

UNITED STATES OF AMERICA
BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

**DRAFT APPLICATION FOR NEW LICENSE FOR MAJOR PROJECT –
EXISTING DAM**

**EXHIBIT D – STATEMENT OF
COSTS AND FINANCING**

Prepared by:



March 2020

©Copyright 2020. New York Power Authority. All Rights Reserved

**GREGORY B. JARVIS PROJECT
RELICENSING**

FERC NO. 3211



**NY Power
Authority**

Table of Contents

1	Introduction	1
2	Original Cost of Existing Unlicensed Facilities (18 CFR Section 4.51(e)(1)).....	2
3	Estimated Amount Payable Upon Takeover Pursuant to Section 14 of the Federal Power Act (18 CFR Section 4.51(e)(2)).....	3
4	Estimated Cost of New Development (18 CFR Section 4.51(e)(3))	4
4.1	Land and Water Rights (18 CFR Section 4.51(e)(3)(i))	4
4.2	Cost of New Facilities (18 CFR Section 4.51(e)(3)(ii)).....	4
5	Estimated Average Annual Cost of the Project (18 CFR Section 4.51(e)(4)).....	5
5.1	Capital Costs	5
5.2	Operational Costs	5
5.3	Costs of Proposed Environmental Measures.....	5
6	Estimated Annual Value of Project Power (18 CFR Section 4.51(e)(5))	6
7	Sources and Extent of Financing (18 CFR Section 4.51(e)(6)).....	7
8	Licensing Costs (18 CFR Section 4.51(e)(7)).....	8
9	On-Peak and Off-Peak Values of Project Power (18 CFR Section 4.51(e)(8)).....	9
10	Estimated Average Annual Increase or Decrease in Project Generation or Value of Project Power (18 CFR Section 4.51(e)(9)).....	11

List of Tables

Table 5.2-1. Project Annual Operating Costs (Millions).....	5
Table 6-1. Project Annual Operating Revenue (Millions).....	6
Table 9-1. 2019 Real-Time Market Locational-Based Marginal Pricing – Mohawk Valley Load Zone (E). 10	
Table 9-2. 2019 Real-Time Market Locational-Based Marginal Pricing – Mohawk Valley Load Zone (E) and Adjacent Load Zones	10

1 Introduction

The Hinckley (Gregory B. Jarvis) Hydroelectric Project (Project) is located on West Canada Creek, a tributary to the Mohawk River, approximately ½ mile upstream of the Hamlet of Hinckley in the Towns of Remsen, Russia, Ohio, and Trenton, in the counties of Oneida and Herkimer, New York. The Project is owned and operated by the Power Authority of the State of New York (d/b/a “New York Power Authority” and referred to as “the Power Authority”).

This exhibit is required under the Federal Energy Regulatory Commission (FERC or Commission) regulations which can be found in Title 18 of the Code of Federal Regulations (CFR) Section 4.51(b). The information provided herein covers the specifics prescribed for Exhibit D and serves the purpose of providing a statement of costs and financing.

2 Original Cost of Existing Unlicensed Facilities (18 CFR Section 4.51(e)(1))

This section is not applicable to the Project because the Power Authority is not applying for an initial (original) license. The Project was originally licensed in 1982.

3 Estimated Amount Payable Upon Takeover Pursuant to Section 14 of the Federal Power Act (18 CFR Section 4.51(e)(2))

The Power Authority is a corporate municipal instrumentality of the state, a body corporate and politic, a political subdivision of the State of New York exercising governmental and public powers. The Applicant is also a municipality within the meaning of Section 3(7) of the Federal Power Act (FPA). Because it is a state subdivision, the Project is not subject to the takeover provisions of Section 14 of the FPA. Accordingly, the Commission's regulations do not require the Power Authority to include an estimate of take-over costs.

4 Estimated Cost of New Development (18 CFR Section 4.51(e)(3))

4.1 Land and Water Rights (18 CFR Section 4.51(e)(3)(i))

The Power Authority is not proposing to expand land or water rights as a consequence of this license application.

4.2 Cost of New Facilities (18 CFR Section 4.51(e)(3)(ii))

The Power Authority is not proposing any new development at the Project.

5 Estimated Average Annual Cost of the Project (18 CFR Section 4.51(e)(4))

The average annual cost of the Project includes capital costs and annual operating costs. The average annual costs also include any costs associated with the proposed protection, mitigation, and enhancement measures. The Power Authority is a subdivision of the State of New York and pays no federal, state, or local taxes.

5.1 Capital Costs

[To be provided with the Final License Application]

5.2 Operational Costs

Table 5.2-1 presents the Project's operational costs from 2010-2019. Operating costs include the costs of purchased power and related expenses, fuel consumed, operation and maintenance, and administrative expenses.

Table 5.2-1. Project Annual Operating Costs (Millions)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Operating Expenditure	\$1.71	\$1.78	\$1.70	\$1.70	\$2.69	\$2.77	\$2.12	\$2.90	\$3.48	\$3.21

5.3 Costs of Proposed Environmental Measures

The Power Authority is still in the process of evaluating the need for potential new environmental measures.

6 Estimated Annual Value of Project Power (18 CFR Section 4.51(e)(5))

As with other entities active in the New York electricity market, the Power Authority participates in the New York Independent System Operator (NYISO) competitive wholesale electricity market. The NYISO, governed by FERC, coordinates energy producers' bids and utility demands to secure reliable, low-cost energy throughout New York. The Hinckley Dam and Reservoir's primary function is to provide adequate water for Canal operations. As such, the Project generates electricity with the water that is available in accordance with the 2012 Operating Diagram. When feasible, the Project generates low-cost electricity utilizing a within day peaking schedule to align generation with demand.

The NYISO market also values the installed capacity (ICAP) and ancillary services provided by generation facilities. ICAP is required by the NYISO to ensure reliability of the electric system. The NYISO market rewards those generating units capable of meeting the NYISO's reliability rules.

Table 6-1 provides operating revenues for the Project from 2010 through 2019. Operating revenues include revenues from wholesale customers and market-based power sales.

Table 6-1. Project Annual Operating Revenue (Millions)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Operating Revenue	\$6.98	\$7.29	\$3.97	\$6.15	\$7.76	\$2.99	\$0.58	\$0.89	\$0.93	\$0.91

7 Sources and Extent of Financing (18 CFR Section 4.51(e)(6))

The Power Authority finances capital projects using a combination of debt obligations and internal funding sources. The Power Authority has adequate financial resources for the operation of the Project for the term of a new license.

8 Licensing Costs (18 CFR Section 4.51(e)(7))

Licensing costs are estimated to be \$2.68 million.

9 On-Peak and Off-Peak Values of Project Power (18 CFR Section 4.51(e)(8))

The Project's power is dispatched into the NYISO's wholesale market. Prices in this market are determined on an hourly basis by location. The Project is located in NYISO's Mohawk Valley Load Zone (Zone E). Real-Time Market Locational-Based Marginal Pricing (LBMP) data for that zone for 2019 is provided in 5-minute-increments on the NYISO website (www.nyiso.com). This data (RTD Zonal LBMP) is summarized into hourly values, and assigned each value as either on-peak or off-peak according to the following definitions:

- On-peak – The 16-hour period 7:00 a.m. - 11:00 p.m. on non-holiday weekdays (Monday - Friday)
- Off-peak – All other times
- Holidays – New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day

On-peak, off-peak, and overall averages on a monthly and annual basis were then calculated; the results are summarized in [Table 9-1](#). This process was then analyzed for the adjacent load zones; annual results are summarized in [Table 9-2](#).

Table 9-1. 2019 Real-Time Market Locational-Based Marginal Pricing – Mohawk Valley Load Zone (E)

Month	On-Peak (\$/MWh)	Off-Peak (\$/MWh)	Overall (\$/MWh)
January	39.43	26.48	31.78
February	28.64	23.95	26.18
March	31.64	26.01	28.56
April	22.41	18.26	20.29
May	18.86	13.77	15.75
June	17.68	12.65	14.91
July	26.84	22.14	23.97
August	23.91	18.45	21.04
September	20.61	14.24	16.52
October	19.49	13.34	16.40
November	27.75	15.84	20.09
December	30.75	17.35	21.67
Annual	25.48	18.47	21.42

Table 9-2. 2019 Real-Time Market Locational-Based Marginal Pricing – Mohawk Valley Load Zone (E) and Adjacent Load Zones

Load Zone	On-Peak (\$/MWh)	Off-Peak (\$/MWh)	Overall (\$/MWh)
North	21.04	15.99	18.12
Mohawk Valley	25.48	18.47	21.42
Capital	30.07	24.64	26.93
Hudson Valley	29.94	23.36	26.14

10 Estimated Average Annual Increase or Decrease in Project Generation or Value of Project Power (18 CFR Section 4.51(e)(9))

The Power Authority proposes no changes to Project operations. The Power Authority anticipates no major changes to average Project generation or the value of Project power as both are driven by the NYISO market.