APPLICATION FOR CERTIFICATION
FOR
TESLA POWER PROJECT
ALAMEDA COUNTY, CALIFORNIA

VOLUME 1 – TEXT

Submitted to:

California Energy Commission
Sacramento, California

Prepared by:

Foster Wheeler Environmental Corporation
Duke/Fluor Daniel
URS Corporation

Submitted by:

MIDWAY POWER, LLC

FPL Energy

October 2001

FPL Energy

October 10, 2001

Mr. Steve Larson
Executive Director
California Energy Commission
1516 Ninth Street
Sacramento, California 95814

Dear Mr. Larson:

Midway Power, LLC, pursuant to the provisions of Title 20, California Code of Regulations, Division 2, hereby submits this application for Certification seeking approval for construction and operation of the proposed Tesla Power Project. The proposed project is a natural gas-fired power plant with a nominal output of 1,120 megawatts to be located in Alameda County, California.

As an officer of Midway Power, LLC, I hereby attest, under penalty of perjury, that the contents of this application are true and accurate to the best of my knowledge.

Dated this 10th day of October, 2001.

Sincerely,

Derrel A. Grant, Jr.
Vice President
Midway Power, LLC

Attachments

TABLE OF CONTENTS

Page

1.0 EXECUTIVE SUMMARY 1-1

1.1 INTRODUCTION 1-1
1.2 PROJECT OWNERSHIP 1-1
1.3 PROJECT NEED 1-2
1.4 PROJECT SCHEDULE 1-2
1.5 FACILITY LOCATION AND DESCRIPTION 1-2
1.6 FACILITY OPERATION 1-3
1.7 SAFETY 1-4
1.8 ENVIRONMENTAL CONSIDERATIONS 1-4
1.9 SUMMARY 1-12

2.0 PROJECT OBJECTIVES AND NEED 2-1

2.1 PROJECT OBJECTIVES 2-1
2.2 PROJECT NEED 2-1

3.0 FACILITY DESCRIPTION AND LOCATION 3-1

3.1 INTRODUCTION 3-1
3.2 LOCATION OF FACILITIES 3-1
3.3 POWER PLANT SITE DESCRIPTION 3-1
3.4 POWER GENERATION FACILITY 3-5
3.5 POWER PLANT CIVIL/STRUCTURAL FEATURES 3-50
3.6 TRANSMISSION FACILITIES 3-55
3.7 PROJECT CONSTRUCTION 3-62
3.8 FACILITY OPERATION 3-74
3.9 FACILITY CLOSURE 3-75
3.10 ALTERNATIVES 3-76
3.11 APPLICABLE LAWS, ORDINANCES, REGULATIONS AND STANDARDS (LORS) 3-100
3.12 REFERENCES 3-101

4.0 SAFETY AND RELIABILITY 4-1

4.1 FACILITY SAFETY 4-1
4.2 TRANSMISSION LINE SAFETY AND NUISANCE 4-2
4.3 RELIABILITY AND AVAILABILITY 4-5
4.4 APPLICABLE LAWS, ORDINANCES, REGULATIONS AND STANDARDS (LORS) 4-7
4.5 REFERENCES 4-9

TABLE OF CONTENTS (Continued)

Page

5.0 ENVIRONMENTAL INFORMATION 5-1

5.1 INTRODUCTION 5.1-1
5.2 AIR QUALITY 5.2-1
5.3 BIOLOGICAL RESOURCES 5.3-1
5.4 WATER RESOURCES 5.4-1
5.5 GEOLOGIC RESOURCES AND HAZARDS 5.5-1
5.6 AGRICULTURE AND SOILS 5.6-1
5.7 LAND USE 5.7-1
5.8 SOCIOECONOMICS 5.8-1
5.9 NOISE 5.9-1
5.10 VISUAL RESOURCES 5.10-1
5.11 TRAFFIC AND TRANSPORTATION 5.11-1
5.12 HAZARDOUS MATERIALS HANDLING 5.12-1
5.13 WASTE MANAGEMENT 5.13-1
5.14 WORKER SAFETY 5.14-1
5.15 PUBLIC HEALTH 5.15-1
5.16 CULTURAL RESOURCES 5.16-1
5.17 PALEONTOLOGICAL RESOURCES 5.17-1

6.0 LAWS, ORDINANCES, REGULATIONS AND STANDARDS (LORS) 6-1

7.0 LIST OF CONTRIBUTORS 7-1

TABLE OF CONTENTS (Continued)

LIST OF APPENDICES

Appendix A Foundation and Civil Engineering Design Criteria

Appendix B Structural and Seismic Engineering Design Criteria

Appendix C Mechanical Engineering Design Criteria

Appendix D Control Systems Engineering Design Criteria

Appendix E Electrical Engineering Design Criteria

Appendix F Major Mechanical Equipment List

Appendix G Geotechnical Engineering Investigation

Appendix H Phase I Environmental Site Assessment

Appendix I PG&E System Impacts/Facilities Study

Appendix J Biological Resources Reference Documents

Appendix K Air Quality and Public Health Support Documentation

Appendix L Cultural Resources Technical Report

Appendix M Water District Letter

Appendix N List of Surrounding Property Owners

Appendix O Paleontological Resources Technical Report

1.0 EXECUTIVE SUMMARY

SECTION 1.0 EXECUTIVE SUMMARY
CONTENTS

1.0 EXECUTIVE SUMMARY 1-1
1.1 INTRODUCTION 1-1
1.2 PROJECT OWNERSHIP 1-1
1.3 PROJECT NEED 1-2
1.4 PROJECT SCHEDULE 1-2
1.5 FACILITY LOCATION AND DESCRIPTION 1-2
1.5.1 Facility Location 1-2
1.5.2 Facility Description 1-2
1.5.3 Site Arrangement 1-2
1.5.4 Transmission Interconnection 1-3
1.5.5 Fuel Supply 1-3
1.5.6 Water Supply 1-3
1.5.7 Wastewater Disposal 1-3
1.6 FACILITY OPERATION 1-3
1.7 SAFETY 1-4
1.8 ENVIRONMENTAL CONSIDERATIONS 1-4
1.8.1 Introduction 1-4
1.8.2 Air Quality 1-4
1.8.3 Biological Resources 1-5
1.8.4 Water Resources 1-5
1.8.5 Geologic Resources and Hazards 1-6
1.8.6 Agriculture and Soils 1-7
1.8.7 Land Use 1-7
1.8.8 Socioeconomics 1-8
1.8.9 Noise 1-8
1.8.10 Visual Resources 1-9
1.8.11 Traffic and Transportation 1-9
1.8.12 Hazardous Materials Handling 1-10
1.8.13 Waste Management 1-10
1.8.14 Worker Safety 1-11
1.8.15 Public Health 1-11
1.8.16 Cultural Resources 1-12
1.8.17 Paleontological Resources 1-12
1.9 SUMMARY 1-12