

Ministry of the Economy



Oil and Gas Regulatory Cost Recovery Levy Annual Report for 2016-17

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1.0 Introduction

Efficient and effective regulation is the foundation of responsible resource development. In Saskatchewan, the Ministry of the Economy (ECON), Ministry of Environment (ENV) and the Ministry of Agriculture (AG) share responsibility for regulating the oil and gas industry.

In 2014, the Government of Saskatchewan introduced the Oil and Gas Regulatory Cost Recovery Levy (well levy) to ensure that Saskatchewan's regulatory system meets public expectations and provides service standards that align with modern industry needs.

The well levy recovers 90 per cent of regulatory costs and follows the same principles as the funding models used in Alberta and British Columbia. Billed annually, the well levy replaces 10 individual licensing or application fees and eliminates 20,000 transactions. This is a significant reduction in administrative burden for industry and government.

When introducing the well levy, the Government of Saskatchewan made a commitment to improve transparency on the well levy administration and regulatory performance indicators through the publication of an annual report. This year's report is the first report that covers a full year of transactions completed in our Integrated Resource Information System (IRIS) and can be measured against service levels put in place after IRIS go live in November 2015.

This report has two main sections: an overview of well levy finances; and a review of service levels for the various regulatory services that are delivered.

2.0 Regulatory Highlights and Accomplishments for 2016-17

- ⇒ Introduced *Directive PNG017: Measurement Requirements for Oil and Gas Operations* which is based on similar requirements currently in place in Alberta. This minimizes the impact of updated requirements on industry and consolidates, clarifies, and updates regulatory requirements with respect to measurement points used for accounting and reporting purposes, as well as measurement points required for upstream petroleum facilities and some downstream pipeline operations under existing regulations.
- ⇒ In addition to the above, ECON implemented the associated compliance program to *PNG017*, that is, *Directive PNG076: Enhanced Production Audit Program (EPAP)*. EPAP uses a declaration-based self-assessment, where industry indicates that they have audit controls in place to ensure compliance with measurement and reporting requirements.
- ⇒ A data requirements Minister's Order for potash wells was issued to better reflect data requirements for these types of unique operations.
- ⇒ Initiated development for improved system functionality and regulatory clarity for potash wells licensed under *The Oil and Gas Conservation Act, 2012*.
- ⇒ Initiated the *Oil Allowable Rate of Production (ARP) Report – Overproduction Management*, this monthly report is posted on saskatchewan.ca and an active enforcement action plan was developed.
- ⇒ Criteria was established to clarify when industry needs to submit a fluid analysis. Cost savings for industry will be realized in cases when the analysis is deemed unnecessary.
- ⇒ Implemented standardized field inspection protocols for wells and facilities to prevent missed inspection items while supporting analytics on inspection results.
- ⇒ Initiated process to develop electronic records related to historical pipeline files and unit files.
- ⇒ Work began to streamline incident reporting for wells, facilities and pipelines involving issues that must be reported to both ECON and ENV.
- ⇒ Increased the number of routine licence approvals through automated validation procedures in IRIS, improving operational efficiencies and the response rate for client notifications.
- ⇒ Designed and implemented a form-based submission process for the Enhanced Valuation Audit Program.
- ⇒ Streamlined internal processes for petroleum and natural gas regulatory approvals, contributing to reduced client wait times.
- ⇒ Streamlined procedures for single-window model by granting other government ministries the ability to review and recommend the approval of applications within IRIS.
- ⇒ Implementation of automated penalty assessment and waiver of obligations procedures for oil and gas data submissions in IRIS, and introduced a shadow billing period.
- ⇒ Implemented IRIS enhancements for routine and non-routine well approvals and functionality for notifications, work items and unit applications.
- ⇒ Began workflow enhancements to assist with management of compliance of pipeline operations.
- ⇒ Work in progress to streamline invoicing process under the Licensee Liability Rating Program.

3.0 Well Levy Calculation

ECON invoices licensees of active service wells and producing oil and gas wells a levy amount each year. The base well levy amount is determined for each fiscal year based on the number and performance of active wells during the previous calendar year. For example, the base well levy calculated and invoiced for the 2016-17 fiscal period was based on the performance of active wells during the 2015 calendar year.

The classification of each well is based on the type of well and productivity of the well during the previous calendar year. There are eight different classes of wells. The first is a service well class that includes injection and disposal wells active during the previous calendar year. The other classes are dependent on the volume of oil and gas production from the well during the previous calendar year. For purposes of determining the class for each well, a thousand cubic metres of gas production from a well is considered equivalent to one cubic meter of oil production.

Each well is charged a base fee multiplied by an adjustment factor. The adjustment factor is set annually to ensure that 90 per cent of forecast regulatory expenses are recovered. The provincial budget for regulatory services affects the well levy rates, as do changes in the number of wells or volume of production.

The following table summarizes the calculation of the base well levy revenues for each of the well levy classes and the calculation of the adjustment factor that is applied to the base amounts for invoicing purposes for the 2016-17 fiscal period, based on the performance of the active wells during the 2015 calendar year:

Annual Adjustment Factor Calculation, 2016-17				
Class	Production (cubic meters/year)	Base Rate by Class:	Well Licences	Base Revenues
1	Service wells	\$100	5,138	\$513,800
2	0.1 to 300.0	\$100	29,695	\$2,969,500
3	300.1 to 600.0	\$125	7,635	\$954,375
4	600.1 to 1,200.0	\$312	6,776	\$2,114,112
5	1,200.1 to 2,000.0	\$750	3,689	\$2,766,750
6	2,000.1 to 4,000.0	\$1,250	2,768	\$3,460,000
7	4,000.1 to 6,000.0	\$1,625	648	\$1,053,000
8	6,000.1 and above	\$1,875	456	\$855,000
TOTAL			56,805	\$14,686,537 B
2016-2017 Regulatory Budget¹:				\$23,522,060
Industry Share (90%)²:				\$21,169,854 A
Annual Adjustment Factor (A/B=C):				1.441446 C

¹The '2016-17 Regulatory Budget' is the proposed budget at the time that the Annual Adjustment Factor was calculated and may have been amended later.

²Due to rounding, the total amount invoiced to industry may be slightly different than the "Industry Share (90%)" amount shown above.

4.0 Financial Reporting

WELL LEVY REVENUE AND REGULATORY COSTS (\$000s)	2016-17 Budget	2016-17 Actual
WELL LEVY INVOICED		21,165
LESS: REGULATORY COSTS INCURRED (90%)		19,551
VARIANCE (7.6 %)		1,614
2015-16 VARIANCE CARRY FORWARD		614
2016-17 VARIANCE CARRY FORWARD		2,228
COST DETAIL		
1 Enforcement	8,558	8,169
2 Validation	1,802	1,629
3 Technical services	1,048	954
4 Surface Rights Arbitration Board	128	139
5 Information Technology (IT) and database costs	6,646	6,144
6 Central overhead and costs	3,425	3,282
TOTAL MINISTRY OF THE ECONOMY	21,607	20,317
OTHER MINISTRIES:		
7 Agriculture	600	477
8 Environment	1,300	929
TOTAL COSTS: ALL MINISTRIES	23,507	21,723
WELL LEVY 90%	21,156	19,551

REF.	DESCRIPTION
1	<p data-bbox="228 394 370 417">Enforcement:</p> <ul style="list-style-type: none"> <li data-bbox="228 428 1495 485">⇒ Oversight of development of new regulatory initiatives requested by the industry such as Directive 17, Measurement and Metering Requirements (part of the sour gas strategy); <li data-bbox="228 495 1403 518">⇒ Costs associated with the delivery of well, facility, blaster permit and seismic licence approvals and transfers; <li data-bbox="228 529 1479 646">⇒ Costs associated with enforcement, compliance and regulatory oversight, including site inspections, environmental (acknowledgement of reclamation and care custody of unmanaged sites), public safety (rig inspections), incidents (spills), waste, associated gas conservation, air emission control, licensee liability rating, inactive and orphan well management programs; <li data-bbox="228 657 1516 774">⇒ Costs associated with the delivery of pipeline licence approvals and transfers; technical application reviews, including horizontal wells, enhanced oil recovery (EOR) and waterflood projects; off-target wells, allowable production rates, oil and gas pools, reservoir analysis for appropriate well spacing, resource conservation and reserve calculations, injection wells, commingled wells, concurrent production, unitization and storage caverns; <li data-bbox="228 785 1312 808">⇒ Activities related to the development of policy and regulations for carbon capture and storage; and <li data-bbox="228 819 1531 873">⇒ Support of regulatory compliance for oil and gas exploration and development, including processing cores and samples submitted under regulation and identifying oil pools.
2	<p data-bbox="228 926 342 949">Validation:</p> <ul style="list-style-type: none"> <li data-bbox="228 959 1516 1050">⇒ Collection, validation and enforcement of data submission requirements with respect to petroleum sector data, including drilling information, well and facility infrastructure data, geological data, seismic information and volumetric data.
3	<p data-bbox="228 1087 423 1110">Technical Services:</p> <ul style="list-style-type: none"> <li data-bbox="228 1121 1531 1268">⇒ Activities related to client support for industry involving front-line assistance and guidance with respect to the use of the electronic data reporting system, managing data collection system change requirements and enhancements, managing electronic data submission penalty and waiver processes, developing electronic report summaries, digitizing well and seismic records, and providing industry access to digital well records, seismic information and other electronic well and facility information and reports.

REF.	DESCRIPTION
4	<p>The Surface Rights Arbitration Board:</p> <ul style="list-style-type: none"> ⇒ Arbitration board, governed by The Surface Rights Acquisition and Compensation Act, is used as a last resort when a landowner or occupant and an oil/gas or potash operator are unable to reach an agreement.
5	<p>Information Technology (IT) and database costs</p> <ul style="list-style-type: none"> ⇒ Costs for Petrinex services that provide fast, standardized, safe and accurate management/exchange of key volumetric, royalty and commercial information associated with the upstream petroleum sector; ⇒ Operating costs of IRIS, including IT costs for the support and maintenance of IRIS to enable the licensees and regulators to audit and measure the respective performance activities; and ⇒ Amortization costs of capitalized IRIS IT projects and the operating costs of the legacy systems replaced by IRIS that are in the process of being phased out.
6	<p>Central Overhead and Costs:</p> <ul style="list-style-type: none"> ⇒ Allocation of central accommodation, IT and benefit costs attributable to oil levy activities; ⇒ Accommodation costs for the Subsurface Geological Laboratory where core samples are gathered in accordance with regulations are located; and ⇒ Amortization costs of capitalized Subsurface Geological Laboratory assets and capitalized Fields Services branch field assets.
7	<p>Agriculture:</p> <ul style="list-style-type: none"> ⇒ Salary, expenses, mileage, for two land agrologists located in Swift Current and North Battleford for site inspections, review of new project proposals, abandonment inspections, lease spills, seed mix reviews and approvals; and ⇒ Salary and operating costs for one regional manager, one agreement coordinator preparing leases and addressing industry inquiries, Regina staff involved in policy development, rate review, billing, collections and accounting associated with 6,765 active leases.
8	<p>Environment:</p> <ul style="list-style-type: none"> ⇒ Salaries and operating costs for ecological protection specialists from the Landscape Stewardship branch responsible for review and approval of oil/gas industry proposals; ⇒ Time spent by support staff within the branch on the oil/gas program; ⇒ Salaries and operating costs for the two managers in the branch who are responsible for the program; ⇒ Time for registry staff from the Corporate Services branch responsible for producing and completing all land dispositions associated with industry; and ⇒ Oil/gas industry related time for staff at the ENV's Conservation Data Centre, which provides rare and endangered species information to industry for use in planning exploration and development ⇒ Time allocated to the Regional wildlife and fisheries biologist to associate with industry, and issues/proposals for Environmental Assessment Branch staff.

5.0 Improved Service Standards

The release of IRIS enabled numerous improvements to service standards, especially those related to turnaround times for processing industry applications. The following table outlines the multi-year service standards that were targeted for post IRIS processes:

Service Standard Commitments, Post IRIS Implementation	
Service	Target
<i>Licence Application Approvals</i>	
Routine well licence approval	Same day
Non-routine well licence approval *excluding time of duty to consult (DTC) or Environmental Impact Assessment (EIA)	14 calendar days excluding DTC or EIA
<i>Post Licence Application Approvals</i>	
Rig release	Same day
Completion application	Same day
Abandonment and plug back approvals (for wells, facilities and pipelines)	Same day
Licence condition amendment (for wells, facilities and pipelines)	Same day

6.0 Regulatory Services

The following subsections provide details with respect to regulatory services provided to industry and the service levels achieved compared to any established service level targets.

6.1 Applications

a. Review Confidential Period

A total of eight applications were processed during 2016-17 with an average turnaround time of one day. This was an improvement compared to last year's turnaround time of 10.7 days.

b. Licence Applications and Transfers

During 2016-17, a total of 3,385 licence applications and 190 facility licence applications were processed. 427 well and facility licence transfer applications were processed involving the approval of 17,769 wells and facilities.

Approval times for the 2,022 non-routine well licence applications that were processed in 2016-2017 was 9.6 days, significantly faster than the documented service standard target of 14 days. This metric includes the cumulative time required by AG, ENV and ECON to approve non-routine well licence applications through the single window well licence application process in IRIS. ECON hopes to gradually improve business processes related to non-routine well licence applications over the coming years to improve further on this standard.

The following table shows the number of licences processed in 2016-17

	Routine	Non-Routine	Total	Turnaround (days)
Facility Licence		190	190	4.6
Licence Transfer*		427	427	4.6
Well Licence	1,362	2,022	3,385	9.6 (non-routine)

* Licence transfers includes licence transfer pre-assessment applications.

c. Production and Measurement

From April 2016 to March 2017, ECON processed 127 production and measurement related applications, a substantial increase over 29 applications in the previous year, and had a weighted average turnaround time of 12.9 business days during 2016-17.

The following table highlights the number of Production and Measurement related applications reviewed by ECON:

	Total	Turnaround (days)
Current Production	12	15.2
Maximum Permissible Rate	54	8.0
Good Production Practice	39	11.3
Measurement Exemption	5	18.2
\$10 Economic Evaluation	15	30.1
Special Production Flare Test	2	22.4

The turnaround times for these applications increased from the previous year. An increase is expected as the previous year showed a number of these applications having zero processed with an average of zero days turnaround.

d. Reservoir

From April 2016 to March 2017, ECON processed 1,304 reservoir related industry applications and had a weighted average turnaround time of six business days.

The following table highlights the number of reservoir related industry applications processed including turnaround time:

	Total	Turnaround (days)
Additional Wellbore	15	2.0
Commingling	189	15.4
Enhanced Oil Recovery (EOR)	55	22.7
Project Commencement	14	7.8
Reclassification	537	2.2
Recompletion	292	1.9
Spacing Modification	95	7.2
Waterflood	96	12.9
Well Test	11	6.9

e. Repair, Abandonment and Liability

The following table highlights the number of repair, abandonment and liability-related industry applications reviewed by ECON from March 2016 to April 2017:

	Total	Turnaround (days)
Acknowledgment of Reclamation	442	14.7
Full Exemption of Reclamation	450	8.8
Grandfathered Approval (AOR)	97	8.6
Non-Routine Abandonment	756	2
Partial Exemption from Reclamation	84	9
Well Repair	137	2

The average turnaround times experienced by industry has increased over the last year due to the increase in the number of applications processed.

f. Storage

Six storage project applications were processed during 2016-17 with an average turnaround time of 46.4 days.

g. Units and Forced Pooling

One unit application (turnaround 48.9 business days) and one unit amendment application (turnaround 5.9 business days) were processed during 2016-17. No forced pooling applications were processed in this reporting year.

h. Pipelines

Pipeline applications are not included within the scope of IRIS and are therefore handled through a manual process. The following table shows that pipeline licence application approvals, amendments and leave to open approvals have decreased in numbers compared to the previous year. The turnaround times show a drastic increase due to the fact the ECON adjusted the calculation to reflect the time it takes to approve or deny an application from the time ECON receives the initial application.

	2014-15		2015-16		2016-17	
	Number	Turnaround Time (days)	Number	Turnaround Time (days)	Number	Turnaround Time (days)
Transfers	30	17.1	83	4.9	46	65.7
Leave to Open	87	6.3	109	3	180	29.9
Amendments	76	5.8	117	5.4	252	52.8
Approvals	85	6	93	5.4	127	107.8
Total	278	5.9	402	4.7	605	58.2

6.2 Field Operations

a. Well, Facility and Pipeline Inspections

In previous years, ECON carried out risk-specific inspections focused on high-risk sour gas production areas. While there were no sour gas risk specific inspections carried out during 2016-17, all facility inspections included an inspection of sour gas related requirements.

During 2016-17, ECON conducted a total of 18,340 inspections related to wells, facilities, incidents, rigs and pipelines. Pipeline inspections increased to 189 this year with an increased focus on water crossings. The total number of inspections is down from the number of inspections conducted in 2015-16. The inspections were either regular inspections or in response to a complaint and involved the review of the following items:

- ⇒ Well Identification/ Signage
- ⇒ Measurement Equipment
- ⇒ Berm Construction and Maintenance
- ⇒ Surface Casing Vent Installation
- ⇒ Surface Casing Venting
- ⇒ Production Casing Venting
- ⇒ Engine Exhaust Location
- ⇒ Tank Location and Spacing Requirements
- ⇒ Chemical Containment
- ⇒ Spill Clean-up
- ⇒ Weed Control
- ⇒ Housekeeping
- ⇒ Lease Under Water
- ⇒ Equipment Storage
- ⇒ Filling and Leveling of Excavations
- ⇒ H2S Odours – Both on and off Lease
- ⇒ Sour Gas Management System
- ⇒ Other Odours
- ⇒ Residence Setback
- ⇒ Flare Combustion

From those inspections, 9,350 non-compliance issues were identified and notifications were sent to industry. Note, in many inspections more than one non-compliance issue was identified. Most notifications provide a 30-day time frame for industry to return to compliance for each issue. The exception is when public safety is an issue, then immediate shut down takes place until compliance is achieved. Note, there was only one occurrence requiring immediate shut-in of a facility due to sour gas venting.

b. Incidents

In 2016-17, the Saskatchewan upstream oil and gas industry reported a total 641 spill incidents to the ministry.

To help oil and gas companies educate and train their spill-response personnel, ECON officials participate regularly in spill exercise and spill-response unit meetings.

6.3 Care and Custody

ECON had expenditures of \$25,910 during 2016-17 for the care and custody of pre-orphaned sites. These are sites that, at the time the work was required, were not officially deemed as orphaned, but the responsible company refused or was unable to meet its obligations. The work conducted under the care and custody program is typically emergent in nature.

This expenditure was similar in magnitude to expenditures for 2015-16 which were \$13,518. Expenditures under the Care and Custody Program can vary significantly from year to year depending on the number of sites requiring care and the work that is required at each site. As an example, expenditures in 2014-15 were \$432,123 which is the maximum annual expenditure for the program thus far.

Examples of the work conducted under this program are abandonment of wells with unsafe pressure conditions or leaks, removal of contaminated soil adjacent to surface water, removal of fluid from tanks and other receptacles, hauling and disposal of refined chemical barrels, and mowing.

6.4 Other Regulatory Services

a. Information Management

Information management services include the services required to collect, validate, and disseminate data to industry. For the most part, data collection is accomplished by using IT systems and business processes built in Petrinex and IRIS. These two information management systems are closely integrated and require continuous IT management to ensure efficient ongoing integration of data between the two systems. The performance of data collection systems are continuously monitored and improved upon through ongoing system enhancements. During 2016-17, 114 Petrinex and 371 IRIS change requests helped correct system errors and provide system enhancements aimed at continuous business process improvement.

Validation efforts included auditing data submissions and developing reports and procedures aimed at monitoring industry reporting errors and inconsistencies in both Petrinex and IRIS and at ensuring that non-compliance penalties are appropriately assessed to ensure the accuracy and integrity of all collected data.

- ⇒ 11,684 suspect facility data records were reviewed and followed-up on with industry to ensure accuracy of the data and that necessary amendments are submitted.
- ⇒ Well data audits related to 1,198 wells were performed during 2016-17. In addition, 19,568 work items and 2,205 review items were processed.
- ⇒ 2,781 well licence and post completion audits were performed.

Services related to dissemination of data include the development and operation of data extracts and reports used by industry and industry data vendors. A number of new reports and extracts were developed and implemented in IRIS or in Cognos, a Business Intelligence tool. In addition, ECON's Information Management group processed 518 one-time requests for data.

b. Client Support

ECON provided regulatory support to industry in 2016-17 through the PNG Support Desk which handled 8,512 phone calls and emails.

c. Policy Development

Policy development initiatives during 2016-17 included:

- ⇒ Amendments to *The Pipelines Act, 1998* were initiated and proposed to enable ECON to accelerate its work on strengthening the pipeline regulatory system in Saskatchewan. These changes include, establishing a legal framework for the licensing of new and existing flowlines; enabling the development of an electronic pipeline and flowline licensing, reporting and compliance monitoring system within the recently launched IRIS; introducing new provisions into the Act to enable the development of technical directives related to pipeline construction, operation and abandonment; strengthening the capacity of the Minister to carry out detailed audits of the operating practices of pipeline licence holders; establishing a statutory official called an inspector to ensure that licence holders are in compliance with regulatory requirements; creation of a new regulatory authority to establish rules related to financial assurance in the event of a major pipeline failure; strengthening the capacity of the Minister to review and approve pipeline licence transfers, including requiring the transfer of key pipeline maintenance records from the previous owner to the new owner; introduction of administrative penalties for regulatory breaches of the Act; and strengthening provisions under the Act to deal with licensee liability in the event of an issue being discovered after a pipeline is abandoned.
- ⇒ Initiated changes to *The Oil and Gas Conservation Act 2015*, *The Oil and Gas Conservation, Regulations, 2012*, *The Pipeline Regulations, 2000* and *The Seismic Exploration Regulations, 1999* to reflect proposed changes to the administrative levy to ensure that the regulatory cost burden is more equitably shared across industry participants, including those who operate pipelines and wells that are primarily inactive oil and gas wells (no well production, injection or disposal volumes during the base year) and also potash production wells. These proposed changes also seek to eliminate certain fees which will be absorbed as part of the levy.

6.5 Agriculture

In 2016-17, AG issued 135 new surface leases including the review of project proposals, site inspections and field work. The ministry also completed 42 surface lease renewals, 156 surface lease abandonments, approximately 65 surface lease amendments, numerous seed mix approvals, four Saskatchewan Petroleum Industry/Government Environment Committee (SPIGEC) meetings, on lease spill inspections, and policy development regarding surface lease rate review.

6.6 Environment

In 2016-17, ENV processed 4,559 oil and gas project proposals. Site inspections were associated with a significant number of those projects, including pre and post construction inspections and inspections that were undertaken during construction. The Ministry currently administers 882 oil and gas dispositions on both Crown and Park land. It is responsible for 30 new dispositions and 16 renewals that were processed in 2016-17.

Ministry staff also undertook numerous meetings with proponents, and attended all Saskatchewan Petroleum Industry and Government Environment Committee (SPIGEC) meetings.