



DANSKAMMER ENERGY CENTER

Case No. 18-F-0325

1001.29 Exhibit 29

Site Restoration and Decommissioning

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Exhibit 29: Site Restoration and Decommissioning

The proposed repowering of the existing Danskammer Generating Station (Station) involves the construction and installation of new electric generating facilities adjacent to existing facilities. Certain existing Station structures, buildings, fixtures, and other improvements will be removed to accommodate the siting and construction of new Project components. Other existing components of the Station will be retained during development and construction of the Danskammer Energy Center Project (the Project) and will either be incorporated into the Project or discontinue their present use after the Project is in service. To the extent that removal of existing Station facilities is necessary to site and construct Project components or existing Station facilities are otherwise incorporated into the Project, those activities are considered part of the Project and are described in this Exhibit.

This Exhibit has been prepared to provide an overview of the decommissioning of existing Danskammer Generating Station facilities that are required to be removed in support of the Project. A discussion is also provided on the decommissioning activities that are anticipated at the end of the Project's useful life or in the event the Project cannot be completed.

29(a) Performance Criteria for Site Restoration

The list below includes performance criteria proposed for site restoration in the event the Project cannot be completed and for decommissioning of the Project.

Should a decision be made to decommission the Project, either during construction or following commercial operation, restoration of the Site to its pre-construction condition will occur in compliance with the applicable local zoning and land use regulations. The Project Site restoration plan will require Danskammer to dismantle equipment related to the Project, remove the equipment from the Site, demolish related structures to grade, and return the areas related to the Project to a vacant graded lot. Excavated areas will be backfilled, as required.

The performance criteria proposed for future Project Site restoration or decommissioning are as follows:

- Project dismantlement or removal will proceed in a safe and environmentally sound manner. It is anticipated that a Health and Safety Plan, Hazardous and Regulated Materials Plan, and Phase I Environmental Site Assessment will be performed in accordance with the current Occupational Safety and Health Administration and

American Society for Testing and Materials International Standards. Health and Safety Plans define laws, regulations, and best practices for working safely. Hazardous and regulated materials surveys are used to identify areas where such materials were used and stored at a site. Phase I Environmental Site Assessments are used in these instances to identify environmental issues in soil, groundwater, or building materials that may need to be investigated further prior to decommissioning and demolition.

- Material and equipment will be salvaged or recycled.
- Interconnection facilities will be removed to the interface with the Central Hudson substation.
- Prior to demolition, hazardous and flammable material will be removed, and associated systems will be decontaminated.
- Structures, their foundations, and underground utilities will be removed (as required).
- Environmental contamination related to the Project will be remediated to applicable standards required by applicable law.
- The Project Site will be regraded and stabilized as needed.

Actual decommissioning will proceed in phases and will include the following: removal of equipment; removal of hazardous and regulated materials; disconnecting power and other utilities; structural demolition; removal of concrete slabs and foundations, underground piping, and utilities; and site restoration. For removal of specialized installations, electrical equipment will be de-energized and hazardous materials associated with that equipment will be removed. For removal of equipment and structures, roofs, wall sidings, beams, above-grade structural supports, and tanks will be dismantled. Some of this material will likely be sold as scrap. Excavation will be required for the removal of foundations, piping, and utilities. Excavated areas will be backfilled. For Project Site restoration, paved surfaces will be removed (as required) and disturbed areas will be stabilized to limit the potential for erosion. Decommissioning activities will follow local, state, and federal regulations in place at that time. The closure of environmental permits and licenses associated with Project operations will be coordinated with the applicable agencies. Local demolition permits are expected to be required from the Town of Newburgh.

(1) Safety and the Removal of Hazardous Conditions

The protection and safety of Danskammer employees, as well as the community at large, is of primary importance to Danskammer. Danskammer strives to have no safety incidents. The

removal of hazardous materials (and conditions) during Project Site restoration and decommissioning is an included part of Danskammer's safety goals.

(2) Environmental Impacts

The environmental goal of the Decommissioning Plan is the removal of Project components in a safe manner, including the recycling and beneficial reuse of building materials. Hazardous materials will be removed in accordance with federal, state, and local requirements. Aboveground facilities will be removed, and the Site will be mulched or revegetated/seeded, as appropriate. Stormwater management measures will be used to prevent soil erosion and water runoff. Once decommissioning and restoration are complete, Site conditions will be expected to be like what they were before construction of the Project commenced.

(3) Aesthetics

As discussed above, after decommissioning and restoration are complete, Site conditions will be expected to be similar to before the Project began construction. Aboveground facilities will be removed, and the Site will be mulched or revegetated/seeded, as appropriate. Post-decommissioning and post-restoration aesthetics will, therefore, be similar to pre-construction aesthetics.

(4) Salvage and Recycling

Project materials will be characterized for beneficial reuse or disposal and sold or recycled. Hazardous or regulated materials will be disposed in accordance with applicable requirements. Used equipment will be sold for reuse. Commodity metals will be recycled for scrap. Clean concrete will be crushed and reused for fill on Site.

(5) Potential Future Uses for the Site

Since the Project Site is located within the Town of Newburgh's Industrial Business District, it is likely that industrial redevelopment of the Site is feasible and will not negatively impact the surrounding area that has coexisted with the existing industrial use (the existing Danskammer Generating Station) since the 1950s. Following decommissioning and removal of the structures and facilities associated with the Project, it is anticipated that the Project Site will be restored and stabilized primarily with hydroseed and mulch, with areas of pavement, as necessary, to provide access through the property and to maintain it in an aesthetic manner consistent with applicable local laws.

(6) Useful Life of the Project

The proposed Project will be designed for a useful operating life of approximately 30 years and will be operated and regularly maintained to secure a competitive position in the energy marketplace. Because the Project will generate electricity far more efficiently than other generating stations in New York, it is expected that older and less efficient generating stations will be retired before the Project. The main criterion in the decision to cease operations permanently and to decommission the Project will be based on its continued economic viability.

29(b) Decommissioning and Restoration Plan

The Plan for decommissioning the Project and restoration of the Project Site is included in Appendix 29-1 and summarized below. The cost estimate to perform the decommissioning and restoration activities is included as Appendix 29-2.

The proposed Project will be designed to have a useful operating life of approximately 30 years. At the end of its useful life, the Project will be decommissioned, and power generation systems and associated infrastructure will be removed. A description of the proposed decommissioning activities is as follows:

- Removal of hazardous and regulated materials such as fuels, lubricating oils, and process chemicals;
- Disconnecting power and other utilities;
- Dismantling and removal of equipment suitable for sale or reuse;
- Structural demolition to grade elevation;
- Sizing and beneficial use of salvage of scrap materials;
- Remediation of impacted soils and/or groundwater, if any; and
- Backfill and restoration in accordance with stormwater management plans.

Danskammer will notify the Town of Newburgh and adjacent landowners at least 6 weeks prior to the start of decommissioning and Project Site restoration activities. Before decommissioning activities are commenced, Danskammer will coordinate with the NYISO to ensure that the electrical system will not be disrupted. Then, the Project will be disconnected from Central Hudson's 115-kV substation.

Assuming any required local demolition permits are obtained and the closure of environmental permits and licenses associated with Project operations have been coordinated with the

applicable agencies prior to the start of the decommissioning process, decommissioning process is expected to take approximately 12 to 18 months, which includes 2 months for pre-demolition preparation, 3 months to remove hazardous and regulated materials and disconnect utilities, 6 months for equipment removal and structural demolition, and 3 months for Project Site restoration. Site restoration monitoring will occur for several months after Project Site restoration is completed.

Potential financial instruments to support decommissioning include parent guaranties, surety bonds and letters of credit. A parent guaranty is a form of guaranty whereby a parent, as guarantor, assumes the responsibility for the payment or performance of an action or obligation of its subsidiary by agreeing to compensate the beneficiary in the event of non-payment or non-performance. A surety bond is a promise by a guarantor to pay one party (the obligee) a certain amount if a second party (the principal) fails to meet its obligations, such as fulfilling the terms of a contract. The surety bond protects the obligee against losses resulting from the principal's failure to meet the obligation. Similar to a bond, a letter of credit is a commitment, by the issuing bank or financial institution to pay one party a specified amount if another party fails to meet its obligations. The right to trigger and draw on the letter of credit resides with the designated beneficiary named on the letter of credit.

Unlike a greenfield wind or solar project, the Project is a repowering of an existing generating facility that has existed on the Project Site for over 60 years, and Danskammer owns the land where the Project is being built. It is possible that the value of equipment and salvage/scrap metals may exceed the cost of demolition. Therefore, Danskammer proposes that it provide a parent guarantee to secure the costs of decommissioning of the Project and future Project Site restoration. There is precedent under former Public Service Law Article X for Certificate Conditions allowing an applicant to provide a parent or corporate guarantee as an acceptable form of security for decommissioning and restoration costs.¹

29(c) Wind Power Facilities

No wind power facilities are included in the Project.

¹¹ See Case 99-F-1625, *Application by KeySpan Energy for a Certificate of Environmental Compatibility and Public Need*, Order Authorizing Commencement of Commercial Operation and Approving Compliance Filing Regarding Financial Assurance of the Availability of Decommissioning Costs (issued and effective Mar. 23, 2004) and Order Approving Compliance Filing regarding Financial Assurance of the Availability of Decommissioning Costs on a Permanent Basis (issued and effective Jun. 21, 2004).

29(d) Nuclear Power Facilities

No nuclear power facilities are included in the Project.

29(e) Existing Structures to be Demolished Prior to Construction of Danskammer Energy Center

Prior to construction of the combined-cycle generating facility, certain existing structures will be removed to make room for new construction. Existing facilities to be removed include a foundation from a previously removed fuel oil tank, the existing fuel oil tank, pumps, and underground fuel oil piping, coal transport system and thaw shed, Unit 1 and 4 gen-tie lines and breakers, sewage treatment area, and two rail spurs.

As a potential option under consideration for certain of the existing buildings, structures, and equipment that will not be demolished, removed, or rehabilitated and will remain in place, Danskammer has considered installing battery energy storage systems in the existing boiler and steam turbine buildings.

Information related to decommissioning of the existing Danskammer Generating Station facilities that are not required to be removed, demolished, or rehabilitated to accommodate the Project are not part of this Project and therefore, not included in this Application.

APPENDIX 29-1

DECOMMISSIONING PLAN



DANSKAMMER ENERGY CENTER

Case No. 18-F-0325

Appendix 29-1

Decommissioning Plan

Decommissioning Plan

Danskammer Energy, LLC (Danskammer Energy) plans to repower and modernize the existing facility Site in the Town of Newburgh, Orange County, New York. The proposed Danskammer Energy Center project will have a generating capacity of 536 net MW (optimal baseload output across a range of ambient temperatures and conditions) and will be a dual fuel fired (natural gas and ULSD) combined-cycle electric generation facility. The Project will interface with the existing plant substation, on-site gas pipeline, municipal water supply pipeline and Central Hudson Electric and Gas electrical transmission system. This Decommissioning Plan covers new facilities to be constructed at the Danskammer Energy Center.

The Danskammer Energy Center Project is a multi-shaft combined-cycle power generating plant with one dual-fueled combustion turbine, one Heat Recovery Steam Generator, and one steam turbine generator. The Project's steam turbine exhaust will be condensed in an air-cooled condenser. Major plant equipment/systems will include:

- Combustion Turbine and Generator with associated auxiliaries;
 - Combustion Turbine will be supplied with an outdoor weather enclosure;
- Heat Recovery Steam Generator including Selective Catalytic Reduction system and Oxidation Catalyst and exhaust stack;
- Steam Turbine Generator;
- Air-Cooled Condenser;
- Condensate System;
- Boiler Feedwater System;
- Natural Gas Compression and Conditioning System;
- Fuel Gas Startup Heater;
- Fuel Gas Performance Heater;
- Fuel Oil Storage and Forwarding System;
- Auxiliary Boiler;
- Demineralized Water Production, Storage, and Forwarding Systems;
- Air-Cooled heat exchangers and closed cooling water system;
- Compressed Air and Instrument Air System;
- Raw Water/Firewater Storage System and Fire Protection Systems;
- Electric and Diesel Driven Firewater Pumps;

- High Voltage Scope, including:
 - Two 115-kV Generator Step-up transformers;
 - 115-kV transmission lines and structures from the new GSUTs to the existing Danskammer switchyard;
 - Two new 115-kV circuit breakers installed in the existing Danskammer switchyard;
- Medium Voltage Electrical Distribution System;
- Low Voltage Electrical Distribution System;
- DC Electrical Distribution System;
- Uninterruptible Power Supply System;
- Standby Diesel Generator sized for safe plant shutdown;
- Alternate House Load Feed consisting of a 6MVA 2.15/6.9-kV Transformer and Underground Feeders from the existing plant switchyard to the Power Distribution Center;
- Plant Control System;
- Continuous Emissions Monitoring System;
- Buildings:
 - Steam turbine building;
 - Water treatment building;
 - Administration and Control Building (2 story); and
- Miscellaneous Balance of Plant Equipment.

The Danskammer Energy Center is designed to run for 30 years or more. In the unlikely event that construction is not completed, or when the Project reaches the end of its economic life, Danskammer Energy will decommission the power generating facilities in accordance with the following plan:

1. Notification of counterparties, government, and agencies with jurisdiction;
2. Receipt of approval to cease operations as allowed by NYISO;
3. Cessation of operations per the approved schedule;
4. Pre-demolition engineering and environmental studies;
5. Identification and filing of applications for permits and notifications;
6. Removal of hazardous or regulated materials, if any;
7. Removal of equipment for resale or salvage;
8. Structural demolition;
9. Removal of concrete structures to grade;

10. Asset recovery of ferrous and non-ferrous metals;
11. Processing of clean concrete for beneficial reuse on Site;
12. Backfill and grading of land to match existing contours; and
13. Restoration of land through seeding or paving in accordance with a long-term stormwater management plan.

Work will be performed in accordance with detailed plans to be prepared at an appropriate time. Please note that a subsequent purchaser may value Project facilities that are not used to generate power, such as the office building and some other general-purpose buildings. Danskammer reserves the right to retain these structures for future uses. Work will be managed by competent professional and technical staff and documented for future reference.

APPENDIX 29-2

COST ESTIMATE FOR DECOMMISSIONING AND RESTORATION PLAN

Appendix 29-2
Cost Estimate for Decommissioning and Restoration Plan
Summary
Danskammer Energy Center

Description	Multiplier	Total Cost
Site Preparation, Mobilization, and Submittals		\$198,352
3rd Party Pre-DEMOLITION Plans, Procurement, and Permits		\$48,255
Asbestos Abatement		\$0
Decommissioning		\$178,000
Dismantling and Demolition		\$5,252,260
Site Restoration		\$291,000
Project and Construction Management		\$825,660
Third Party Oversight		\$248,400
Subtotal of Costs		\$7,041,928
Profit (0%)	0%	\$0
Contingency (20%)	20%	\$1,408,386
Overhead (0%)	0%	\$0
Subtotal		\$8,450,313
Bond (1.8%)	1.8%	\$152,106
Total		\$8,602,419
Asset Recovery		
Scrap Value and Recovery		(\$8,437,500)
Net Estimate after Salvage and Recovery		\$164,919

Appendix 29-2
Cost Estimate for Decommissioning and Restoration Plan
Site Preparation, Mobilization, and Submittals
Danskammer Energy Center

Cost Element	Units	Unit of Measure	Unit Cost	Total
Pre-Construction Submittals				
HASP	1	Each	\$7,500	\$7,500
Existing Conditions Survey	1	Each	\$5,000	\$5,000
Demolition plan	1	Each	\$20,000	\$20,000
Local permitting requirements	1	Each	\$15,000	\$15,000
SWPPP	1	Each	\$2,500	\$2,500
Abatement work plan	1	Each	\$10,000	\$10,000
Petroleum tank work plan	1	Each	\$2,000	\$2,000
SPCC	1	Each	\$1,500	\$1,500
Vibration Monitoring Plan	1	Each	\$2,500	\$2,500
Noise Monitoring Plan	1	Each	\$2,500	\$2,500
Subtotal:				\$68,500
During Construction Submittals				
Weekly construction photography	36	Each	\$250	\$9,000
Site Restoration Plan	1	Each	\$1,500	\$1,500
Weekly vibration monitoring report	36	Each	\$500	\$18,000
Subtotal:				\$28,500
Post-Construction Submittals				
As-built survey	1	Each	\$7,500	\$7,500
MOSF closure documentation	1	Each	\$5,000	\$5,000
Final vibration monitoring report	1	Each	\$1,000	\$1,000
Subtotal:				\$13,500

Appendix 29-2
Cost Estimate for Decommissioning and Restoration Plan
Site Preparation, Mobilization, and Submittals
Danskammer Energy Center

Cost Element	Units	Unit of Measure	Unit Cost	Total
Temporary Power Connect/Disconnect				
Drop Power in from Surrounding Source and Wire Site	1	lump sum	\$30,000	\$30,000
Subtotal:				\$30,000
Site and Office Set Up/Tear Down/Mobilizations				
Supervisor	40	man-hrs	\$140	\$5,600
Foreman	40	man-hrs	\$95	\$3,800
Operator	40	man-hrs	\$120	\$4,800
Laborer	40	man-hrs	\$85	\$3,400
Mob/Demob Trailer	4	lump sum	\$1,000	\$4,000
Signs Miscellaneous	1	lump sum	\$500	\$500
Subtotal:				\$22,100
SWPPP Implementation - Erosion Control/Stabilized Entrances				
Temporary Seeding for Erosion Control	3.4	acres	\$3,500	\$12,052
Silt fence - Install	2,000	lf	\$3	\$6,000
Block Drains with bag filter - Install	16	ea	\$200	\$3,200
Stabilized Construction Entrance	2	ea	\$2,500	\$5,000
Maintenance SWPPP	9	mths	\$500	\$4,500
Remove+dispose of temp erosion control	1	lump sum	\$5,000	\$5,000
Subtotal:				\$35,752

Appendix 29-2
 Cost Estimate for Decommissioning and Restoration Plan
 3rd Party Pre-Demolition Plans, Procurement, and Permits
 Danskammer Energy Center

Cost Element	Units	Unit of Measure	Unit Cost	Total
Demolition Plan and Specifications				
Principal	20	man-hrs	\$210	\$4,200
Project Manager	60	man-hrs	\$175	\$10,500
Senior Engineer/Scientist	120	man-hrs	\$150	\$18,000
General Expenses as % Labor	7	%	\$32,700	\$2,289
Subtotal:				\$34,989
Procurement				
Principal	8	man-hrs	\$210	\$1,680
Project Manager	24	man-hrs	\$175	\$4,200
Senior Engineer/Scientist	40	man-hrs	\$150	\$6,000
General Expenses as % Labor	7	%	\$11,880	\$832
Subtotal:				\$12,712
NYSDEC Environmental Quality Review Act Finding Statement				
Principal	2	man-hrs	\$210	\$420
Project Manager	4	man-hrs	\$175	\$700
Senior Engineer/Scientist	8	man-hrs	\$150	\$1,200
Engineer/Scientist	8	man-hrs	\$100	\$800
General Expenses as % Labor	7	%	\$3,120	\$218
Subtotal:				\$3,338
NYSDEC Major Oil Storage Facility Permit Closure				
Principal	4	man-hrs	\$210	\$840
Project Manager	8	man-hrs	\$175	\$1,400
Senior Engineer/Scientist	24	man-hrs	\$150	\$3,600
General Expenses as % Labor	7	%	\$5,840	\$4,088
Subtotal:				\$9,928

Appendix 29-2
Cost Estimate for Decommissioning and Restoration Plan
Decommissioning
Danskammer Energy Center

Cost Element	Units	Unit of Measure	Unit Cost	Total
Universal Waste Removal				
Light Fixtures, Ballasts, Bulbs	1	lump-sum	\$20,000	\$20,000
Mercury Containing Equipment	1	lump-sum	\$3,000	\$3,000
Refrigerants	1	lump-sum	\$5,000	\$5,000
Oils, Lubricants	1	lump-sum	\$150,000	\$150,000
Subtotal:				\$178,000

Appendix 29-2
Cost Estimate for Decommissioning and Restoration Plan
Dismantling and Demolition
Danskammer Energy Center

Cost Element	Units	Unit of Measure	Unit Cost	Total
Demolition - Multi-Shaft Combined Cycle				
Operator	2,816	man-hrs	\$120	\$337,920
Laborer	4,224	man-hrs	\$85	\$359,040
140,000 lb Excavator w/Shear	88	day	\$2,200	\$193,600
100,000 lb Excavator/Grapple	88	day	\$800	\$70,400
60,000 lb Excavator/Impact Breaker	88	day	\$800	\$70,400
5 CY Rubber Tire Loader	88	day	\$850	\$74,800
Transport/Dispose C&D Waste	200	loads	\$200	\$40,000
Subtotal:				\$1,146,160
Demolition - Combustion Turbine				
140,000 lb Excavator w/Shear	66	day	\$2,200	\$145,200
100,000 lb Excavator/Grapple	66	day	\$800	\$52,800
60,000 lb Excavator/Grapple	66	day	\$520	\$34,320
5 CY Rubber Tire Loader	66	day	\$850	\$56,100
Operator	3,168	man-hrs	\$120	\$380,160
Laborer	3,168	man-hrs	\$85	\$269,280
Rigger	528	Man-Hrs	\$95	\$50,160
Crane 500 Ton	33	day	\$4,000	\$132,000
Transport/Dispose C&D Waste	120	loads	\$200	\$24,000
Subtotal:				\$1,144,020
Demolition - Heat Recovery Turbine Generator				
140,000 lb Excavator w/Shear	66	day	\$2,200	\$145,200
100,000 lb Excavator/Grapple	66	day	\$800	\$52,800
5 CY Rubber Tire Loader	66	day	\$850	\$56,100
Operator	3,168	man-hrs	\$120	\$380,160
Laborer	3,168	man-hrs	\$85	\$269,280
Rigger	528	Man-Hrs	\$95	\$50,160
Crane 500 Ton	33	day	\$4,000	\$132,000
Transport/Dispose C&D Waste	120	loads	\$200	\$24,000
Subtotal:				\$1,109,700

Appendix 29-2
Cost Estimate for Decommissioning and Restoration Plan
Dismantling and Demolition
Danskammer Energy Center

Cost Element	Units	Unit of Measure	Unit Cost	Total
Demolition - Steam Turbine Generator				
Operator	960	man-hrs	\$120	\$115,200
Laborer	960	man-hrs	\$85	\$81,600
Rigger	1,280	Man-Hrs	\$95	\$121,600
140,000 lb Excavator w/Shear	40	day	\$2,200	\$88,000
100,000 lb Excavator w/Shear	40	day	\$1,500	\$60,000
5 CY Rubber Tire Loader	40	day	\$850	\$34,000
Rigger	1,280	Man-Hrs	\$95	\$121,600
Crane 500 Ton	40	day	\$4,000	\$160,000
Transport/Dispose C&D Waste	120	loads	\$200	\$24,000
Subtotal:				\$806,000
Demolition - Miscellaneous Structures and Foundations				
Operator	1,728	man-hrs	\$120	\$207,360
Laborer	1,728	man-hrs	\$85	\$146,880
Rigger	1,152	Man-Hrs	\$95	\$109,440
140,000 lb Excavator w/Shear	72	day	\$2,200	\$158,400
100,000 lb Excavator w/Shear	72	day	\$1,500	\$108,000
100,000 lb Excavator/Grapple	72	day	\$800	\$57,600
5 CY Rubber Tire Loader	72	day	\$850	\$61,200
Crane 500 Ton	20	day	\$4,000	\$80,000
Transport/Dispose C&D Waste	150	loads	\$200	\$30,000
Subtotal:				\$958,880
Concrete Crushing				
Set Up/Take Down Crusher	1	lump sum	\$20,000	\$20,000
Crush Demolished Concrete/Brick	7,500	tons	\$9	\$67,500
Subtotal:				\$87,500
Scrap Values				
Carbon Steel	-23,500	tons	\$275	-\$6,462,500
Copper	-650,000	lbs	\$2.50	-\$1,625,000
Stainless Steel	-350,000	lbs	\$1.00	-\$350,000
Subtotal:				-\$8,437,500

Appendix 29-2
Cost Estimate for Decommissioning and Restoration Plan
Site Restoration
Danskammer Energy Center

Cost Element	Units	Unit of Measure	Unit Cost	Total
Pave Areas with Asphalt/Concrete Paving				
Fine Grade Areas to be Paved	50,000	sf	\$0.20	\$10,000
Asphalt Paving with Base Installed	50,000	sf	\$2.50	\$125,000
Subtotal:				\$135,000

Appendix 29-2
Cost Estimate for Decommissioning and Restoration Plan
Program and Construction Management
Danskammer Energy Center

Cost Element	Units	Unit of Measure	Unit Cost	Total
Construction Field Management/General Conditions				
Construction Superintendant	2,376	man-hrs	\$140	\$332,640
Health and Safety Field Officer	2,376	man-hrs	\$100	\$237,600
Site Administrator	2,376	man-hrs	\$70	\$166,320
Subtotal:				\$736,560
Trailers, Utilities, Scales				
Electric	12	mths	\$1,000	\$12,000
Water Potable	12	mths	\$375	\$4,500
Phone, FAX and internet	12	mths	\$400	\$4,800
Office Trailer (1)	12	mths	\$450	\$5,400
Lunch/Storage Trailer (1)	12	mths	\$700	\$8,400
Trash	12	mths	\$500	\$6,000
Portable Toilets Twice a Month	12	mths	\$500	\$6,000
Subtotal:				\$47,100
Vibration Monitoring Equipment Installation and Monthly Specialist				
Vibration Monitoring Equipment and specialist On Going (3)	12	mths	\$2,000	\$24,000
Subtotal:				\$24,000
Noise Monitoring				
Noise Monitoring Systems (2)	12	mths	\$1,500	\$18,000
Subtotal:				\$18,000

Appendix 29-2
Cost Estimate for Decommissioning and Restoration Plan
3rd Party Oversight
Danskammer Energy Center

Cost Element	Units	Unit of Measure	Unit Cost	Total
3rd Party Oversight				
Principal	120	man-hrs	\$210	\$25,200
Project Manager	240	man-hrs	\$175	\$42,000
Field Engineer	540	man-hrs	\$150	\$81,000
Health and Safety Field Officer	540	man-hrs	\$150	\$81,000
Travel	96	week	\$200	\$19,200
Subtotal:				\$248,400