



## **Underground Injection Control – Class VI Permit Application for Luz Solar No. 1**

Liberty County, Texas

### **SECTION 9 – FINANCIAL ASSURANCE PLAN**

January 2024



## SECTION 9 – FINANCIAL ASSURANCE

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## **9.1 Financial Responsibility**

To meet the requirements of 16 Texas Administrative Code (TAC) **§5.205** [Title 40, US Code of Federal Regulations (CFR) **§146.82(a)(14)** and **§146.85(a)**], this section was prepared to summarize actions that BKVerde, LLC (BKVerde) will take to demonstrate financial responsibility for injection well plugging, post-injection site care (PISC) and site closure, and emergency and remedial response. This section also provides the cost estimates to conduct these activities.

BKVerde will annually provide the Underground Injection Control (UIC) Program director (UIC Director) evidence of financial responsibility, as required by 16 TAC **§5.205** [40 CFR **§146.85**]. This evidence ensures that BKVerde has enough financial resources to cover corrective action, injection well plugging, PISC and site closure, and emergency and remedial response if financial difficulties are encountered. This annual report will be submitted until the UIC Director has determined that the facility has reached the end of the PISC period. The following financial information will account for the entire area of review (AOR) and be submitted to aid in the UIC Director's determination of financial responsibility:

- The most recent audited annual report filed with the US Securities and Exchange Commission under either Sections 13 or 15(d), Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d))
- The most recent quarterly report filed with the US Securities and Exchange Commission under either Sections 13 or 15(d), Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d))
- The operator's most recently audited financial statements, if the person is not required to file a report with the US Securities and Exchange Commission

## **9.2 Financial Assurance**

As required by 16 TAC **§5.205** [40 CFR **§146.85**], the following financial instruments will be secured and used to provide sufficient funding for the following activities:

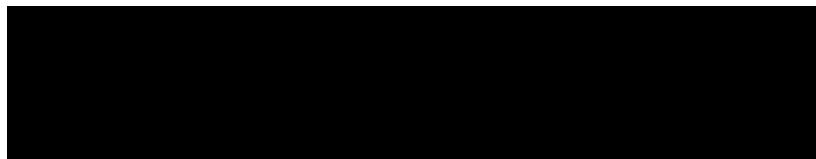


Table 9-1 summarizes the cost estimates for those activities—estimates that will be revised annually and account for any changes in the AOR, emergency and remedial response plan, and injection well plugging.

Table 9-1 – Summary of Costs Associated with Financial Security

Activity	Cost
Corrective Action	
Well Plugging	
Post-Injection Site Care and Site Closure	
Emergency and Remedial Response	
<b>Total</b>	

This instrument will remain in effect until site closure. The financial instrument will, at a minimum, contain provisions for cancellation, renewal, and continuation. If BKVerde faces adverse economic conditions, it will notify the UIC Director and file a bankruptcy notice through certified mail to the director.

### **9.3 Corrective Action Plan**

[REDACTED] As required by 16 TAC §5.206(g)(1) [40 CFR 146.84(e)], the AOR will be reevaluated every 5 years to determine if any new penetrations have occurred.

### **9.4 Plugging and Abandonment**

Plugging and abandonment (P&A) procedures for the Whites Bayou Sequestration Site injection and monitoring wells were prepared to meet the requirements of 16 TAC §5.203(k) [40 CFR §146.92]. These plans are intended to ensure that the wells do not serve as migration pathways of the injected fluid from the storage formation and into the Underground Source of Drinking Water (USDW) following the cessation of injection operations and after site closure. A detailed P&A plan is discussed in *Section 6 – Injection Well Plugging Plan*, while an itemized list of cost estimates is provided here in Table 9-2. Funds will be guaranteed to ensure that P&A operations are effectively managed.

Table 9-2 – Summary of Well Plugging Costs Associated with Financial Security

Activity	Unit Cost	Subtotal
<b><i>Injection Well Plugging (Luz Solar No. 1)</i></b>		
Workover Rig		
Kill/Buffer Fluid		
Personnel		
Wireline/Slickline (Cement Bond Long (CBL)/Thickness [REDACTED])		
Cement/CO <sub>2</sub> Corrosion-Resistant Cement		
Services (Casing Crew, Welder, Trucking, etc.)		
Equipment Rentals		
<b>Subtotal</b>		
<b><i>In-Zone, Above-Zone/Deep USDW Monitoring Wells [REDACTED]</i></b>		
Workover Rig		
Kill/Buffer Fluid		
Personnel		
Wireline/Slickline (CBL/Thickness – 3,500 ft)		
Cast Iron Bridge Plug (CIBP)		
Cement		
Equipment Rentals		
<b>Subtotal</b>		
<b><i>Shallow, Freshwater Monitoring Wells [REDACTED]</i></b>		
Workover Rig		
Cement		
<b>Subtotal</b>		
<b>Total Plugging Costs</b>		

## 9.5 Post-Injection Site Care and Site Closure

The PISC and Site Closure Plan—discussed in *Section 7 – Post-Injection Site Care and Site Closure Plan*, with associated costs highlighted here in Table 9-3—was designed to meet the requirements of 16 TAC §5.206(k) [40 CFR §146.93].

Table 9-3 – Summary of PISC/Site Closure Costs

Activity	Cost	Total
<b><i>Post-Injection Monitoring</i></b>		
Fluid Sampling / Pressure and Temperature Monitoring (x 50 years)		
<b><i>Site Closure</i></b>		
Waste Removal		
Clean/Gas-Free Certification of Storage Vessels		
Dismantle Surface Facilities		
Site Restoration		
Post-Injection Monitoring (50 Years)		
Closure of Monitor Wells		
<b>Total PISC/Site Closure Costs</b>		

### 9.5.1 Post-Injection Monitoring

The collection of monitoring information will be used to confirm the protection of the USDW during post-injection activities to support the final demonstration of no endangerment. The associated cost detailed in Table 9-3 accounts for performing groundwater monitoring and tracking the CO<sub>2</sub> plume and pressure front post-injection. Costs are estimated using ongoing vertical seismic profile (VSP) costs (\$200,000 per survey x [REDACTED]

### 9.5.2 Site Closure

Site closure will occur when the UIC Director has released the owner from all post-injection site care duties. The cost estimates listed in Table 9-3 reflect the expected amount to close the site and restore the facility to its natural state—including dismantling surface facilities (i.e., removing storage vessels, piping, pumps, surface equipment, etc.). Concrete and debris removal is also included in the surface facilities costs. Funds will be allocated for site restoration to leave a minimal environmental impact.

## 9.6 Emergency and Remedial Response Plan

The Emergency and Remedial Response Plan detailed in *Section 8 – Emergency and Remedial Response Plan* was prepared to meet the requirements of 16 TAC §5.206(h) [40 CFR §146.94]. The cost estimate in Table 9-4 covers USDW-specific types of risk events. The total cost of

\$18,977,000 is a function of the probability of occurrence during the life of the project, as detailed in *Section 8*. The specific costs are shown here in Table 9-4 and detailed in *Section 8*.

Table 9-4 – Summary of Emergency and Remedial Response Plan Costs

Activity	Cost
Water Quality Impact	
CO <sub>2</sub> Release to or at the Surface	
Storage Rights Infringement	
Mineral Rights Infringement	
Entrained Contaminant (Non-CO <sub>2</sub> ) Releases	
Accidents/Unplanned Events (Typical Insurances)	
<b>Total</b>	

## 9.7 Updates to Financial Assurance

As required by 16 TAC §5.205(c)(2)(E) [40 CFR §146.85(c)], during the active life of this project, BKVerde will adjust the cost estimate for inflation within 60 days before the anniversary date of the establishment of the bond and insurance products and provide this adjustment to the UIC Director. BKVerde will also provide written updates of adjustments to the cost estimates within 60 days of any amendments to the AOR and corrective action plan, the injection well-plugging plan, the PISC and Site Closure Plan, and the Emergency and Remedial Response Plan.

If the updated cost estimate increases to an amount greater than the face value of the bond and insurance products in use, BKVerde will either obtain an increase in the requisite financial instruments at an amount at least equal to the current cost estimate or acquire other financial instruments to cover the increase—and supply evidence of such to the UIC Director. If the estimated value is reduced because of changes in the operational cycle of the project, the bond will be reduced in value accordingly.