

SCHEDULE A – BIOENERGY PRODUCTION

Please note: the following guideline may be updated from time to time.

All applicants must complete Schedule A

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	Facility or Project Name	Provide the “Facility or Project Name” that is entered on the Application Form question #4 (Facility or Project).
	Date of Application	Provide the date entered at the top of the Application Form.
1.	Program(s) and Product(s) Applied for	<p>Check all bioenergy products being applied for under the applicable Program. Attachments to support Question 1 are optional (e.g., to describe the product because the applicant is unsure of the appropriate Program).</p> <p>Applicants may apply for more than one bioenergy product in the same Program (e.g., 1st generation ethanol and biodiesel under Program 1), and may apply for products under more than one Program (e.g., biodiesel under Program 1 and electricity from combustion of biomass under Program 4).</p> <p>Applicants must demonstrate eligibility of each product applied for by completing Schedule B for all products applied for and one of the “D” Schedules (D1 to D5). The form identifies which D Schedule is required for each bioenergy product, i.e:</p> <ul style="list-style-type: none"> D1 – Liquid Biofuels (under Program 1); D2 – Gas Products (under Program 2); D3 – Biomass Pellets and Biocarbon (under Program 3); D4 – Electricity (under Program 2 and 4); D5 – Heat (under Program 2 and 4). <p>Note that the program is intended to support commercial bioenergy production. This is confirmed by meeting eligibility requirements, subject to Alberta Energy’s discretion.</p>
	Program 1: Liquid Biofuels	<p>For biodiesel or other renewable diesel, provide the commonly used term for the product (e.g., FAME biodiesel, green diesel, pyrolysis oil).</p> <p>Methanol is accepted providing the applicant can provide an industry standard (CGSB or ASTM) for use as a fuel.</p> <p>Other renewable fuel alcohols may also be considered by Alberta Energy of Energy on the same basis as methanol.</p> <p>Applicants may check more than one product under Program 1, if applicable.</p>
	Program 2: Gas-based Bioenergy Products, etc.	<p>If applying for a gas product that is not referred to as biogas or landfill gas, check off “Other gas” and provide the commonly accepted term.</p> <p>If producing biogas, landfill gas or other gas, the product must be sold to be eligible.</p> <p>If applying for a gas product used on site, then apply for the end product (e.g., electricity and/or heat).</p> <p>If applying for electricity, the electricity generating facility must have a nominal</p>

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		<p>capacity of at least 150 kilowatts, be interconnect to the Alberta electric system and must not be an approved micro-generator under the <i>Micro-Generation Regulation</i>.</p> <p>Applicants may check more than one Program 2 product, if applicable.</p>
	<p>Program 3: Commercial Biomass Pellets and Biocarbon</p>	<p>If applying for biomass pellets other than wood pellets, please check off “Other biomass pellet” and provide the appropriate term (e.g., straw pellets).</p>
<p>2.</p>	<p>If Applying for More Than one Product</p>	<p>The purpose of this question is to confirm that two or more products applied for are not produced in succession from the same unit of biomass.</p> <p>If this question applies, the required response is an attachment that contains a description and process flow diagrams showing interactions between bioenergy feedstocks and production processes.</p> <p>Example 1: Electricity generated from combustion of liquid biofuels:</p> <ul style="list-style-type: none"> • If applying for a liquid biofuel under Program 1 as well as electricity generated by combustion of the same liquid biofuel under Program 4, the portion of liquid biofuel used to generate electricity is not eligible to receive credits. • Alternatively, the biofuel producer could apply only for Program 1 credits on all liquid biofuel production. <p>Example 2: Electricity generated from biogas (Program 2):</p> <ul style="list-style-type: none"> • An eligibility requirement specific to biogas is that it must be sold to qualify for credits. If the biogas is consumed on site, the heat or electricity end product may qualify for credits. • Electricity generated from biogas acquired from another facility is not eligible to receive credits. The biogas producer may have qualified to receive credits. <p>Example 3: Waste heat recovered from generating electricity:</p> <ul style="list-style-type: none"> • Waste heat recovered from electricity generation (Program 2 or 4) from biomass may qualify for credits in addition to the electricity. • If waste heat is cycled back into generating electricity, then, for that portion of electricity generated from waste heat, only one product would potentially qualify for credits. <p>Example 4: Wood pellets used to generate electricity:</p> <ul style="list-style-type: none"> • If applying for wood pellets under Program 3 as well as electricity under Program 4 using wood pellets, the portion of wood pellets used to generate electricity is not eligible to receive credits. • Alternatively, the wood pellet producer could apply only for Program 3 credits on all wood pellets. • Electricity or heat produced from wood pellets acquired from another facility is not eligible to receive credits. The wood pellet producer may have qualified to receive credits. <p>Example 5: Multiple products under Program 2 or Program 4:</p> <ul style="list-style-type: none"> • If you are approved for heat and electricity under Program 4, you will receive

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		<p>one annual grant for both products.</p> <ul style="list-style-type: none"> You may submit invoices for both bioenergy products in any proportion to fully utilize the annual grant, but are required to invoice for electricity first and heat second. The committed production will be considered as fulfilled once the annual grant has been fully utilized. Similarly, if approved for two or more bioenergy products (i.e., electricity, gas and/or heat) under Program 2 you will have one annual grant but may invoice for either or both products to fully utilize grant funds.
3.	Bioenergy Product	Identify the bioenergy product for which Questions 3, 4 and 5 are being completed.
	BPCP Program Number	Identify the Program Number (1, 2, 3 or 4) applicable to the bioenergy product.
	Unit of Measure	<p>Provide the appropriate unit of measure used for the production capacity (e.g., MW) and for annual production (e.g., MWh). forecasts in Question 3, the production obligation in Question 4 and past bioenergy production in Question 5. For example:</p> <ul style="list-style-type: none"> use MW (megawatt) or kW (kilowatt) for electricity generating capacity; and MWh (megawatt hour) or kWh (kilowatt hour) for quarterly and annual production; use litres or millions of litres (M litres) for liquid biofuels; use tonnes (metric) for pellets and biocarbon; use GJ/hr (Gigajoules per hour) for the capacity (capacity rate) and GJ (Gigajoules) for production of gas products and heat. <p>If unsure of the system capacity rate provided by the heat system manufacturer, please comment at the end of the form.</p>
	Committed Production and Forecast	<p><u>Annual Committed Production</u></p> <p>If the cells for a given program year say “N/A” then production in that year is not eligible for consideration under the current call period (e.g., the second call period pertains to production in Program Years 2 through 5).</p> <p>State the annual quantity of bioenergy production that the applicant commits to produce each Program Year (April 1 to March 31).</p> <p>For applicants applying for electricity under Program 2 or 4, include net usable electricity generated from biomass inputs only.</p> <ul style="list-style-type: none"> Parasitic load (electricity inputs consumed directly in electricity generation) Other inputs for electricity generation, such as natural gas, solar energy or wind energy, must be deducted. Attachments showing method of calculation are required with Schedule D4. <p>Please note the following when deciding on a committed production amount:</p> <ul style="list-style-type: none"> If the annual grant offered by Alberta Energy is not sufficient to support the committed production applied for, then the approved committed production

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will be less than the quantity applied for.

- The committed production applied for by the applicant does not need to be the same every year.
- If the committed production for your first year in the Program is zero and the facility has no recent past production (Question 4), then you must also complete Schedule C – Future Facility and you may be required to post a performance bond.
- If a producer fails to achieve 75 per cent of the committed production in a given year, as set out in the grant agreement, Alberta Energy may reduce it the annual grant in a subsequent year.
- If a producer fails to achieve 25 per cent of the committed production in a given year, as set out in the grant agreement, the agreement may be terminated.
- Applicants may apply for additional production support in future years.
- If the facility will commence production during a Program Year, then the maximum committed production accepted in the initial production year is the largest annual committed production stated by the applicant (or a lesser quantity approved by Alberta Energy) pro-rated based on the number of months of production in the start-up year. For example, if only three months of production are expected in the start-up year, then the maximum committed production accepted for that year is:

$$\frac{\text{Largest Committed Production Amount} \times 3 \text{ months}}{12 \text{ months}}$$

Production Capacity

In a year that the facility is not capable of production, state the production capacity as zero.

If the facility will start producing during a Program Year, state the rated capacity for 12 months of production in that year. Do not pro-rate capacity based on the expected number of months during which production is expected to occur.

Estimated Quantity to be Consumed on Site Per Year

If any portion of the committed production will be consumed on site for any purpose (not necessarily related to bioenergy production), estimate the quantity of production to be consumed on site that you believe may qualify for credits.

For biogas, syngas and other gas products under Program 2, enter zero for on-site consumption. These products must be sold or delivered off site to qualify for credits.

Quarterly Production – First Year in Program

A quarterly production forecast is requested for the applicant's first year in the Program to enable Alberta Energy to forecast payment of support by quarter.

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		<p>If production in the applicant's first year in the Program will be zero, then state zero for all quarters.</p> <p>For quarterly production forecasts, enter the sum of:</p> <p>[Estimated Qualifying Production to be Sold or Delivered Off Site] + [Estimated Qualifying Total Quantity to be Consumed on Site].</p>
4.	Past Bioenergy Production	<p>Past bioenergy production is only required if a facility has been in operation prior to the date of application.</p> <p>Use the unit of measure for production identified in Question 3.</p> <p>Information provided in response to Question 4 is used by Alberta Energy to help confirm that:</p> <ul style="list-style-type: none"> • a producing facility is capable of achieving the level of committed production applied for, and • a producing facility has recently demonstrated production even though the application may commit to no production in one or more Program Years.
	Comments	Use this area to add any necessary comments (e.g., to explain fluctuations in committed production from one Program year to the next).