

STATE OF LOUISIANA  
OFFICE OF CONSERVATION  
BATON ROUGE, LOUISIANA

**Basis for Decision**

for

Cleco Power, LLC (C1052)  
CLDV-STW1 No. 1  
Application No. 44451

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On September 7, 2023, Cleco Power, LLC (Cleco) submitted an application to the Injection and Mining Division (IMD) of the Louisiana Department of Energy and Natural Resources' (LDENR) Office of Conservation (OC) for a permit to drill a Class V stratigraphic test well at an approximate location of latitude of 31° 24' 14.38" North and longitude of 92° 43' 11.17" West (North American Datum of 1927-Louisiana North) in Rapides Parish in order to collect geotechnical cores, fluid samples, static pressure measurements, and other applicable information.

The OC conducted a review of the above-referenced permit application and prepared a proposed permit decision. While the OC does not believe that a review of this application under the analysis articulated by *Save Ourselves, Inc. v. La. Env 't Control Cmm 'n,452 So. 2d 1152* (La. 1984) ("IT Analysis") is legally necessary as part of the final permit decision for a Class V stratigraphic test well, such a review has been completed for this Basis of Decision out of an abundance of caution.

After review of the complete application and due consideration of all comments received during the public comment period, the OC finds that, as part of its IT Analysis, any adverse environmental impacts have been minimized or avoided to the maximum extent possible. To make this determination, the OC finds that the above-referenced permit application complies with all applicable statutes and regulations and has otherwise minimized or avoided to the maximum extent possible any adverse environmental impacts. Additionally, the OC finds that Cleco has met the alternative projects, alternative sites, and mitigation measures requirements of an IT Analysis for the above-referenced application.

After the OC determined that any adverse environmental impacts had been minimized or avoided to the maximum extent possible, it balanced social and economic factors with environmental impacts. Notably, the Louisiana Constitution does not establish environmental protection as an exclusive goal, but instead requires a balancing process in which environmental costs and benefits must be given full and careful consideration along with economic, social, and other factors. Accordingly, the OC finds that the social and economic benefits of the proposed project will outweigh its adverse environmental impacts.

The details of the OC's reasoning are set forth below.

## **FINDINGS OF FACT**

### **I. PROJECT SUMMARY**

On September 7, 2023, Cleco submitted an application to the IMD for a permit to drill a Class V stratigraphic test well (IMD Application No. 44451) in order to collect geotechnical cores, fluid samples, static pressure measurements, and other information. The purpose of the stratigraphic test well is to collect subsurface information in order to evaluate the feasibility of developing a carbon capture and sequestration program in the area. After the proposed drilling is completed, the test well will be plugged and abandoned.

The proposed total depth of the well is approximately 8,101 feet below ground level (bgl). The base of the lowermost underground source of drinking water (USDW) is approximately 1,011 feet bgl. There are twenty-one (21) registered water wells located within a one-mile radius of the proposed well location. The principal regional aquifers in the area include the confined Carnahan Bayou and Catahoula Aquifers below.

After conducting a review of the permit application, the OC prepared a draft permit decision. The draft permit conditions were based on applicable regulations as set forth in Statewide Order No. 29-N-1 (LAC 43:XVII, Subpart 1), as amended. Such regulations provide for the protection and non-endangerment of USDW and the permitting, drilling, completing, operating, and maintaining of Class I (nonhazardous waste), Class III, Class IV, and Class V injection wells in the State of Louisiana.

### **II. PUBLIC COMMENT**

Public notice of the Class V Stratigraphic Test Well Application No. 44451 was given on January 12, 2024, in *The Advocate*, the official state journal, and *The Town Talk*; on January 11, 2024, by forwarding a copy of the public notice to the Rapides Parish President; and on January 17, 2024 by forwarding a copy of the public notice to interested parties. Any person may request a copy of the list of interested parties by e-mailing [injection-mining@la.gov](mailto:injection-mining@la.gov).

The public comment period began on January 12, 2024 and ended on February 19, 2024. The OC received two written comments during the public comment period. After reviewing and considering all comments received during the public hearing, the OC prepared a Response to Public Comments for all relevant comments, which is attached hereto and made a part hereof.

### **III. AVOIDANCE OF ADVERSE ENVIRONMENTAL IMPACTS: Have the potential and real adverse environmental impacts been avoided to the maximum extent possible?**

Potential and real adverse environmental effects were considered both in regard to the construction of the well itself and with respect to construction activities to be completed in support of drilling-related activities.

Cleco has completed or committed to completing the following activities in order to avoid potential and real adverse environmental impacts:

- A. Ensuring protection of the USDW by proposing to set surface casing in a shale at least 100 feet below the lowermost USDW and cementing that casing to surface in accordance with IMD standards.
- B. Surface casing will be pressure tested to ensure no leaks or potential pathways exist for the migration of fluids to the USDW. In addition, a cement bond log will be conducted to confirm the integrity of the cement along the production casing and ensure no channels outside of the casing exist for vertical fluid migration from the injection zone.
- C. Filing a Storm Water Pollution Prevention Plan and a Notice of Intent for coverage under the Storm Water General Permit for Large Construction Activities with the Louisiana Department of Environmental Quality (LDEQ) in order to mitigate storm water runoff pollution.
- D. Implementing a zero-discharge drilling operation to contain all drilling fluids, drilling mud, and drill cuttings, which are to be disposed of at an approved offsite facility.
- E. Ensuring that solid and/or hazardous waste generated during construction, including construction material debris, used lubricants and oils, and general trash is stored temporarily onsite in accordance with all applicable federal and state regulations prior to transport off-site to an authorized treatment, storage, recycling, or disposal facility.
- F. Implementing a dust management plan to minimize dust during construction. The facility will require that roads and high traffic areas be wetted as necessary to minimize the generation of dust due to vehicle traffic.
- G. Ensuring that the surface cased section is drilled using a freshwater mud system designed to prevent contamination of groundwater.
- H. Utilizing the United States Fish and Wildlife Service (USFWS) Information Planning and Consultation Tool to help identify the presence of any known, threatened, or endangered species potentially in the area. In addition, a visual ground survey of threatened, endangered, or protected species and their habitat was conducted that did not identify immediate concerns at the proposed facility.
- I. Implementing an environmental awareness training with contractors to support environmental protection, including migratory bird and bat protection.

CONCLUSION: For the foregoing reasons, the OC finds that Cleco has avoided, to the maximum extent possible, the potential and real adverse environmental impacts associated with this permit application.

**IV. COST-BENEFIT ANALYSIS (BALANCING): Does a cost-benefit analysis of the environmental impact costs balanced against the social and economic benefits of the proposed facility demonstrate that the later outweighs the former?**

Environmental impact costs associated with this permit application include the following:

- A. Potential endangerment of the USDW. Cleco will set surface casing at least 100 feet below USDW and cement to surface to protect USDW. Cleco will add an additional layer of

protection to the USDW by setting a production string of casing and cementing back to surface. This will be verified with a cement bond log for each respective string of casing.

- B. Potential pollution from drilling activities. Cleco will minimize pollution by utilizing a zero-discharge drilling system and will dispose of all waste at an appropriate disposal facility. Cleco will obtain the required permits from LDEQ if they are deemed a generator or transporter of such waste.

The fundamental purpose and benefit of the proposed project is the collection of geologic data needed to fully evaluate the feasibility of potential geologic sequestration at this location. The proposed well is not presently permitted for the disposal of waste via injection.

Preliminary geologic assessments have already been conducted by Cleco using existing publicly available data. Nevertheless, site-specific information is not currently available. The collection of site-specific data, such as cores, fluid samples, static pressure measurements, and other information, are necessary for full assessment of a potential geologic sequestration project and cannot be acquired through other means except direct testing of subsurface formations via drilling.

**CONCLUSION:** For the foregoing reasons, the OC finds that the social and economic benefits of the collection of this data via the drilling of the proposed well outweigh its environmental impact costs.

**V. ALTERNATIVE PROJECTS: Are there alternative projects which would offer more protection to the environment than the proposed facility site without unduly curtailing non-environmental benefits?**

The project was planned in order to evaluate the feasibility of developing a carbon capture and sequestration program in northwest Rapides Parish. Since site-specific information is not currently available, the collection of site-specific data, such as cores, fluid samples, static pressure measurements, and other information, are necessary for full assessment of a potential geologic sequestration project and cannot be acquired through other means except direct testing of subsurface formations via drilling.

Since the stated intent of the proposed well is to assess the suitability of formations of interest for geologic sequestration, the whole purpose of the stratigraphic test well would be compromised if it were sited away from the northwestern portion of Rapides Parish.

**CONCLUSION:** For the foregoing reasons, the OC finds that there are no alternative projects which would offer more protection to the environment than the proposed facility site without unduly curtailing non-environmental benefits.

**VI. ALTERNATIVE SITES: Are there alternative sites which would offer more protection to the environment than the proposed facility site without unduly curtailing non-environmental benefits?**

The site location was selected in order to provide the necessary subsurface information

needed to evaluate the feasibility of developing a carbon capture and sequestration program in northwest Rapides Parish. No other location options are available that would avoid the placement of the proposed well within northwest Rapides Parish and the associated impacts to this area.

The stratigraphic test well will be located on the Cleco Brame Energy Center property (i.e., in a developed industrial area) away from sensitive environmental areas and receptors. This location already has existing protections in place for stormwater and spill containment, thereby mitigating potential impacts to undeveloped sensitive or protected environmental areas. In addition, site access to the facility already exists which further reduces required construction activities and potential impacts to the surrounding environment.

**CONCLUSION:** For the foregoing reasons, the OC finds that there are no alternative sites which would offer more protection to the environment than the proposed facility site without unduly curtailing non-environmental benefits.

**VII. MITIGATING MEASURES: Are there mitigating measures which offer more protection to the environment, than the facility as proposed, without unduly curtailing non-environmental benefits?**

Potential and real adverse environmental effects were considered both in regard to the construction of the well itself and with respect to construction activities to be completed in support of drilling-related activities.

- A. Ensuring protection of the USDW by proposing to set surface casing in a shale at least 100 feet below the lowermost USDW and cementing that casing to surface in accordance with IMD standards.
- B. Surface casing will be pressure tested to ensure no leaks or potential pathways exist for the migration of fluids to the USDW. In addition, a cement bond log will be conducted to confirm the integrity of the cement along the production casing and ensure no channels outside of the casing exist for vertical fluid migration from the injection zone.
- C. Filing a Storm Water Pollution Prevention Plan and a Notice of Intent for coverage under the Storm Water General Permit for Large Construction Activities with the Louisiana Department of Environmental Quality (LDEQ) in order to mitigate storm water runoff pollution.
- D. Implementing a zero-discharge drilling operation to contain all drilling fluids, drilling mud, and drill cuttings, which are to be disposed of at an approved offsite facility.
- E. Ensuring that solid and/or hazardous waste generated during construction, including construction material debris, used lubricants and oils, and general trash is stored temporarily onsite in accordance with all applicable federal and state regulations prior to transport off-site to an authorized treatment, storage, recycling, or disposal facility.
- F. Implementing a dust management plan to minimize dust during construction. The facility will require that roads and high traffic areas be wetted as necessary to minimize the generation of dust due to vehicle traffic.
- G. Ensuring that the surface cased section is drilled using a freshwater mud system designed to prevent contamination of groundwater.

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- H. Utilizing the United States Fish and Wildlife Service (USFWS) Information Planning and Consultation Tool to help identify the presence of any known, threatened, or endangered species potentially in the area. In addition, a visual ground survey of threatened, endangered, or protected species and their habitat was conducted that did not identify immediate concerns at the proposed facility.
  - I. Implementing an environmental awareness training with contractors to support environmental protection, including migratory bird and bat protection.

CONCLUSION: For the foregoing reasons, the OC finds that there are no mitigating measures which offer more protection to the environment, than the facility as proposed, without unduly curtailing non-environmental benefits.

### VIII. CONCLUSION

The OC has conducted a review of the entire administrative record, including the permit application and other information submitted by Cleco. Based on its review of the entire record as a whole and for all of the foregoing reasons, the OC concludes that the application satisfies the requirements of the public trust doctrine of the State of Louisiana as articulated by *Save Ourselves, Inc. v. La. Env't Control Cmm'n*, 452 So. 2d 1152 (La. 1984) as well as applicable statutes and regulations. Accordingly, the OC shall issue the permit for the above-referenced application to Cleco for the drilling of a Class V stratigraphic test well.



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**BENJAMIN C. BIENVENU**

**COMMISSIONER OF CONSERVATION**

**Response to Public Comments**

for

Cleco Power, LLC (C1052)  
CLDV-STW1 No. 1  
Application No. 44451

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The public comment period began on January 12, 2024, and ended on February 19, 2024. IMD received two written comments during the public comment period. After reviewing and considering all comments received during the public comment period, the Commissioner of Conservation has grouped comments together based on topical similarity and responded to the relevant comments as follows:

**COMMENT:**

A comment stated that the applicant failed to provide the required evidence of financial responsibility for well closure.

**RESPONSE:**

Per the requirements detailed in LAC 43:XVII.107, the applicant has provided evidence of financial responsibility to the Commissioner by the submission of a performance bond. While financial instruments are not included in draft permits for public review, the permit to construct this well will not be issued until the submitted evidence of financial surety has been approved and accepted by the Commissioner.

**COMMENT:**

A comment stated that the applicant provided incorrect information by stating that, "No earthquakes recorded in Louisiana within the last 100 years have occurred within 80 miles of this project site." The comment also stated that additional information related to seismic risk and site suitability is available and should be considered to address CO<sub>2</sub> containment and potential risks to underground sources of drinking water (USDW).

**RESPONSE:**

The recent seismic activity located approximately 55 miles away from the proposed site occurred after Cleco had submitted their answers to the IT questions, which originally stated no seismic activity has occurred over the last 100 years within 80 miles of the site. The applicant submitted revised responses to the IT Decision questions and removed the incorrect information related to historical seismic activity.

In addition, the OC does not consider comments pertaining to the permitting of Class VI geologic sequestration wells relevant to its decision regarding this permit application. The proposed well is not presently permitted to be used for the injection of CO<sub>2</sub> or for waste disposal. Therefore, the potential endangerment of USDW associated with CO<sub>2</sub> storage is not applicable to the permitting of this Class V stratigraphic test well.