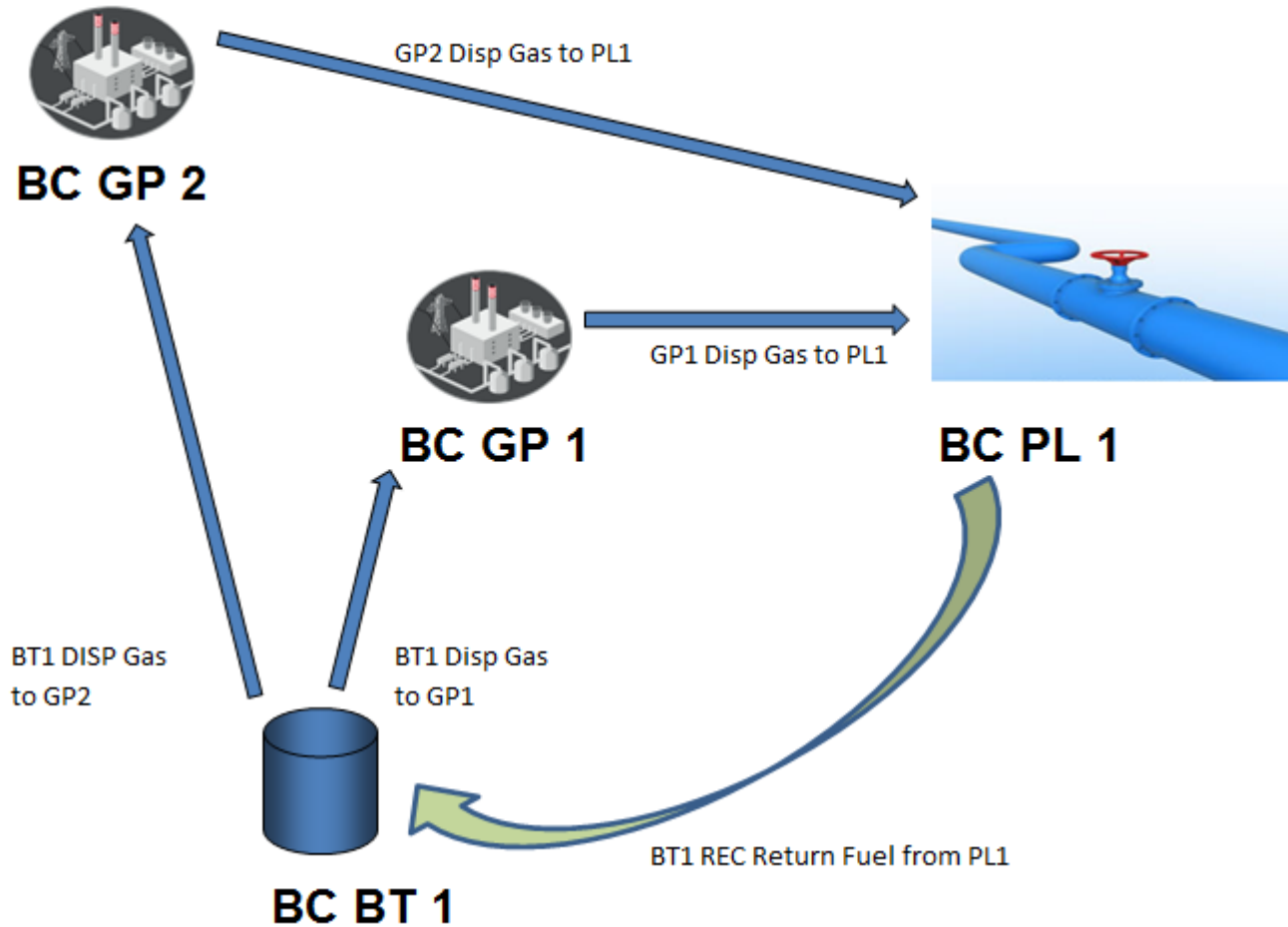
- Inlet allocations are only required for the BC produced portion of gas. A facility delivering to the plant may have a mix of both Alberta and BC produced gas.
 - The plant operator would cascade the entire volume of gas back to the Alberta facility that delivered it.
 - BC gas would then be cascaded back to a BC facility ID. If the allocation doesn't balance (i.e. the Alberta share of volume isn't allocated), this would not affect the Alberta allocations.
- Industry will have to rely on communication with each other initially to ensure the BC gas is allocated until it is a set monthly routine for AB facility operators.

How will the Gas Plant be identified for Return Fuel coming from the MS?



- **Petrinex Solution:** Utilize “Credit on Fuel” and “Royalty Trigger Facility” flags in Facility Infrastructure.
 - Look to infrastructure to link the plant to the allocation.
 - Battery Code must be utilized in cascade in order to link the allocation to the plant listed in Infrastructure.
 - i.e. Allocation from GS couldn't go straight to well level.
- Gas Plant (Royalty Trigger Facility) is utilized for:
 - Return fuel coming off the Pipeline (from a meter station).
 - Potentially for situations where return fuel could be associated with more than one gas plant (see next slide).

Return fuel credit associated with more than one gas plant.



How will return fuel from the plant be handled?



- **Today:** Return fuel from the plant to battery is currently handled the following way:
 - The return fuel from the plant is allocated to the RTP level.
 - The allocated volume is grossed up to reflect the Plant inlet volume.
 - The grossed up volume is deducted from the plant inlet volume for COS reduction purposes.
- **Petrinex Solution:** Return fuel allocation based on actual volumetrics:
 - Allocations in Petrinex are done on volumetric transactions. In this case the DISP from the plant to the battery.
 - Allocate actual DISP volume to the RTP level.
 - Pricing will gross up volumes for COS deduction purposes.

Gas Production-Allocation Discrepancy (PAD) Report



- The PAD report is a tool to compare production volumes reported at the wellhead to allocations reported at the stream level for the purposes of ensuring that gas royalties have been assessed correctly.
- Accounts for liquids that are stripped out at the plant. It does so using the standard Gas Equivalent Factors (GEFs) that are set in Petrinex.
- Both Finance & Industry will have access to the same report format where the tolerance level is set as a report variable.
 - Report is run by both parties on an On-Demand basis.
 - No monthly process of set compliance standards leading to errors and automatic royalty recalculations (as is done in AB).
 - The current plan is for Industry and Finance to take a year to analyze the data being returned in the report. After that time, there will be further discussion to develop a guideline approach to discrepancy tolerances.

NGL/Sulphur Valuation: BC Forms Replaced



- BC-08 Marketable Gas & By-Product Allocation Report
 - Marketable Gas & NGL/Sulphur Volumes handled by existing allocation functionality
 - NGL/Sulphur valuation handled by new NGL/Sulphur valuation functionality.

NGL & Sulphur Valuation Overview



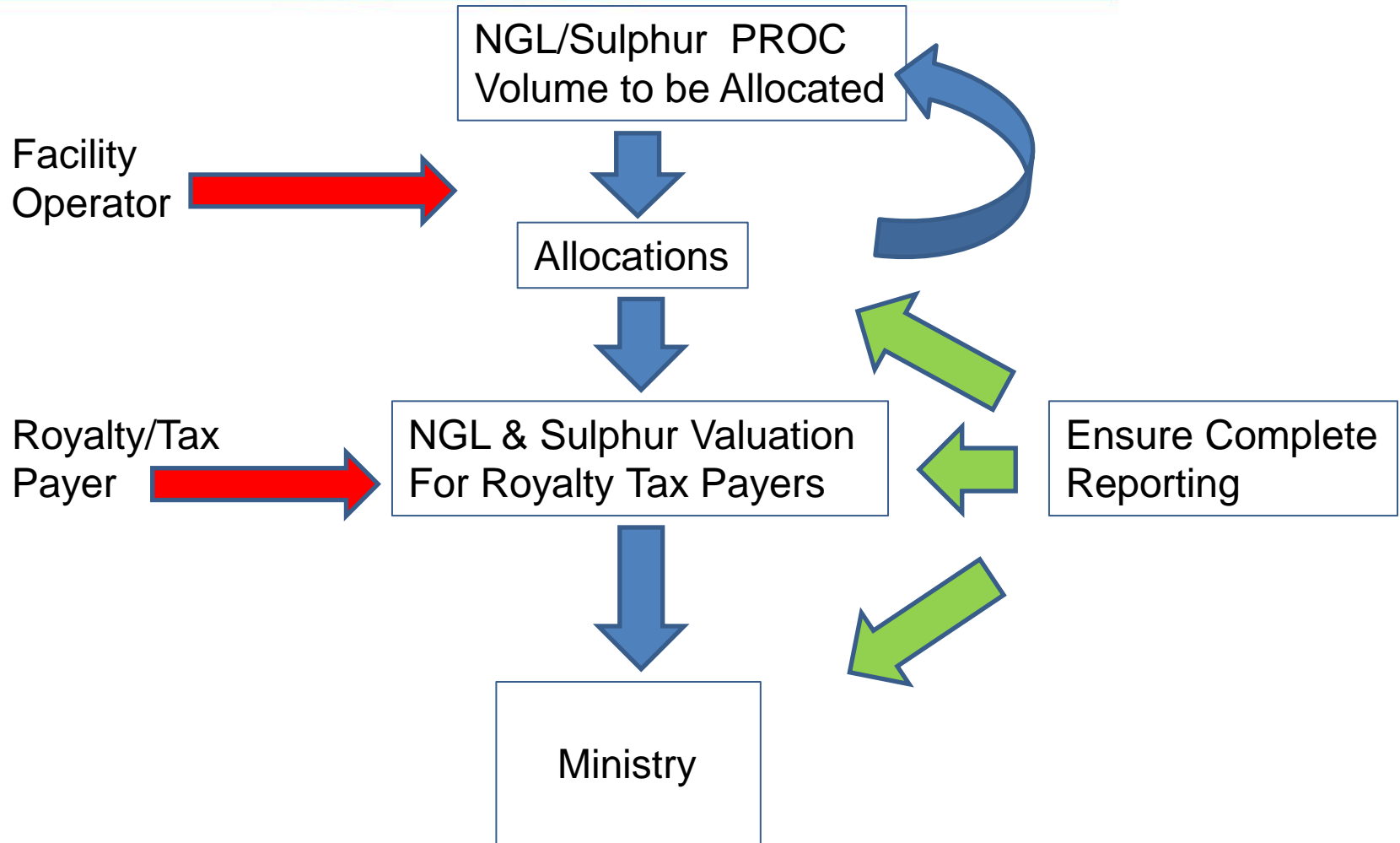
- NGL & Sulphur Valuation must be reported for all royalty trigger products.
 - LITEMX, CO2-MX, C1-MX, C2-C6 MX/SP & Sulphur products.
 - Field condensate is handled through Pipeline Splits/Oil Valuation.
- PROC allocations at the Royalty Tax Payer/stream level auto-populate the valuation screen.
- Royalty Tax Payer enters pricing at a plant /product level.
 - A Royalty Tax Payer could be allocated volumes of a product at several wells delivering to the same plant, but pricing is entered once for each product at the plant.
 - Price is net of eligible deductions (just as supplied on BC-08 today).

NGL & Sulphur Valuation Overview



- Full-form amendments
- Ensure Complete process
 - Ensure that valuation was provided or No Sales flag was set for all royalty trigger products.
 - If valuation data is not supplied, BC can assign a Fair Market Value price (same as today).
- AB gas plants can be reported

Allocations / NGL & Sulphur Valuation Process



NGL & Sulphur Valuation Information



- Finance collects the following information for each RTP gas plant submission.
 - Product (auto-populated from allocations)
 - PROC Volume (auto-populated from allocations)
 - Sales Volume (RTP input)
 - Sales Value (RTP input)
 - Unit Price (auto-calculated)
 - No Sales Flag (RTP set)
 - FMV flag (RTP set)
- If valuation is provided, can't set No Sales Flag.

NGL & Sulphur Valuation

No Sales Flag



- No Sales flag has 2 functions.
 - Set flag when there are no sales for the month as justification for not having valuation.
 - Setting flag in one month ensures there is edit ability in the next month.
- In circumstances where:
 - There is PROC but no valuation provided in first month (inventory).
 - There is no PROC but sales of inventory in second month.
 - Flag is necessary to indicate no sales in first month and to ensure valuation can be provided in the second month.

Pipeline Splits/Oil Valuation: BC Forms Replaced



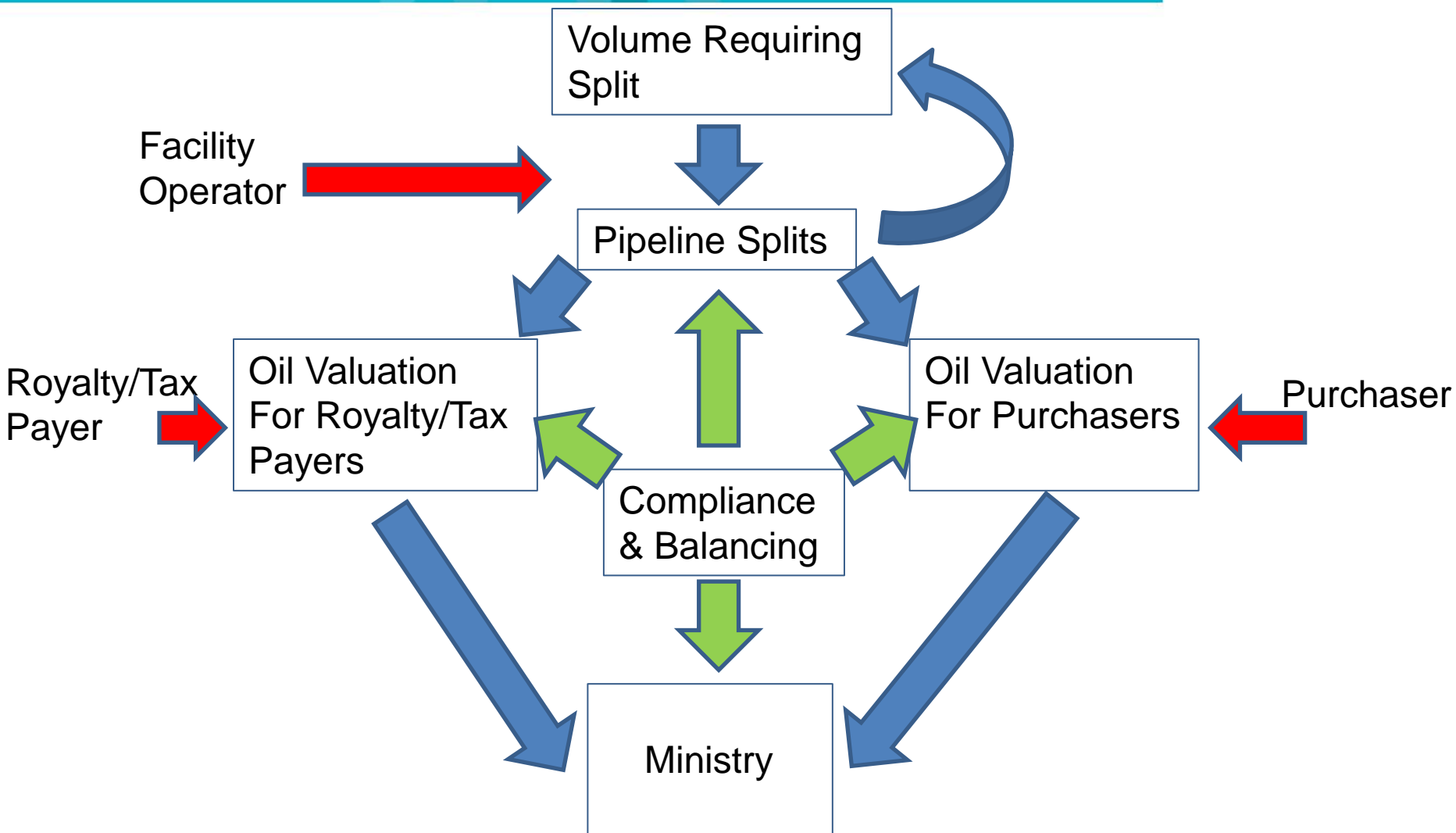
- BC-09 Monthly Oil Sales Statement
- BC-30 Oil Purchases Summary
 - *Discontinued in 2015*

Pipeline Splits/Oil Valuation Overview



- Dispositions of oil to certain facility types in Volumetrics create a Volume Requiring Split (VRS) in Pipeline Splits
- The VRS must be split out entirely, by Shipper, into TIK Owners and Purchasers of the volume.
- Like allocations, a facility operator will either split or cascade portions of the VRS to upstream facilities. The operators of the cascaded-to facilities will continue this process until the entire VRS has been split.
- An Oil Valuation Royalty Tax Payer record is created for each Owner identified in Pipeline Splits.
- An Oil Valuation Purchaser record is created for each Purchaser identified in Pipeline Splits.
- Both the Royalty Tax Payer (owner) and Purchaser enter pricing information that is then compared to ensure that the correct price is being reported for royalty purposes.

Pipeline Splits/Oil Valuation: Process



Oil Valuation: Submission Overview



- The Royalty Tax Payer must submit the **Gross Price** and **Clean Oil Transportation Costs**.
 - Petrinex will calculate the Average Wellhead Price/m³ (used by Finance).
 - Operator price is used for non-TIK royalty tax payers.
- The Purchaser must submit **Density, Sulphur, Submitted Volume, and Gross Price**.
- Compliance & Balancing Process compares pricing and volumes to ensure Royalty Tax Payer has correct information.
- The Primary Gas Plant provided in Facility Infrastructure is used for the weighted average royalty rate calculation used for the PCOS deduction.

- Currently waste oil is not reported as part of a well's production. Going forward, waste oil would have to be included in the well's PROD volume to balance the auto-populated DISP from the waste plant.
- The DISP from the BT to the waste plant will create a VRS that must be responded to in pipeline splits.
- The BT operator can use the code WO in the contract field of the pipeline split to signify that the volume is waste oil that they were not paid for.
- In the Royalty Tax Payer Oil Valuation, the RTP would enter a price of zero for this waste oil volume in order to lower the average well-head price. This compensates for having to report the waste oil as production in volumetrics, but not being paid for it.

BC Net Profit Allowable Costs Forms Replaced



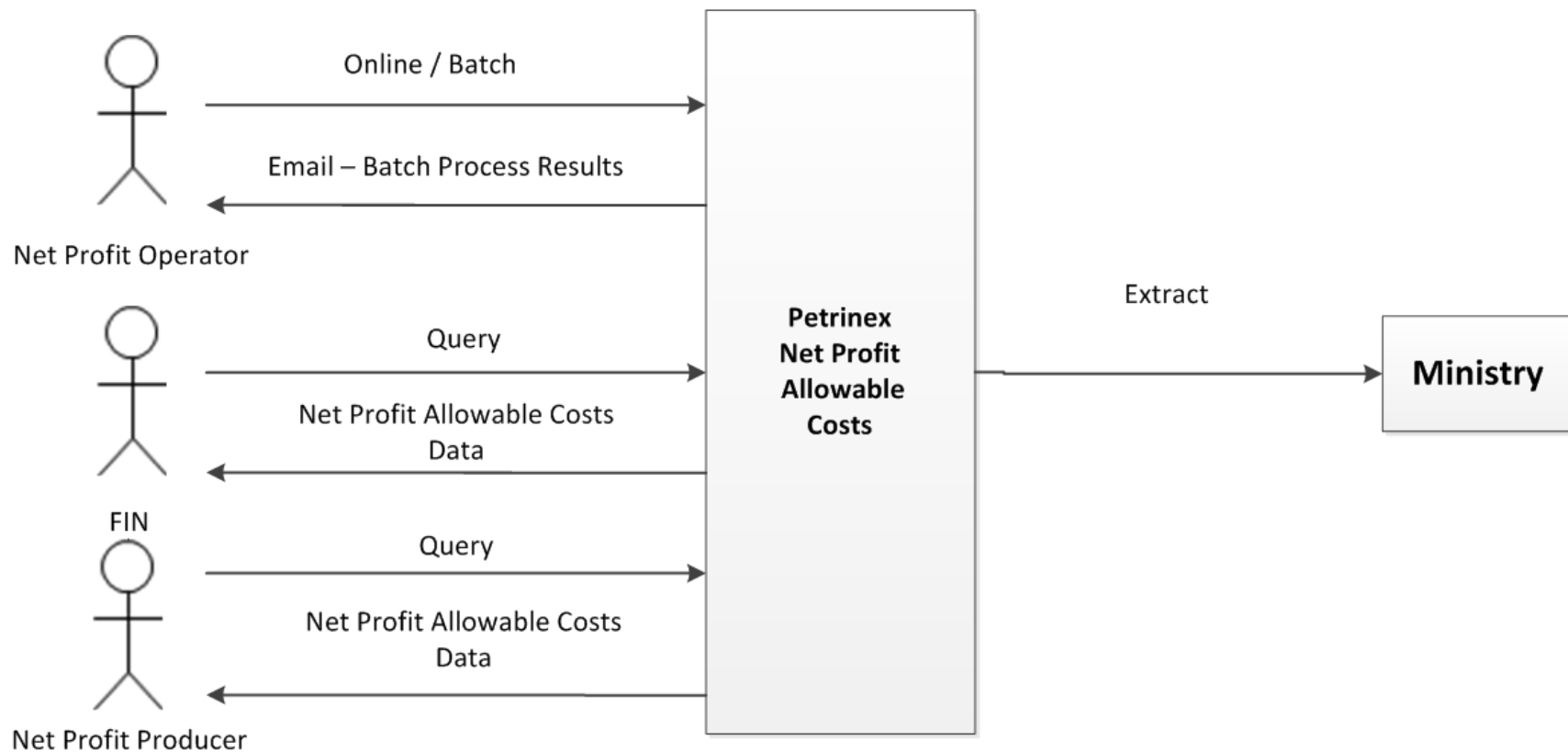
- BC-51 Net Profit Monthly Allowable Costs

BC Net Profit Allowable Costs Overview



- Net Profit Operators submit monthly Capital & Operating costs for all Net Profit Royalty Tax Payers.
- The Net Profit Operators are determined based on the “Operator” flag in Royalty Tax Attributes.
- The Net Profit Royalty Tax Payers are determined by the Royalty Tax Attributes.
- Monthly submissions by Net Profit Operators are extracted and sent to Finance.
- Existing Net Profit Project Royalty Tax Attributes will be provided by Finance.
- No historical Net Profit cost submissions will be loaded into Petrinex.

Net Profit Allowable Costs Workflow

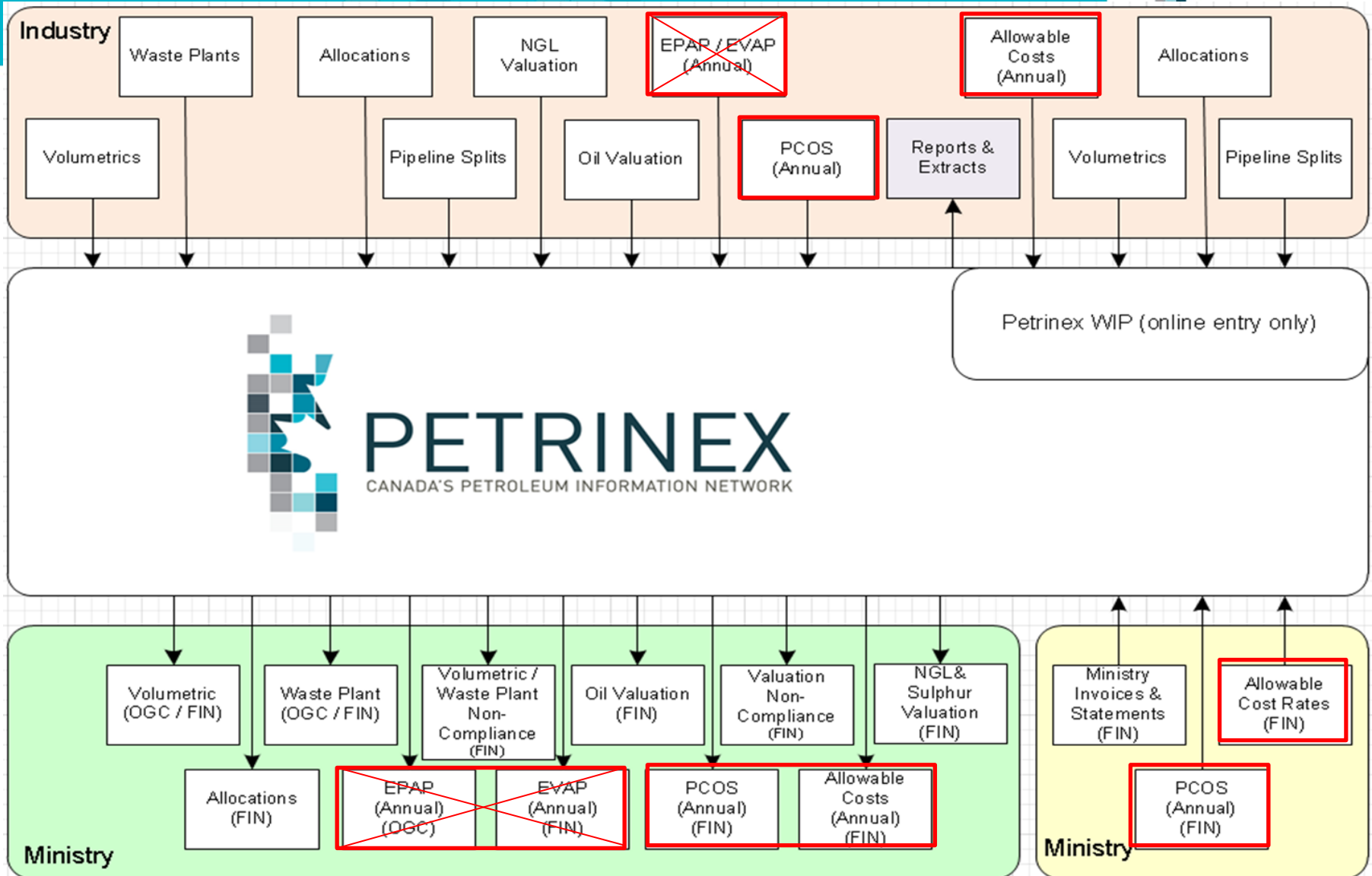


Monthly Process Data Conversion



- There will be no prior period submissions converted to Petrinex for any of the monthly reporting processes.
- Petrinex reporting starts as of the established Go-Live reporting month.
- Amendments made for production months that are prior to Petrinex Go-Live must be filed outside of Petrinex.

Petrinex Annual Reporting Overview



BC Allowable Costs Forms Replaced



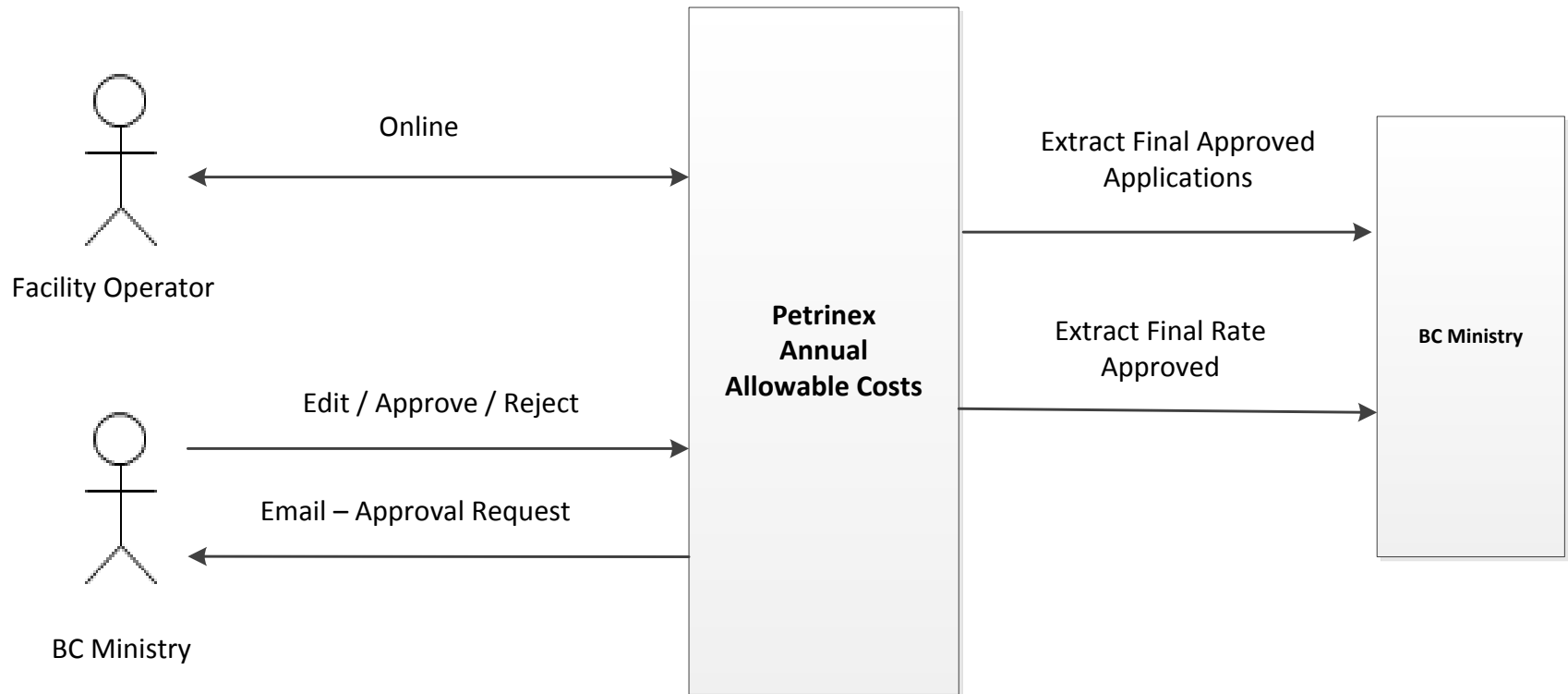
- BC-23 Application for Gas Cost Allowance
- BC-26 Coalbed Methane Producer Cost of Service

BC Allowable Costs Overview



- Online submission comprised of both user input and auto-calculated fields that provide the same required information found in the BC-23 today.
- Submission is either for a Gas Plant or a Sales Line. Gas Plants must list related Sales Lines and vice versa.
- Previous year data is provided as read-only.
- Supporting documentation is to be included as an attachment to the submission.
- British Columbia will review the Industry submission online via Petrinex and approve or reject the submission. On approval the submission will be extracted and sent to the Ministry.
- The submission starts as Open and progresses through statuses until eventually Approved by Finance.
- Finance can review/audit prior submissions and make any necessary changes (Rate Changes or Audit Adjustments).

BC Allowable Costs Workflow



Both Industry & FIN can Change Statuses

ALLOWABLE COST STATUSES					
Status	Description	Set Status		Edit Submission	
		MOF	Industry	MOF	Industry
Open	This is the initial status of the application. It is under edit by Industry (work in progress).	N	Y	N	Y
Submitted	Application is complete and has been submitted for Approval. MOF is notified that application is ready for review.	N	Y	Y	Y*
Rejected	Application has been reviewed by Ministry and is rejected. Notification is sent to Industry. Industry may change Status to Open and update the application for resubmission.	Y	N	Y	Y*
Complete	Application approved by MOF.	Y	N	Y	Y*
Approved	Application has received Ministry Final Approval. Notification is sent to Industry. Submission data is sent to MEMPR and MOF.	Y	N	Y	Y*
Rate Change	Rate adjusted by MOF because the difference between the estimated allowable cost rate claimed and the actual allowable cost for a year was significant.	Y	N	Y	N
Audit Adj.	An Audit Adjustment has been made by MOF. Notification sent to Industry.	Y	N	Y	N

*** Industry may reset status to Open in order to edit the application and resubmit.**

BC Allowable Costs Reports



- Detailed & Summary reports will be available.
- User can request a report with amendment history.
- Detailed report provides all of the same detail that would be seen in the online submission.
- Summary report rolls up certain information:
 - Related Sales Lines/Facilities not listed.
 - Summed up Net Depreciable Capital number (no individual AFEs).
 - Summed up Total Operating Costs number (no list of individual cost items).

BC Allowable Costs Timeline



- Jan-Mar 15: Industry submits Allowable Costs for a facility.
- Jan-Mar 20: Allowable Cost Approval/Rejection by Finance.
 - Industry corrects rejections & re-submits.
- April-Dec: Review & Audit for any year
 - Finance makes audit adjustments after consulting with Industry.

BC Allowable Costs Conversion



- No historical Allowable Costs data will be loaded into Petrinex.

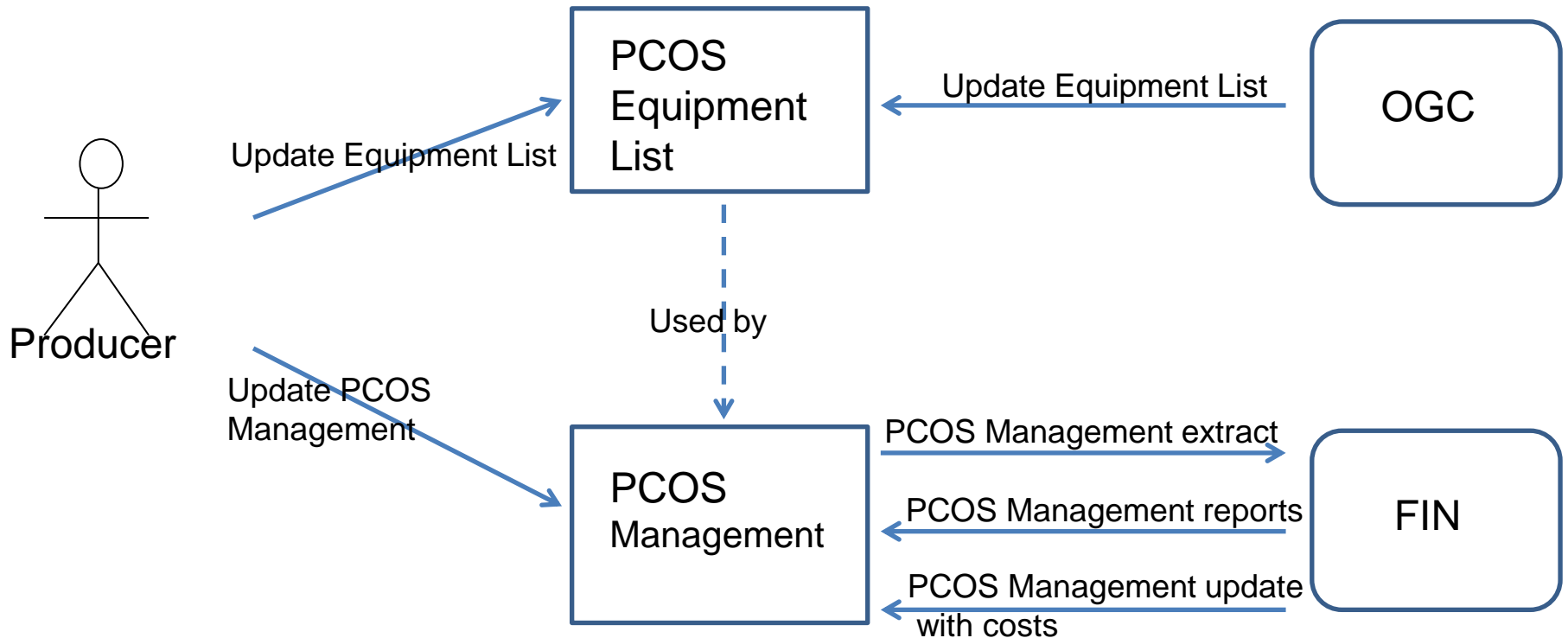
BC PCOS Forms Replaced



- BC-22 Application for Producer Cost of Service

- PCOS reporting on Petrinex involves 2 main screens:
 - PCOS Equipment List
 - PCOS Management
- The PCOS Equipment List is where all equipment is entered and maintained.
- The PCOS Management screen is where Industry applies for an annual PCOS rate for their facilities.
- Equipment is attached to a facility's PCOS Management submission via a Petrinex Lookup that accesses the Equipment List.

PCOS Workflow



PCOS Equipment List



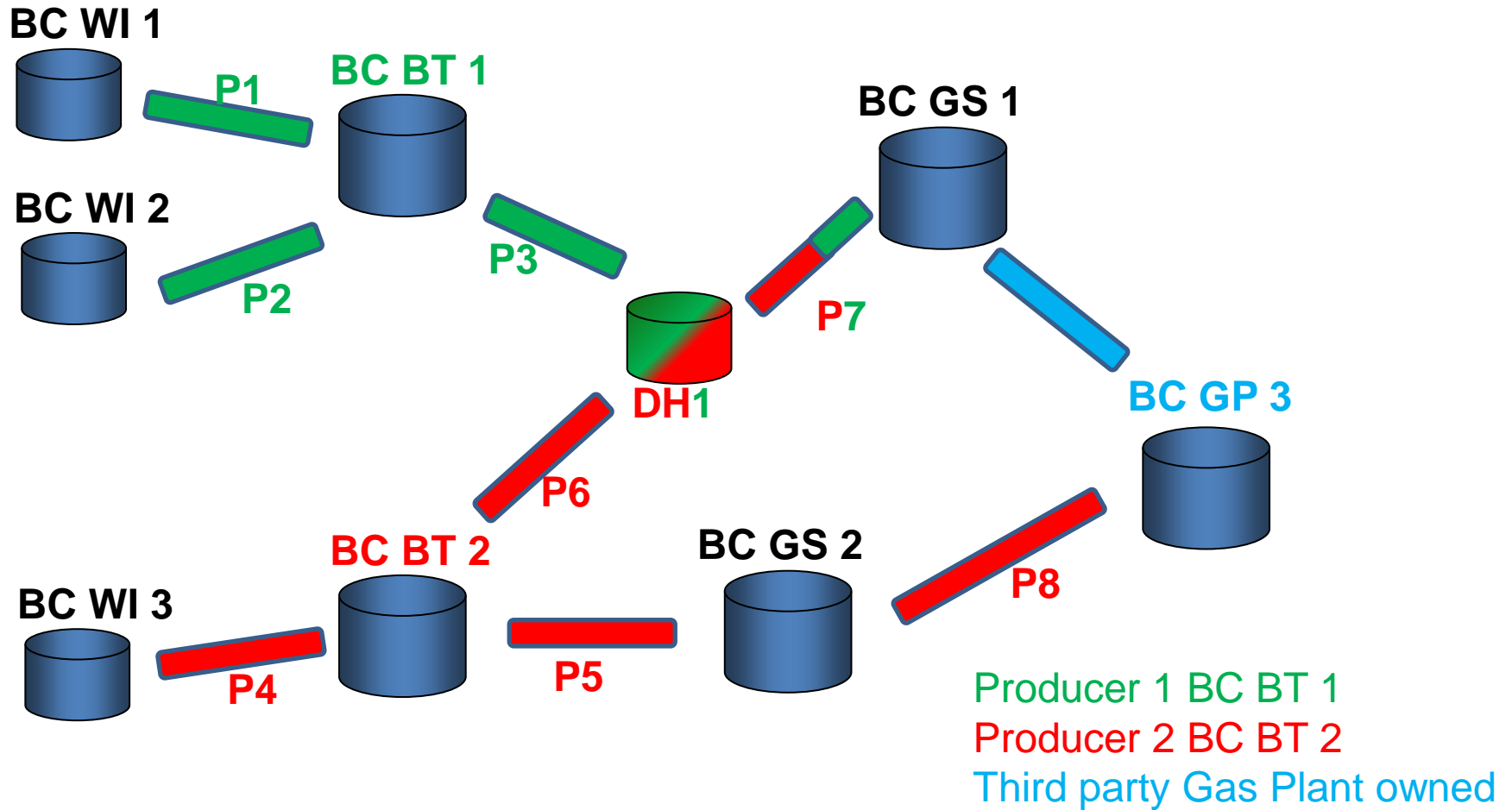
- Categories of PCOS Equipment
 - Gathering Lines
 - Dehydration Units
 - Compressors
 - Field Processing Units
 - Lineheaters
- Each category has a list of attributes applicable to the equipment type.

PCOS Equipment List



- OGC will supply BC Gathering Lines on an ‘as licenced’ basis to Petrinex.
 - Loaded with OGC Project & Segment ID.
 - Licensee is the owner of the equipment in Petrinex.
- Industry will supply all other equipment types.
 - Includes AB pipeline segments.
 - Creator of the inventory item is the owner in Petrinex.
 - All items will be assigned a Petrinex equipment ID#
- Industry can transfer ownership to another BA.
 - For all equipment items except OGC provided gathering lines.
 - Can’t transfer for periods prior to current PCOS Year.

Equipment Sharing



- The Equipment List is global.
 - Any BA can query the entire list of BC equipment.
- Equipment items can be shared.
 - Equipment List has a read-only field displaying which facilities are using a particular piece of equipment.
 - Notification is sent to the owner of the equipment when another BA uses it in their PCOS submission.

PCOS Management Overview



- Submissions are only made for BTs.
- Industry/Petrinex provides Volumes and Weighted Average H2S
 - Estimated Annual Raw Production is pre-populated with previous year actual volume.
 - Industry can change the estimate, but it will be subject to a review and PCOS recalculation if the current year is not within 10% of the estimate.
 - Petrinex uses Volumetrics to update Actual Annual Raw Production.
- Maintain equipment linkages.
 - Industry can add, delete, or change equipment items for the facility.
 - Industry can indicate whether equipment is in service or not for the year.
 - Equipment is selected from global equipment list.
- Finance has ability to approve changes to the submission prior to the deadline.

- PCOS Equipment List.
 - Users can run filtered searches for equipment including any equipment items not currently linked to a facility.
- PCOS Management Report
 - Summarizes same information seen on the screen for a facility.
- Same reports available from Finance today will be sent to Industry through Petrinex Ministry Invoices & Statements screen:
 - Cost Factors and Inflater/Deflator factors will be added to the existing Cost Summary report.
 - A new Cost Factor Summary report will be created which would list each equipment type's cost factor by year.

PCOS Management Year & Timeline



- Feb 1 – Jan 31: Industry enters equipment linkage changes at facilities for the current PCOS year. Finance can pre-approve any changes.
 - Ex: Feb 1, 2017 – Jan 31, 2018 would be for 2018 PCOS year.
- Jan 31: Deadline for PCOS submissions.
 - PCOS Management submissions become locked for editing.
 - Finance can unlock the submission for any necessary adjustments or resubmissions.
- Feb 1 – Mar 31: Finance approves submissions.
 - Finance reports generated and sent to Petrinex.
 - Approved facility PCOS rates are populated in PCOS Management query screen.
- Industry can submit interim PCOS Allowance requests.
 - Interim requests for new facilities that come on production after the submission deadline for the current PCOS year.

- All existing equipment will be converted to Petrinex.
 - Finance will provide all equipment types with the exception of gathering lines.
 - OGC will now provide all licensed gathering lines. New gathering line IDs are a combination of the OGC Project & Segment IDs.
 - New gathering line IDs will not match up with Finance as one of the old Finance GL IDs could be multiple OGC IDs.
 - OGC has a listing of pipeline project details in the Data Downloads section of their website for Industry to cross-reference.
- Prior year PCOS submissions will not be converted to Petrinex.
- Initial equipment linkages for PCOS eligible facilities and H2S values (based on previous year submission) will be converted as a starting point.

Ministry Invoices & Statements



- BC will submit invoices & statements to Industry via Petrinex.
 - Royalty/Tax Invoices
 - Royalty/Tax Billing Calculation Detail
 - EOR Invoice
 - Net Royalty Lease Invoice
 - Provisional Invoice
 - Non-Compliance Invoice
 - PCOS Reports

IV. Change Leader Roles & Steps to Readiness

Steps To Readiness



1. Identify & Register a Change Leader for you Company
2. Understand the Impacts of PBCIP on your Company
3. Have a Plan to Respond to New Changes
4. Prepare your Systems
5. Ensure Staff Members are Trained
6. Implement required Pre-Go-Live Activities
7. Go-Live & get the Benefits

1. Identify & Register a Change Leader for your Company



- The Change Leader Program is the central communications strategy for Industry Readiness.
- Please confirm your Change Leader with Petrinex if you have not already done so by sending an email to petrinexadmin@petrinex.ca
 - Please include Name, Telephone & E-Mail.

Change Leader Roles & Responsibilities



- Be the Primary Point of Contact with Petrinex
 - Participate in Readiness Activities. Examples include:
 - Attending Change Leader Meetings
 - Attending BCBCCC Meetings
 - Keeping up to date with changes posted on the Initiatives Page.
- Be the Leader for PBCIP Implementation
 - Develop an implementation plan for your company and track progress against that plan.
 - Be the “go-to” person in helping people in your company understand the impacts of change.
 - Communicate changes/materials to the appropriate people in your company.
 - Handbook Changes, Tips/Job Aids, Training, Meeting Materials, etc.
 - Ensure all “Steps to Readiness” are completed efficiently and effectively.

2. Understand the Impacts of PBCIP on your Company



- Impacts differ depending on which stakeholder group(s) your company falls into.
 - Oil & Gas Operating Producers
 - Oil & Gas Non-operating Producers (TIK & Non-TIK)
 - Gas Plant, Meter Station, Pipeline & Terminal Operators
 - Marketers & Purchasers
 - Waste Plant & Custom Treater Operators
 - LNG Plant Operators
 - Service Providers (ex: production accounting services)
 - Production Accounting Software Providers
- It is essential to be engaged in Readiness Activities and stay up to date on changes posted to Readiness Materials.
 - The Industry Readiness Handbook is a valuable resource in understanding impacts. Please review Section 3 (What's Changing) and Appendix 5 (Information by Specific Stakeholder Group).

3. Have a Plan to Respond to New Changes



- A company's plan to manage change will vary in detail and scope depending on its size and how many stakeholder segments the company is involved in.
- It is highly recommended that a plan be developed to ensure all affected individuals in your company are prepared for Go-Live.
- We are happy to provide assistance in considering what elements should be included in your plan.
 - Contact Steve Freeman at Petrinex, 403-297-2311, steve.freeman@gov.ab.ca

4. Prepare your Systems



Minimum Computer Specifications

- Please review Appendix 7 (Technical & Security Considerations) in the Industry Readiness Handbook

System Interfaces

- Production Accounting Software Vendors
 - Petrinex has provided specifications necessary to interface with Petrinex.
 - Petrinex will continue to work with vendors throughout development.
- Royalty/Tax Software Vendors
 - Petrinex receives royalty/tax documents but does not interpret the data.
 - Vendors should contact the BC Ministry of Finance directly for specifications.
- Internally Developed Applications
 - Please contact us if you have internally developed production accounting software and require interface specifications.
 - Contact Sheryl Moody, 403-297-5575, sheryl.moody@gov.ab.ca

4. Prepare your Systems



- Internally Developed Spreadsheets
 - Petrinex accepts spreadsheet uploads in CSV format only.
 - Instructions on mapping and formatting internal spreadsheets for batch upload to Petrinex will be provided later on in the project.
- Marketing/Pricing Software
 - Modification to these systems may or may not be required.
 - You are encouraged to discuss this with your software provider as required.

Interoperability Testing

- Companies are encouraged to test their upload files during the interoperability testing window.

5. Ensure Staff Members are Trained



Identify Petrinex Users

- Each company must have at least 2 user types.
 - Primary USA (Required): Responsible for managing user accounts and assigning security roles.
 - Backup USA (Optional): Performs Primary USA functions should that individual not be available.
 - Users (At least 1 Required): Performs required reporting activities as determined by the assigned security role (different users may have access to different reporting functions).
- Instructions for setting up your Primary/Backup USA will be communicated to Change Leaders when it is available.

5. Ensure Staff Members are Trained



Petrinex Learning Resources

- Industry will have access to a number of learning resources throughout this project and beyond.
 - Industry Readiness Handbook
 - Change Leader Meetings
 - Training Modules
 - Tips & Job Aids
 - Online Help
- Industry can access many of these resources from the Initiatives Page.

6. Implement required Pre-Go-Live Activities

- Specific activities will be communicated as they are available.
 - See Appendix 11 (Pre-Go-Live Readiness Activities) in the Industry Readiness Handbook for updates.
- Some specific activities have already been identified:
 - BA Primary/Backup USA set-up procedures.
 - User set-up preparation.
 - Data preparation/conversion and clean-up.
 - Mixed Measurement Facilities (having both oil & gas wells)
 - Identification of Gathering Systems & Meter Stations
 - Opening inventory verification for Go-Live.
 - Planning for Form Reporting cut-off.

7. Go Live & get the Benefits



- Petrinex has provided significant benefits to users in Alberta & Saskatchewan which are now being passed on to users in British Columbia.
- It is important to monitor how Petrinex processes are working for your company in the early months after implementation and communicate any issues.
- It is important for users to be aware of all of the tools and reports available to them.
- The Petrinex Service Desk is available to assist in all queries related to the business functionality and operations of Petrinex.
- The Industry Team at Petrinex can provide information on participating in the ongoing evolution and enhancement of Petrinex through its various committees.

V. BC Government Stakeholder Updates



Agenda Item #5 - BC Government Stakeholders

Petrinex Industry Change Leader Session

September 26, 2017



Topics

- Petrinex – an opportunity for change
- Integrated systems
- Process Improvements
- Upcoming Changes - Oil and Gas Commission
- Data Conversion
- Questions



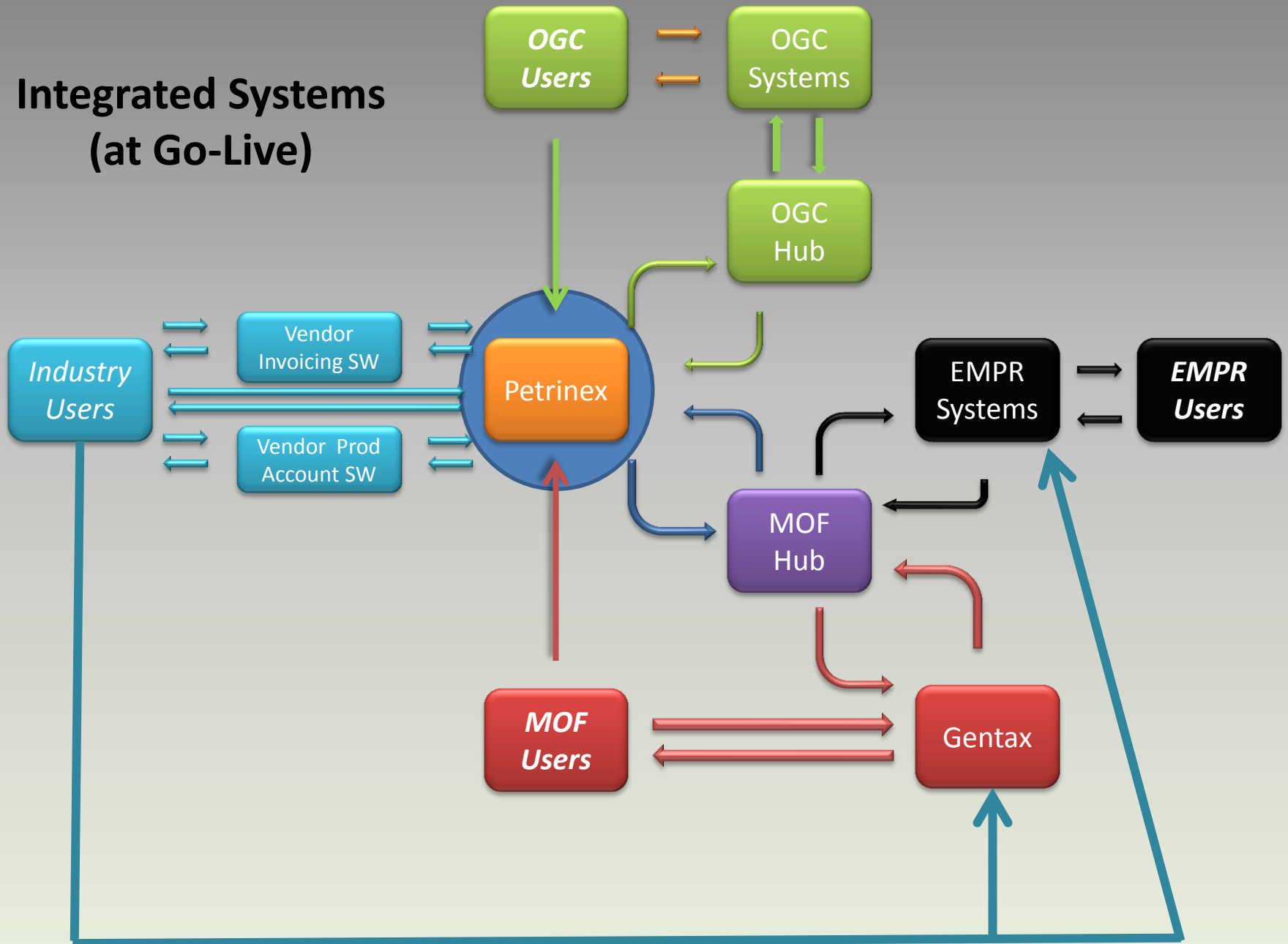
Petrinex – an Opportunity for Change

- We, (the Ministries of Finance, Energy Mines and Petroleum Resources, and Oil and Gas Commission) are excited to be working with industry towards inclusion in Petrinex
- Pleased with level of collaboration and engagement from Industry during Design Sessions and through the BC Business Change Committee

Petrinex – an Opportunity for Change

- The BC/Petrinex Inclusion project is being conducted to implement Petrinex as a primary information source that flows between Industry and BC.
- The Petrinex application will be a central component of an integrated set of stakeholder applications that will need to work together correctly...

Integrated Systems (at Go-Live)





Process Improvements

- Petrinex is enabling the BC stakeholders and industry to work closely together to identify areas for improvement (policy and business process)
- Petrinex will allow the information to flow more quickly and accurately and will streamline the interactions between Govt and Industry
- For example, BC MOF is wanting to issue royalty invoices once per month (instead of twice)



Process Improvements

In conjunction with Petrinex, BC MOF is investing in a new royalty billing system called **Gentax** which will provide royalty payers with:

- E- services tailored to their needs
- One stop service by reducing multiple portals and applications to 1 view for customers and for service agents
- 24/7 access
- Seamless, integrated information



Process Improvements

Prior to Petrinex go-live MEMPR will be implementing a new Natural Gas Pricing System

- Web-based self service portal
- Enables producers to upload/input gas sales and cost data online
- Calculates the monthly natural gas reference prices



Upcoming Changes– BC OGC

High-level changes for Petrinex inclusion:

1. Removal of BCS18 (disposal/injection)
 - Reporting in Petrinex
2. BA/Permit Holder Application Changes
 - New BA/Permit Holder, Changes, and Transfers
3. e-Submission of Well/Completion Events
 - Well/Completion events required for reporting prior to CWO report
 - Replaces portion of BC11



Data Conversion – BC OGC

- Data conversion of BA, License, Well/Well Event, and Facility
 - BA, License, and Well/Well Event progressing smoothly
 - Facility data conversion progressing:
 - Maintaining existing FacIDs (reporting codes)
 - Data cleanup of mixed oil and gas batteries
 - Conversion from Pipeline Gathering to Super Battery!!
 - Working with various BAs, with more to come

Agenda



VI. Next Steps

Next Steps



- Petrinex will continue to work on the following activities with BC Stakeholders:
 - Development & Testing of BC functionality
 - Data Conversion & Clean-Up
 - Industry Readiness materials:
 - Updates to the Industry Readiness Handbook
 - Related Tips & Job Aids
 - Additional Change Leader Meetings
 - Training Module Development
 - Determination of an Interoperability Testing Timeline
- Industry Stakeholders can begin focusing on:
 - Determination of the Primary/Backup USA.
 - Determination of future users as per the reporting needs of the company.
 - Change Leaders should work on developing an implementation plan.
 - Change Leaders should begin educating individuals within the company as to the timeline and scope of PBCIP as well as the learning resources available to them.

Change Leader Meeting #2 is planned for January 2018

- A plan will be communicated as to how Petrinex will be collecting information related to Gathering Systems and Meter Stations (if necessary) from Industry.
- Provide Project Updates
- Review Readiness Activities & Progression
- Potential Introduction to some Petrinex Functionality
- Any other relevant information



Questions



By acceptance of the attached material, all parties acknowledge that all material released by Petrinex is to be used for the sole purpose as agreed to by Petrinex. This material shall not be used for any other purpose or disclosed to any other party without prior approval by Petrinex.