APPENDIX M

Mitigation Measures

M.1 Earth

M.1.1 Construction

Starbuck Power Company, L.L.C. (the Applicant) has developed a Stormwater Pollution Prevention Plan (SWPPP) (presented in Appendix H) to address generation plant construction and operation activities. The following mitigation measures will be included in the SWPPP to reduce erosion and sedimentation during generation plant construction:

- Slopes will be carefully prepared and attention will be given to the placement and compaction of fill in order to mitigate potential erosion in areas to be graded.
- Runoff and sedimentation and erosion control plans will be incorporated in the construction process and the generation plant design.
- Silt fences and temporary swales will be installed and maintained to direct the majority of runoff to a stormwater pond until other erosion protection measures can be implemented.
- In susceptible areas, excavated soils will be covered if rainfall is reasonably anticipated by available weather forecasts.
- Disturbed areas will be reseeded as soon as feasible.
- Exposed slopes will be protected from rainfall and runoff by installation of erosion-protective coverings until permanent protection can be installed.
- Construction at the generation plant, and construction support activities, will be confined to a 50-acre portion of the site. This confinement will preserve the vegetation and topsoil on the balance of the site, thus reducing the potential for erosion.

M.1.2 Operation and Maintenance

No significant unavoidable adverse impacts to geologic characteristics are associated with construction or operation and maintenance of the generation plant. Therefore, no mitigation is required.

M.2 Air Quality

M.2.1 Construction

To mitigate potential impacts to air quality during construction of the generation plant, the following mitigation measures will be implemented:

- Dust from construction activities will be controlled by common construction management measures, such as water spraying and washing construction vehicle wheels to limit dust traveling offsite.
- Dust from access roads will be controlled by paving, and by watering (from water trucks) as necessary to control dust during construction.

M.2.2 Operation and Maintenance

Compliance with the best available control technology (BACT) and best available control technology for air toxic compounds (T-BACT) requirements (see Section 3.2 and Appendix G) reduces the impact of plant operation and maintenance on air quality. In addition, to obtain its air quality permit, the Applicant will show that the generation plant will not cause or contribute to air pollution in violation of any national ambient air quality standard, and that emissions of air toxics from the source will be below the "acceptable source impact levels" established in state regulations. As a result, generation plant operation and maintenance will have no significant unavoidable adverse impact on air quality. Therefore, no additional mitigation measures are required.

However, the Applicant has voluntarily committed to mitigation measures that will offset carbon dioxide (CO_2) emissions at the generation plant. The CO_2 mitigation approach is presented in more detail in Attachment M-1 (at the conclusion of this appendix) but can be summarized as follows:

- The Applicant will voluntarily commit to mitigating net CO_2 emissions above 0.675 pound per kilowatt-hour (lb/kWh) for baseload and above 0.7 lb/kWh for power augmentation (4,000 hours per year), at a cost of $0.57/ton emitted. This will result in mitigating an estimated 760,133 tons of CO_2 emissions per year of plant operation.
- To the extent that the Applicant uses a monetary path for such mitigation, it will make its CO_2 mitigation payments to a reputable organization actively involved in reducing or otherwise mitigating for greenhouse gas. To the extent that the Applicant uses a project implementation path for such mitigation, it will fund specific projects that are reasonably expected to mitigate for, reduce, or sequester emissions.

M.3 Water Resources

M.3.1 Construction

M.3.1.1 Stormwater Pollution Prevention Plan

The SWPPP addresses temporary stormwater controls, vegetation practices, and site management of solid, liquid, and hazardous materials and wastes. The SWPPP also includes notification procedures for accidental spill and emergency response actions. The final SWPPP will include requirements that will apply if the water pipeline alternative is constructed.

M.3.1.2 Stormwater Best Management Practices

Best management practices (BMPs), such as good housekeeping measures, inspections, containment, and spill prevention practices, will be used during construction of the generation plant to limit contact between stormwater and potential pollutants, and may include the following practices:

- Storage areas for hazardous materials will be provided with secondary containment to ensure that spills in these areas do not reach surface waters.
- All onsite construction vehicles will be monitored for leaks and receive regular preventive maintenance. Fueling and maintenance of vehicles will occur at least 150 feet from surface waters and no "topping off" of fuel tanks will be allowed.
- Petroleum products will be stored in clearly labeled and tightly sealed containers or tanks. All quantities of petroleum products greater than 55 gallons will be stored within temporary lined containment dikes.
- Any contaminated soils affected by spills will be removed and disposed of at an approved disposal site.
- All construction or temporary sanitary wastes will be collected, and portable units will be maintained on a regular basis.
- All hazardous wastes will be disposed of according to local or state regulations, or the manufacturer's recommendation.
- Fertilizers will be applied as recommended by the manufacturer and worked into the soil to limit exposure to stormwater.
- Fertilizers will be stored in a covered area or in watertight containers.
- All paint containers will be tightly sealed and properly stored to prevent leaks or spills.
- Spray painting will not occur on windy days, and drop cloths will be used to collect and dispose of drips and overspray.
- Surplus concrete or drum wash water will not be allowed to contact stormwater.
- All construction waste material will be collected, deposited, and stored in metal dumpsters.

M.3.1.3 Stormwater Management System

A construction stormwater management system will be designed in accordance with the Washington Department of Ecology's (Ecology) guidance document, *Volume II – Construction Stormwater Pollution Prevention of Storm Water Management in Washington State* (Ecology, August 2001). Runoff during construction will be controlled by the following features of this stormwater management system:

- Temporary and permanent structural devices to divert, store, or limit runoff from disturbed areas will be used on the generation plant site. Such devices will include silt

fences, sediment traps (catch basins), straw-bale dikes, storm sewers, inlet protection, culvert inlet/outlet protection (rock or riprap), and stormwater ponds, as appropriate.

- Temporary stormwater controls will be installed prior to breaking ground, and permanent stormwater controls will be installed at the completion of rough grading.
- Early in the construction phase, a stormwater infiltration/evaporation pond will be installed to receive runoff for the higher elevation (north) area, and perimeter silt barriers (fences) will be installed on the lower elevation (south) boundaries of the site.
- The silt barriers will ensure that runoff not captured by the infiltration/evaporation pond does not result in offsite discharges of silt.
- Fabric silt fences and temporary swales leading to the stormwater pond will be the primary methods used to control erosion and runoff during construction. Temporary swales will be seeded with grass, lined with stone or concrete, or provided with another appropriate lining system. In addition (where required), weirs, straw bales, or washboards will be used to slow stormwater velocity and allow settling of suspended soil.
- Surface ditches and swales will be used to direct and slow runoff from disturbed areas to the infiltration/evaporation pond. Once the pond is installed, stormwater runoff from disturbed areas will be directed to permanent inlets and ditches, which will convey the water into the storm sewer system. Silt fence protection will be provided on some inlets to remove silts and help prevent erosion.

In addition to the measures proposed to control runoff, the following measures may further reduce and protect against potential impacts to water resources:

- Erosion control mats will protect freshly cut and filled slopes until permanent controls are in place.
- Soil permeabilities in this area will be evaluated to address the potential for an increase in runoff and erosion along the ravines adjoining the stormwater pond.
- The potential for increased runoff and erosion in the ravine directly downslope from the pond will be reduced by lining it with an impermeable membrane, if necessary.
- A Spill Prevention and Control Plan will be prepared to specify how potential spills and leaks will be cleaned up and mitigated. (See Appendix E to this Application for Site Certification [ASC].)
- Soil disturbance will be limited to only the area needed for generation plant construction, to help minimize the potential for stormwater runoff.
- Existing vegetation will be preserved where reasonably feasible. Where appropriate, disturbed areas will be temporarily seeded or mulched to reduce erosion and runoff during construction.
- Stabilization practices may include temporary or permanent seeding, mulching, geotextiles, sodding, or aggregate surfacing.

- Permanent stabilization will take place no later than seven days after construction activities have permanently ceased in any area.

M.3.2 Operation and Maintenance

The Applicant currently is awaiting Ecology determination on its 300 gallons per minute (gpm) water right application. If granted, this water right will authorize the proposed onsite well that will serve as the nonpotable water supply for the generation plant (Elmer, pers. comm.). The Applicant intends to propose water quantity mitigation to compensate for water withdrawn from the onsite well and used by the generation plant. The Applicant is in the process of acquiring water rights in the Snake River system for mitigation purposes, and details are not yet available.

M.4 Wetlands and Vegetation

M.4.1 Construction

M.4.1.1 Wetlands

Because no wetlands occur on the generation plant site, generation plant construction, operation, and maintenance will have no significant unavoidable adverse impact on wetlands. Therefore, no mitigation measures are required.

M.4.1.2 Vegetation

Clearing activities will be limited to the minimum area necessary. Heavy equipment movement on the site will be minimized to the extent feasible as well.

The following mitigation measures will be implemented for protection of natural native vegetation during construction of the generation plant:

- Areas not targeted for cut-and-fill or grading operations will be seeded to control sediment runoff and wind erosion. The prescribed seed mix will include species native to the area.
- Portions of the site not paved or covered with structures or aggregate will be hydro-seeded after construction to prevent erosion runoff. The hydro-seed mix will include native grass species.
- Plantings will consist of native vegetation compatible with or similar to naturally occurring species in the adjacent shrub-steppe areas.
- To minimize the spread of noxious weeds, construction crews will limit transport of seeds to agricultural lands or rangelands by cleaning equipment and construction vehicles before leaving the construction area.
- Weed-free straw bales will be used, where appropriate, for erosion control.
- The Applicant will prepare and implement a landscaping plan that includes long-term weed control measures. A control plan for yellow starthistle and medusahead will be implemented in coordination with the Columbia County Noxious Weed Control Board.

M.4.1.3 Noxious Weeds

To prevent the spread of noxious weeds, the Applicant will follow the Columbia County Noxious Weed Control Board's recommendations, which include:

- Cleaning of equipment before leaving the site
- Reseeding with a hydro-seed mixture that includes native plants

M.4.1.4 Sensitive Plant Species

Additional field surveys will be performed in mid-August to determine the presence of Spalding's silene (*Silene spaldingii*) on the site. This information will be provided in an amendment to the ASC once surveys are completed.

M.4.2 Operation and Maintenance

During plant operation and maintenance, the following mitigation measures will be implemented to prevent the spread of noxious weeds:

- A weed control program will be implemented that will include continual monitoring of the site for reestablished populations of noxious weeds. Control activities will be coordinated with the Columbia County Noxious Weed Control Board.
- Hydro-seeded areas will be monitored to ensure establishment of desired native vegetation.

M.5 Agricultural Crops and Livestock

M.5.1 Construction

Cattle that are currently grazing on the site will be relocated to a different pasture. Because the proposed generation plant site is located on land zoned for Heavy Industrial use, mitigation for loss of cattle pasture use is not required.

M.5.2 Operation and Maintenance

Generation plant operation and maintenance will have no significant unavoidable adverse impact on agricultural crops and livestock. Therefore, no mitigation measures are required.

M.6 Wildlife

M.6.1 Construction

The following mitigation measures will be implemented for the protection of wildlife near the generation plant:

- The Applicant will conduct breeding bird surveys and raptor surveys to determine whether generation plant construction noise is likely to have a significant adverse impact on protected bird species during bird breeding and nesting periods (from April 15 to July 15). If such surveys indicate a probable significant impact, the Applicant will develop and implement a plan to avoid or mitigate such impacts.

- After construction is completed, disturbed areas not used for the generation plant will be restored to preproject habitat conditions to allow continued use by wildlife.

M.6.2 Operation and Maintenance

To reduce plant operation and maintenance impacts to wildlife, the following mitigation measures will be implemented:

- Lighting design will minimize light intrusion into surrounding areas.
- Landscaping will be minimized, and native plants similar to those currently existing onsite will be used for landscaping where possible.
- The use of native plant material will reduce the need for irrigation and provide habitat for native species.

M.7 Fisheries Resources

M.7.1 Construction

The mitigation measures discussed for water resources (see Section M.3) will ensure that there are no significant adverse impacts to fisheries in the Snake River system during construction of the generation plant.

M.7.2 Operation and Maintenance

The mitigation measures for water resources (see Section M.3) will ensure that there are no significant adverse impacts to fisheries in the Snake River system during operation and maintenance of the generation plant.

M.8 Energy and Natural Resources

M.8.1 Construction

The generation plant is designed to optimize its use of space within the proposed site location. The site was selected specifically because it is located close to necessary resources (including existing transmission lines, a source of water, and a source of natural gas). By doing so, the Applicant has minimized the amount of energy and natural resources necessary during construction of the generation plant. Generation plant construction will have no significant adverse impact on energy and natural resources.

M.8.2 Operation and Maintenance

The following mitigation measure, implemented during the design of the generation plant, will reduce impacts during plant operation and maintenance:

- Reuse of blowdown water will reduce both water consumption and discharge.

Generation plant operation and maintenance will have no significant adverse impact on energy and natural resources.

M.9 Noise

M.9.1 Construction

Construction of the generation plant will include the following noise mitigation measures. As mitigated, generation plant construction will have no significant adverse noise impacts.

- Noisy construction activities will be limited to daytime hours (6 a.m. to 10 p.m.).
- Construction equipment will be properly muffled for noise suppression.
- Either low-pressure steam blows will be conducted or a temporary blowout silencer will be used. Steam blows will be limited to daytime hours (6 a.m. to 10 p.m.).

M.9.2 Operation and Maintenance

The following noise mitigation measures will be implemented during plant operation and maintenance. As mitigated, generation plant operation and maintenance will have no significant adverse noise impacts.

- The combustion turbine, steam turbine, and associated auxiliary equipment will be located within an acoustically insulated building.
- The combustion turbine inlet will be equipped with an appropriate silencer.
- The heat recovery steam generator (HRSG) equipment does not generate noise and serves as an effective combustion turbine exhaust silencer. No HRSG mitigation is required beyond the inherent equipment mitigation.

M.10 Land Use

Under the existing Columbia County Zoning Ordinance, the generation plant site is zoned for Heavy Industrial uses. Construction and operation of an electric generation plant on the Applicant's property is a use that is authorized upon issuance of a conditional use permit (CUP) under the Columbia County Zoning Ordinance. Because the generation plant is subject to the jurisdiction of the Energy Facility Site Evaluation Council (EFSEC), the standard CUP procedure does not apply. Instead, the Applicant has obtained a Certificate of Land Use Consistency from Columbia County, confirming that the generation plant conforms with the County's Comprehensive Plan and zoning ordinance and would qualify for a CUP. The Certificate requires continued adherence to EFSEC's regulations. The Certificate is included with the Applicant's submittal of this ASC to EFSEC.

Because Columbia County has zoned the generation plant site for Heavy Industrial uses, any land use impacts associated with construction or operation and maintenance of the generation plant are not significant, and therefore will not require mitigation.

M.11 Visual Resources

M.11.1 Construction

The visual impacts associated with generation plant construction will be caused primarily by the presence and operation of construction equipment. The following mitigation measures will reduce potential visual impacts during plant construction:

- Construction materials and equipment will be stored in less visible areas of the construction site.
- Dust suppression activities will minimize dust from construction sites.

M.11.2 Operation and Maintenance

Visual impacts associated with operation and maintenance of the generation plant will be related primarily to the degrees of contrast and dominance the facility presents with respect to the existing landscape from the vantage point of various viewers. The following mitigation measure will be used to reduce impacts:

- Facility color: The generation plant structures will be painted dark and tan/beige shades that will blend with the existing landscape. Selection of such colors will greatly reduce the potential visual impact of the generation plant.

M.12 Population, Housing, and Economics

No mitigation is required.

M.13 Public Services and Utilities

Potential impacts to public services and utilities will be mitigated by tax revenues generated by the SPP. With the mitigation described in this section, generation plant construction, operation, and maintenance will have no significant adverse impact on public services and utilities. Tax revenue generation, in net present value, will include the following:

- Natural gas taxes: Estimated at 3.852 percent of the broker wholesale market price, these taxes will be paid to the State of Washington in the amount of $4.6 million annually (Solwick, pers. comm.) (see Section 3.12.3.2).
- Property taxes: If the valuation of the generation plant is $500 million upon completion of construction in 2004, then the Applicant will begin paying property taxes in 2005, in the amount of approximately $1.7 million (see Section 3.12.3.2). The Applicant will seek agreements as discussed in Section 3.13.4.1 to advance the time for receipt of tax revenues.
- Sales taxes: As construction workers and full-time employees purchase goods and services in the study area, retail sales in local communities will increase. Sales taxes are also expected to increase in the study area as a result of SPP-related purchases for annual operating supplies and materials within the surrounding communities.

- Water use revenues, if the water pipeline alternative were used, would be $52,600.

The following mitigation measures will be implemented to reduce impacts to public services resulting from construction of the generation plant:

- Tax revenues will mitigate part of the cost of additional public safety personnel and facilities.
- The Applicant will make financial arrangements with Columbia County and the Town of Starbuck to provide a timely revenue stream that will cover increased County and Town costs associated with the construction phase of the generation plant. No other mitigation is required.
- The Applicant will provide all police, fire, and emergency medical personnel with emergency response details for the generation plant site.

The following mitigation measure will be implemented to reduce potential impacts to parks and recreational services resulting from construction of the generation plant:

- The Applicant may choose to coordinate overnight camping at nearby parks with the park host or supporting agency to facilitate a balance of park use by weekday construction workers and weekend vacationers.

M.13.1 Operation and Maintenance

During operation and maintenance of the generation plant, impacts to local services and utilities are expected to be insignificant. However, an emergency preparedness plan will be implemented (see Appendix I) to reduce potential impacts in the event of an emergency. No additional mitigation is required.

M.14 Cultural Resources

M.14.1 Construction

As may be required in consultation with the Washington State Historic Preservation Office (SHPO), the tribes, the lead federal agency (Bonneville Power Administration [BPA]), and the lead state agency (EFSEC), potential impacts to cultural resources will be mitigated following the Section 106 procedures outlined in 36 *Code of Federal Regulations* (CFR) Part 800. Mitigation measures will include monitoring by one or more qualified archaeologists and representatives of the affected tribes (for areas where buried cultural deposits could be present). It is likely that any mitigation measures agreed to by the stakeholders and consulting parties will be incorporated into either (a) the final environmental documents as stipulated conditions of approval or (b) a Memorandum of Agreement that would be forwarded to the Advisory Council on Historic Preservation for review and comment.

- The Applicant has committed to retain the services of a qualified archaeologist to conduct full-time monitoring of all excavation or grading of previously undisturbed ground surface at the generation plant site and along the alternative water supply pipeline route (should such a pipeline route be needed). In addition, the Applicant has

committed to retain the services of one or more full-time tribal monitor(s) to observe all excavation or grading of previously undisturbed ground surface at the generation plant site and along the alternative water supply pipeline route. The number of tribal monitors will be determined in consultation with the affected tribes.

- The Applicant will develop a cultural resources monitoring and mitigation plan (CRMMP) as part of the government-to-government consultations between BPA and the affected tribes and as required by the Section 106 process. The CRMMP will be prepared in consultation with the affected tribes, BPA, and the Washington SHPO. It will provide a detailed plan to guide the archaeological and tribal monitoring of excavation or grading of previously undisturbed ground surface and will outline specific procedures to be followed if unanticipated discoveries are made during construction. The CRMMP will include notification procedures and procedures for potentially issuing stop-work orders to construction contractors if certain discoveries are made. In addition, it will outline possible mitigation measures (treatment plans) that will be employed in the event that significant cultural resources are discovered. The CRMMP also will include procedures to deal with the unanticipated discovery of Native American skeletal remains consistent with all applicable state and federal laws and regulations.

M.14.2 Operation and Maintenance

Because operation and maintenance of the generation plant will not affect cultural resources, no mitigation is required.

M.15 Traffic and Transportation

M.15.1 Construction

During construction, roadways and intersections in the vicinity of the generation plant will provide an acceptable level of passage for traffic, even during the evening peak periods. However, the following mitigation measures will be implemented to further reduce the impact of generation plant construction on roadway traffic in the region:

- The Applicant will provide notice to landowners when construction takes place so that access for agricultural activities could be provided or would be disrupted for only short periods of time.
- The Applicant will provide proper road signage and warnings of "Equipment on Road," "Truck Access," or "Road Crossings."
- When slow or wide loads are being hauled, advance signage and traffic diversion equipment will be used to improve traffic safety.
- The Applicant will upgrade the access road connecting the generation plant site to SR-261 to service truck movements of legal weight. This component of the generation plant will be completed early to support initial site development.
- In consultation with Columbia County, the Applicant will provide detour plans and warning signs in advance of any traffic disturbances.

- One travel lane will be maintained at all times.

M.15.2 Operation and Maintenance

Because generation plant operation and maintenance will not significantly affect traffic, no mitigation is required.

M.16 Health and Safety

M.16.1 Construction

Compliance with all federal, state, and local health and safety regulations will contribute to a safe work environment during construction of the generation plant. In addition, the following mitigation measures will be implemented:

- The Applicant will develop and implement a Spill Prevention and Control Plan (see Appendix E).
- The Applicant will develop and implement an Emergency Plan (see Appendix I).
- Access roads will be constructed to reduce the risk of fires resulting from construction vehicles in dry grass.
- All construction crews will be supplied with fire extinguishers.

M.16.2 Operation and Maintenance

To minimize potential harm to workers onsite, ammonia storage tanks will be placed downwind of and at least 200 feet from offices, control rooms, and other areas where workers congregate.

Compliance with all federal, state, and local health and safety regulations will promote a safe work environment during operation and maintenance of the generation plant. No other mitigation measures are necessary.

ATTACHMENT M-1

CO_2 Mitigation Approach

Although neither the federal government nor the State of Washington currently requires carbon dioxide (CO_2) emission offsets or other mitigation of greenhouse gases (GHGs) from new power plants in the State of Washington, the Applicant will voluntarily commit to GHG mitigation for net CO_2 emissions above 0.675 pound per kilowatt-hour (lb/kWh) for baseload and above 0.7 lb/kWh for power augmentation (4,000 hours per year), at a cost of $0.57 per ton emitted. In Section 3.2.2.2, the Applicant predicts that CO_2 emissions from the plant will be approximately 0.82 lb/kWh. The Applicant anticipates offsetting approximately 760,133 tons of CO_2 emissions per year of plant operation over a 30-year design life, based on predicted operating emissions (average temperature and duct burning on). Similar to the requirement in Oregon's greenhouse gas program, CO_2 emissions and net electric power output will be measured on a new and clean basis (Oregon Administrative Rule [OAR] 345-024-0550; OAR 345-024-0560(3)). Should the Applicant's plant be operated as a non-baseload gas plant, the Applicant will seek to mitigate emissions exceeding 0.7 lb/kWh rather than 0.675 lb/kWh. For an anticipated 760,133 tons of CO_2, this would result in approximately $433,276 in mitigation costs per year of operation.

Some natural-gas-fired power plants can achieve this goal more easily where nearby thermal energy users facilitate cogeneration applications; however, the Applicant's more remotely sited plant does not have the same opportunity. Regardless, the Applicant proposes to achieve this mitigation through a combination of monetary payment and implementation of emission reduction/sequestration projects equivalent to $0.57 per ton of CO_2 mitigation required. Monitoring evaluation, administration and costs for enforcement of contracts will be included as part of the $0.57 per ton mitigation. Both the monetary and the project implementation paths are described below.

As part of this approach, the Applicant will maintain a detailed monitoring and verification plan to track offsets realized and predicted, and to document average annual expenditures of $0.57 per ton CO_2 emitted in excess of 0.675 lb/kWh.

Monetary Path

The Applicant may meet all or a portion of its voluntary commitment to mitigate for CO_2 emissions by depositing funds with the Climate Trust or other well-managed and effective organization established either to contract for carbon offsets or to otherwise invest in multiple projects that reduce, sequester, or otherwise mitigate greenhouse gas emissions. The Applicant will require that such organizations subscribe to project selection and management procedures similar to those described below for the Project Implementation Path. The Applicant will deposit funds on an annual basis at a rate of $0.57 per ton for total CO_2 emissions exceeding 0.675 lb/kWh over the past year and not already included in mitigation implemented by the Project Implementation Path.

Project Implementation Path

The Applicant may also meet all or a portion of its commitment to mitigate for CO_2 emissions by selecting and providing financial support to projects designed to mitigate or offset greenhouse gas emissions. This section describes requirements for eligible projects and provides details on the example project proposed for Columbia County. For each mitigation project considered for funding, the Applicant will require a detailed performance plan that specifies pre-project emissions baseline, post-project predicted emission reductions (or sequestration) clearly reflecting net decreases over time, measurement method, verification plan, and a mitigation plan for project performance risks. The Applicant may invest directly in the project or may incentivize the project through the purchase of project emission reduction credits (ERCs).

Project emission reductions will be real, verifiable, and surplus to existing regulations. Priority will be given to projects in Columbia County, followed by projects in the state of Washington, in the Pacific Northwest, anywhere in the United States, and finally to projects internationally. The Applicant will provide funding for high-quality projects. Parameters contributing to quality include the following:

Leakage: Each project will identify significant sources of potential leakage and impact on net project ERCs. Priority projects will demonstrate minimal negative leakage.

Vintage: Priority projects will demonstrate GHG benefits produced during the time the Applicant's generation plant is operating.

Additional: Priority projects will demonstrate that the reduction of GHG emissions would be less likely to occur in the absence of the offsets.

Surplus: All offsets and mitigation must be surplus to the regulatory requirements of the day. For example, the Applicant will not consider ERCs purported to be generated by flaring landfill gas if that landfill gas is required to be flared under *New Source Performance Standards* anyway.

Ownership: To avoid double counting, all offsets must have clear ownership.

Project Performance Risk: Priority projects will have low performance risk. The Applicant will require all projects to develop a performance risk mitigation plan.

Uncertainty: Each project will quantify uncertainty in measurement and verification of net project ERCs.

Permanence: Each project will state whether its carbon benefits are permanent and, if not, the duration of the carbon benefit. Priority projects will demonstrate long-term GHG benefits.

A description of the Applicant's proposed targeted offset project for Columbia County follows.

Columbia County Emission Reduction Project: Reduce Agricultural Burning Through Strawboard Manufacture

The Applicant is exploring offset projects in Columbia County that are designed to reduce greenhouse gas emissions while putting agricultural waste to beneficial use and creating high-quality new jobs. Currently, in Columbia County, burn permits are issued to landowners on approximately 16,000 acres in the fall and 33,000 acres in the spring. GHG emissions from this process include CO_2, methane (CH_4), and nitrous oxide (N_2O). The Applicant is currently evaluating a proposed project that would offset emissions from this agricultural burning, using the wheat stubble as a value-added feedstock in manufacturing instead. The developer has stated that benefits of the project include the following:

- Reduced conventional pollutant emissions of carbon monoxide (CO), nonmethane volatile organic compounds (NMVOCs), and particulates
- Reduced greenhouse gas emissions (approximately 8,048 tons/year carbon dioxide equivalent [CO_2E])
- Creates new local jobs
- Beneficial use of as much as 10,000 tons of wheat straw waste annually
- Reduced manufacturing waste
- Production of a usable cost-competitive product

This patented process has been the recipient of various industry awards, including two Sequoia Awards for Environmental Innovation in 1995 and 1997.

The Applicant anticipates investing directly in this project. The proposed project includes swathing the wheat stubble, baling the straw, and transporting the straw bales to a new manufacturing plant constructed to use the waste material in the manufacture of strawboard. This project proposes construction and operation of a mini-mill facility that will manufacture finished furniture and other molded products from waste materials using state-of-art technology. The new process, manufacturing finished molded and laminated panel products in one operation, replaces the existing convention of transforming commodity chipboard into finished product through a series of conversion steps.

According to the project developer, the proposed mini-mill would have the following features:

- 33 production employees and an annual payroll of approximately $1 million
- An output of about 6 million square feet per year, on a ¾-inch basis
- Operations budgeted to run 7 days/week, 23 hours/day, 350 days/year
- Fiber consumption of between 6,000 and 10,000 tons annually (which the Applicant calculates to potentially result in GHG emission reductions of 4,647 to 8,048 tons/year)

Additional Target Project Types

As described above, the Applicant may invest in other projects or project ERCs to achieve its offset goals. The Applicant will select only projects that conform with the project criteria established in this Application. Other target project types include the following:

- Natural gas pipeline leak reduction and waste gas utilization
- Methane and CO_2 reduction from biogas to energy projects including landfill gas, animal waste, and wastewater treatment plant digester gas
- Coal mine methane capture and flare
- Renewable energy
- Demand-side energy conservation or efficiency in transportation, industry, residential, and/or commercial sectors
- Leak reduction, product substitution, and other measures to reduce sulfur hexafluoride (SF_6), perflourocarbons (PFC), hydroflourocarbons (HFC), methane (CH_4), and nitrous oxide (N_2O) emissions
- CO_2 capture and beneficial reuse
- Enhanced land management practices to protect or promote carbon sequestration
- Fuel switching to low-/no-carbon fuels in transportation, industry, residential, and/or commercial sectors
- Supply-side energy efficiency, including transmission and distribution system upgrades and other actions