

Deciding the right Inbicon Biomass Refinery model that's right for your business.

We want to help you design a sustainable business model for your Inbicon Biomass Refinery. Please, fill out some basic inputs we need to do some beginning modeling for you. If you're far along in your thinking, the answers will give us a clearer understanding of your plan's potential and help you evaluate its technical and financial feasibility.



1. Your name _____

2. Company name and address _____

3. Who would be the primary contact for your project?

Name _____

E-mail _____

4. Who are the primary founders or owners of the project?

5. Proposed name of your project?

6. Existing site?

Yes

No

If yes, what is the area

7. Will the biomass refinery integrate with a CHP unit?

Yes

No

Check all the CHP facilities you plan to include:

Coal-fired power station

Grain-ethanol plant

Sugar refinery

Other CHP-driven facility (describe)

8. Briefly describe project components as you see them

9. Have you done a biomass study yet? If so, please describe and estimate dry tonnage.

10. Choose biomass type

Default wheat straw

Default corn stover

Energy crop (specify) _____

Known specification (requires composition of biomass)

_____ Water content [%]

_____ Cellulose fraction [% of dm]

_____ Hemicellulose fraction [% of dm]

_____ Lignin fraction [% of dm]

_____ Ash fraction besides K and Cl [% of dm]

_____ K [% of dm]

_____ Cl [% of dm]

_____ Other solids [% of dm]

11. Estimated biomass price

_____ \$/dry metric ton delivered at plant

12. Enzyme - choose default enzyme cost or estimate enzyme cost

Default enzyme price (0.6 \$/gal ethanol in 2012)

_____ \$/gal ethanol produced

13. Choose energy supply for biomass refinery (choose)

Solid Biofuel fired CHP - From own combined heat and power plant

_____ [\$/MWh] electricity selling price surplus

_____ [\$/MWh] green electricity selling price

Solid Biofuel fired boiler

_____ [\$/MWh] electricity buying price

_____ [\$/MWh] solid biofuel selling price

_____ [\$/MWh] electricity buying price

_____ [\$/MWh] solid biofuel selling price

_____ [\$/GJ] (wood pellet price)

No energy plant

_____ Steam buying price [\$/metric ton 20 bara steam]

_____ electricity buying price [\$/MWh]

_____ solid biofuel selling price [\$/GJ] (wood pellet price)

14. Estimate selling price of molasses
(selling price of sugar cane or sugar beat molasses is a good estimate)

_____ \$/dry metric ton - requires sugar content specification

_____ % sugar of dry matter

15. Choose size of plant
 20 dry metric ton of biomass/hour
 50 dry metric ton of biomass/hour

16. Estimate average operator cost (per year) _____ \$/year

17. Estimate how much you expect in government grants or investments

_____ \$ or

_____ % of investment

18. How much have you received in government grants so far

_____ \$

19. Have you raised seed money or venture capital for a feasibility study?

Yes

No

20. What developments, preferences, or commitments have you made with any suppliers?
For example: other technologies, EPCs, biomass suppliers, etc?

21. Are there any additional critical issues driving the project?

22. Describe your project timeline, if any.

23. State anything else that might be beneficial to the project.

Thank-you for your interest in developing a project using the Inbicon Biomass Refinery technology. Your answers will help us respond to you with specific suggestions for next steps. Please email this form back to us at **info@leifmark.com** and we will follow-up with a call to you upon receipt.