The Alberta Petrochemicals Incentive Program

Program Guideline Document

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Introduction

Purpose and Guiding Principles

Alberta values the contribution of the petrochemicals sector to the province's economy and the role the sector plays in providing products that make life better, healthier and safer. The petrochemicals sector is responsible for essential products and materials used to make life-saving medical equipment, packaging that keeps food fresher for longer, electronics and many other products that make modern life possible. The sector contributes thousands of permanent and skilled jobs for Albertans.

The Alberta Petrochemicals Incentive Program (hereafter, "APIP" or "the program") is intended to grow the province's petrochemicals sector and is designed to allow projects to compete in an open market and provide potential investors with certainty that projects that progress to the operational stage will be supported by the government.

The APIP is administered by the Alberta Department of Energy ("the Department"). It provides financial incentives in the form of grants to encourage private sector investment in certain types of new or expanded Alberta-based petrochemical manufacturing facilities to produce value-added, petrochemical, hydrogen, fertilizer and fuel products.

Program Overview

- Program benefits are delivered in the form of grants.
- Proposed projects are eligible for funding based on defined eligibility criteria. If a project meets the criteria, it is eligible under the program and can expect to receive grants in the future when it begins operations and consumption of feedstock.
- Eligible projects qualify to receive grants by filing an application with the Department.
 The APIP Committee determines if the project meets the eligibility criteria, and
 confirms whether it qualifies under the program and will be offered a grant
 agreement.
- Grants are calculated based on 12 per cent of the estimated total eligible capital cost of the project. Grants are capped at that amount.
- Grants are paid after the facility is constructed and once operations with eligible feedstock consumption begin.
- The program will be open to receive applications from potential investors for either five years or ten years from the launch of the program, depending on the size of the project's capital investment.
 - Projects with a capital investment of between \$50 million to \$150 million will have five years from the launch of the program to apply to the program.
 - Projects with a capital investment of more than \$150 million will have ten years from the launch of the program to apply to the program.
 - At the end of the tenth year, the program application period ends and no new applicants to the program will be permitted.
- An eligible project with a capital investment of between \$50 million and \$150 million must

complete construction and declare to be in-service within five years from the launch of the program to be able to receive grants.

- For these types of projects, the full amount of the earned grant will be paid in a single grant payment after the facility is continuously operational and consumes eligible feedstock for a 12-month period.
- The department will dispense the grant money after verifying the information submitted by the facility to validate operational requirements.
- An eligible project with a capital investment greater than \$150 million must complete
 construction and declare to be in-service within the 10-year timeframe from the launch of the
 program to be able to receive grants.
 - For these types of projects, the full amount of the earned grant will be paid in three equal instalments over 36 months (one payment after each 12-month period). The project must be continuously operational and consuming eligible feedstock for 36 months.
 - Each instalment of the grant payment will be made after a 12-month period of operation.
 - The department will dispense the grant money after verifying the information submitted by the facility to validate operational requirements.
- Grants will continue to be dispensed to qualified projects for a maximum of 36 months duration after the closure of the application window on November 1, 2030.
- Annual grant payments will be made to project proponents once the project becomes operational and the project consumes eligible feedstock.
- Projects with a final investment decision before the launch of the APIP, can apply under the
 program. These projects would also be required to file an Advance Notification to determine
 eligibility, and qualify within three months from the launch of the program.
- Projects that were approved to receive royalty credits under the first and second round of the Petrochemicals Diversification Programs (PDP) can either retain their approval for royalty credits or transition into the APIP. The approved PDP projects would have six months from the launch of the APIP on November 1, 2020, to select which program they would like to proceed under.

Program Timeline

Anticipated Timelines

The program is open to applications starting from November 1, 2020 until November 1, 2030. No further applications under the program will be accepted after the application window closes on November 1, 2030.

An eligible project with a capital investment of between \$50 million and \$150 million will have five years from the launch of the program to apply to the program, complete construction and start operations to be able to earn grants. These facilities must be in-service by November 1, 2025 to be able to receive grants. These projects would receive the whole grant amount in a single payment after the facility continues operation with eligible feedstock for 12-months after declaring the in-service date. The department will verify the information submitted by the facility to validate facility's operations before making any grant payments.

An eligible project with a capital investment greater than \$150 million will have ten years from the launch of the program to apply for funding and must be in-service within November 1, 2030 to be able to receive grants. These projects are required to be in operation for 36 months to get the full grant money which will be paid in 3 equal installments. Each installment will be paid after a 12-month period of operation. The department will verify the information submitted by the facility to validate the facility's operations before making any grant payments.

Eligibility

The intent of the APIP is to promote the development of petrochemical, hydrogen, fertilizer and fuel projects in Alberta. To be eligible to receive funding under the program, a project must meet the minimum eligibility criteria described in Table 1 below. Activities excluded from participation under the APIP are described in Table 2. The Department will assess the application and provide a decision to the proponent.

Table 1. Minimum eligibility criteria

Minimum Requirements for Eligibility				
Location	The proposed petrochemical project must be physically located within Alberta.			
Feedstock	 The petrochemical project must process natural gas, natural gas liquids (ethane, propane, butane etc.), or petrochemical intermediates into different petrochemical intermediates, petrochemicals products, hydrogen, fertilizers or fuels. 			
	2. A portion of a petrochemical project may be eligible if it produces an ingredient not mentioned in (1) but is a core input to manufacture of the petrochemical products, fertilizers or fuels. In this case, the ingredient would be considered to be an eligible feedstock.			

Project status	Both new greenfield petrochemicals facilities, as well as brownfield		
	expansions/debottlenecking, are eligible for the program, provided they meet other		
	eligibility criteria.		
Minimum	The petrochemicals project must have a minimum investment in capital dollars of		
investment	CAD \$50 million.		
Prior or other	A petrochemical project is allowed to apply for and obtain funding from other		
funding	government sources (federal/provincial/municipal) but projects can only receive		
	funding from the Department from either the Petrochemicals Diversification		
	Program or APIP.		
	Trog. am of yarr		
Job creation	The project greates new and incremental permanent jobs in Alberta's netrochemical		
Job Creation	The project creates new and incremental permanent jobs in Alberta's petrochemical		
	sector.		
Hydrogen	Projects using eligible feedstock to produce hydrogen are eligible.		
Facilities			
Carbon capture	Standalone hydrogen projects and projects that produce fuels from natural gas and		
	natural gas liquids must capture the carbon dioxide by-product generated from the		
	production process.		

Table 2. Excluded Activities

Parts or the entirety of petrochemicals projects associated with the following activities are <u>ineligible</u> for participation or receipt of incentive in the program:

Ineligible Activities		
Pre-commercial	Projects that have a Technology Readiness Level 8 or lower are ineligible.	
projects		
Maintenance or	Routine maintenance and turnaround activities associated with existing	
operations	petrochemical plants are ineligible.	
Midstream crude,	Any facilities associated with transportation, processing, storage or other	
gas, and natural gas	s, and natural gas activities in the midstream sector, such as midstream infrastructure facilities	
liquid infrastructure	iid infrastructure that capture ethane for further processing, gas plants, straddle plants,	
	fractionators, pipelines, tankage, storage etc. are ineligible.	
Refining, upgrading,	Any facilities associated with the extraction or processing of hydrocarbons at a	
and partial	refinery, upgrader or partial upgrader are ineligible.	
upgrading		
Liquefied Natural	Projects that propose to build liquefied natural gas facilities are ineligible.	
Gas (LNG)		

End user consumer	Projects that propose to build facilities that manufacture end user consumer	
products	products, as defined in the program, are ineligible.	

Eligibility of Projects Approved under the Petrochemicals Diversification Program

Projects that were approved to receive royalty credits under the first and second round of the Petrochemicals Diversification Programs (PDP) can either retain their approval for royalty credits or transition into the APIP. The approved PDP projects would have six months from the launch of the APIP on November 1, 2020, to select which program they would like to proceed under. If they choose to participate in the APIP, the rules governing the APIP, including the determination of the total maximum grant amount, would apply to their project.

- Proponents approved to receive royalty credits under PDP will need to surrender their approvals to the Department to participate under APIP.
- Proponents will need to inform the Department, in writing, within six months from the launch of the program of their intention to surrender the approval and participate in APIP.
- Proponents will be required to follow the application and approval process for APIP and would be required to sign a grant agreement, once qualified, as per the APIP rules.
- Proponents will be subject to additional rules that will be provided to them by the Department.



Program Participation

Investors interested in submitting a project proposal to the program will follow a three-stage submission process described in the sections below.

Step 1: Advance Notification

A project proponent files an Advance Notification using the Department's online process to provide all required information for the project. Step 1 is designed for the investor to determine if the project is eligible under the APIP and the amount of grant funding the project may be eligible to receive. **An Advance**Notification does not represent a guarantee of funding. The advance notification also serves to notify the Department of the potential project. Project proponent would be required to submit the following information as part of the Advance Notification process.

Project Proponent Information:

- The name of the corporation or other legal entity that is the proponent or is the proponent's "corporate lead" in respect of the project;
- If the proponent is a partnership or consortium, the names of all corporations or other legal entities that are part of the consortium, and the name of the consortium, if any;
- The name, office held by, and contact information of the individual who is designated as the proponent's key contact. The company is responsible for keeping this information up to date;
- Previous financial reports of the corporation such as balance sheet, income statements, cash flow statements etc.; and
- The name of the project.

Project Summary

- Project location;
- Project type (Primary or Secondary facility), including feedstock consumed, forecast of eligible feedstock consumption based on the designed capacity of the project, products produced and capacity of the facility;
- Designation of greenfield or brownfield facilities, expansion/debottlenecking;
- Increase in feedstock consumption, throughput capacity and production (in the case of expansions/debottlenecking);
- Estimate of total associated project capital costs with a breakdown of the assets;
- Estimate of associated eligible capital costs as defined in the Calculating Grants and Grants Agreement section of the guideline with a breakdown of the assets;
- Construction schedule and designation of major milestones, including final investment decision, start of construction and in-service date;
- Initial economic impact and job creation assessment; and
- Information on funding from other government (federal/provincial/municipal) and public

sources that the project proponent has applied for or received.

Eligible Capital Costs

- The most advanced engineering cost estimates available, with a minimum of a Class 5 estimate;
- High-level breakdown of assets associated with the project contributing to its estimated eligible capital cost used to calculate the grant amount (See *Eligible Capital Costs* section for more guidance).
- Projects with a final investment decision before the launch of the APIP, can file an Advance
 Notification. These projects would also be required to file an Advance Notification to determine
 eligibility, and qualify within three months from the launch of the program.

Response Provided to Project Proponent:

• The Department's decision document recording whether the project is eligible, or not, under the program and the amount of grant funding that the project may receive in the future based on the estimate of eligible capital costs provided by the proponent. The amount of grant funding is an estimation only and not a financial commitment from the Department.



Step 2: Qualification

For a project to qualify under the program, the proponent is required to file an application with the information outlined in the *Application Information* section below. Proponents are required to provide a Class 3 cost estimate, or a more advanced estimate, as part of the application to qualify under the APIP. Proponents can apply to qualify at Step 2 as soon as they have a Class 3 capital cost estimate.

Projects that have already made a final investment decision before the launch of the APIP, can apply for grants if they meet the minimum eligibility requirements. These projects must apply to qualify under APIP within three months from the launch of the program. After the three-month period from program launch, projects with a final investment decision will not be eligible to apply for grants.

Subject to receiving the required information in the application, the APIP Committee confirms whether the project qualifies under the program and will be offered a grant agreement. The APIP Committee will confirm in writing whether the project is qualified for the program.

Once the project has qualified, the project proponent and the Government of Alberta enter into a grant agreement for a maximum amount of grant funding based on the Class 3, or more advanced, estimate of eligible capital cost of the project.

Proponents may only apply once to qualify a project under the program and any one project may only qualify once. Companies will be held to the original information provided at this step and changes to the project may disqualify the project under the program if these changes breach any of the conditions of the grant agreement. Companies will be required to submit regular reports to the Department describing the status of the project that includes capital costs, both incurred and expected, to complete the project. The applicant must provide the following information:

Project and Proponent Information

- The name of the corporation or other legal entity that is the proponent or is the proponent's "corporate lead" in respect of the project;
- If the proponent is a partnership or consortium, the names of all corporations or other legal entities that are part of the consortium, and the name of the consortium, if any;
- The name, office held by, and contact information of the individual who is designated as the proponent's key contact [The company is responsible for keeping this information up to date];
- The name of the project; and
- A changelog listing of any amendments to project scope relative to documentation provided in the Advance Notification.

Application Information

- A description of the parts to be included in the application to qualify under the program is included in Appendix 2. Proponents must prepare their applications according to the structure described in the appendix.
- Applications are required to provide information on the parts of a project:
 - Business Plan;
 - Project Timing;
 - Technology Configuration;
 - Proponent's Capability;
 - Economic Benefits to Alberta; and
 - Environmental Performance.

Capital Cost Information

- A minimum of a Class 3 capital cost estimate for the project based on an standardized methodology for the industry and validated by an accredited third party;
- Change orders related to capital cost expenditures;
- List of all assets associated with the project that identifies eligible capital expenditures used to
 calculate the grant amount (See the section Eligible Capital Costs for guidance on eligible capital
 cost);
- List of assets associated with the project that represent ineligible capital costs.
- Proponent's determination of the incentive based on equation 1 (see below).

Calculating Grants and Grant Agreement

Calculating Grants

The amount of grant funding that an eligible project may receive is determined according to equation 1, using the information provided in the company's application to qualify under the program.

Equation 1

Maximum Grant = Total Eligible Capital Cost × 0.12

Where, Maximum Grant is the maximum amount of grant funding that the project is eligible to receive. Total Eligible Capital Cost is the sum of all eligible capital costs estimated to build the project based on a minimum of a Class 3 capital cost estimate submitted to the Department at the time the project qualifies under the program. See the *Eligible Capital Costs* section below for more details.

- The maximum grant is calculated at the time the project qualifies (step 2) under the APIP and will be included in the terms of the grant agreement.
- If the actual cost of construction is more than the Class 3, or more advanced, used to estimate the eligible capital cost to qualify the project at Step 2, the maximum grant will

remain unchanged. However, if the actual cost of construction is less than the capital cost estimate used to qualify the project, the maximum grant will be adjusted proportionately to reflect the lower capital cost.

Eligible Capital Costs

- The APIP supports selected activities, as described by the program's eligibility criteria.
- Eligible capital costs under the program are those costs to a proponent would use to determine the
 "undepreciated capital cost" of property as defined in section 13(21) of the *Income Tax Act*(Canada) (ITA) as that section read on November 1, 2020, that are in respect of an eligible project
 and are:
 - Costs of property described in clause (a)(i) of Class 29, of Schedule II of the Income Tax Regulations (Canada) as that clause read on November 1, 2020;
 - Costs of property described in clause 1100(1)(a.1) of the *Income Tax Regulations* (Canada) as that clause read on November 1, 2020.

Grant Agreement

The grant agreement will set the Terms and Conditions for the project. Terms and Conditions relate to:

- the amount of time given to the project from the date the agreement is executed to achieve agreed milestones;
- reporting requirements; and
- total maximum grant and the amount of earned grant the project is eligible to receive in every 12 months.

The Department will present a grant agreement to the qualified company for signature after the APIP Committee has confirmed the project qualifies for the program. Upon receipt of the grant agreement, the company will have thirty (30) days to provide the Department with a signed copy of the grant agreement. The Department will respond within thirty days (30) of receiving the signed agreement.

Reporting prior to facility completion and commissioning

- Proponents with grant agreements will be required to report bi-annually on the project progress
 during the construction and commissioning stages of the project. Details on the reporting
 requirements will be outlined in the grant agreement.
- Reports are required to include a breakdown of capital costs incurred to date and the capital costs
 forecasted to complete the project. Proponents are also required to annually provide the
 Department with the undepreciated capital cost (UCC) for the project as defined in subsection 13(21)
 of the ITA. The UCC is based on the same information submitted to the Alberta Treasury Board and
 Finance for the purposes of claiming capital cost allowance as part of annual tax filings. Eligible

capital costs are described in the section above. After the proponent files their annual tax return, they will submit a copy of the relevant schedule(s) to the department.

• In order to participate in this program, the proponent must provide written consent allowing this information, as well as information submitted as part of the proponent's annual tax return, to be shared between Alberta Treasury Board and Finance and the Department of Energy for the purpose of verifying the proponent's eligible costs under the program.

Records

- For the purposes of the program, owners are required to retain documents related to the actual consumption of eligible feedstock for the duration of the program and five years after the issuance of the last grant payment.
- The Minister of Energy may request that the department's auditors have access, on a confidential basis, to all documents.



Step 3: Payment

A facility must be in-service within ten years from program launch to be able to receive grants. Grants are paid out either in a single payment or in three equal instalments, depending on the size of capital investment of the project and as described in the grant agreement.

A project proponent is required to report to the Department that the project is in-service and complies with the conditions of the grant agreement for the proponent to receive grant payments. Proponents will need to provide the department with bank account details to be used for the payment of grants earned.

Earned Grants

Grants are earned once the project is declared to be in-service and achieves commercial operations, and validated by the department through an Earned Grant Application.

How Grants are Earned

- Proponents are required to submit an Earned Grant Application and provide evidence for the
 volume of feedstock consumed or products produced, and permanent jobs created in a twelve (12)
 month period since the in-service date to validate the operation of the facility.
- An eligible project with a capital investment of between \$50 million and \$150 million must complete construction and declare to be in-service within five years from the launch of the program to be able to receive grants.
 - For these types of projects, the full amount of the earned grant will be paid in a single grant payment after the facility continues operation for a 12-month period and consumes eligible feedstock.
 - The department will dispense the grant money after verifying the information submitted by the facility to validate operational requirements.
- An eligible project with a capital investment greater than \$150 million must complete
 construction and declare to be in-service within the 10-year timeframe from the launch of the
 program to be able to receive grants.
 - For these types of projects, the full amount of the earned grant will be paid in three equal instalments over 36 months (one payment after each 12-month period). The project must be continuously operational and consuming eligible feedstock for 36 months.
 - Each instalment of the grant payment will be made after a 12-month period of operation.
 - The department will dispense the grant money after verifying the information submitted by the facility to validate operational requirements.
- Once a facility declares an in-service date, it is considered to be operational to be able to earn grants if:
 - (i) irrespective of the amount of capital investment, within a 12-month period from the inservice date, the facility that is a participant in the program consumes a minimum of 60 per cent of its design consumption of feedstock; or

- (ii) irrespective of the amount of capital investment, within a 12-month period from the inservice date, the facility that is a participant in the program produces a minimum of 60 per cent of its design capacity of product; or
- (iii) If a facility with capital investment of more than \$150 million cannot achieve either (i) or (ii) within a 12 month period from the in-service date, but can complete 36 months of 60 per cent or higher consumption of feedstock or production of output after declaring the inservice date, then they can still receive all the three grant payments.
- In the case of expansion and or debottlenecking project, companies must provide evidence for the volume of feedstock consumed that is greater than the throughput benchmark information used to qualify the project under the APIP.
- A company may amend the in-service date of the project under the grant agreement. However, if by doing so, the project fails to be in-service within the 5-year or 10-year timeframe from program launch then the project will not be able to earn grants.
- If a project with capital investment greater than \$150 million cannot, for any reason, complete the first 36 months of operations from the in-service date, then the project will only receive a prorated grant payment for the period of time it has been operational. The Department will not amend a grant agreement to accommodate all the three grant payments if the project does not operate for the full 36 months.

For example, if a project becomes operational on September 30, 2030, then the project will receive three grant payments if it fulfills the above-mentioned operational requirements and continues operations for the next 36 months. If the facility cannot complete 36 months of operation before the program expiration on November 1, 2033, then the grant amount will be prorated and the project will receive grant payments only for the months it has been operational. The grant agreement will not be amended to allow for an extension of grant payments.

Applying to Receive Grants

• For a project to receive Earned Grants, an owner of an approved project or the person designated by an owner must submit a written Earned Grant Application (EGA) to the department on an annual basis every twelve (12) months. [Applications should use Canadian dollars where appropriate].

- The EGA documents for each facility must include the following information and supporting documents:
 - the in-service date of the facility;
 - the actual monthly feedstock consumption used to produce the value-added product during the twelve-month reporting period and the supporting documentation to verify the consumption level (i.e. invoices, statements from the feedstock supplier);
 - Monthly amount of value-added product produced from the feedstock consumed;
 - Number of new permanent jobs created; and
 - Other auditable documents as part of the terms agreed to and stated in the grant agreement.
- The Department will supply templates for feedstock consumption data to be aggregated as well as number of new permanent jobs created to support the EGA.
- The Department will issue a letter to confirm the value of the grants earned and the date(s) on which the grants will be paid.
- The EGA must contain sufficient information for the department to pay grants and may be audited by the department.

Grant Payments

- The Department will make one grant payment to projects with a capital investment between \$50 million and \$150 million. For other projects, the Department will make one grant payment per 12 months to the proponent following receipt and review of the EGA. If a project cannot complete the full 36 months of operations within the program expiration date, the grant payments will be prorated for the amount of time the facility has been in operation before the program expiration.
- Payments will be made to grant recipients by electronic funds transfer (EFT) to the recipient's bank
 account, or by cheque issued by the Department, whichever is agreed upon by the recipient and the
 Department. The grant recipient must complete the Application for EFT Direct Deposit Form when
 they sign the grant agreement to receive payment by EFT.
- Grant recipients should ensure that their contact information is accurate and current in order to receive payment.

Petrochemical Project Timeline



Planning

Preliminary Engineering Front-End
Engineering
Design

Construction

Operation

Step 1 Advance Notification

Proponent files an Advance Notification to determine project eligibility and an estimate of potential incentive amount.

Documentation:

- Project Proponent information
- Project Summary
 - Project type
 - Location
 - Project timeline
 - Economic impact assessment
 - Sources of other funding
 - Class 5 or 4 capital cost estimate
- Estimated capital cost and estimated eligible capital cost
- Asset breakdown

Step 2 Qualification

Proponent files an application to qualify under the program and enters into a grant agreement for incentives in the form of grants. Regular status update reporting on the project.

Documentation:

- Updated Project and Proponent information
- Minimum of a Class 3 capital cost estimate
- Application Information
 - Business Plan
 - Project Timing
 - Technology and Project Configuration
 - Proponent's Capability
 - Economic Benefits to Alberta
 - Environmental Performance
- Written consent for collection of tax related information.
- Other documentation for terms and conditions of Grant Agreement
- Commence regular status update reporting

Step 3 Payment

Proponent reports on feedstock consumption and grant is paid.

Documentation:

- Final Status Update Report once construction is complete and to declare the facility in-service.
- Submit Earned Grant Applications (EGA) verifying feedstock consumption
- Amount of value-added product produced from the feedstock consumed
- Number of new permanent jobs created
- Other auditable documents as part of the terms agreed to and stated in the grant agreement

Program Administration

- The Department of Energy administers the program with support from other Government departments.
- The program guideline document will be reviewed every two years to reflect changes that are pertinent to advancing Alberta's petrochemical value chain. The Government of Alberta reserves the right to amend the APIP Guidelines, as required.
- The Minister of Energy has the discretion to make any changes in the program.
- The Minister of Energy may refuse to issue grants under the program if the Minister of Energy believes that regulations have been contravened, or that business arrangements were made that contravened the spirit of the programs. The Minister of Energy may cancel and/or reduce accordingly the value of any grants approved under such circumstances.
- Receipt of grants is subject to the terms and conditions of an APIP Grant Agreement with the Government of Alberta, issued in accordance with the <u>Energy Grants Regulation</u>.
- Project proponents must file an Advance Notification, apply to qualify under the program and supply any documents which are required in accordance with the timelines set out in the APIP Grant Agreement, or as requested by the Department.
- Proponents will be required to sign a grant agreement that is acceptable to the Minister.
- Successful grant recipients are responsible for submitting reports as required under their APIP
 Grant Agreement. The Department is not responsible for reviewing and notifying the grant
 recipient prior to the reporting deadline of any incomplete or missing form(s).
- All grants may be subject to a provincial audit.
- Any information obtained under an APIP Grant Agreement will be subject to the provisions of the *Freedom of Information and Protection of Privacy Act* R.S.A. 2000 c. F-25 (FOIP Act).
- Program results will be published and updated at least annually. Proponent name (company), grant amount, project location, and aggregate data on payment measures may be published.

Communication

Communications with the Department

Investors can communicate with the Department by email for more information about the program and the process:

Energy.apip@gov.ab.ca

Information and Requests for Clarification

Comments, requests for information, or clarifications concerning the program must be made through the email address provided above. The Department will respond to questions and will also provide clarifications and updates to the program on its dedicated web site which can be found at https://www.alberta.ca/alberta-petrochemicals-incentive-program.aspx

Confidentiality

All information submitted when an investor files an Advance Notification with the department and all subsequent communications and information submitted throughout the process related to the program are confidential and shall be maintained in confidence and kept secured by the department. Information may be shared within departments of the government.

Freedom of Information and Protection of Privacy (FOIP)

Notwithstanding the confidentiality of the information, the provisions of the *FOIP Act* (Alberta) are applicable and all information submitted may be subject to a request under the *FOIP Act*. In the event of any request for access under the Act, the department will observe the provisions of that Act governing harm to business interests related to commercial or financial information provided in confidence, including the requirement that prior to disclosure the third party will be provided with notice and an opportunity to object to disclosure of any confidential information.

Announcement by the Minister of Energy

- The Minister of Energy reserves the right to announce funding of individual projects.
- The Government will endeavor to ensure an announcement occurs at a time of mutual agreement with the proponent.
- Information that the Minister may consider announcing includes:
 - Name of proponent and project name
 - Project details including, but not limited to, the type of project, in-service date, capital cost, amount of grant funding and selected economic benefits.

Appendix 1 – Definitions

APIP Committee An Assistant Deputy Minister led Committee that determines if the project meets the

eligibility criteria, and confirms whether it qualifies under the program and will be

offered a grant agreement.

Base Chemicals Base chemicals generally means petrochemical intermediates derived from

petrochemical feedstocks such as natural gas, natural gas liquids, crude oil or oil sands

bitumen.

Brownfield project A brownfield project includes new builds at existing sites and expansion or

debottlenecking at existing facilities. In some cases, brownfield projects can be

constructed on former industrial sites where production has been curtailed or the site is

abandoned.

Carbon Capture Carbon Capture is a technology to capture carbon dioxide (CO₂) emissions from

industrial facilities that would normally be vented into the atmosphere.

Class 3 cost estimate

A Class 3 cost estimate as defined by the Association for the Advancement of Cost Engineering (AACE) practices. This estimate is prepared according to industry-accepted

practices and used to determine the amount of grants for a qualified project. Companies generally use this level of cost estimate to authorize the budget for a project. As such, these estimates typically form the initial control estimate against

which all actual costs and resources will be monitored.

Class 5 or 4 cost

estimate

Class 5 or 4 cost estimates as defined by the AACE practices. These estimates are prepared according to industry-accepted practices and used as the cost estimate for advance notification. These are generally prepared based on limited information and subsequently have wider variances as compared to a Class 3 cost estimate. These estimates are typically used for project screening, determining feasibility, concept evaluation, and preliminary budget approval.

Commercial-scale

technology

A technology that meets the Technology Readiness Level of 9 and both economic and financeable, and ready for widespread adoption by others or is currently in use in other

projects for commercial purposes.

Debottlenecking project

A debottlenecking project is one that increases production capacity at an existing plant by eliminating bottlenecks and achieves optimization through modifications to the

equipment configuration or workflow.

Discounted cash flow (DCF) model A Discounted cash flow (DCF) model is a standard method for valuing a wide range of assets such as fixed assets. DCF analysis determines the value of assets today based on projections of all of the cash that is expected to come from the assets in the future.

Earned Grants

Grants earned once a project declares to be in-service and achieves commercial operations. Proponents are required to submit Earned Grant Application which is validated and approved for the program by the Department. Proponents are required to provide evidence for the volume of feedstock consumed or products produced, and permanent jobs created in a twelve (12) month period since the in-service date to validate the operation of the facility.

Economic impacts

Economic impact represents the overall impact the petrochemical project investment and its subsequent operation will have on Alberta's economy. Measures to assess the impacts may include but are not limited to, number of direct and indirect jobs created by the facility, Canadian purchases of goods and equipment, potential contribution to Alberta and Canada's Gross Domestic Product, potential revenue generation (i.e., taxes) from the project activities to the Alberta Government, impact on intra-provincial and international trade etc.

Eligible Capital Costs

Eligible capital costs under the program are those costs to a proponent would use to determine the "undepreciated capital cost" of property as defined in section 13(21) of the *Income Tax Act* (Canada) (ITA) as that section read on November 1, 2020, that are in respect of an eligible project and are:

- Costs of property described in clause (a)(i) of Class 29, of Schedule II of the *Income Tax Regulations* (Canada) as that clause read on November 1, 2020;
- Costs of property described in clause 1100(1)(a.1) of the *Income Tax Regulations* (Canada) as that clause read on November 1, 2020

Eligible feedstock

Eligible feedstock, for the purposes of APIP, includes methane and/or natural gas liquids (ethane, propane, butane), or petrochemical intermediates. The term feedstock generally refers to the raw materials used as inputs to a petrochemical project to produce a product. A portion of a petrochemical project may be eligible if it produces an ingredient not considered an eligible feedstock but is a core input to manufacture of the petrochemical products or fuels (See section Eligible Capital Costs for more guidance).

End user consumer products

End user consumer products from the perspective of the program are consumer products from the final stage of manufacturing that serve a specific purpose or have a particular application. Illustrative examples of end user consumer products include food packaging, medical equipment and electronics. For the purposes of the program, those manufacturing activities that create end user consumer products are not eligible.

Expansion project

An *expansion project* is an industrial expansion in-place that includes the adding of structures, attachments, catalysts, new technology and installations or the addition of smaller components to existing equipment to increase a facility's production capacity.

Fertilizer

A chemical product derived from ammonia that is generated from methane and which is added to soil or land to increase fertility.

Fuels

Fuels in this Program refer to fuel blending agents, fuel ammonia, and gas-to-liquids (GTLs), such as, diesel, jet fuel etc.

Alberta Energy

Final Version A greenfield project is a new investment on a new site/location that does not have any Greenfield project pre-existing facilities. Grant is the financial incentive provided under the APIP to a qualified proponent to Grant construct and operate a petrochemical project in Alberta. Liquefied Natural Liquefied natural gas (LNG) is natural gas (primarily methane, with some mixture of ethane) that has been cooled down to liquid form for ease and safety of non-Gas (LNG) pressurized storage or transport. Income Tax Income Tax regulations (Canada) refers to the Income Tax Regulation C.R.C., c. 945. Regulations https://laws-lois.justice.gc.ca/eng/regulations/C.R.C., c. 945/index.html (Canada) Job Creation Assessment is a quantification of the employment potential and impacts of Job creation the petrochemical project investment. The assessment is generally disaggregated by the assessment following types of jobs/employment: Direct employment is created directly by construction, operation or maintenance activities. Indirect employment is created in the backward-linked industries, supplying tools, materials, plant and equipment for construction and maintenance activities. Induced employment is created through forward linkages as households benefiting from direct and indirect employment spend some of their additional income on goods and services in the economy. **Natural Gas** Natural gas is a mixture containing methane, other paraffinic hydrocarbons, nitrogen, carbon dioxide, hydrogen sulphide, helium and minor impurities, or some of them, that is recovered or is recoverable at a well from an underground reservoir and is gaseous at the conditions under which its volume is measured or estimated (Oil and Gas Conservation Act, section 1(1)(tt)). Natural Gas Liquids or NGLs are ethane, propane, butanes and condensate or a Natural Gas Liquids combination of these, obtained from the processing of raw gas or condensate. Ethane, (NGLs) propane and butane are eligible feedstocks under the program. New, incremental New jobs are full-time employment positions that did not exist in Alberta prior to the and permanent start of the contract for construction and manufacturing activities of a petrochemical iobs project. Incremental jobs are full-time employment positions in Alberta that will be created in addition to the number of baseline jobs existed within the petrochemical project. A permanent job is a full-time equivalent job that is expected to last as long as the employee wants it, given that business conditions permit it. (Statistics Canada definition).

October 28, 2020

Petrochemical intermediates For the purposes of the program, *petrochemical intermediates* are hydrocarbons derived from the transformation of natural gas, natural gas liquids, crude oil or oil sands bitumen and serve as feedstocks to produce a variety of plastics, or other petrochemical products. Petrochemical products produced from petrochemical intermediates that can be further transformed into value added petrochemical products by means of manufacturing and processing also meet this definition. Petrochemical intermediates also include compounds that are commonly referred to as base organic chemicals. Illustrative examples of petrochemical intermediates include: ethylene; propylene; benzene; alpha olefins; ethylene oxide; ethyl benzene; ethylene dichloride; propylene oxide. See below a table that illustrates petrochemical intermediates for the purposes of the program.

Petrochemical	Petrochemical	Petrochemical	Petrochemical	Uses
Intermediate	Intermediate	Intermediate		
Ethylene	Oxygen	Ethylene oxide	Ethylene glycol	Antifreeze, polyester production
Ethylene	Benzene	Ethyl benzene	Styrene	Polymers, synthetic rubber
Ethylene	chlorine	Ethylene dichloride	Polyvinyl chloride	Building materials, medical applications
Ethylene	Alpha olefins		High density PE	Packaging, consumer goods
Propylene			polypropylene	Packaging, automotive, consumer goods
Propylene	Oxygen	Propylene oxide	Propylene glycol	Unsaturated polyester resins, deicing
Propylene	ammonia		acrylonitrile	Styrene co- polymers, ABS resins

Petrochemical Project A petrochemical project is an establishment that produces higher value petrochemical products. Petrochemical projects transform eligible feedstocks into petrochemical intermediates and/or process petrochemical intermediates further into a variety of plastics or other chemical products used in the petrochemical value chain.

Phases (of a project)

A defined scope of a specific petrochemical project denoting the production of a certain amount of petrochemical products in a discrete plant footprint.

Primary facility and Secondary facility For the purposes of the program, a *primary facility* is a facility within a petrochemical project primarily engaged in manufacturing products using methane or natural gas liquids (including ethane, propane or butanes) as feedstock. Examples of a *primary facility* include an ethane cracker to produce ethylene and a propane dehydrogenation plant to produce propylene.

A secondary facility is a facility within a petrochemical project primarily engaged in manufacturing a variety of plastics or petrochemical intermediates using petrochemical intermediates as feedstock. Examples of a secondary facility include facilities engaged in the manufacturing of polymers such as polyethylene from ethylene, facilities that manufacture ethylene glycol, or facilities that manufacture fuels such as dimethyl ether. A secondary facility can be integrated with a primary facility on the same site or exist as a standalone facility.

Refining, Upgrading, and Partial Upgrading Refining is the process of feeding crude oil to a refinery for conversion into products such as gasoline, diesel, jet fuel, liquefied petroleum gas, base oils and fuel oil/bitumen etc.

Upgrading involves transforming heavier crude oils (e.g., oil sands bitumen) into higher specification crudes such as gasoline and diesel rich Synthetic Crude Oil (SCO).

Partial upgrading is a process that carries out less severe conversion of heavier crude oil that reduces the amount of diluent required to transport the crude through a pipeline and thereby reducing the cost of handling and meet minimum specifications for refineries.

Routine
maintenance and
turnaround
activities

Routine maintenances are activities performed at specific periodic intervals on vital equipment to prevent expensive and untimely breakdowns within the petrochemical project.

Turnaround activities may include preventative care and inspection of equipment, general corrective repair of faults, strip-downs, complete replacement and overhaul, or maintenance.

Technology Readiness Level (TRL)

Technology Readiness Level is a type of measurement system used to assess the maturity level of a particular technology. There are 9 technology readiness levels, with 1 being the least ready and 9 being already used in real-life conditions. For more information, please see https://www.ic.gc.ca/eic/site/101.nsf/eng/00077.html

Total Estimated Capital Costs Total Estimated Capital Cost is the sum of all eligible capital costs estimated to build the project based on a minimum of a Class 3 capital cost estimate submitted to the Department at the time the project qualifies under the program. The Total Estimated

Capital Cost is used to calculate the maximum amount of grant funding the project is eligible to receive. See the *Eligible Capital Costs* section for more guidance.

Undepreciated
Capital Cost (UCC)

Undepreciated Capital Cost (UCC) for the project as defined in subsection 13(21) of the Income Tax Act (Canada). The UCC is based on the same information submitted to the Alberta Treasury Board and Finance for the purposes of claiming capital cost allowance as part of annual tax filings. Eligible capital costs are described in the section above. After the proponent files their annual tax return, they will submit a copy of the relevant schedule(s) to the department.

Value Chain

A *Value Chain* is a process where raw materials are transformed into new higher-value products. For the purposes of petrochemicals they are considered to transform raw feedstocks into petrochemical intermediates or petrochemicals used in the manufacturing of items used in our day to day life. For example, the ethane value chain can include processing ethane into the petrochemical intermediate ethylene that is further converted to polyethylene, a type of plastic resin. Polyethylene is ultimately used to produce a variety of end user consumer products.



Appendix 2 – Application Information and Structure

Part 1 – Business Plan

- Provide an overall description of the project and business plan, including feedstock type and sourcing, technology choice and engineering design, products produced, marketing strategy, competitive advantage, financing, and infrastructure requirements, amongst other components discussed below.
- Describe how the processing facility meets the demand of existing markets and how it is aligned with expanding markets for Alberta's products.
- Outline the proponent's objectives and vision for the processing facility, including future capabilities. Outline the initial stage as well as any intended stages or expansions.
- Describe the location of the project and the advantages and challenges of that location.
 Detail the proponent's plan for meeting the logistical challenges of the location.
- Describe the infrastructure requirements for the project, and set out the proponent's plan for meeting these requirements.
- Indicate intended non-arms' length relationships relative to the project.
- Describe how the proposed project grows existing value chains or advances further along the value chain within Alberta.
- For expansion and/or debottlenecking of existing Alberta facilities, the business plan must establish the existing facility benchmark throughput capacity and production levels (average of previous three years), and provide information on post-investment target throughput capacity, forecast of feedstock consumption and production levels.
- Describe the plan to source, transport and store feedstock to ensure feedstock can be supplied to the proposed project.
- Provide an overview of the discounted cash flow model used by the proponent to assess
 the economic viability of the project as well as a copy of the model.
- Include an annual cash flow analysis for the project for a minimum of 15 years, providing project internal rate of return (IRR) and project net present value (NPV) (8%, 10% and 12% real discount rates) both before and after income tax. Utilize mid-year discounting. Use Canadian dollars.
- Provide sufficient detail to enable the department to project, based on the proponent's assumptions, the returns and rewards to the Crown that could be expected to flow from operation of the facility.
- Indicate all prospective government and public sources of funding other than the grants from this program, including committed as well as potential funding. Indicate the current status of all such funding requests and the proponent's expectations regarding

probability and amount of funding.

Part 2 – Project Timing

- Provide the project execution plan, describing how the project will be carried out.
- Set out the project's intended timeline and its key milestones: the timelines must state
 the date that the proponent expects that the petrochemical project will be fully
 operational. This date will be included in the APIP grant agreement.
- Describe the current status of the project, including all steps taken to date and how far the project has advanced, including at least the current stage of:
 - i. engineering design;
 - ii. regulatory approvals; and
 - iii. financing approvals.
- Set out key construction milestones with the date that the proponent anticipates achieving the milestone.

• Part 3 – Technology and Project Configuration

- Describe the intended processes and technology that the proponent has selected for the project and the reasons for selection.
- Describe the intended project configuration, scale, process selection, integration and site plan including utilities and off-sites.
- Provide a material and energy balance, showing feedstock quality, product yields, emissions, greenhouse gas (GHG) production/recovery, other feedstock, and consumption of natural gas, power and water.
- Indicate the design standards used or intended to be used for plant reliability, safety and environmental performance.
- Describe how the processing facility will be technologically compatible with the proponent's ultimate vision of the project, including in relation to each stage or expansion phase intended by the proponent.

Part 4 – Proponent's Capability

- o If the proponent is a consortium or joint venture or partnership, outline the intended legal structure of the arrangement, indicate which corporate entities will comprise the proponent, and outline the respective roles all such entities will contribute.
- Indicate which corporate entity or entities in the application is or are applying to receive the grants.
- Detail the relevant experience and expertise of the respective entities comprising the proponent within the application in relation to
 - i. construction projects of magnitude similar to the proposed processing facility;
 - ii. constructing, operating and/or maintaining similar facilities;
 - iii. securing financing for projects of similar magnitude; and

- iv. producing, selecting and/or marketing of the petrochemical products.
- Set out the individuals who will comprise the proponent's management team providing, the relevant experience, expertise and qualification of each such individual and their role.
- Describe the experience and certification levels of employees or subcontractors expected to be required for successful completion of the project.
- Provide an overview of all current ongoing business activities of entities comprising the proponent that may be relevant for the successful execution of its project.
- Document any business management, project management or risk management systems, including measures to address risks to workplace safety or potential project delays, deployed by the proponent on a corporate basis that may be relevant to the successful execution of its project.
- Provide audited financial statements demonstrating financial capacity to carry out the project.

Part 5 – Economic Benefits to Alberta

- Provide an overall description of the economic benefits the project will return to Alberta.
- On a project- specific and annual basis, provide an estimate of provincial corporate income taxes and municipal taxes.
- Describe and quantify estimated job creation and potential subcontracting opportunities for local companies in Alberta.
- Describe impacts that are expected to result from the project such as diversification and new product production.
- Provide an economic impact report giving an estimate of the economic benefits that the
 project brings to the provincial economy and surrounding communities. The economic
 impacts from the project must be expressed in terms of output (sales), value added
 (gross domestic product), earnings, employment (full- and part-time jobs), tax revenues,
 and investment on all industries and on individual industries in the provincial economy.
 Key assumptions for the economic impact study must be listed including the time
 horizon.
- Economic impacts should be estimated at the direct, indirect and induced levels:
 - i. The direct impact relates to the first round of inputs purchased by the industry. Direct impacts result from expenditures associated with constructing and operating a project, such as labour, materials, feedstock, catalysts, supplies, and capital.
 - ii. The indirect impact relates to the subsequent rounds of inputs purchased by supporting industries. The sum of the direct and indirect impacts is the interindustry effects. These impacts would not occur but for facility operations.
 - iii. The induced impacts, also referred to as the household-spending effect, results from increased employment (earnings) from the higher level of economic activity resulting from the increased inter-industry activity.

• Part 6 – Environmental Performance

- Provide an overall description of the environmental benefits the project will return to Alberta.
- o Discuss all aspects of the expected environmental performance of the project.
- Outline the intended approach for meeting all government requirements, and any plans for exceeding government requirements.
- Demonstrate the use of best available technical and economically achievable standards and outline any initiatives that will make the project an environmental leader.
- Describe how the facility will be designed to use the best available technologies to maximize energy efficiency.
- Detail the project's plan for water use, the source of such water, the extent of re-use and the amount of water returned.
- Identify by type the amount of expected greenhouse gas emissions and describe plans to mitigate these.



Appendix 3 – Hypothetical Example of Program Participation

Step 1: Advance Notification

- A project proponent files an advance notification with the Department on November 1, 2020 for an eligible petrochemical project.
- The Department will issue a response to the proponent informing them of project eligibility.

Step 2: Qualification

- The proponent files an application to qualify with the Department on November 1, 2021 that includes a Class 3 capital cost estimate to construct the project. Construction is planned to begin on July 1, 2022 and expected to last three years leading to an in-service date of August 1, 2025.
- The application reflects a total eligible capital cost of CAD\$1 billion and the Maximum Grant
 amount that the project is eligible to receive is calculated to be CAD\$120 million (CAD\$1 billion
 ×0.12).
- The APIP Committee determines the project meets the eligibility criteria, and confirms it qualifies under the program and will be offered a grant agreement. The Department offers a grant agreement to the proponent for signature for a grant amount of CAD\$120 million. The maximum annual grant will be CAD\$40 million for every 12 month for a total of 36 months the facility is operational and will be reflected in the grant agreement.
- The proponent will begin regular reporting as per the requirement of the grant agreement that
 include status updates and updates on capital costs incurred to date and estimated capital
 costs to complete construction. In addition, the proponent submits the Eligible Capital Cost
 Reconciliation Schedule (Exhibit A) once per year.

Step 3: Payment

- Construction of the project is completed and the proponent declares the facility in-service on February 1, 2026, six months later than planned, and with an eligible capital cost of CAD\$1.2 billion.
- The Maximum Grant that the project proponent can receive remains CAD\$120 million. The
 maximum annual amount of grants that the company is eligible to receive for every 12 months
 of operation is CAD\$40 million (CAD\$120 million / 3).
- The project begins to operate and consume feedstock to produce value-added products. On February 28, 2027 the proponent submits an Earned Grant Application (EGA) for the first twelve (12) months of operation (February 2026 to January 2027) with supporting evidence for the volume of eligible feedstock consumed. On February 28, 2028 the proponent submits a second

Earned Grant Application (EGA) for the second twelve months of operation (February 2027 to January 2028). The proponent submits a final EGA on February 28, 2029.

