Permit-to-Install/Plan Approval Application

FOR AGENCY USE ONLY		
Date Received: / /	Application/Revenue ID:	Organization ID:
Document ID:	Place ID:	Check ID:
Check Date: / /	Check Number:	Check Amount:

1. Project Name: Dovetail Bioenergy Process Reconfiguration Project

2. Applicant (see note after signature)

Name: Renergy, Inc.
Mailing Address: 461 State Route 61
City: Marengo State: OH Zip: 43334
Contact Name: Alex Ringler
Title: Chief Executive Officer
Phone: (419) 253-5300 Fax: (419) 710-6353 - E-mail : Accounting@renergy.com

3. Application/Plans Prepared by:

Name: Civil & Environmental Consultants, Inc.
Mailing Address: 555 Butterfield Road, Suite 300
City: Lombard State: IL Zip: 60148
Contact Name: Kevin O' Leary
Title: Principal
Phone: (630) 308-8775 Fax: (630) 963-6027 E-mail : koleary@cecinc.com

4. Billing Address (if different than Applicant)

Name:
Mailing Address:
City: State: Zip:
Contact Name:
Title:
Phone: ( ) - Fax: ( ) - E-mail :

5. Future Owner (if different than Applicant)

Name:
Mailing Address:
City: State: Zip:
Contact Name:
Title:
Phone: ( ) - Fax: ( ) - E-mail :

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6. Project Location

Street Address or Location Description: 1146 Herr Road, Fairborn OH 45324

County: Greene Township: Bath Township

Municipality: Fairborn Latitude: 39° 48' 42.8" N Longitude: 83° 58' 07.3" W

Method of Determination: Google Earth

7. Brief Project Description: Addition of process tankage, pumping and biogas process equipment for existing high solids anaerobic digestion of various organic feedstocks such as sewage sludge (biosolids), food waste, FOG, manure, and energy crops. Produces green energy and value added digested products. PFRP processes may be used to generated EQ products on a seasonal basis.

8. Will one or more acres be disturbed during construction of this project? X Yes ☐ No

If **Yes**, enter the date the NOI for coverage under the construction storm water NPDES permit was submitted: 12/12/2016 and the date coverage was granted: In Progress

9. Will wetlands be disturbed during construction of this project? ☐ Yes X No

If **Yes**, enter the date the 401/404 permit application was submitted: / /

10 a. Is this application part of a combined permit-to-install application? (for example air + water) X Yes ☐ No

b. Has an application for a Class V injection well permit been submitted? ☐ Yes X No ☐ N/A

If **Yes**, date submitted: / /

11. Compliance Status

a. Will this project connect to a collection/treatment system that has a NPDES permit? ☐ Yes X No

If **Yes**, list federal and state permit numbers:

OH

b. Is this application filed in compliance with findings and orders, a consent decree, and/or NPDES permit schedule? ☐ Yes X No

If **Yes**, effective date of the document containing the schedule: / /

12. Compliance with 208 plan

Does the project conform to the 208/201 plan for the area? ☐ Yes ☐ No X N/A

If **Yes**, has the engineer submitted supporting documentation? ☐ Yes ☐ No

13. Designated Ohio, Wild, Scenic, & Recreational Rivers

Is this project located within 1000 feet of a designated wild, scenic, and recreational river? ☐ Yes X No

See http://watercraft.ohiodnr.gov/scenicriversmap for additional information

14. Estimated Project Schedule:

Beginning construction date: 12/19/2016 Ending construction date: 6/1/2017 Beginning operation date: 4/1/2017

15. Project Cost:

*Installation/Construction Cost: $ 600,000 (Mark one): ☐ Actual ☐ Bid X Estimate

Annual Operation/Maintenance Cost (if applicable - this project only): $

Are Water Pollution Control Loan Funds going to be used for this project? ☐ Yes X No

If **No**, Funding Source: Private

**This is costs of the treatment/dispersal/collection system that will serve the project*

16. Attachments

The following are included in this application package (check appropriate box(es) and indicate how many copies of each are provided):

X Detail Plans	6	☐ Management Plan	
X Soil Evaluation Form	4	X Engineering Report	4
☐ Hydrogeologic Site Investigation Report		X Engineering Specifications	4
☐ Site Evaluation Form		☐ Sewer Authority Letter	
☐ Other (describe):		☐ Antidegradation Addendum	No Discharges
☐ Narrative Plans			

17. Form B / C Submission (check all that apply):

- ☐ Sewer and Pump Station Construction – Form B1
- ☐ Onsite Sewage Treatment Systems – Form B2
- ☐ Wastewater Treatment Plants Less Than 100,000 GPD – Form B3
- ☐ Wastewater Treatment Plants Greater Than or Equal to 100,000 GPD and all Pond Systems – Form B4
- X Industrial Direct Discharge Facility – Form B5
- ☐ Industrial Indirect Discharge Facility – Form B6
- ☐ Underground Storage Tank Remediation – Form B7
- ☐ Holding Tanks – Form B8
- ☐ Industrial Impoundment Ponds – Form B9
- ☐ Land Application Management Plan for Sludge or Waste other than Treated Sewage – Form C1
- ☐ Treated Sewage Land Application Management Plan – Form C2
- ☐ Sewage Holding Tank Management Plan – Form C3

18. Fee Calculations:

Permit-to-Install (maximum total fee $15,100)

a. Application fee:	$ 100.00
b. Plan review fee:	$ 100.00
c. Plan review fee (installation/construction cost x .0065):	$ 3,900
d. Total Fee (a + b + c):	$ 4,100

Sludge Management Plan Approval*

a. Application fee:	$ 100.00
b. Plan review fee:	$ 100.00
c. Total fee (a + b):	$ 200.00

** No separate fee is needed for land application*

19. Antidegradation

Is this project subject to the Antidegradation Rule (OAC 3745-1-05)? ☐ Yes X No

*If **Yes**, an antidegradation addendum must be submitted (Note: It applies even if an exclusion and/or waiver is met)*

*If **No**, check all that apply:*

X Application with no direct surface water discharge (Projects that do not meet the applicability section of 3745-1-05 (B)1, i.e., onsite sewage treatment systems, sanitary sewer extensions, indirect discharger to POTW, etc.).

☐ Renewal NPDES application or PTI application with no requested increase in loading of currently permitted pollutants.

X Narrative Plans (Examples: Land Application, General Plans, etc.)

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20. Submittals:

To be considered complete, this application must include the following unless otherwise directed by Ohio EPA:

X Four copies of the detail plans including profile and plan views of all sewers (shown on the same sheet), existing (as applicable) and proposed pump station facilities, incorporating all of the details outlined in Section 20.1, 20.2 and 20.3 of *Recommended Standards for Wastewater Facilities.*

X Two copies of complete technical specifications.

X Two copies of the Permit-to-Install Application including Form A, pertinent B & C form(s), and the antidegradation addendum *(if applicable)*

X Fee check payable to "Treasurer, State of Ohio."

21. Signature of the Applicant: (see Ohio Administrative Code 3745-42-03)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision and that all the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are substantial penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Typed name: Alex Ringler Title: Chief Executive Officer

Signature: Date: 12/12/16

NOTE (Who Must Sign):
The person signing as AApplicant@ is not the applicant–s engineer or architect or any other person submitting the Permit-to-Install Application on behalf of the owner. The AApplicant@ should be owner of the facility, business, corporation, company, etc. or the legal responsibly entity. It is not the engineer who prepared the plans.

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Attachment III: Biological Treatment

Note: A separate copy of this form should be used to describe each type of biological treatment proposed.

1. Biological Treatment - General Information

a. Biological Treatment Type ☐ Secondary ☐ Advanced

b. Flow Type ☒ Continuous ☐ Batch ☒ Complete Mix ☐ Plug

	New	Existing
c. Process type	Predigester Tank	Predigester/Digester
d. Number of tanks	1	1/1
e. Surface area dimensions (feet, each)	693	693/2773
f. Side water depth or height (feet, each)	44.5	44.5/38
g. Detention time (hrs & mins @ ADDF)	76.6 Hours	76.6/250 Hours
h. Others:		

2. Aeration and/or Mixing: ☒ N/A	New	Existing
a. Number of blowers		
b. Type (diffused air, mechanical surface, etc.)		
c. Capacity (each)	CFM @ PSI	CFM @ PSI
d. Oxygen supplied (lb oxygen/lb BOD_5)		
(lb oxygen/lb TKN)		
e. MLSS (design)		
f. F/M ratio		
g. Organic loading (lb BOD_5/1000 cu ft)		
h. RAS flow (% at ADDF)		
i. WAS flow (% at ADDF)		
j. Others:		

3. Trickling Filters ☒ N/A	New	Existing
a. Media type		
b. Media nominal size (in^3)	in x in x in	in x in x in
c. Media volume (ft^3)		
d. Media surface area (ft^2/ft^3)		
e. Distributor type (rotary, fixed, etc.)		
f. Recirculation rate (MGD @ ADDF)		
g. Others:		

4. Other Biological Treatment ☐ N/A ☒ New ☒ Existing

a. Describe: Anaerobic Digestion. Renovation and expansion of existing anaerobic digesters, by addition of duplicate predigester tank, biogas managemnt and utilization, and pumping/heating and cooling/pl

b. Design Criteria: Miniumum of 38% volitile solids destruction.

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Attachment VII: Sludge Treatment and Disposal

Sludge Thickening, Stabilization, Conditioning, Dewatering, Reduction, Disposal and Storage

1. Sludge Thickening ☒ N/A	New	Existing
a. Thickening type		
b. Number of thickeners		
c. Surface area dimensions (feet, each)		
d. Side water depth or height (feet, each)		
e. Detention time (hrs & min, total)		
f. Surface overflow rate (gpd/ft^2)		
g. Solid surface loading		
h. Thickened sludge concentration (%)		
i. Others:		
j. If air flotation is the thickening process:		
i. Air-to-solids ratio		
ii. Air pressure		
iii. Tank operating pressure		
iv. Recycling ratio (%)		
v. Others:		
vi. Will air flotation thickening be aided by polymer addition?	☐ Yes	☐ No
k. If centrifugal thickening is the thickening process:		
i. Centrifuge type		
ii. Number		
iii. Rate		
iv. Others:		
v. Will centrifugal thickening be aided by polymer addition?	☐ Yes	☐ No

2. Sludge Stabilization ☐ N/A	New	Existing
a. Number of sludge stabilization tanks	1	2
b. Surface area dimensions (feet, each)	693	693/2773
c. Retention time (hrs & min, total)	76.6 Hours Min.	76.6/250 Hours
d. Side water depth (feet, each)	44.5	44.5
e. If aerobic digestion is the stabilization process:		
i. Number of aerators		
ii. Type		
iii. Oxygen supplied (with largest blower out of service)	CFM at PSI	CFM at PSI
	lb oxygen/day	lb oxygen/day
iv. Others:		

2. Sludge Stabilization (cont.)	New	Existing
f. If anaerobic digestion is the stabilization process:		
i. Solids loading (lb vss/cu ft/day)	0.43 (Total System)	0.43(Total System)
ii. Solid retention time (hours & minutes)	76.6 hours min	326 hours min
Influent Solids Content (% dry basis)	12	12
Effluent Solids Content (% dry basis)	5-7	5-7
iii. Digestor cover type	fixed	fixed/flex
iv. Digestion temperature	thermophilic	thermophilic/mesophilic Fixed/Flex
v. Sludge heating type	heat exchanger	heat exchanger
vi. Sludge heating rate (BTU/hr)	3.5 MMBTU/HR	2.5 MMBTU/HR
vii. Sludge mixing type	Complete	Complete
viii. Number of withdrawal levels	2 min.	2 min.
ix. Sludge withdrawal pipe size	8" to 12"	8" to 12"
x. Gas withdrawal pipe size	6" to 12"	8" to 12"
xi. Others:		

3. Other Sludge Stabilization ☐ N/A ☐ Yes ☒ No

a. Describe:

b. Design Criteria:

4. Sludge Dewatering ☐ N/A ☐ Yes ☒ No

a. Describe:

b. Design Criteria:

5. Sludge Reduction ☐ N/A ☒ Yes ☐ No

a. Describe: Anaerobic Digestion

b. Design criteria: Minimum of 38% volatile solids reduction.

6. Sludge Disposal ☐ N/A	New	Existing
a. Sludge dry solids content (%)	5 to 10	5 to 10
b. Method of disposal	land applicatio	land applicatio
c. Estimated sludge production (tons of dry solids/year)	86,700	86,700

7. Sludge Storage Tanks ☐ N/A	New	Existing
a. Location		
b. Number		1
c. Surface area dimensions (feet, each)		38,013
d. Storage time (days, total)		17.51
e. Side water depth (feet, each)		pump tanker
f. Sludge removal method		

g. Will mixing be provided? ☐ Yes ☒ No

If **Yes**,

Mixing type: _____

Describe: _____

h. Will aeration be employed? ☐ Yes ☒ No

If **Yes**,

Number of blowers: N/A

Type: _____

Capacity: _____

i. Will chemicals be used to control odors? ☐ Yes ☒ No

If **Yes**,

Chemical type: _____

Describe: _____

8. Sludge Management Plan

Has plan been approved? ☒ Yes ☐ No

If **Yes**, date of approval: 4/16/2016 If **No**, date to be submitted: / /

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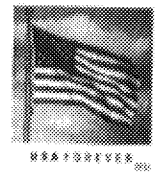
Reagan, Inc
Attn: [illegible]
461 St Rte 61
Navarre OH 43334



CEC
Attn: Sam Longo
333 Baldwin Rd.
Pittsburgh, PA 15205