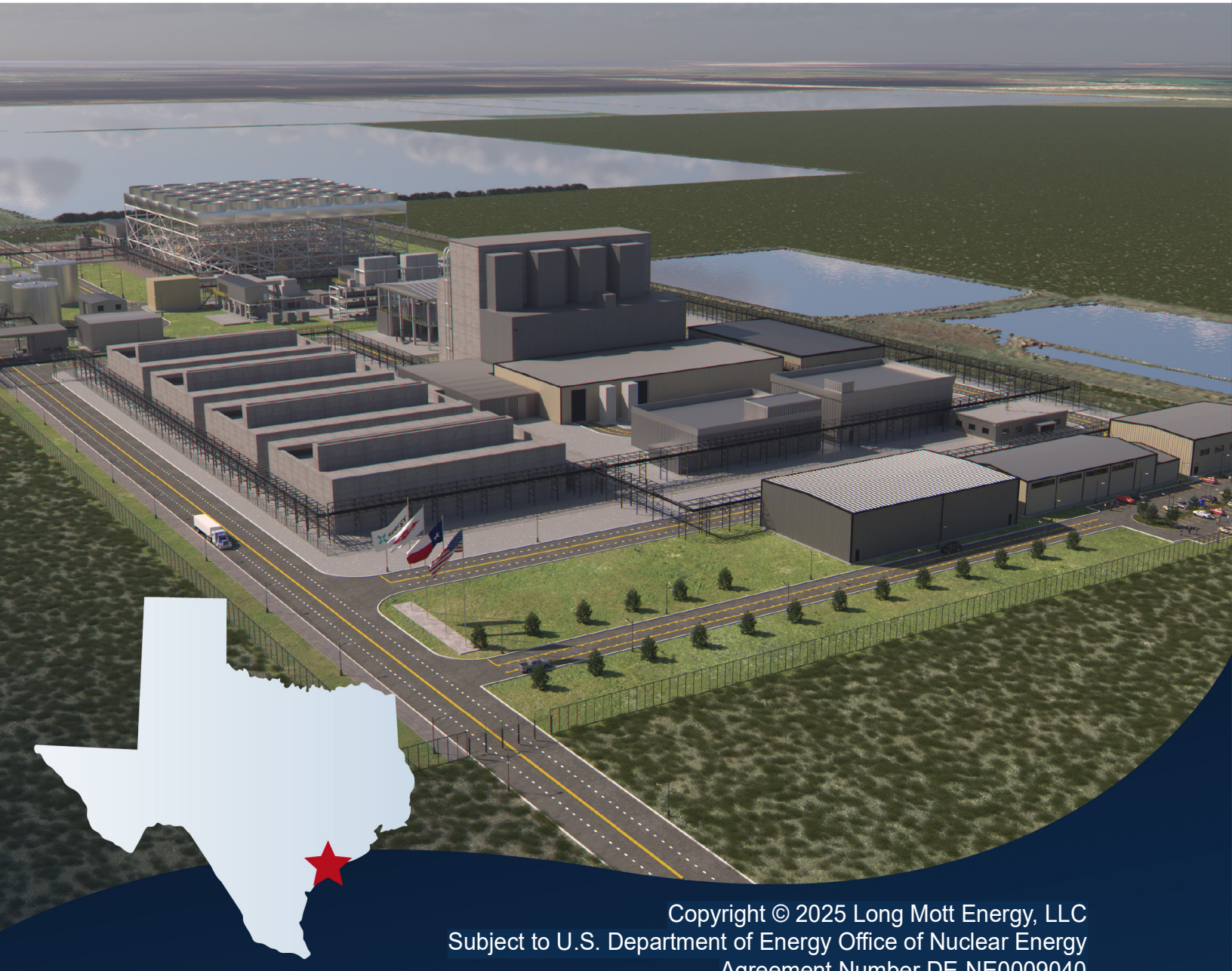
Long Mott Generating Station

Construction Permit Application
Part I
General and Financial Information



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Subject to U.S. Department of Energy Office of Nuclear Energy
Agreement Number DE-NE0009040

1.0 General Information

This Construction Permit Application (CPA) is submitted by Long Mott Energy, LLC, for the construction of a nuclear-powered electrical generating and process steam plant designated as Long Mott Generating Station (LMGS).

1.1 Description of Applicant

Long Mott Energy, LLC (LME)

LME, a limited liability company that was created on December 12, 2023, and incorporated in the State of Delaware, is a wholly owned subsidiary of GWN Holding, LLC (GWNH), which in turn is a wholly owned subsidiary of The Dow Chemical Company (TDCC). As the applicant for the LMGS construction permit, LME is focused on the development and funding of LMGS. While TDCC and GWNH are the direct and controlling owners of LME, neither TDCC nor GWNH is an applicant for the LMGS construction permit. LME will own 100 percent of LMGS and will maintain ultimate responsibility for all activities authorized by the construction permit requested in this application. The names, addresses and citizenships of LME's principal officers are provided in Table I-2. LME has no board of directors.

1.2 Address of Applicant

LME's legal address and principal place of business is 2211 H. H. Dow Way, Midland, MI 48674, which also is the headquarters for GWNH and TDCC.

1.3 License Type

This application is for a construction permit for a single utilization facility comprising four small modular high-temperature gas-cooled reactors (HTGRs) and associated common facilities under 10 Code of Federal Regulations (CFR) Part 50. A Class 103 operating license for a 40 year period pursuant to 10 CFR 50.22 (for commercial and industrial facilities), as well as future licenses for byproduct material under 10 CFR Part 30, source material under 10 CFR Part 40, and special nuclear material under 10 CFR Part 70, are expected to be the subjects of future applications.

1.4 Construction Schedule

LME is requesting that the NRC establish a review schedule duration of 24 months, or less, for the CPA to support commencement of construction as defined in 10 CFR 50.10(a)(1) at the LMGS site in the first quarter of 2028. This construction schedule is necessary to meet the Congressionally supported program schedule for the U.S. Department of Energy (DOE) Advanced Reactor Demonstration Program (ARDP) to demonstrate commercial operation of the Xe-100 advanced reactor. Pre-construction activities as defined in 10 CFR 50.10(a)(2) of LMGS are anticipated to commence in 2027 with concurrence from local, state, and federal authorities. The completion date for construction is expected to be no later than 2033.

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1.5 Restricted Data or Other Defense Information

This CPA does not include any Restricted Data or other defense information requiring separation from the remainder of the application in accordance with 10 CFR 50.33(j). LME will not permit any individual to have access to any facility to possess Restricted Data or classified National Security Information until the individual and/or facility has been approved for access under the provisions of 10 CFR Part 25 and/or Part 95.

1.6 Technical Qualifications

Pursuant to 10 CFR 50.34(a)(9), Chapter 11 of the LMGS CPA Preliminary Safety Analysis Report contains a description of LME's technical qualifications to engage in the proposed activities in accordance with the NRC's regulations.

1.7 Listing of Regulatory Agencies Having Jurisdiction and News Publications

Regulatory Agencies

Electric Reliability Council of Texas
7620 Metro Center Drive
Austin, TX 78744

Public Utility Commission of Texas
1701 N. Congress Avenue
PO Box 13326
Austin, TX 78711-3326

Local News

Victoria Advocate
c/o Keith W. Kohn
101 W. Goodwin Ave., Ste 1200
Victoria, TX 77901
kkohn@vicad.com
775.738.3138

Houston Chronicle
c/o Jonathan Diamond, Business Editor
4747 Southwest Freeway
Houston, TX 77027
jonathon.diamond@houstonchronicle.com
713.362.7171

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2.0 Financial Qualification

Included in Part V of the LMGS CPA is LME's request for an exemption pursuant to 10 CFR 50.12 that would allow LME to apply the financial qualification standards required by 10 CFR 70.23(a)(5) for applicants under 10 CFR Part 70, specifically, "that the applicant appears to be financially qualified…," in lieu of the construction financial qualification requirements in 10 CFR 50.33(f) and 10 CFR Part 50, Appendix C. The construction cost estimate described below in Section 2.1, together with the financial capacity plan (FCP) provided as Appendix A to this Part I, demonstrates LME's financial capacity to obtain the necessary funding for LMGS construction and as such are intended to support a determination that the 10 CFR 70.23(a)(5) "appears to be financially qualified" requirement is met under the requested exemption.

2.1 Combined Project Costs

Table I-1 below contains estimates which represent the combined cost projections (as of October 2024) for the construction of LMGS. All estimates are in 2024-year dollars.

Table I-1: Estimate of Long Mott Generating Station Construction Costs (2024 dollars)

Cost Category	Estimated Costs (2024 $)
(a) Total nuclear production plant costs	$ [[ ]]^{LME}
(b) Transmission, distribution, and general plant costs	$ [[ ]]^{LME}
(c) Nuclear fuel inventory cost for the first core for four reactor modules	$ [[ ]]^{LME}
Total Estimated Cost	$ [[ ]]^{LME}

2.2 Financial Capacity

The LME FCP for LMGS construction is provided as Appendix A to this Part I. The FCP and the construction cost estimate described in Section 2.1 demonstrate LME's financial capacity to obtain the necessary funding for LMGS construction, and as such are intended to support a determination that the 10 CFR 70.23(a)(5) "appears to be financially qualified" requirement is met under the exemption from 10 CFR 50.33(f) and 10 CFR Part 50, Appendix C, that is requested in CPA Part V.

2.3 Decommissioning Funding Assurance

This section is reserved for the Operating License Application.

2.4 Foreign Ownership or Control

LME is a U.S. company. As shown in Table I-2, a majority of LME's principal officers are U.S. citizens. LME is managed and controlled by TDCC via TDCC's wholly owned subsidiary GWNH, both of which are also U.S. companies. In turn, TDCC is a wholly owned subsidiary of Dow Inc., a U.S. company that is publicly traded (NYSE: DOW) with no material foreign ownership of publicly traded shares. The names, addresses, and citizenships of the TDCC

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and Dow, Inc. directors and principal officers are described in Table I-3, and the names, addresses, and citizenships of the principal officers of GWNH are provided in Table I-4. (Like LME, GWNH has no board of directors.) Majorities of the individuals listed in Table I-3 and Table I-4 as principal officers, and in Table I-3 as directors, are U.S. citizens.

The above information demonstrates that LME is not owned, controlled, or dominated by any alien, foreign corporation, or foreign government as defined by the Commission's Final Standard Review Plan on Foreign Ownership, Control, or Domination, 64 Federal Register 52355 (Sept. 28, 1999).

Table I-2: Long Mott Energy, LLC—Principal Officers (as of March 2025)

LME Role	Name	Address	Citizenship
President	Edward Stones	1254 Enclave Pkwy Houston, TX 77077	U.S./UK
Vice-President	Kreshka Young	1254 Enclave Pkwy Houston, TX 77077	Canada
Vice-President	Heather Lyons	Highway 185 North Seadrift, TX 77983	U.S.
Treasurer	Andre Tavares	1254 Enclave Pkwy Houston, TX 77077	U.S./Brazil
Secretary	Shandell Massey	2211 H.H. Dow Way Midland, MI 48674	U.S.
Assistant Secretary	Evan Blankenau	1254 Enclave Pkwy Houston, TX 77077	U.S.
Note: Long Mott Energy, LLC, does not have a board of directors.			

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Table I-3: Dow, Inc., and The Dow Chemical Company—Directors and Principal Officers (as of March 2025)

Role	Name	Address	Citizenship
Chief Executive Officer; Chairman	Jim Fitterling	2211 H.H. Dow Way Midland, MI 48674	U.S.
Chief Financial Officer	Jeff Tate	2211 H.H. Dow Way Midland, MI 48674	U.S.
Sr. Vice-President Operations, Manufacturing & Engineering	John Sampson	2211 H.H. Dow Way Midland, MI 48674	U.S.
General Counsel & Corporate Secretary	Amy Wilson	2211 H.H. Dow Way Midland, MI 48674	U.S.
Chief Operating Officer	Karen Carter	2211 H.H. Dow Way Midland, MI 48674	U.S.
Director	Samuel Allen	2211 H.H. Dow Way Midland, MI 48674	U.S.
Director	Gaurdie Banister, Jr.	2211 H.H. Dow Way Midland, MI 48674	U.S.
Director	Wesley Bush	2211 H.H. Dow Way Midland, MI 48674	U.S.
Director	Richard K. Davis	2211 H.H. Dow Way Midland, MI 48674	U.S.
Director	Jerri DeVard	2211 H.H. Dow Way Midland, MI 48674	U.S.
Director	Debra L. Dial	2211 H.H. Dow Way Midland, MI 48674	U.S.
Director	Jeff M. Fettig	2211 H.H. Dow Way Midland, MI 48674	U.S.
Director	Jacqueline C. Hinman	2211 H.H. Dow Way Midland, MI 48674	U.S.
Director	Luis Alberto Moreno	2211 H.H. Dow Way Midland, MI 48674	Colombia
Director	Jill S. Wyant	2211 H.H. Dow Way Midland, MI 48674	U.S.
Director	Daniel W. Yohannes	2211 H.H. Dow Way Midland, MI 48674	U.S.

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Table I-4: GWN, Holding, LLC—Principal Officers (as of March 2025)

Role	Name	Address	Citizenship
President; Assistant Secretary	Brian B. Tessin	2211 H.H. Dow Way Midland, MI 48674	U.S.
Vice President; Secretary	Shandell Massey	2211 H.H. Dow Way Midland, MI 48674	U.S.
Treasurer	Saket Selot	2211 H.H. Dow Way Midland, MI 48674	India
Note: GWN Holding, LLC, does not have a board of directors.			

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APPENDIX A TO PART I OF THE LONG MOTT GENERATING STATION CONSTRUCTION PERMIT APPLICATION

LONG MOTT ENERGY, LLC, FINANCIAL CAPACITY PLAN FOR CONSTRUCTION OF THE LONG MOTT GENERATING STATION

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LONG MOTT ENERGY, LLC, FINANCIAL CAPACITY PLAN FOR CONSTRUCTION OF THE LONG MOTT GENERATING STATION

1.0 Purpose

This plan demonstrates Long Mott Energy LLC's (LME's) level of understanding of the size and scope of construction of Long Mott Generating Station (LMGS), including the level of capital necessary to undertake the project. The plan also discusses the organizational and human resources, experience, skills and expertise required to obtain proper financing and ultimately finance the project. The plan includes a description of the management team and resources available to the management team as it pertains to financing, including experience and expertise in the areas of finance, capital sourcing, and large build megaprojects.

2.0 Description of Management Team for Financing

This section discusses LME's management team for financing of construction for LMGS, including resources and experience available to the management team through its parent company. LME, a limited liability company that was created on December 12, 2023, and incorporated in the State of Delaware, is a wholly owned subsidiary of The Dow Chemical Company (TDCC). TDCC has global treasury, finance, and project execution organizations, which are being made available through executive leadership approval, to LME to execute the LMGS project. TDCC also has extensive experience with potential sources of project funding, including financing of the construction and operation of large energy and chemical projects.

Experience of TDCC with Construction of Large Projects

TDCC has experience designing, procuring and implementing world-scale megaprojects globally. Below are examples of recent megaprojects:

- In 2017, TDCC completed the construction of its Gulfstream Program, a $6 billion investment program on the U.S. Gulf Coast. The Program included a 1.5 million tons/year ethylene plant, a propane dehydrogenation unit, derivative plants, and associated infrastructure. That ethylene plant is currently the largest, most capital and operationally efficient cracker in the Dow fleet, featuring: (a) a 65 percent lower conversion cost; and (b) the lowest carbon intensity of any cracker in the Dow fleet, producing approximately 60 percent less carbon emissions per ton of material produced than the average facility.
- In 2024, TDCC started construction on the world's first ever net-zero Scope 1 and 2 ethylene cracker complex in Ft. Saskatchewan, Alberta. The $6.5 billion project includes building a new ethylene cracker, retrofitting the site's existing cracker to net-zero Scope 1 and 2 emissions, and increasing polyethylene capacity by 2 million metric tons annually (MTA).

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3.0 Description of Anticipated Funding Methods and Sources

This section provides a description of the anticipated funding methods and sources, and a discussion of past success with such funding in energy and other large build projects.

TDCC

TDCC has reported annual capital spending of $2.5 billion/year on average over the recent years since 2021. TDCC finances this capital budget through a combination of debt and equity sources, including cash flow from operations, bonds and the issuance of new debt. These financing mechanisms have been applied in various portfolio approaches to execute on Dow's growth objectives through its megaprojects. An intercompany agreement is in place ensuring TDCC will provide financial support to LME for construction of LMGS.

U.S. Department of Energy (DOE)

In May 2022, the Department of Energy announced the Advanced Reactor Demonstration Program (ARDP) to facilitate the transition of next generation nuclear reactors from concept to demonstration through cost-share partnerships. In October 2020, X Energy, LLC, with its Xe-100 high-temperature gas-cooled reactor (HTGR), was selected to deliver a commercial first-of-a-kind advanced nuclear plant with partner Energy Northwest. In March 2023, the DOE agreed to make Dow a sub-awardee under the ARDP agreement, moving this funding from Energy Northwest. The ARDP provides a 50 percent DOE/private sector cost share on all projected costs to deliver LMGS.

4.0 Conclusions

LME's management team understands the complexities of financing large build megaproject, including construction of a small modular nuclear reactor plant, and the need for securing financing before beginning reactor construction.

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