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UNITED STATES DEPARTMENT OF AGRICULTURE

Rural Utilities Service

BULLETIN 1767B-1A RD-GD-2024-002

SUBJECT: RUS Uniform System of Accounts

TO: All Electric Awardees

RUS Electric Program Staff

External Compliance Division

EFFECTIVE DATE: January 1, 2025

EXPIRATION DATE: Three years or until rescinded, whichever is first.

OFFICE OF PRIMARY INTEREST: External Compliance Division

PREVIOUS PUBLICATIONS: None

FILING INSTRUCTIONS: This is a new bulletin and should be filed with 7 CFR 1767

AVAILABILITY: https://www.rd.usda.gov/resources/regulations/bulletins

PURPOSE: This bulletin provides recommended accounts to be added by RUS Electric Awardees to the Uniform System of Accounts. This bulletin is for use by RUS awardees, consultants, and other interested parties.

Every effort has been made to ensure the accuracy of this document. However, in case of discrepancies, the regulation, 7 CFR 1767, is the authorized source.

ANDREW BERKE Digitally signed by ANDREW BERKE Date: 2024.10.27 10:52:47

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Administrator

Rural Utilities Service

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1. SUMMARY

The Uniform System of Accounts (USoA) promulgated by the Federal Energy Regulatory Commission (FERC) codified in 18 CFR 101, serves as a basis for the Rural Utilities Service (RUS or the Agency) USoA codified in 7 CFR 1767, Accounting Requirements for RUS Electric Borrowers. When new or revised accounting guidance is provided by FERC for electric utilities, the Agency must review this guidance within the framework of this part for applicability to its borrowers. FERC issued Order 898, Accounting and Reporting of Certain Renewable Energy Assets, on June 29, 2023, published at 88 FR 69314, which identified new accounts in the USoA, to be effective January 1, 2025. The intent of FERC Order 898 was to create new accounts for wind, solar, and other renewable generating assets; create a new functional class for energy storage accounts; codify the accounting treatment of environmental credits; and create new accounts within existing functions for computer hardware, software, and communication equipment. In addition to the new accounts, FERC Order 898 provides revisions to specific sections of General Instructions and Electric Plant Instructions and corresponding changes to FERC Forms to implement these changes.

After reviewing Order 898, RUS, an agency of Rural Development, recommends Electric Awardees adopt the 160 new accounts identified below into the Uniform System of Accounts. Further, RUS is providing recommended general instructions specific to accounting for environmental credits. RUS expects to revise its regulations with respect to these accounts shortly; however, until such time, it recommends that entities follow these recommendations.

2. RECOMMENDED NEW ACCOUNTS

Assets and other debits

Utility Plant

- 108.11 Accumulated Provision for Depreciation of Solar Production Plant
- 108.12 Accumulated Provision for Depreciation of Wind Production Plant
- 108.13 Accumulated Provision for Depreciation of Other Renewable Production Plant
- 108.14 Accumulated Provision for Depreciation of Energy Storage Plant

Current and Accrued Assets

- 158.3 Bundled Environmental Credits Inventory
- 158.4 Unbundled Environmental Credits Inventory

Plant Accounts

Steam Production

- 315.1 Computer Hardware
- 315.2 Computer Software
- 315.3 Communication Equipment

Nuclear Production

- 324.1 Computer Hardware
- 324.2 Computer Software
- 324.3 Communication Equipment

Hydraulic Production

- 334.1 Computer Hardware
- 334.2 Computer Software
- 334.3 Communication Equipment

Solar Production

- 338.1 Land and Land Rights
- 338.2 Structures and Improvements
- 338.3 [Reserved]
- 338.4 Solar Panels
- 338.5 Collector System
- 338.6 Generator Step-Up Transformers (GSU)
- 338.7 Inverters
- 338.8 Other Accessory Electrical Equipment
- 338.9 Computer Hardware
- 338.10 Computer Software
- 338.11 Communication Equipment
- 338.12 Miscellaneous Power Plan Equipment
- 338.13 Asset Retirement Costs for Solar Production

Wind Production

- 338.20 Land and Land Rights
- 338.21 Structures and Improvements
- 338.22 [Reserved]
- 338.23 Wind Turbines
- 338.24 Wind Towers and Fixtures
- 338.25 [Reserved]
- 338.26 Collector System
- 338.27 Generator Step-Up Transformers (GSU)
- 338.28 Inverters
- 338.29 Other Accessory Electrical Equipment

- 338.30 Computer Hardware
- 338.31 Computer Software
- 338.32 Communication Equipment
- 338.33 Miscellaneous Power Plan Equipment
- 338.34 Asset Retirement Costs for Wind Production

Other Renewable Production

- 339.1 Land and Land Rights
- 339.2 Structures and Improvements
- 339.3 Fuel Holders
- 339.4 Boilers
- 339.5 [Reserved]
- 339.6 Generators
- 339.7 [Reserved]
- 339.8 Other Accessory Electrical Equipment
- 339.9 Computer Hardware
- 339.10 Computer Software
- 339.11 Communication Equipment
- 339.12 Miscellaneous Power Plan Equipment
- 339.13 Asset Retirement Costs for Other Renewable Production

Other Production

- 345.1 Computer Hardware
- 345.2 Computer Software
- 345.3 Communication Equipment

Transmission Plant

- 351.1 Computer Hardware
- 351.2 Computer Software
- 351.3 Communication Equipment

Distribution Plant

- 363.1 Computer Hardware
- 363.2 Computer Software
- 363.3 Communication Equipment

Energy Storage Plant

- 387 [Reserved]
- 387.1 Land and Land Rights Energy Storage Plant
- 387.2 Structures and Improvements
- 387.3 Energy storage equipment.
- 387.4 [Reserved]
- 387.5 Collector System
- 387.6 Generator Step-Up Transformers (GSU)
- 387.7 Inverters
- 387.8 Computer Hardware

- 387.9 Computer Software
- 387.10 Communication Equipment
- 387.11 Miscellaneous Energy Storage Equipment
- 387.12 Asset Retirement Costs for Energy Storage

General Plant

- 397.1 Computer Hardware
- 397.2 Computer Software
- 397.3 Communication Equipment

Utility Operating Income

- 403.10 Depreciation Expense—Solar Production Plant
- 403.11 Depreciation Expense—Wind Production Plant
- 403.12 Depreciation Expense—Other Renewable Production Plant
- 403.13 Depreciation Expense—Energy Storage Plant
- 411.11 Gains from Disposition of Environmental Credits
- 411.12 Losses from Disposition of Environmental Credits

Operation and maintenance expenses.

Steam Production

- 513.1 Maintenance of computer hardware (Major only).
- 513.2 Maintenance of computer software (Major only).
- 513.3 Maintenance of communication equipment (Major only).

Nuclear Production

- 531.1 Maintenance of computer hardware (Major only).
- 531.2 Maintenance of computer software (Major only).
- 531.3 Maintenance of communication equipment (Major only).

Hydraulic Production

- 544.1 Maintenance of computer hardware (Major only).
- 544.2 Maintenance of computer software (Major only).
- 544.3 Maintenance of communication equipment (Major only).

Other Production

- 553.1 Maintenance of computer hardware (Major only).
- 553.2 Maintenance of computer software (Major only
- 553.3 Maintenance of communication equipment (Major only).

Other Power Supply Expenses

- 555.1 Power Purchased for Storage Operations
- 555.2 Bundled Environmental Credits
- 555.3 Unbundled Environmental Credits

Solar Production

- 558.1 Operation supervision and engineering.
- 558.2 Solar panel generation and other plant operating expenses (Major only).
- 558.3 [Reserved]

- 558.4 Rents.
- 558.5 Operation supplies and expenses (Nonmajor only).
- 558.6 Maintenance supervision and engineering (Major only).
- 558.7 Maintenance of solar panels, structures, and equipment (Major only).
- 558.8 Maintenance of computer hardware (Major only).
- 558.9 Maintenance of computer software (Major only).
- 558.10 Maintenance of communication equipment (Major only).
- 558.11 Maintenance of miscellaneous solar generation plant (Major only).
- 558.12 Maintenance of solar generation plant (Nonmajor only).

Wind Production

- 558.13 Operation supervision and engineering.
- 558.14 Wind turbine generation and other plant operating expenses (Major only).
- 558.15 [Reserved]
- 558.16 Rents.
- 558.17 Operation supplies and expenses (Nonmajor only).
- 558.18 Maintenance supervision and engineering (Major only).
- 558.19 Maintenance of wind turbines, structures, and equipment (Major only).
- 558.20 Maintenance of computer hardware (Major only).
- 558.21 Maintenance of computer software (Major only).
- 558.22 Maintenance of communication equipment (Major only).
- 558.23 Maintenance of miscellaneous wind generation plant (Major only).
- 558.24 Maintenance of wind generation plant (Nonmajor only).

Other Renewable Production

- 559.1 Operation supervision and engineering.
- 559.2 Other miscellaneous generation and other plant operating expenses (Major only).
- 559.3 Fuel.
- 559.4 Rents.
- 559.5 Operation supplies and expenses (Nonmajor only).
- 559.6 Maintenance supervision and engineering (Major only).
- 559.7 Maintenance of structures (Major only).
- 559.8 [Reserved]
- 559.9 Maintenance of boilers (Major only).
- 559.10 Maintenance of generating and electric equipment (Major only).
- 559.11 [Reserved]
- 559.12 Maintenance of computer hardware (Major only).
- 559.13 Maintenance of computer software (Major only).
- 559.14 Maintenance of communication equipment (Major only).
- 559.15 Maintenance of miscellaneous other renewable generation plant (Major only).
- 559.16 Maintenance of other renewable generation plant (Nonmajor only).

Energy Storage Plant

- 577.1 Operation supervision and engineering.
- 577.2 Operation of energy storage equipment (Major only).
- 577.3 Storage fuel.
- 577.4 Rents.
- 577.5 Operation supplies and expenses (Nonmajor only).
- 578.1 Maintenance supervision and engineering (Major only).
- 578.2 Maintenance of energy storage equipment and structures (Major only).
- 578.3 Maintenance of computer hardware (Major only).
- 578.4 Maintenance of computer software (Major only).
- 578.5 Maintenance of communication equipment (Major only).
- 578.6 Maintenance of miscellaneous other energy storage plant (Major only).
- 578.7 Maintenance of other energy storage plant (Nonmajor only).

Distribution Plant

- 592.2 Maintenance of computer hardware (Major only).
- 592.3 Maintenance of computer software (Major only).
- 592.4 Maintenance of communication equipment (Major only).

Administrative and General

- 935.1 Maintenance of computer hardware (Major only).
- 935.2 Maintenance of computer software (Major only).
- 935.3Maintenance of communication equipment (Major only).

3. NEW ACCOUNT DEFINITIONS

Balance Sheet Accounts

Current and Accrued Assets

Accounts 108.11 – 108.14 are defined under Account 108 Accumulated Provision for Depreciation of Electric Utility Plant. No additional definitions are needed.

158.3 Bundled environmental credits inventory.

- A. This account should include the cost of environmental credits owned by the utility, bundled with energy, and not withheld by any authoritative agency. See § 1767.15(u).
- B. This account should be credited and Account 555.2, Bundled Environmental Credits, should be debited concurrent with the monthly use of environmental credits.
- C. Separate subdivisions of this account should be maintained so as to separately account for those environmental credits usable in the current year and in each subsequent year. The underlying records of these subdivisions should be maintained in sufficient detail so as to identify each environmental credit included, the origin of each environmental credit, and the original cost. (Note: For prepayments of environmental credits, see § 1767.15(u).)

158.4 Unbundled environmental credits inventory.

A. This account should include the cost of environmental credits owned by the utility, not considered bundled with energy, and not withheld by any authoritative agency. See § 1767.15(u).

- B. This account should be credited and Account 555.3, Unbundled Environmental Credits, should be debited concurrent with the monthly use of environmental credits.
- C. Separate subdivisions of this account should be maintained so as to separately account for those environmental credits usable in the current year and in each subsequent year. The underlying records of these subdivisions should be maintained in sufficient detail so as to identify each environmental credit included, the origin of each environmental credit, and the original cost. (Note: For prepayments of environmental credits, see § 1767.15(u).)

Plant Accounts Production Plant

Steam

315.1 Computer Hardware

This account should include the cost of computer hardware including the cost of computer hardware and miscellaneous information technology equipment to provide scheduling, system control, and dispatching.

Items

- 1. Personal computers.
- 2. Servers.
- 3. Workstations.
- 4. Energy management system (EMS) hardware.
- 5. Supervisory control and data acquisition (SCADA) system hardware.
- 6. Peripheral equipment.
- 7. Networking components.

315.2 Computer Software

This account should include the cost of computer software including the cost of off-the-shelf and in-house developed software purchased and used to provide scheduling, system control, and dispatching activities.

- 1. Software licenses
- 2. User interface software
- 3. Modeling software
- 4. Database software
- 5. Tracking and monitoring software
- 6. Energy management system (EMS) software
- 7. Supervisory control and data acquisition (SCADA) system software
- 8. Evaluation and assessment system software
- 9. Operating, planning and transaction scheduling software
- 10. Reliability applications
- 11. Market application software

315.3 Communications Equipment

This account should include the cost of communication equipment including the cost of communication equipment owned and used to acquire or share data and information used to control and dispatch the system.

Items

- 1. Fiber optic cable.
- 2. Remote terminal units.
- 3. Microwave towers.
- 4. Global positioning system (GPS) equipment.
- 5. Servers.
- 6. Workstations.
- 7. Telephones.

Nuclear Production

324.1 Computer Hardware

This account should include the cost of computer hardware including the cost of computer hardware and miscellaneous information technology equipment to provide scheduling, system control, and dispatching.

Items

- 1. Personal computers.
- 2. Servers.
- 3. Workstations.
- 4. Energy management system (EMS) hardware.
- 5. Supervisory control and data acquisition (SCADA) system hardware.
- 6. Peripheral equipment.
- 7. Networking components.

324.2 Computer Software

This account should include the cost of computer software including the cost of off-the-shelf and in-house developed software purchased and used to provide scheduling, system control, and dispatching activities.

- 1. Software licenses.
- 2. User interface software.
- 3. Modeling software.
- 4. Database software.
- 5. Tracking and monitoring software.
- 6. Energy management system (EMS) software.
- 7. Supervisory control and data acquisition (SCADA) system software.
- 8. Evaluation and assessment system software.
- 9. Operating, planning and transaction scheduling software.

- 10. Reliability applications.
- 11. Market application software.

324.3 Communication Equipment

This account should include the cost of communication equipment including the cost of communication equipment owned and used to acquire or share data and information used to control and dispatch the system.

Items

- 1. Fiber optic cable.
- 2. Remote terminal units.
- 3. Microwave towers.
- 4. Global positioning system (GPS) equipment.
- 5. Servers.
- 6. Workstations.
- 7. Telephones.

Hydraulic Production

334.1 Computer Hardware

This account should include the cost of computer hardware including the cost of computer hardware and miscellaneous information technology equipment to provide scheduling, system control, and dispatching.

Items

- 1. Personal computers.
- 2. Servers.
- 3. Workstations.
- 4. Energy management system (EMS) hardware.
- 5. Supervisory control and data acquisition (SCADA) system hardware.
- 6. Peripheral equipment.
- 7. Networking components.

334.2 Computer Software

This account should include the cost of computer software including the cost of off-the-shelf and in-house developed software purchased and used to provide scheduling, system control, and dispatching activities.

- 1. Software licenses.
- 2. User interface software.
- 3. Modeling software.
- 4. Database software.
- 5. Tracking and monitoring software.
- 6. Energy management system (EMS) software.
- 7. Supervisory control and data acquisition (SCADA) system software.

- 8. Evaluation and assessment system software.
- 9. Operating, planning and transaction scheduling software.
- 10. Reliability applications.
- 11. Market application software.

334.3 Communication Equipment

This account should include the cost of communication equipment including the cost of communication equipment owned and used to acquire or share data and information used to control and dispatch the system.

Items

- 1. Fiber optic cable.
- 2. Remote terminal units.
- 3. Microwave towers.
- 4. Global positioning system (GPS) equipment.
- 5. Servers.
- 6. Workstations.
- 7. Telephones.

Solar Production

338.1 Land and land rights.

This account should include the cost of land and land rights used in connection with solar power generation. (See § 1767.16(g).)

338.2 Structures and improvements.

This account should include the cost in place of structures and improvements used in connection with solar power generation. (See § 1767.16(h).)

338.3 [Reserved]

338.4 Solar panels.

This account should include the installed cost of the racks, solar panels, solar tracking system, and other equipment to be used primarily for generating direct current (DC) electricity.

338.5 Collector system.

This account should include all cost of cabling, junction boxes, connection cabinets, and all facilities and devices (such as capacitors and reactors) that are used to transport and consolidate the power fed from individual solar panels up to, but not including, the substation prior to interconnection to the grid. This account should exclude the cost of transformers and other equipment used for the express purpose of interconnecting to transmission or distribution lines.

- 1. Anchors, head arm, and other guys, including guy guards, guy clamps, strain insulators, pole plates, etc.
- 2. Armored conductors, buried, submarine, including insulators, insulating materials, splices in terminal chamber, potheads, etc.
- 3. Brackets.

- 4. Circuit breakers.
- 5. Conductors, including insulated and bare wires and cables.
- 6. Conduit, concrete, brick and tile, including iron pipe, fiber pipe, Murray duct, and standpipe on pole or tower.
- 7. Crossarms and braces.
- 8. Excavation and backfill, including shoring, bracing, bridging, and disposal of excess excavated material.
- 9. Extension arms.
- 10. Fireproofing, in connection with any items listed herein.
- 11. Foundations and settings specially constructed for and not expected to outlast the apparatus for which constructed.
- 12. Ground wires, clamps, etc.
- 13. Guards.
- 14. Hollow-core oil-filled cable, including straight or stop joints, pressure tanks, auxiliary air tanks, feeding tanks, terminals, potheads and connections, etc.
- 15. Insulators, including pin, suspension, and other types, and tie wire or clamps.
- 16. Lightning arresters.
- 17. Paving, Pavement disturbed, including cutting and replacing pavement, pavement base, and sidewalks.
- 18. Permits for construction.
- 19. Pole steps and ladders.
- 20. Poles, wood, steel, concrete, or other material.
- 21. Racks complete with insulators.
- 22. Railings.
- 23. Railroad and highway crossing guards.
- 24. Reinforcing and stubbing.
- 25. Removal and relocation of subsurface obstructions.
- 26. Settings.
- 27. Sewer connections, including drains, traps, tide valves, check valves, etc.
- 28. Shaving, painting, gaining, roofing, stenciling, and tagging.
- 29. Splices.
- 30. Sumps, including pumps.
- 31. Switches.
- 32. Towers.
- 33. Tree trimming, initial cost including the cost of permits therefor.
- 34. Ventilating equipment.
- 35. Other line devices.

338.6 Generator step-up transformers (GSU).

This account should include only the cost of the GSU transformers directly connected to the generator terminal tips and other equipment used for conveying the power to the GSU for the purpose of initially changing the voltage or frequency of electric energy for the purpose of moving the power. It should exclude the cost of additional transformers and other equipment once the power has been initially stepped up from a generator voltage to a higher voltage.

Note: Do not include in this account transformers and other equipment used for changing the voltage or frequency of electricity for the purposes of transmission or distribution.

338.7 Inverters.

This account should include the installed cost of inverters for the purpose of converting electricity from direct current (DC) to alternating current (AC).

338.8 Other accessory electrical equipment.

This account should include the installed cost of other conversion or auxiliary generating apparatus and equipment used primarily in connection with the control and switching of electric energy produced by solar panels, including weather monitoring equipment, and protection of electric circuits and equipment, as used to support the generator in the action of generating power (excluding SCADA systems) not specifically chargeable to any other account. This account should exclude Collector System costs, Account 338.5, Collector System; GSU costs, Account 338.6, Generator Step-up Transformers (GSU); and Inverter costs, Account 338.7, Inverters.

Items

- 1. Auxiliary generators, including boards, compartments, switching equipment, control equipment, and connections to auxiliary power bus.
- 2. Rheostats, storage batteries and charging equipment, circuit breakers, panels and accessories, knife switches and accessories, surge arresters, instrument shunts, conductors and conduit, special supports for conduit, special housings, etc.
- 3. Generator main connections, including oil circuit breakers and accessories, disconnecting switches and accessories, operating mechanisms and interlocks, current transformers, potential transformers, protective relays, isolated panels and equipment, conductors and conduit, special supports for generator main leads, grounding switch, special housing, etc.
- 4. Station control system, including station switchboards with panel wiring, panels with instruments and control equipment only, panels with switching equipment mounted or mechanically connected, trunk-type boards complete, cubicles, generator signal stands, temperature-recording devices, atmospheric reading devices, frequency control equipment, master clocks, watt-hour meter, station totalizing wattmeter, storage batteries, panels and charging sets, instrument transformers for supervisory metering, conductors and conduit, special supports for conduit, switchboards, batteries, special housing for batteries, etc.
- 5. Station buses, including main, auxiliary transfer, synchronizing and fault ground buses, including oil circuit breakers and accessories, disconnecting switches and accessories, operating mechanisms and interlocks, reactors and accessories, voltage regulators and accessories, compensators, resistors, current transformers, potential transformers, protective relays, storage batteries and charging equipment, isolated panels and equipment, conductors and conduit, special supports, special housings, concrete pads, general station ground system, special fire-extinguishing system, and test equipment.

Note A: Do not include in this account transformers and other equipment used for changing the voltage or frequency of electric energy for the purpose of transmission or distribution.

Note B: When any item of equipment listed herein is used wholly to furnish power to equipment included in another account, its cost should be included in such other account.

338.9 Computer hardware.

This account should include the cost of computer hardware and miscellaneous information technology equipment to provide scheduling, system control, and dispatching.

Items

- 1. Personal computers.
- 2. Servers.
- 3. Workstations.
- 4. Energy Management System (EMS) hardware.
- 5. Supervisory Control and Data Acquisition (SCADA) system hardware.
- 6. Peripheral equipment.
- 7. Networking components.

338.10 Computer software.

This account should include the cost of computer software including the cost of off-the-shelf and in-house developed software purchased and used to provide scheduling, system control, and dispatching activities.

Items

- 1. Software licenses.
- 2. User interface software.
- 3. Modeling software.
- 4. Database software.
- 5. Tracking and monitoring software.
- 6. Energy management system (EMS) software.
- 7. Supervisory control and data acquisition (SCADA) system software.
- 8. Evaluation and assessment system software.
- 9. Operating, planning and transaction scheduling software.
- 10. Reliability applications.
- 11. Market application software.

338.11 Communication equipment.

This account should include the cost of communication equipment owned and used to acquire or share data and information used to control and dispatch the system.

- 1. Fiber optic cable.
- 2. Remote terminal units.
- 3. Microwave towers.
- 4. Global Positioning System (GPS) equipment.
- 5. Servers.
- 6. Workstations.
- 7. Telephones.

338.12 Miscellaneous power plant equipment.

This account should include the installed cost of miscellaneous equipment in and about the solar plant devoted to general station use, and which is not properly includible in any of the foregoing solar power production accounts.

Items

- 1. Compressed air and vacuum cleaning systems, including tanks, compressors, exhausters, air filters, piping, etc.
- 2. Cranes and hoisting equipment, including cranes, cars, crane rails, monorails, hoists, etc., with electric and mechanical connections.
- 3. Fire-extinguishing equipment for general station use.
- 4. Foundations and settings, specially constructed for and not expected to outlast the apparatus for which provided.
- 5. Miscellaneous equipment, including atmospheric and weather indicating devices, intrasite communication equipment, laboratory equipment, signal systems, callophones, emergency whistles and sirens, fire alarms, and other similar equipment.
- 6. Miscellaneous belts, pulleys, countershafts, etc.
- 7. Refrigerating system including compressors, pumps, cooling coils, etc.
- 8. Station maintenance equipment, including lathes, shapers, planers, drill presses, hydraulic presses, grinders, etc., with motors, shafting, hangers, pulleys, etc.
- 9. Ventilating equipment, including items wholly identified with apparatus listed herein.

Note: When any item of equipment, listed herein is used wholly in connection with equipment included in another account, its cost should be included in such other account.

338.13 Asset retirement costs for solar production.

This account should include asset retirement costs on plant included in solar production function.

Wind Production

338.20 Land and land rights.

This account should include the cost of land and land rights used in connection with wind power generation. (See § 1767.16(g).)

338.21 Structures and improvements.

This account should include the cost in place of structures and improvements used in connection with wind power generation. (See § 1767.16(h).)

338.22 [Reserved]

338.23 Wind turbines.

This account should include the cost installed of the mechanical turbine parts and generator equipment, including nacelle, gearbox, etc., to be used primarily for generating electricity.

338.24 Wind towers and fixtures.

This account should include the cost installed of towers and appurtenant fixtures used for supporting wind power production. Foundations should be included in Account 338.21 Structures and Improvements.

338.25 [Reserved]

338.26 Collector system.

This account should include all cost of cabling, junction boxes, connection cabinets, and all facilities and devices (such as capacitors and reactors) that are used to transport and consolidate the power fed from individual wind turbines up to, but not including, the substation prior to interconnection to the grid. This account should exclude the cost of transformers and other equipment used for the express purpose of interconnecting to transmission or distribution lines.

- 1. Anchors, head arm, and other guys, including guy guards, guy clamps, strain insulators, pole plates, etc.
- 2. Armored conductors, buried, submarine, including insulators, insulating materials, splices in terminal chamber, potheads, etc.
- 3. Brackets.
- 4. Circuit breakers.
- 5. Conductors, including insulated and bare wires and cables.
- 6. Conduit, concrete, brick and tile, including iron pipe, fiber pipe, Murray duct, and standpipe on pole or tower.
- 7. Crossarms and braces.
- 8. Excavation and backfill, including shoring, bracing, bridging, and disposal of excess excavated material.
- 9. Extension arms.
- 10. Fireproofing, in connection with any items listed herein.
- 11. Foundations and settings specially constructed for and not expected to outlast the apparatus for which constructed.
- 12. Ground wires, clamps, etc.
- 13. Guards.
- 14. Hollow-core oil-filled cable, including straight or stop joints, pressure tanks, auxiliary air tanks, feeding tanks, terminals, potheads and connections, etc.
- 15. Insulators, including pin, suspension, and other types, and tie wire or clamps.
- 16. Lightning arresters.
- 17. Paving, Pavement disturbed, including cutting and replacing pavement, pavement base, and sidewalks.
- 18. Permits for construction.
- 19. Pole steps and ladders.
- 20. Poles, wood, steel, concrete, or other material.
- 21. Racks complete with insulators.
- 22. Railings.
- 23. Railroad and highway crossing guards.
- 24. Reinforcing and stubbing.
- 25. Removal and relocation of subsurface obstructions.
- 26. Settings.
- 27. Sewer connections, including drains, traps, tide valves, check valves, etc.

- 28. Shaving, painting, gaining, roofing, stenciling, and tagging.
- 29. Splices.
- 30. Sumps, including pumps.
- 31. Switches.
- 32. Towers.
- 33. Tree trimming, initial cost including the cost of permits therefor.
- 34. Ventilating equipment.
- 35. Other line devices.

338.27 Generator step-up transformers (GSU).

This account should include only the cost of the GSU transformers and other equipment used for conveying the power to the pad-mount GSU for the purpose of initially changing the voltage or frequency of electric energy for the purpose of moving the power. It should exclude the cost of additional transformers and other equipment once the power has been initially stepped up from a generator voltage to a higher voltage.

Note: Do not include in this account transformers and other equipment used for changing the voltage or frequency of electricity for the purposes of transmission or distribution.

338.28 Inverters.

This account should include the installed cost of inverters for the purpose of converting electricity from direct current (DC) to alternating current (AC).

338.29 Other accessory electrical equipment.

This account should include the installed cost of other conversion or auxiliary generating apparatus and equipment used primarily in connection with the control and switching of electric energy produced by wind turbines, including weather monitoring equipment, and protection of electric circuits and equipment, as used to support the generator in the action of generating power (excluding SCADA systems) not specifically chargeable to any other account. This account should exclude Collector System costs, Account 338.26, Collector System; GSU costs, Account 338.27, Generator Step-up Transformers (GSU); and Inverter costs, Account 338.28, Inverters.

- 1. Auxiliary generators, including boards, compartments, switching equipment, control equipment, and connections to auxiliary power bus.
- 2. Rheostats, storage batteries and charging equipment, circuit breakers, panels and accessories, knife switches and accessories, surge arresters, instrument shunts, conductors and conduit, special supports for conduit, special housings, etc.
- 3. Generator main connections, including oil circuit breakers and accessories, disconnecting switches and accessories, operating mechanisms and interlocks, current transformers, potential transformers, protective relays, isolated panels and equipment, conductors and conduit, special supports for generator main leads, grounding switch, special housing, etc.
- 4. Station control system, including station switchboards with panel wiring, panels with instruments and control equipment only, panels with switching equipment mounted or mechanically connected, trunk-type boards complete, cubicles, generator signal stands, temperature-recording devices, atmospheric reading devices, frequency control equipment,

master clocks, watt-hour meter, station totalizing wattmeter, storage batteries, panels and charging sets, instrument transformers for supervisory metering, conductors and conduit, special supports for conduit, switchboards, batteries, special housing for batteries, etc.

5. Station buses, including main, auxiliary transfer, synchronizing and fault ground buses, including oil circuit breakers and accessories, disconnecting switches and accessories, operating mechanisms and interlocks, reactors and accessories, voltage regulators and accessories, compensators, resistors, current transformers, potential transformers, protective relays, storage batteries and charging equipment, isolated panels and equipment, conductors and conduit, special supports, special housings, concrete pads, general station ground system, special fire-extinguishing system, and test equipment.

Note A: Do not include in this account transformers and other equipment used for changing the voltage or frequency of electric energy for the purpose of transmission or distribution.

Note B: When any item of equipment listed herein is used wholly to furnish power to equipment included in another account, its cost should be included in such other account.

338.30 Computer hardware.

This account should include the cost of computer hardware and miscellaneous information technology equipment to provide scheduling, system control, and dispatching.

Items

- 1. Personal computers.
- 2. Servers.
- 3. Workstations.
- 4. Energy Management System (EMS) hardware.
- 5. Supervisory Control and Data Acquisition (SCADA) system hardware.
- 6. Peripheral equipment.
- 7. Networking components.

338.31 Computer software.

This account should include the cost of computer software including the cost of off-the-shelf and in-house developed software purchased and used to provide scheduling, system control, and dispatching activities.

- 1. Software licenses.
- 2. User interface software.
- 3. Modeling software.
- 4. Database software.
- 5. Tracking and monitoring software.
- 6. Energy management system (EMS) software.
- 7. Supervisory control and data acquisition (SCADA) system software.
- 8. Evaluation and assessment system software.
- 9. Operating, planning and transaction scheduling software.
- 10. Reliability applications.

11. Market application software.

338.32 Communication equipment.

This account should include the cost of communication equipment owned and used to acquire or share data and information used to control and dispatch the system.

Items

- 1. Fiber optic cable.
- 2. Remote terminal units.
- 3. Microwave towers.
- 4. Global Positioning System (GPS) equipment.
- 5. Servers.
- 6. Workstations.
- 7. Telephones.

338.33 Miscellaneous power plant equipment.

This account should include the installed cost of miscellaneous equipment in and about the wind plant devoted to general station use, and which is not properly includible in any of the foregoing wind power production accounts.

338.34 Asset retirement costs for wind production.

This account should include asset retirement costs on plant included in wind production function.

Other Renewable Production

339.1 Land and land rights.

This account should include the cost of land and land rights used in connection with other renewable power generation. (See § 1767.16(g).)

339.2 Structures and improvements.

This account should include the cost in place of structures and improvements used in connection with other renewable power generation. (See § 1767.16(h).)

Note: this includes mirrors for solar boiler systems.

339.3 Fuel holders.

This account should include the cost installed of renewable fuel handling and storage equipment used between the point of fuel delivery to the station and the intake through which fuel is either directly drawn to the engine, or into a boiler system, inclusive.

- 1. Blower and fans.
- 2. Boilers and pumps.
- 3. Economizers.
- 4. Exhauster outfits.
- 5. Flues and piping.
- 6. Pipe system.
- 7. Producers.

- 8. Regenerators.
- 9. Scrubbers.
- 10. Steam injectors.
- 11. Tanks for storage of electrolytes, hydrogen, renewable natural gas, algae, etc.
- 12. Vaporizers.

339.4 Boilers.

This account should include the cost installed of furnaces, boilers, steam and feed water piping, boiler apparatus and accessories used in the production of steam or other vapor, to be used primarily for generating electricity. This account includes solar boiler systems.

Items

- 1. Boiler feed system, including feed water heaters, evaporator condensers, heater drain pumps, heater drainers, deaerators, and vent condensers, boiler feed pumps, surge tanks, feed water regulators, feed water measuring equipment, and all associated drives.
- 2. Boiler plant cranes and hoists and associated drives.
- 3. Boilers and equipment, including boilers and baffles, economizers, superheaters, foundations and settings, water walls, arches, grates, insulation, blow-down system, drying out of new boilers, also associated motors or other power equipment.
- 4. Draft equipment, including air preheaters and accessories, induced and forced draft fans, air ducts, combustion control mechanisms, and associated motors or other power equipment.
- 5. Gas-burning equipment, including holders, burner equipment and piping, control equipment, etc.
- 6. Instruments and devices, including all measuring, indicating, and recording equipment for boiler plant service together with mountings and supports.
- 7. Lighting systems.
- 8. Stacks, including foundations and supports, stack steel and ladders, stack concrete, stack lining, stack painting (first), when set on separate foundations, independent of substructure or superstructure of building.
- 9. Station piping, including pipe, valves, fittings, separators, traps, desuperheaters, hangers, excavation, covering, etc., for station piping system, including all steam, condensate, boiler feed and water supply piping, etc.
- 10. Ventilating equipment.
- 11. Water purification equipment, including softeners and accessories, evaporators and accessories, heat exchangers, filters, tanks for filtered or softened water, pumps, motors, etc.
- 12. Water-supply systems, including pumps, motors, strainers, raw-water storage tanks, boiler wash pumps, intake and discharge pipes and tunnels not a part of a building.

339.5 [Reserved]

339.6 Generators.

This account should include the cost installed of other renewable generators of all types apart from wind and solar.

Items

- 1. Cranes, hoists, etc., including items wholly identified with such apparatus.
- 2. Fire-extinguishing equipment.
- 3. Foundations and settings, specially constructed for and not expected to outlast the apparatus for which provided.
- 4. Generator cooling system, including air cooling and washing apparatus, air fans and accessories, air ducts, etc.
- 5. Generators—main, AC or DC, including field rheostats and connections for self-excited units and excitation system when identified with the generating unit.
- 6. Lighting systems.
- 7. Lubricating system, including tanks, filters, strainers, pumps, piping, coolers, etc.
- 8. Mechanical meters and recording instruments.
- 9. Platforms, railings, steps, gratings, etc., appurtenant to apparatus listed herein.
- 10. Cooling system, including towers, pumps, tank, and piping.
- 11. Piping main exhaust, including connections between generator and condenser and between condenser and hotwell.
- 12. Piping main steam, including connections from main throttle valve to turbine inlet.
- 13. Circulating pumps, including connections between condensers and intake and discharge tunnels.
- 14. Tunnels, intake and discharge, for condenser system, when not a part of structure, water screens, etc.
- 15. Water screens, motors, etc.
- 16. Moisture separator for turbine steam.
- 17. Turbine lubricating oil (initial charge).

339.7 [Reserved]

339.8 Other accessory electrical equipment.

This account should include the installed cost of other conversion or auxiliary generating apparatus and equipment used primarily in connection with the control and switching of electric energy produced by other renewable, including weather monitoring equipment, and protection of electric circuits and equipment, as used to support the generator in the action of generating power (excluding SCADA systems) not specifically chargeable to any other account.

- 1. Auxiliary generators, including boards, compartments, switching equipment, control equipment, and connections to auxiliary power bus.
- 2. Rheostats, backup storage batteries and charging equipment, circuit breakers, panels and accessories, knife switches and accessories, surge arresters, instrument shunts, conductors and conduit, special supports for conduit, special housings, etc.

- 3. Generator main connections, including oil circuit breakers and accessories, disconnecting switches and accessories, operating mechanisms and interlocks, current transformers, potential transformers, protective relays, isolated panels and equipment, conductors and conduit, special supports for generator main leads, grounding switch, special housing, etc.
- 4. Station control system, including station switchboards with panel wiring, panels with instruments and control equipment only, panels with switching equipment mounted or mechanically connected, trunk-type boards complete, cubicles, station supervisory control boards, generator signal stands, temperature-recording devices, atmospheric reading devices, frequency control equipment, master clocks, watt-hour meter, station totalizing wattmeter, backup storage batteries, panels and charging sets, instrument transformers for supervisory metering, conductors and conduit, special supports for conduit, switchboards, emergency backup batteries, special housing for batteries, etc.
- 5. Station buses, including main, auxiliary transfer, synchronizing and fault ground buses, including oil circuit breakers and accessories, disconnecting switches and accessories, operating mechanisms and interlocks, reactors and accessories, voltage regulators and accessories, compensators, resistors, current transformers, potential transformers, protective relays, backup storage batteries and charging equipment, isolated panels and equipment, conductors and conduit, special supports, special housings, concrete pads, general station ground system, special fire-extinguishing system, and test equipment.

Note A: Do not include in this account transformers and other equipment used for changing the voltage or frequency of electric energy for the purpose of transmission or distribution.

Note B: When any item of equipment listed herein is used wholly to furnish power to equipment included in another account, its cost should be included in such other account.

339.9 Computer hardware.

This account should include the cost of computer hardware and miscellaneous information technology equipment to provide scheduling, system control, and dispatching.

Items

- 1. Personal computers.
- 2. Servers.
- 3. Workstations.
- 4. Energy Management System (EMS) hardware.
- 5. Supervisory Control and Data Acquisition (SCADA) system hardware.
- 6. Peripheral equipment.
- 7. Networking components.

339.10 Computer software.

This account should include the cost of computer software including the cost of off-the-shelf and in-house developed software purchased and used to provide scheduling, system control, and dispatching activities.

Items

- 1. Software licenses
- 2. User interface software
- 3. Modeling software
- 4. Database software
- 5. Tracking and monitoring software
- 6. Energy management system (EMS) software
- 7. Supervisory control and data acquisition (SCADA) system software
- 8. Evaluation and assessment system software
- 9. Operating, planning and transaction scheduling software
- 10. Reliability applications
- 11. Market application software

339.11 Communication equipment.

This account should include the cost of communication equipment owned and used to acquire or share data and information used to control and dispatch the system.

Items

- 1. Fiber optic cable.
- 2. Remote terminal units.
- 3. Microwave towers.
- 4. Global Positioning System (GPS) equipment.
- 5. Servers.
- 6. Workstations.
- 7. Telephones.

339.12 Miscellaneous power plant equipment.

This account should include the installed cost of miscellaneous equipment in and about the other renewable plant devoted to general station use, and which is not properly includible in any of the foregoing other renewable power production accounts.

339.13 Asset retirement costs for other renewable production.

This account should include asset retirement costs on plant included in other renewable production function.

Other Production Plant

345.1 Computer hardware.

This account should include the cost of computer hardware and miscellaneous information technology equipment to provide scheduling, system control, and dispatching.

- 1. Personal computers.
- 2. Servers.
- 3. Workstations.
- 4. Energy Management System (EMS) hardware.

- 5. Supervisory Control and Data Acquisition (SCADA) system hardware.
- 6. Peripheral equipment.
- 7. Networking components.

345.2 Computer software.

This account should include the cost of off-the-shelf and in-house developed software purchased and used to provide scheduling, system control, and dispatching activities.

Items

- 1. Software licenses.
- 2. User interface software.
- 3. Modeling software.
- 4. Database software.
- 5. Tracking and monitoring software.
- 6. Energy Management System (EMS) software.
- 7. Supervisory Control and Data Acquisition (SCADA) system software.
- 8. Evaluation and assessment system software.
- 9. Operating, planning and transaction scheduling software.
- 10. Reliability applications.
- 11. Market application software.

345.3 Communication equipment.

This account should include the cost of communication equipment owned and used to acquire or share data and information used to control and dispatch the system.

Items

- 1. Fiber optic cable.
- 2. Remote terminal units.
- 3. Microwave towers.
- 4. Global Positioning System (GPS) equipment.
- 5. Servers.
- 6. Workstations.
- 7. Telephones.

Transmission Plant

351.1 Computer hardware.

This account should include the cost of computer hardware and miscellaneous information technology equipment to provide scheduling, system control and dispatching.

- 1. Personal computers.
- 2. Servers.
- 3. Workstations.
- 4. Energy Management System (EMS) hardware.
- 5. Supervisory Control and Data Acquisition (SCADA) system hardware.

- 6. Peripheral equipment.
- 7. Networking components.

351.2 Computer software.

This account should include the cost of off-the-shelf and in-house developed software purchased and used to provide scheduling, system control, and dispatching activities.

Items

- 1. Software licenses.
- 2. User interface software.
- 3. Modeling software.
- 4. Database software.
- 5. Tracking and monitoring software.
- 6. Energy Management System (EMS) software.
- 7. Supervisory Control and Data Acquisition (SCADA) system software.
- 8. Evaluation and assessment system software.
- 9. Operating, planning and transaction scheduling software.
- 10. Reliability applications.
- 11. Market application software.

351.3 Communication equipment.

This account should include the cost of communication equipment owned and used to acquire or share data and information used to control and dispatch the system.

Items

- 1. Fiber optic cable.
- 2. Remote terminal units.
- 3. Microwave towers.
- 4. Global Positioning System (GPS) equipment.
- 5. Servers.
- 6. Workstations.
- 7. Telephones.

Distribution Plant

363.1 Computer hardware.

This account should include the cost of computer hardware and miscellaneous information technology equipment to provide scheduling, system control, and dispatching.

- 1. Personal computers.
- 2. Servers.
- 3. Workstations.
- 4. Energy Management System (EMS) hardware.
- 5. Supervisory Control and Data Acquisition (SCADA) system hardware.
- 6. Peripheral equipment.

7. Networking components.

363.2 Computer software.

This account should include the cost of off-the-shelf and in-house developed software purchased and used to provide scheduling, system control, and dispatching activities.

Items

- 1. Software licenses.
- 2. User interface software.
- 3. Modeling software.
- 4. Database software.
- 5. Tracking and monitoring software.
- 6. Energy Management System (EMS) software.
- 7. Supervisory Control and Data Acquisition (SCADA) system software.
- 8. Evaluation and assessment system software.
- 9. Operating, planning and transaction scheduling software.
- 10. Reliability applications.
- 11. Market application software.

363.3 Communications equipment.

This account should include the cost of communication equipment owned and used to acquire or share data and information used to control and dispatch the system.

Items

- 1. Fiber optic cable.
- 2. Remote terminal units.
- 3. Microwave towers.
- 4. Global Positioning System (GPS) equipment.
- 5. Servers.
- 6. Workstations.
- 7. Telephones.

Energy Storage Plant

387 [Reserved]

387.1 Land and land rights.

This account should include the cost of land and land rights used in connection with energy storage plant. (See § 1767.16(g).)

387.2 Structures and improvements.

This account should include the cost in place of structures and improvements used in connection with energy storage plant. (See § 1767.16(h).)

387.3 Energy storage equipment.

A. This account should include the cost installed of energy storage equipment used to store energy for load managing purposes.

B. Labor costs and power purchased to energize the equipment are includible on the first installation only. The cost of removing, relocating, and resetting energy storage equipment should not be charged to this account but to operations and maintenance expense accounts for energy storage expenses, as appropriate.

C. The records supporting this account should show, by months, the function(s) each energy storage asset supports or performs.

Items

- 1. Batteries, including elements, tanks, and tank insulators.
- 2. Battery room connections, including cable or bus runs and connections.
- 3. Battery room flooring, when specially laid for supporting batteries.
- 4. Charging equipment, including motor generator sets and other charging equipment and connections, and cable runs from generator or station bus to battery room connections.
- 5. Miscellaneous equipment, including instruments, and water stills.
- 6. Switching equipment, including end cell switches and connections, boards and panels, used exclusively for battery control, not part of general station switchboard.
- 7. Ventilating equipment, including fans and motors, louvers, and ducts not part of building.
- 8. Battery Monitoring and System (BMS)
- 9. Charge Controller
- 10. Compressed Air.
- 11. Flywheels.
- 12. Superconducting Magnetic Storage.
- 13. Thermal.

Note: Storage batteries used for control and general station purposes should not be included in this account but in the account appropriate for their use. The cost of pumped storage hydroelectric plant should be charged to hydraulic production plant. These are examples of items includible in this account. This list is not exhaustive.

387.4 [Reserved]

387.5 Collector system.

This account should include all cost of cabling, junction boxes, connection cabinets, and all facilities and devices (such as capacitors and reactors) that are used to transport and consolidate the power fed from individual storage facilities up to, but not including, the substation prior to interconnection to the grid. This account should exclude the cost of transformers and other equipment used for the express purpose of interconnecting to transmission or distribution lines.

Items

1. Anchors, head arm, and other guys, including guy guards, guy clamps, strain insulators, pole plates, etc.

- 2. Armored conductors, buried, submarine, including insulators, insulating materials, splices in terminal chamber, potheads, etc.
- 3. Brackets.
- 4. Circuit breakers.
- 5. Conductors, including insulated and bare wires and cables.
- 6. Conduit, concrete, brick and tile, including iron pipe, fiber pipe, Murray duct, and standpipe on pole or tower.
- 7. Crossarms and braces.
- 8. Excavation and backfill, including shoring, bracing, bridging, and disposal of excess excavated material.
- 9. Extension arms.
- 10. Fireproofing, in connection with any items listed herein.
- 11. Foundations and settings specially constructed for and not expected to outlast the apparatus for which constructed.
- 12. Ground wires, clamps, etc.
- 13. Guards.
- 14. Hollow-core oil-filled cable, including straight or stop joints, pressure tanks, auxiliary air tanks, feeding tanks, terminals, potheads and connections, etc.
- 15. Insulators, including pin, suspension, and other types, and tie wire or clamps.
- 16. Lightning arresters.
- 17. Paving, Pavement disturbed, including cutting and replacing pavement, pavement base, and sidewalks.
- 18. Permits for construction.
- 19. Pole steps and ladders.
- 20. Poles, wood, steel, concrete, or other material.
- 21. Racks complete with insulators.
- 22. Railings.
- 23. Railroad and highway crossing guards.
- 24. Reinforcing and stubbing.
- 25. Removal and relocation of subsurface obstructions.
- 26. Settings.
- 27. Sewer connections, including drains, traps, tide valves, check valves, etc.
- 28. Shaving, painting, gaining, roofing, stenciling, and tagging.
- 29. Splices.
- 30. Sumps, including pumps.
- 31. Switches.
- 32. Towers.
- 33. Tree trimming, initial cost including the cost of permits therefor.
- 34. Ventilating equipment.
- 35. Other line devices.

387.6 Generator step-up transformers (GSU).

This account should include only the cost of the GSU transformers and other equipment used for conveying the power to the pad-mount GSU for the purpose of initially changing the voltage or

frequency of electric energy for the purpose of moving the power. It should exclude the cost of additional transformers and other equipment once the power has been initially stepped up from a generator voltage to a higher voltage.

Note: Do not include in this account transformers and other equipment used for changing the voltage or frequency of electricity for the purposes of transmission or distribution.

387.7 Inverters.

This account should include the installed cost of inverters for the purpose of converting electricity from direct current (DC) to alternating current (AC).

387.8 Computer hardware.

This account should include the cost of computer hardware and miscellaneous information technology equipment to provide scheduling, system control and dispatching.

Items

- 1. Personal computers.
- 2. Servers.
- 3. Workstations.
- 4. Energy Management System (EMS) hardware.
- 5. Supervisory Control and Data Acquisition (SCADA) system hardware.
- 6. Peripheral equipment.
- 7. Networking components.

387.9 Computer software.

This account should include the cost of off-the-shelf and in-house developed software purchased and used to provide scheduling, system control, and dispatching activities.

- 1. Software licenses.
- 2. User interface software.
- 3. Modeling software.
- 4. Database software.
- 5. Tracking and monitoring software.
- 6. Energy Management System (EMS) software.
- 7. Supervisory Control and Data Acquisition (SCADA) system software.
- 8. Evaluation and assessment system software.
- 9. Operating, planning and transaction scheduling software.
- 10. Reliability applications.
- 11. Market application software.

387.10 Communication equipment.

This account should include the cost of communication equipment owned and used to acquire or share data and information used to control and dispatch the system.

Items

- 1. Fiber optic cable.
- 2. Remote terminal units.
- 3. Microwave towers.
- 4. Global Positioning System (GPS) equipment.
- 5. Servers.
- 6. Workstations.
- 7. Telephones.

387.11 Miscellaneous energy storage equipment.

This account should include the installed cost of miscellaneous equipment in and about the energy storage equipment devoted to general station use, and which is not properly includible in any of the foregoing energy storage plant accounts.

387.12 Asset retirement costs for energy storage plant.

This account should include asset retirement costs on plant included in the energy storage plant function.

General Plant

397.1 Computer hardware.

This account should include the cost of computer hardware and miscellaneous information technology equipment to provide scheduling, system control and dispatching.

Items

- 1. Personal computers.
- 2. Servers.
- 3. Workstations.
- 4. Energy Management System (EMS) hardware.
- 5. Supervisory Control and Data Acquisition (SCADA) system hardware.
- 6. Peripheral equipment.
- 7. Networking components.

397.2 Computer software.

This account should include the cost of off-the-shelf and in-house developed software purchased and used to provide scheduling, system control and dispatching activities.

- 1. Software licenses.
- 2. User interface software.
- 3. Modeling software.
- 4. Database software.
- 5. Tracking and monitoring software.

- 6. Energy Management System (EMS) software.
- 7. Supervisory Control and Data Acquisition (SCADA) system software.
- 8. Evaluation and assessment system software.
- 9. Operating, planning and transaction scheduling software.
- 10. Reliability applications.
- 11. Market application software.

397.3 Data Communication equipment.

This account should include the cost of communication equipment owned and used to acquire or share data and information used to control and dispatch the system.

Items

- 1. Fiber optic cable.
- 2. Remote terminal units.
- 3. Microwave towers.
- 4. Global Positioning System (GPS) equipment.
- 5. Servers.
- 6. Workstations.
- 7. Telephones.

Utility Income

Accounts 403.10 – 403.13 are defined under 403 Depreciation Expense. No additional definitions are needed.

411.11 Gains from disposition of environmental credits.

This account should be credited with the gain on the sale, exchange, or other disposition of environmental credits in accordance with § 1767.15(u)(8). Income taxes relating to gains recorded in this account should be recorded in Account 409.1, Income Taxes, Utility Operating Income.

Note: Revenues for environmental credits associated with the sale of energy should be recorded in the appropriate operating revenue account consistent with § 1767.15(u)(9).

411.12 Losses from disposition of environmental credits.

This account should be debited with the loss on the sale, exchange, or other disposition of environmental credits in accordance with § 1767.15(u)(9). Income taxes relating to losses recorded in this account should be recorded in Account 409.1, Income Taxes, Utility Operating Income.

Operation and Maintenance Expenses Power Production Expenses Steam Power Generation Maintenance

513.1 Maintenance of computer hardware (Major only).

The account should include the cost of labor, materials used, and expenses incurred in the maintenance of computer hardware serving the steam power generation subfunction. (See § 1767.17(b).)

513.2 Maintenance of computer software (Major only).

This account should include the cost of labor, materials used, and expenses incurred for annual computer software license renewals, annual software update services and the cost of ongoing support for software products serving the steam power generation subfunction. (See § 1767.17(b).)

513.3 Maintenance of communication equipment (Major only).

This account should include the cost of labor, materials used, and expenses incurred in the maintenance of communication equipment serving the steam power generation subfunction. (See § 1767.17(b).)

Nuclear Power Generation Maintenance

531.1 Maintenance of computer hardware (Major only).

The account should include the cost of labor, materials used, and expenses incurred in the maintenance of computer hardware serving the nuclear power generation subfunction. (See § 1767.17(b).)

531.2 Maintenance of computer software (Major only).

This account should include the cost of labor, materials used, and expenses incurred for annual computer software license renewals, annual software update services and the cost of ongoing support for software products serving the nuclear power generation subfunction. (See § 1767.17(b).)

531.3 Maintenance of communication equipment (Major only).

This account should include the cost of labor, materials used, and expenses incurred in the maintenance of communication equipment serving the nuclear power generation subfunction. (See § 1767.17(b).)

Hydraulic Power Generation Maintenance

544.1 Maintenance of computer hardware (Major only).

The account should include the cost of labor, materials used, and expenses incurred in the maintenance of computer hardware serving the hydraulic power generation subfunction. (See § 1767.17(b).)

544.2 Maintenance of computer software (Major only).

This account should include the cost of labor, materials used, and expenses incurred for annual computer software license renewals, annual software update services and the cost of ongoing support for software products serving the hydraulic power generation subfunction. (See § 1767.17(b).)

544.3 Maintenance of communication equipment (Major only).

This account should include the cost of labor, materials used, and expenses incurred in the maintenance of communication equipment serving the hydraulic power generation subfunction. (See § 1767.17(b).)

Other Power Generation

Maintenance

553.1 Maintenance of computer hardware (Major only).

The account should include the cost of labor, materials used, and expenses incurred in the maintenance of computer hardware serving the hydraulic power generation subfunction. (See § 1767.17(b).)

553.2 Maintenance of computer software (Major only).

This account should include the cost of labor, materials used, and expenses incurred for annual computer software license renewals, annual software update services and the cost of ongoing support for software products serving the hydraulic power generation subfunction. (See § 1767.17(b).)

553.3 Maintenance of communication equipment (Major only).

This account should include the cost of labor, materials used, and expenses incurred in the maintenance of communication equipment serving the hydraulic power generation subfunction. (See § 1767.17(b).)

Other Power Supply Expenses

555.1 Power Purchased for Storage Operations

A. This account should include the cost at point of receipt by the utility of electricity purchased for use in storage operations, including power purchased and consumed or lost in energy storage operations during the provision of services, including but not limited to energy purchased and stored for resale. It should also include but not be limited to net settlements for exchange of electricity or power, such as economy energy, off-peak energy for on-peak energy, and spinning reserve capacity. In addition, the account should include the net settlements for transactions under pooling or interconnection agreements wherein there is a balancing of debits and credits for energy, capacity, and possibly other factors. Distinct purchases and sales should not be recorded as exchanges and net amounts only recorded merely because debit and credit amounts are combined in the voucher settlement.

B. The records supporting this account should show, by months, the kilowatt hours and prices thereof under each purchase contract and the charges and credits under each exchange or power pooling contract.

555.2 Bundled environmental credits.

For environmental credits that were bundled with energy, this account should include the cost of environmental credits expensed concurrent with the monthly usage. (See § 1767.15(u).)

555.3 Unbundled environmental credits.

For environmental credits that were unbundled from energy, this account should include the cost of environmental credits expensed concurrent with the monthly usage. (See § 1767.15(u).)

Solar Generation

Operation

558.1 Operation supervision and engineering.

A. For Major Utilities, this account should include the cost of labor and expenses incurred in the general supervision and direction of the operation of solar power generating stations. Direct supervision of specific activities should be charged to the appropriate account. (See § 1767.17(a).)

B. For Nonmajor Utilities, this account should include the cost of supervision and labor in the operation of solar power generating stations.

Items

Labor:

- 1. Supervising solar production.
- 2. Operating solar panels, auxiliary apparatus and switching and other electric equipment.
- 3. Operating switchboards, switch gear and electric control and protective equipment.
- 4. Keeping electric plant log and records and preparing reports on electric plant operations.
- 5. Testing, checking and adjusting meters, gauges, and other instruments, relays, controls and other equipment in the electric plant.
- 6. Cleaning electric plant equipment when not incidental to maintenance work.

Taxes:

- 1. Federal and state unemployment.
- 2. Federal Insurance Contributions Act (F.I.C.A.)
- 3. Property.

Employee Pensions and Benefits: The portion of employee pensions and benefits specifically identifiable with employees' labor costs charged herein or, in the absence of specific employee identification, the portion of employee pensions and benefits, allocated on the more equitable basis of either direct labor dollars or direct labor hours, applicable to the labor items detailed above, including:

- 1. Accruals for or payments to pension funds or to insurance companies for pension purposes.
- 2. Group and life insurance premiums (credit dividends received).
- 3. Payments for medical and hospital services and expenses of employees when not the result of occupational injuries.

- 4. Payments for accident, sickness, hospital, and death benefits or insurance.
- 5. Payments to employees incapacitated for service or on leave of absence beyond periods normally allowed when not the result of occupational injuries or in excess of statutory awards.
- 6. Expenses in connection with educational and recreational activities for the benefit of employees.

558.2 Solar panel generation and other plant operating expenses (Major only).

This account should include the cost of labor, materials used, and expenses incurred in operating solar generation and their auxiliary apparatus, switch gear and other electric equipment to the points where electricity leaves for conversion for transmission or distribution or are not readily assignable to other solar generation operation expense accounts. (See § 1767.17(b).)

Items

Labor:

- 1. Operating switchboards, switch gear and electric control and protective equipment.
- 2. Operating solar generators and auxiliary apparatus and switching and other electric equipment.
- 3. Keeping electric plant log and records and preparing reports on electric plant operations.
- 4. Testing, checking and adjusting meters, gauges, and other instruments, relays, controls and other equipment in the electric plant.
- 5. Cleaning electric plant equipment when not incidental to maintenance work.
- 6. General clerical work.
- 7. Guarding and patrolling plant and yard.
- 8. Building service.
- 9. Care of grounds including snow removal, cutting grass, etc.
- 10. Miscellaneous labor.

Materials and Expenses:

- 11. Lubricants and control system oils.
- 12. General operating supplies, such as tools, gaskets, packing waste, gauge glasses, hose, indicating lamps, record and report forms, etc.
- 13. First-aid supplies and safety equipment.
- 14. Employees' service facilities expenses.
- 15. Building service supplies.
- 16. Communication service.
- 17. Miscellaneous office supplies and expenses, printing and stationery.
- 18. Transportation expenses.
- 19. Meals, traveling and incidental expenses.
- 20. Water for fire protection or general use.
- 21. Research, development, and demonstration expenses.

558.3 [Reserved]

558.4 Rents.

This account should include all rents of property of others used, occupied or operated in connection with solar power generation. (See § 1767.17(c).)

558.5 Operation supplies and expenses (Nonmajor only).

This account should include the cost of materials used and expenses incurred in the operation of solar power generating stations.

Items

- 1. Lubricants and control system oils.
- 2. General operating supplies, such as tools, packing waste, hose, indicating lamps, record and report forms, etc.
- 3. First-aid supplies and safety equipment.
- 4. Employees' service facilities expenses.
- 5. Building service supplies.
- 6. Communication service.
- 7. Miscellaneous office supplies and expenses, printing and stationery.
- 8. Transportation expenses.
- 9. Meals, traveling and incidental expenses.
- 10. Water for fire protection or general use.

Maintenance

558.6 Maintenance supervision and engineering (Major only).

This account should include the cost of labor and expenses incurred in the general supervision and direction of maintenance of solar generation facilities. Direct field supervision of specific jobs should be charged to the appropriate maintenance account. (See § 1767.17(a).)

558.7 Maintenance of solar panels, structures, and equipment (Major only).

This account should include the cost of labor, materials used, and expenses incurred in the maintenance of solar structures, solar panels, and other solar plant equipment, the book cost of which is includible in Account 338.2, Structures and Improvements, Account 338.4, Solar Panels, Account 338.5, Collector Systems, Account 338.6, Generator Step-up Transformers, Account 338.7, Inverters, and Account 338.8, Other Accessory Electrical Equipment. (See § 1767.17(b).)

558.8 Maintenance of computer hardware (Major only).

The account should include the cost of labor, materials used, and expenses incurred in the maintenance of computer hardware serving the solar generation subfunction. (See § 1767.17(b).)

558.9 Maintenance of computer software (Major only).

This account should include the cost of labor, materials used, and expenses incurred for annual computer software license renewals, annual software update services and the cost of ongoing support for software products serving the solar generation subfunction. (See § 1767.17(b).)

558.10 Maintenance of communication equipment (Major only).

This account should include the cost of labor, materials used, and expenses incurred in the maintenance of communication equipment serving the solar generation subfunction. (See § 1767.17(b).)

558.11 Maintenance of miscellaneous solar generation plant (Major only).

This account should include the cost of labor, materials used, and expenses incurred in maintenance of miscellaneous solar generation plant, the book cost of which is includible in Account 338.12, Miscellaneous Power Plant Equipment. (See § 1767.17(b).)

558.12 Maintenance of solar generation plant (Nonmajor only).

This account should include the cost of labor, materials used, and expenses incurred in the maintenance of solar generation plant the book cost of which is includible in plant Accounts 338.1 to 338.12, inclusive. (See § 1767.17(b).)

Wind Generation

Operation

558.13 Operation supervision and engineering.

A. For Major Utilities, this account should include the cost of labor and expenses incurred in the general supervision and direction of the operation of wind power generating stations. Direct supervision of specific activities should be charged to the appropriate account. (See § 1767.17(a).)

B. For Nonmajor Utilities, this account should include the cost of supervision and labor in the operation of wind power generating stations.

Items

Labor:

- 1. Supervising wind production.
- 2. Operating wind turbines, generators and auxiliary apparatus and switching and other electric equipment.
- 3. Operating switchboards, switch gear and electric control and protective equipment.
- 4. Keeping electric plant log and records and preparing reports on electric plant operations.
- 5. Testing, checking and adjusting meters, gauges, and other instruments, relays, controls and other equipment in the electric plant.
- 6. Cleaning electric plant equipment when not incidental to maintenance work.

Taxes:

- 1. Federal and state unemployment.
- 2. F.I.C.A.
- 3. Property.

Employee Pensions and Benefits: The portion of employee pensions and benefits specifically identifiable with employees' labor costs charged herein or, in the absence of specific employee identification, the portion of employee pensions and benefits, allocated on the more equitable basis of either direct labor dollars or direct labor hours, applicable to the labor items detailed above, including:

- 1. Accruals for or payments to pension funds or to insurance companies for pension purposes.
- 2. Group and life insurance premiums (credit dividends received).

- 3. Payments for medical and hospital services and expenses of employees when not the result of occupational injuries.
- 4. Payments for accident, sickness, hospital, and death benefits or insurance.
- 5. Payments to employees incapacitated for service or on leave of absence beyond periods normally allowed when not the result of occupational injuries or in excess of statutory awards.
- 6. Expenses in connection with educational and recreational activities for the benefit of employees.

558.14 Wind turbine generation and other plant operating expenses (Major only).

This account should include the cost of labor, materials used, and expenses incurred in operating wind generation and their auxiliary apparatus, switch gear and other electric equipment to the points where electricity leaves for conversion for transmission or distribution or are not readily assignable to other wind generation operation expense accounts.

Items

Labor:

- 1. Operating switchboards, switch gear and electric control and protective equipment.
- 2. Operating wind turbines, generators and auxiliary apparatus and switching and other electric equipment.
- 3. Keeping electric plant log and records and preparing reports on electric plant operations.
- 4. Testing, checking and adjusting meters, gauges, and other instruments, relays, controls and other equipment in the electric plant.
- 5. Cleaning electric plant equipment when not incidental to maintenance work.
- 6. General clerical work.
- 7. Guarding and patrolling plant and site.
- 8. Building service.
- 9. Care of grounds including snow removal, cutting grass, etc.
- 10. Miscellaneous labor.

Materials and Expenses:

- 11. Lubricants and control system oils.
- 12. General operating supplies, such as tools, gaskets, packing waste, gauge glasses, hose, indicating lamps, record and report forms, etc.
- 13. First-aid supplies and safety equipment.
- 14. Employees' service facilities expenses.
- 15. Building service supplies.
- 16. Communication service.
- 17. Miscellaneous office supplies and expenses, printing, and stationery.
- 18. Transportation expenses.
- 19. Meals, traveling and incidental expenses.
- 20. Water for fire protection or general use.
- 21. Research, development, and demonstration expenses.

558.15 [Reserved]

558.16 Rents.

This account should include all rents of property of others used, occupied, or operated in connection with wind power generation. (See § 1767.17(c).)

558.17 Operation supplies and expenses (Nonmajor only).

This account should include the cost of materials used and expenses incurred in the operation of wind power generating stations.

Items

- 1. Lubricants and control system oils.
- 2. General operating supplies, such as tools, packing waste, hose, indicating lamps, record and report forms, etc.
- 3. First-aid supplies and safety equipment.
- 4. Employees' service facilities expenses.
- 5. Building service supplies.
- 6. Communication service.
- 7. Miscellaneous office supplies and expenses, printing, and stationery.
- 8. Transportation expenses.
- 9. Meals, traveling and incidental expenses.
- 10. Water for fire protection or general use.

Maintenance

558.18 Maintenance supervision and engineering (Major only).

This account should include the cost of labor and expenses incurred in the general supervision and direction of maintenance of wind generation facilities. Direct field supervision of specific jobs should be charged to the appropriate maintenance account. (See § 1767.17(c).)

558.19 Maintenance of wind turbines, structures, and equipment (Major only).

This account should include the cost of labor, materials used, and expenses incurred in the maintenance of wind structures, the book cost of which is includible in Account 338.21, Structures and Improvements, Account 338.23, Wind Turbines, Account 338.24, Wind Towers and Fixtures, Account 338.26, Collector Systems, Account 338.27, Generator Step-up Transformers, Account 338.28, Inverters, and Account 338.29, Other Accessory Electrical Equipment. (See § 1767.17(b).)

558.20 Maintenance of computer hardware (Major only).

The account should include the cost of labor, materials used, and expenses incurred in the maintenance of computer hardware serving the wind generation subfunction. (See § 1767.17(b).)

558.21 Maintenance of computer software (Major only).

This account should include the cost of labor, materials used, and expenses incurred for annual computer software license renewals, annual software update services and the cost of ongoing support for software products serving the wind generation subfunction. (See § 1767.17(b).)

558.22 Maintenance of communication equipment (Major only).

This account should include the cost of labor, materials used, and expenses incurred in the maintenance of communication equipment serving the wind generation subfunction. (See § 1767.17(b).)

558.23 Maintenance of miscellaneous wind generation (Major only).

This account should include the cost of labor, materials used, and expenses incurred in maintenance of miscellaneous wind generation plant, the book cost of which is includible in Account 338.33, Miscellaneous Power Plant Equipment. (See § 1767.17(b).)

558.24 Maintenance of wind generation (Nonmajor only).

This account should include the cost of labor, materials used, and expenses incurred in the maintenance of wind generation plant the book cost of which is includible in plant Accounts 338.20 to 338.33, inclusive. (See § 1767.17(b).)

Other Renewable Generation Operation

559.1 Operation supervision and engineering.

A. For Major Utilities, this account should include the cost of labor and expenses incurred in the general supervision and direction of the operation of other renewable power generating stations. Direct supervision of specific activities should be charged to the appropriate account. (See § 1767.17(a).)

B. For Nonmajor Utilities, this account should include the cost of supervision and labor in the operation of other renewable power generating stations.

Items

Labor:

- 1. Supervising other renewable production.
- 2. Operating other renewable prime movers, generators and auxiliary apparatus and switching and other electric equipment.
- 3. Operating switchboards, switch gear and electric control and protective equipment.
- 4. Keeping electric plant log and records and preparing reports on electric plant operations.
- 5. Testing, checking and adjusting meters, gauges, and other instruments, relays, controls and other equipment in the electric plant.
- 6. Cleaning electric plant equipment when not incidental to maintenance work.

Taxes

- 1. Federal and state unemployment.
- 2. F.I.C.A.
- 3. Property.

Employee Pensions and Benefits: The portion of employee pensions and benefits specifically identifiable with employees' labor costs charged herein or, in the absence of specific employee

identification, the portion of employee pensions and benefits, allocated on the more equitable basis of either direct labor dollars or direct labor hours, applicable to the labor items detailed above, including:

- 1. Accruals for or payments to pension funds or to insurance companies for pension purposes.
- 2. Group and life insurance premiums (credit dividends received).
- 3. Payments for medical and hospital services and expenses of employees when not the result of occupational injuries.
- 4. Payments for accident, sickness, hospital, and death benefits or insurance.
- 5. Payments to employees incapacitated for service or on leave of absence beyond periods normally allowed when not the result of occupational injuries or in excess of statutory awards.
- 6. Expenses in connection with educational and recreational activities for the benefit of employees.

559.2 Other miscellaneous generation and other plant operating expenses (Major only).

This account should include the cost of labor, materials used, and expenses incurred in operating other renewable generation and their auxiliary apparatus, switch gear and other electric equipment to the points where electricity leaves for conversion for transmission or distribution or are not readily assignable to other renewable generation operation expense accounts.

Items

Labor:

- 1. Operating switchboards, switch gear and electric control and protective equipment.
- 2. Operating other renewable prime movers, generators and auxiliary apparatus and switching and other electric equipment.
- 3. Keeping electric plant log and records and preparing reports on electric plant operations.
- 4. Testing, checking, and adjusting meters, gauges, and other instruments, relays, controls and other equipment in the electric plant.
- 5. Cleaning electric plant equipment when not incidental to maintenance work.
- 6. General clerical work.
- 7. Guarding and patrolling plant and yard.
- 8. Building service.
- 9. Care of grounds including snow removal, cutting grass, etc.
- 10. Miscellaneous labor.

Materials and Expenses:

- 11. Lubricants and control system oils.
- 12. General operating supplies, such as tools, gaskets, packing waste, gauge glasses, hose, indicating lamps, record, and report forms, etc.
- 13. First-aid supplies and safety equipment.
- 14. Employees' service facilities expenses.
- 15. Building service supplies.
- 16. Communication service.
- 17. Miscellaneous office supplies and expenses, printing, and stationery.

- 18. Transportation expenses.
- 19. Meals, traveling and incidental expenses.
- 20. Water for fire protection or general use.
- 21. Research, development, and demonstration expenses.

559.3 Fuel.

This account should include the cost delivered at the station (see Account 151, Fuel Stock, for Major utilities, and Account 154, Plant Materials and Operating Supplies, for Nonmajor utilities) of all fuel, such as electrolytes, hydrogen, renewable natural gas, algae, etc., used in other power generation.

559.4 Rents.

This account should include all rents of property of others used, occupied, or operated in connection with other renewable power generation. (See § 1767.17(c).)

559.5 Operation supplies and expenses (Nonmajor only).

This account should include the cost of materials used and expenses incurred in the operation of other renewable power generating stations.

Items

- 1. Lubricants and control system oils.
- 2. General operating supplies, such as tools, packing waste, hose, indicating lamps, record and report forms, etc.
- 3. First-aid supplies and safety equipment.
- 4. Employees' service facilities expenses.
- 5. Building service supplies.
- 6. Communication service.
- 7. Miscellaneous office supplies and expenses, printing and stationery.
- 8. Transportation expenses.
- 9. Meals, traveling and incidental expenses.
- 10. Water for fire protection or general use.

Maintenance

559.6 Maintenance supervision and engineering (Major only).

This account should include the cost of labor and expenses incurred in the general supervision and direction of maintenance of other renewable power generation facilities.

Direct field supervision of specific jobs should be charged to the appropriate maintenance account. (See § 1767.17(a).)

559.7 Maintenance of structures (Major only).

This account should include the cost of labor, materials used, and expenses incurred in the maintenance of other renewable structures, the book cost of which is includible in Account 339.2, Structures and Improvements, and Account 339.3 Fuel Holders. (See § 1767.17(b).)

559.8 [**Reserved**]

559.9 Maintenance of boilers (Major only).

This account should include the cost of labor, materials used, and expenses incurred in the maintenance of steam plant, the book cost of which is includible in Account 339.4, Boiler Plant Equipment. (See § 1767.17(b).)

559.10 Maintenance of generating and electric equipment (Major only).

This account should include the cost of labor, materials used, and expenses incurred in maintenance of plant, the book cost of which is includible in Account 339.6 Generators, and Account 339.8, Other Accessory Electric Equipment. (See § 1767.17(b).)

559.11 [Reserved]

559.12 Maintenance of computer hardware (Major only).

The account should include the cost of labor, materials used, and expenses incurred in the maintenance of computer hardware serving the other renewable generation subfunction. (See § 1767.17(b).)

559.13 Maintenance of computer software (Major only).

This account should include the cost of labor, materials used, and expenses incurred for annual computer software license renewals, annual software update services and the cost of ongoing support for software products serving the other renewable generation subfunction. (See § 1767.17(b).)

559.14 Maintenance of communication equipment (Major only).

This account should include the cost of labor, materials used, and expenses incurred in the maintenance of communication equipment serving the other renewable generation subfunction. (See § 1767.17(b).)

559.15 Maintenance of miscellaneous other renewable generation plant (Major only).

This account should include the cost of labor, materials used, and expenses incurred in maintenance of miscellaneous other renewable generation plant, the book cost of which is includible in Account 339.12, Miscellaneous Power Plant Equipment. (See § 1767.17(b).)

559.16 Maintenance of other renewable generation plant (Nonmajor only).

This account should include the cost of labor, materials used, and expenses incurred in the maintenance of other renewable generation plant the book cost of which is includible in plant Accounts 339.1 to 339.12, inclusive. (See § 1767.17(b).)

Energy Storage Expenses Operation

577.1 Operation supervision and engineering.

A. For Major Utilities, this account should include the cost of labor and expenses incurred in the general supervision and direction of the operation of energy storage plant.

Direct supervision of specific activities should be charged to the appropriate account. (See § 1767.17(a).)

B. For Nonmajor Utilities, this account should include the cost of supervision and labor in the operation of energy storage equipment.

Items

Labor:

- 1. Supervising energy storage equipment operation.
- 2. Operating energy storage equipment and auxiliary apparatus and switching and other electric equipment.
- 3. Operating switchboards, switch gear and electric control and protective equipment.
- 4. Keeping electric plant log and records and preparing reports on electric plant operations.
- 5. Testing, checking and adjusting meters, gauges, and other instruments, relays, controls and other equipment in the electric plant.
- 6. Cleaning electric plant equipment when not incidental to maintenance work.

Taxes:

- 1. Federal and state unemployment.
- 2. F.I.C.A.
- 3. Property.

Employee Pensions and Benefits: The portion of employee pensions and benefits specifically identifiable with employees' labor costs charged herein or, in the absence of specific employee identification, the portion of employee pensions and benefits, allocated on the more equitable basis of either direct labor dollars or direct labor hours, applicable to the labor items detailed above, including:

- 1. Accruals for or payments to pension funds or to insurance companies for pension purposes.
- 2. Group and life insurance premiums (credit dividends received).
- 3. Payments for medical and hospital services and expenses of employees when not the result of occupational injuries.
- 4. Payments for accident, sickness, hospital, and death benefits or insurance.
- 5. Payments to employees incapacitated for service or on leave of absence beyond periods normally allowed when not the result of occupational injuries or in excess of statutory awards.
- 6. Expenses in connection with educational and recreational activities for the benefit of employees.

577.2 Operation of energy storage equipment (Major only).

This account should include the cost of labor, materials used, and expenses incurred in operating energy storage plant and their auxiliary apparatus, switch gear and other electric equipment to the points where electricity leaves for conversion for transmission or distribution or are not readily assignable to other energy storage operation expense accounts.

Items

Labor:

- 1. Operating switchboards, switch gear and electric control and protective equipment.
- 2. Operating energy storage and auxiliary apparatus and switching and other electric equipment.
- 3. Keeping electric plant log and records and preparing reports on electric plant operations.

- 4. Testing, checking and adjusting meters, gauges, and other instruments, relays, controls and other equipment in the electric plant.
- 5. Cleaning electric plant equipment when not incidental to maintenance work.
- 6. General clerical work.
- 7. Guarding and patrolling plant and yard.
- 8. Building service.
- 9. Care of grounds including snow removal, cutting grass, etc.
- 10. Miscellaneous labor.

Materials and Expenses:

- 11. Lubricants and control system oils.
- 12. General operating supplies, such as tools, gaskets, packing waste, gauge glasses, hose, indicating lamps, record and report forms, etc.
- 13. First-aid supplies and safety equipment.
- 14. Employees' service facilities expenses.
- 15. Building service supplies.
- 16. Communication service.
- 17. Miscellaneous office supplies and expenses, printing and stationery.
- 18. Transportation expenses.
- 19. Meals, traveling and incidental expenses.
- 20. Water for fire protection or general use.
- 21. Research, development, and demonstration expenses.

577.3 Storage fuel.

This account should include the cost delivered at the station (see Account 151, Fuel Stock, for Major utilities, and Account 154, Plant Materials and Operating Supplies, for Nonmajor utilities) of all fuel, such as electrolytes, hydrogen, renewable natural gas, algae, etc., used in energy storage.

577.4 Rents.

This account should include all rents of property of others used, occupied or operated in connection with energy storage. (See § 1767.17(c).)

577.5 Operation supplies and expenses (Nonmajor only).

This account should include the cost of materials used and expenses incurred in the operation of energy storage equipment.

Items

- 1. Lubricants and control system oils.
- 2. General operating supplies, such as tools, packing waste, hose, indicating lamps, record and report forms, etc.
- 3. First-aid supplies and safety equipment.
- 4. Employees' service facilities expenses.
- 5. Building service supplies.
- 6. Communication service.
- 7. Miscellaneous office supplies and expenses, printing and stationery.

- 8. Transportation expenses.
- 9. Meals, traveling and incidental expenses.
- 10. Water for fire protection or general use.

Maintenance

578.1 Maintenance supervision and engineering (Major only).

This account should include the cost of labor and expenses incurred in the general supervision and direction of maintenance of energy storage facilities. Direct field supervision of specific jobs should be charged to the appropriate maintenance account. (See § 1767.17(a).)

578.2 Maintenance of energy storage equipment and structures (Major only).

This account should include the cost of labor, materials used, and expenses incurred in the maintenance of energy storage structures, energy storage equipment, and other energy storage plant the book cost of which is includible in Account 387.2, Structures and Improvements, Account 387.3, Energy Storage Equipment, Account 387.5, Collector Systems, Account 387.6, Generator Step-up Transformers, and Account 387.7, Inverters. (See § 1767.17(b).)

578.3 Maintenance of computer hardware (Major only).

The account should include the cost of labor, materials used, and expenses incurred in the maintenance of computer hardware serving the energy storage function. (See § 1767.17(b).)

578.4 Maintenance of computer software (Major only).

This account should include the cost of labor, materials used, and expenses incurred for annual computer software license renewals, annual software update services and the cost of ongoing support for software products serving the energy storage function. (See § 1767.17(b).)

578.5 Maintenance of communication equipment (Major only).

This account should include the cost of labor, materials used, and expenses incurred in the maintenance of communication equipment serving the energy storage function. (See § 1767.17(b).)

578.6 Maintenance of miscellaneous other energy storage plant (Major only).

This account should include the cost of labor, materials used, and expenses incurred in maintenance of miscellaneous energy storage plant, the book cost of which is includible in Account 387.11, Miscellaneous Energy Storage Equipment. (See § 1767.17(b).)

578.7 Maintenance of other energy storage plant (Nonmajor only).

This account should include the cost of labor, materials used, and expenses incurred in the maintenance of energy storage plant the book cost of which is includible in plant Accounts 387.1 to 387.11, inclusive. (See § 1767.17(b).)

Distribution Expenses

Maintenance

592.2 Maintenance of computer hardware (Major only).

The account should include the cost of labor, materials used, and expenses incurred in the maintenance of computer hardware serving the distribution function. (See § 1767.17(b).)

592.3 Maintenance of computer software (Major only).

This account should include the cost of labor, materials used, and expenses incurred for annual computer software license renewals, annual software update services and the cost of ongoing support for software products serving the distribution function. (See § 1767.17(b).)

592.4 Maintenance of communication equipment (Major only).

This account should include the cost of labor, materials used, and expenses incurred in the maintenance of communication equipment serving the distribution function. (See § 1767.17(b).)

Administrative and General Expenses Maintenance

935.1 Maintenance of computer hardware.

The account should include the cost of labor, materials used, and expenses incurred in the maintenance of computer hardware used for administrative and general purposes. (See § 1767.17(b).)

935.2 Maintenance of computer software.

This account should include the cost of labor, materials used, and expenses incurred for annual computer software license renewals, annual software update services and the cost of ongoing support for software products used for administrative and general purposes. (See § 1767.17(b).)

935.3 Maintenance of communication equipment.

This account should include the cost of labor, materials used, and expenses incurred in the maintenance of communication equipment used for administrative and general purposes. (See § 1767.17(b).)

4. RECOMMENDED ACCOUNTING TREATMENT

The following are recommended, general instructions specific to accounting for bundled and unbundled environmental credits inventory.

- 1. Public utilities owning any environmental credits for operational purposes, other than those acquired for speculative purposes, should account for such environmental credits at cost in Account 158.3 Bundled Environmental Credits Inventory, or Account 158.4 Unbundled Environmental Credits Inventory, as appropriate. Environmental credits acquired for speculative purposes and identified as such in contemporaneous records at the time of purchase should be accounted for in Account 124, Other Investments.
- 2. When purchased, environmental credits become eligible for use in different years, and the allocation of the purchase cost cannot be determined by fair value, the purchase cost allocated to environmental credits of each vintage should be determined through use of a present-value based measurement. The interest rate used in the present-value measurement should be the utility's incremental borrowing rate, in the month in which the environmental credits are acquired, for a loan with a term similar to the period that it will hold the environmental credits and in an amount equal to the purchase price.
- 3. The underlying records supporting Accounts 158.3 Bundled Environmental Credits Inventory, and 158.4 Unbundled Environmental Credits Inventory, should be maintained in sufficient detail at costs so as to provide the number of environmental

- credits and the related cost by vintage year, including environmental credits acquired at zero cost.
- 4. Issuances from inventory included in Accounts 158.3 Bundled Environmental Credits Inventory, and 158.4 Unbundled Environmental Credits Inventory, should be accounted for on a vintage basis using a monthly weighted-average method of cost determination. The cost of eligible environmental credits not used in the current year should be transferred to the vintage for the immediately following year.
- 5. Account 158.3 Bundled Environmental Credits Inventory and Account 158.4 Unbundled Environmental Credits Inventory should be credited and Account 555.2 Bundled Environmental Credits, and Account 555.3 Unbundled Environmental Credits, debited respectively, so the cost of the environmental credits to be remitted for the year is charged to expense based on each month's usage. This may, in certain circumstances, require allocation of the cost of an allowance between months on a fractional basis.
- 6. In any period in which a utility records its estimated amount of required environmental credits, the utility should charge Account 158.3 or Account 158.4 with the estimated cost as appropriate. This estimated cost of future allowance acquisitions shall be credited to Account 158.3 or Account 158.4 and debited to Account 555.2 or Account 555.3, in the same accounting period as appropriate. Should the actual cost of these environmental credits differ from the estimated cost, the differences should be recognized in the then-current period's inventory issuance cost through Account 158.3, and Account 158.4, as well as Account 555.2, and Account 555.3 within a single month, as appropriate.
- 7. When a prepayment is made for environmental credits, the payment is debited to Account 165, Prepayments. This accounting is not intended to influence the outcome of any rate treatment.
- 8. Gains on dispositions of environmental credits, other than those held for speculative purposes, should be accounted for as follows. First, if there is uncertainty as to the regulatory treatment, the gain should be deferred in Account 254, Other Regulatory Liabilities, pending resolution of the uncertainty. Second, if there is certainty as to the existence of a regulatory liability, the gain will be credited to Account 254, with subsequent recognition in income when reductions in charges to customers occur or the liability is otherwise satisfied. Third, all other gains will be credited to Account 411.11, Gain from Disposition of Environmental Credits. Losses on disposition of environmental credits, other than those held for speculative purposes, should be accounted for as follows. Losses that qualify as regulatory assets should be charged directly to Account 182.3, Other Regulatory Assets. All other losses should be charged to Account 411.12, Losses from Disposition of Environmental Credits. (See the definition of regulatory assets and liabilities.) Gains or losses on disposition of environmental credits held for speculative purposes should be recognized in Account 421, Miscellaneous Nonoperating Income, or Account 426.5, Other Deductions, as appropriate.
- 9. Revenues for environmental credits associated with the sale of energy should be recorded in the appropriate operating revenue account.