

APPENDIX GG

The 500 Megawatt Exemption

500-Megawatt Exemption. Senate Bill 951 provided for a non-recurring 500-megawatt exemption from the need standard for natural gas fired facilities with applications deemed complete on or before July 1, 1997. By rulemaking, EFSC chose to award this exemption to an applicant (or applicants, in the event the winning applicant proposed a facility with capacity of less than 251 megawatts) proposing the facility (or facilities) causing the least environmental impact in a proceeding commonly referred to as the “Best-of-Batch” contested case. Criteria for award of the exemption were:

1. Lowest value for monetized net air emissions per kilowatt of net electric output
2. Least detrimental impact on water, on review of consumptive uses and wastewater discharges
3. Least detrimental impact from related and supporting facilities on land use, on review of farming and forestry land uses outside urban growth boundaries, existing land uses inside urban growth boundaries, wildlife impacts, and scenic values impacts.
4. Earliest date on which an application was determined to be complete by OOE.

The competition was tiered, i.e., if an applicant was the clear winner in the first of the four categories described above, then that applicant was the winner of the competition without reference to the remaining categories. If there were no winner in the first tier, then the evaluation would move on to the next tier. Because all of the proposed facilities were designed to produce over 250 megawatts, there could be only one winner.

The competition placed considerable emphasis on carbon dioxide emissions because of growing concern over potential impacts on the global climate resulting from emissions of greenhouse gases. Three proposed combined cycle gas-fired projects competed for the 500-megawatt exemption: Klamath Cogeneration Project, Hermiston Power Project, and Umatilla Generating Project. The projects were evaluated by assigning a value of \$10 per ton of carbon dioxide emissions over the life of the project. Projects were given a \$10 per ton credit for avoiding or mitigating carbon dioxide emissions through cogeneration, alternative energy projects, and forestry projects. Oxides of nitrogen and particulate matter were valued at \$2,000 per ton.

Klamath Cogeneration Project. The winner of the competition was Klamath Cogeneration Project, and the decision was made in the first tier. Klamath Cogeneration Project's successful proposal included the following measures with respect to carbon dioxide emissions:

1. Emission offsets resulting from displaced fuel at its steam host (the project provided for cogeneration whereby heat produced in the generation of electricity was applied to another useful purpose thereby displacing an existing, fuel consuming, producer of thermal energy)
2. Contribution of \$500,000 to the Solar Electric Lighting Fund which promotes the marketing of photovoltaic lighting systems in China, Sri Lanka, and India. Installation of photovoltaic systems in these locations would displace the use of kerosene which emits CO₂ as it burns.
3. Contribution of \$1.5 million to the Oregon Forest Resources Trust which makes loans to rural property owners for planting trees. Increasing the amount of carbon stored in trees decreases the amount of carbon stored as carbon dioxide in the atmosphere.
4. Investment of \$1 million in small power plants that utilize methane from sewage treatment plants and from coal mines. By using a fuel that would otherwise be wasted, these power plants are expected to displace the use of coal and natural gas.
5. Creation of and annual contributions of \$100,000 to a revolving loan fund to increase the geothermal district-heating system in Klamath Falls, Oregon. Increased use of the geothermal heating system is expected to displace the use of natural gas for heating.
6. Contribution of up to \$50,000 per year for monitoring activities.

Umatilla Generating Project. Umatilla Generating Project, an unsuccessful contestant for the exemption, proposed two mitigation measures:

1. Contribution to the Pacific Forest Trust of a dollar amount sufficient to sequester a fixed amount of CO₂. Pacific Forest Trust is a private non-profit organization that purchases conservation easements on private forest lands. The easements impose certain forest management practices designed to increase storage of carbon in trees and soil, in addition to promoting other environmental and social goals.
2. Replacement of 1,100 old wood burning stoves in residences in Oregon with more efficient stoves. The effect of this program would be to mitigate emissions of particulate matter.

Hermiston Power Project. Hermiston Power Project, the other unsuccessful contestant for the exemption, proposed donating \$7.5 million to OOE form carbon dioxide mitigation programs. Since Hermiston Power Project did not propose specific measures to be implemented, its proposed mitigation fund was not given any credit.

While the 500-megawatt exemption competition provided insights into how greenhouse gas mitigation measures may be structured, financed, and evaluated, it was a costly proceeding for all of the applicants, and only one of the applicants could win. There seems to be broad agreement that lessons learned from the 500-megawatt exemption competition could be applied to development of achievable climate change standards with which future applicants should demonstrate compliance.