GenConn Energy LLC

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RRU-033 Q:

(SERVICE LIFE ABSENT THE CFD) Interrog. Resp. RRU-008(b); Interrog. Resp. RSR-011; Application, Att. GenConn-03, Att. 1; Interrog. Resp. RRU-020, Att. 1, App. 1. The response to RRU-008(b) provided neither the requested estimate of useful life absent the CfD nor the worksheet, although RSR-011 relies on life expectancy projections for the control systems and the record reports operating hours, starts and Gas Equivalent Fired Hours by unit. Provide an unlocked Excel worksheet with formulas intact that shows:

a. Estimated physical and economic service life of the plant by FERC account and of each addition listed in Attachment GenConn-11, determined without reference to the CfD term.
b. Manufacturer's design life, expected operating life and recommended major overhaul intervals for the LM6000 turbines and the Brush generators, with the supporting documents.
c. Total equivalent operating hours, fired hours, Gas Equivalent Fired Hours and starts for each of the eight units from commercial operation to date, with the manufacturer's recommended limits on each measure.
d. Each unit of property whose expected service life extends beyond May 2040 (Devon) or May 2041 (Middletown), with its net book value at that date, and each unit of property whose expected service life ends before the remaining CfD term assigned in Attachment GenConn-11, with the resulting understatement of annual depreciation.

RRU-033 A:

Please refer to the Company's response to Interrogatory RRU-31, which discusses the life of the facilities.

a. The Company does not contemplate service life absent the CfD or beyond 30-years. The facilities' economic life defined as the period over which the facilities are beneficial to operate and the CfD are aligned because the legal right to operate the facilitates and generate cash flows are limited by the term of the CfD. The physical life is equal to the economic life as GenConn is required by its land lease agreements to remove all of its above grade and below grade fixtures, equipment, structures and all other above grade and below grade facilities and appurtenances from the leased premises, including, without limitation, all Chillers, Transformers, Generator Turbines, Protection and Control Devices, SCRs (Selective Catalytic Reactors), Emission Stacks, Unit 15-18 Power Control Modules, and all concrete equipment pads at the expiration of the land lease terms. As such Attachment GenConn-11 presents this information for post construction additions and

retirements and Attachment GenConn-02 presents total values for the entire plant in-service over the 30-year depreciable life originally assigned.

b. Please refer to RRU-033 Attachment 1. Estimated operating life is highly dependent on actual operations over time. Similarly major overhaul intervals also depend on actual operations of each of the units over time. The GenConn units operate as "Peaking/Reserve" resources dispatched by ISO-NE as needed to maintain system reliability. Manufacturer's design life, expected operating life, and recommended major overhaul intervals for the LM6000 turbines and the Brush generators would generally be defined based on operating assumptions. In GenConn's case, the modeled values are based on an assumed 5 percent capacity factor and relates to 438 operating hours, 87,600 MWH of output and 400 starts per year. GenConn's actual (past and future) operations and future technical/engineering reviews would reveal when major equipment and or subcomponent overhauls would be necessary. Beyond the known SCR Catalyst reserve, there has been no other accommodation for potential overhauls over the 30-year service life defined.

c. Please refer to Attachment GenConn-03, Att.1, which provides the actual operating hours by unit. The units have been fired on ULSD fuel and tested on Natural Gas, to support dual fuel operation and runs related to environmental testing annually. RRU-033 Attachment 1 adds the number of starts for each unit to the data presented in GenConn-03 Attachment 1.

LM6000 Gas Turbines
The LM6000 is an aeroderivative gas turbine derived from GE aviation engine technology. Consistent with the manufacturer's maintenance philosophy, the LM6000 is not assigned a fixed end-of-life operating period by the manufacturer. Rather, the unit is designed for continued operation through periodic inspection, refurbishment, replacement of life-limited components, and major overhauls performed in accordance with GE maintenance recommendations. GE characterizes the maintenance philosophy as "on-condition" maintenance whereby inspection results and operating history determine the scope and timing of repairs and component replacement.

Manufacturer Design Life
The manufacturer does not identify a single overall turbine "design life" after which the LM6000 must be retired. Instead, individual components have inspection, repair, refurbishment, and replacement intervals. Through implementation of these maintenance programs, LM6000 units routinely remain in service for several decades. The technology has been in commercial operation since the early 1990s and continues to be supported by the manufacturer.

Expected Operating Life
From an asset management and utility industry perspective, LM6000 generating units are commonly expected to operate for approximately **30 years or longer**, subject to operating duty cycle, maintenance practices, equipment condition, and economic considerations. The actual operating life may exceed this period if major components continue to satisfy inspection and refurbishment criteria.

The expected operating life is therefore distinct from overhaul intervals and is substantially longer than any single maintenance cycle. Industry practice recognizes that multiple major overhauls will occur during the life of the unit.

Recommended Inspection and Overhaul Intervals

GE maintenance documentation identifies the following typical maintenance intervals:

Activity	Typical Interval
Borescope inspection	Approximately every 4,000 operating hours
Hot section inspection / refurbishment	Approximately 25,000 operating hours
Major overhaul (Supercore overhaul)	Approximately 50,000 operating hours

These intervals may be adjusted based upon operating profile, fuel type, starts, load cycling, maintenance history, and inspection findings. GE's maintenance philosophy emphasizes condition-based maintenance rather than a strictly time-based replacement approach.

BRUSH Generators

The BRUSH synchronous generators associated with the LM6000 units are conventional utility-grade generators designed for long-term service with periodic maintenance and refurbishment.

Manufacturer Design Life

BRUSH generators are manufactured for long-duration utility and industrial service. Similar to large utility generators generally, the manufacturer does not specify a single

mandatory retirement age for the complete machine. The generator's useful life is dependent on operating conditions, insulation system condition, maintenance history, vibration performance, cooling system performance, and periodic refurbishment activities.

Expected Operating Life

Utility-grade synchronous generators commonly remain in operation for **40 years or more** with appropriate maintenance and periodic refurbishment. Industry practice includes stator winding assessments, rotor inspections, bearing replacement, excitation system upgrades, insulation refurbishment, and other life-extension activities that can significantly extend operating life.

Accordingly, the expected service life of the BRUSH generator is generally longer than the associated combustion turbine and is typically determined through ongoing condition assessment rather than a prescribed retirement date.

Recommended Major Maintenance Intervals

The manufacturer's operating and maintenance manuals provide for condition-based inspections and periodic maintenance activities, including:

- Routine inspections during scheduled outages;
- Periodic insulation testing;
- Bearing inspections and replacement as required;
- Rotor and stator inspections;
- Vibration monitoring and analysis;
- Major rewinds or refurbishment when condition assessments indicate deterioration. Major refurbishment timing is condition-based and depends on unit operating history and inspection results rather than a fixed operating-hour interval.

Supporting Documents

The Company is providing the following supporting references in RRU-033 Attachment 2:

1. GE LM6000 Maintenance Philosophy Presentation identifying:

    - 4,000-hour inspections;
    - 25,000-hour hot section maintenance;
    - 50,000-hour major overhaul intervals.

2. GE LM6000 maintenance guidance describing on-condition maintenance and refurbishment cycles.

3. BRUSH Generator Operation and Maintenance Manuals identifying inspection, testing, and maintenance requirements and condition-based life management practices.

Manufacturer overhaul intervals should not be interpreted as the manufacturer's expected service life of the asset. The recommended overhaul intervals represent maintenance events necessary to preserve reliability and extend asset life. Multiple overhaul cycles are expected during the operating life of an LM6000 generating unit.

Based upon the manufacturer's documentation and the Company's operating experience, the LM6000 combustion turbines and associated BRUSH generators are maintained pursuant to a condition-based maintenance philosophy. Manufacturer-recommended inspection and overhaul intervals represent periodic maintenance activities required to maintain reliability and availability and should not be construed as establishing the expected retirement date or service life of the assets. Multiple major overhaul cycles are anticipated during the operational life of the equipment. The Company has historically maintained the units in accordance with OEM recommendations and continues to evaluate asset condition through ongoing inspection, testing, and maintenance programs.

The manufacturer-recommended maintenance intervals of approximately 25,000 hours (hot section maintenance) and 50,000 hours (major overhaul) are maintenance milestones rather than indicators of asset retirement. The Company's depreciation life estimates are based on the expected economic and operational life of the generating assets as a whole, taking into consideration OEM support, historical operating experience, maintenance practices, regulatory requirements, and anticipated future service requirements.

d. As presented in Attachment GenConn-11, there is no service life beyond the May 2040 (Devon) or May 2041 (Middletown) and the net book value would be zero for all units of property at the end of the 30-year term. Attachment GenConn-11 assigns the service life to all assets as the balance of the overall 30-year life of the assets ending in 2040 and 2041 respectively and there is no understatement of annual depreciation.