Rochester Gas and Electric Corporation

Rochester Transmission Project Enhancement

Appendix B

Pre-Filed Direct Testimony

APPENDIX B: PRE-FILED DIRECT TESTIMONY

Pre-filed direct testimony in support of the Application for the Project is presented by witnesses by subject area, as follows:

Witnesses	Exhibits Sponsored
	Exhibit 5 – Design Drawings
T ' A1 1	Exhibit E-1 – Description of Proposed Transmission Line
Jairo Alvarado	Exhibit E-3 – Underground Construction
	Exhibit E-4 – Engineering Justification
Javier Mauricio Gonzalez	Exhibit 5 – Design Drawings
Araque	Exhibit E-2 – Other Facilities
Shafqat Ayub	Exhibit 9 – Cost of Proposed Facilities
Richard Bennett	Exhibit E-6 – Effect on Transportation
Jeffrey Castle	Exhibit 3 – Alternatives
	Exhibit 1 – General Information Regarding Application
	Exhibit 2 – Location of Facilities
	Exhibit 3 – Alternatives
	Exhibit 4 – Environmental Impact
Carol Howland	Exhibit 6 – Economic Effects of Proposed Facility
	Exhibit 7 – Local Ordinances
	Exhibit 8 – Other Pending Filings
	Exhibit E-5 – Effect on Communications
	Exhibit E-6 – Effect on Transportation
	Exhibit 5 – Design Drawings
Masoud Kashani	Exhibit E-2 – Other Facilities
	Exhibit E-4 – Engineering Justification
	Exhibit 5 – Design Drawings
Sophia Ma	Exhibit E-1 – Description of Proposed Transmission Line
	Exhibit E-3 – Underground Construction
	Exhibit 3 – Alternatives
Christopher Morin	Exhibit E-4 – Engineering Justification
Jon Russel	Exhibit 1 – General Information Regarding Application Exhibit 9 – Cost of Proposed Facilities

	Exhibit 2 – Location of Facilities
	Exhibit 4 – Environmental Impact
Ben Virts	Exhibit 6 – Economic Effects of Proposed Facility
	Exhibit 8 – Other Pending Filings
	Exhibit E-5 – Effect on Communications

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DIRECT TESTIMONY OF

JAIRO ALVARADO

Jairo Alvarado

1	Q.	Please state your full name, employer, and business address.
2	А.	My name is Jairo Alvarado. I am employed by Rochester Gas & Electric Corporation
3		(RG&E), a subsidiary company of Avangrid Networks, Inc. (Avangrid). My business
4		address is 1300 Scottsville Road, Rochester, NY, 14624.
5	Q.	In what capacity are you employed?
6	А.	I am the Lead Transmission Engineer for the Integrated Projects Department at
7		Avangrid.
8	Q.	Please summarize your education and professional background.
9	А.	I received a Bachelor of Science degree in Civil Engineering from Gran Colombia
10		University, and a Bachelor of Science degree in Civil Constructions from Polytechnic
11		University of Madrid. I have more than 20 years of professional experience in
12		engineering development for transmission system projects. My work has involved the
13		analysis, engineering and oversight of electric transmission line and substation
14		projects.
15	Q.	Please describe your role in the Project.
16	А.	For the Project, I have advised RG&E's consultants on the selection of the technical
17		solutions and engineering requirements. I have reviewed the routing analysis, draft
18		exhibits, and conceptual drawings prepared by RG&E's consultants, including
19		checking them for consistency with RG&E's standard practices.

Jairo Alvarado

1	Q.	What portion(s) of the Application do you sponsor?
2	А.	I sponsor the following exhibits, which were prepared by me or under my supervision
3		and direction:
4		• Exhibit 5 (Design Drawings);
5		• Exhibit E-1 (Description of Proposed Transmission Line);
6		• Exhibit E-3 (Underground Construction); and
7		• Exhibit E-4 (Engineering Justification)
8	Q.	Does this conclude your testimony?
9	А.	Yes.

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DIRECT TESTIMONY OF

JAVIER MAURICIO GONZALEZ ARAQUE

Javier Mauricio Gonzalez Araque

1	Q.	Please state your full name, employer, and business address.
2	А.	My name is Javier Mauricio Gonzalez Araque. I am employed by Rochester Gas and
3		Electric Corporation (RG&E). My business address is 1300 Scottsville Road,
4		Rochester, NY 14624.
5	Q.	In what capacity are you employed?
6	А.	I serve as Principal Engineer for Projects.
7	Q.	Please summarize your education and professional background.
8	A.	I received a Bachelor of Science in Electrical Engineering from Universidad
9		Pontificia Bolivariana in 1997. I have more than 20 years of experience as substation
10		engineer on a variety of electric utility infrastructure projects. I have served in my
11		current position since March 2018. Prior to this position, I was a supervisor of
12		substation engineering for RG&E from September 2014 to March 2019 and I was
13		Senior Substation Engineer for IBERDROLA in Spain from February 2007 to May
14		2012.
15	Q.	Please describe your role in the Project.
16	А.	For the Project, I served as the Principal Engineer responsible for coordination and
17		oversight of the engineering team with regard to transmission line relocation and
18		substation engineering; site selection; site design; and studies required for the
19		Application. I also assisted in the preparation of certain exhibits.

Javier Mauricio Gonzalez Araque

1	Q.	What portion(s) of the Application do you sponsor?
2	A.	I sponsor the following exhibits, which were prepared by me or under my supervision
3		and direction:
4		• Exhibit 5 (Design Drawings); and
5		• Exhibit E-2 (Other Facilities).
6	Q.	Does this conclude your testimony?
7	A.	Yes.

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DIRECT TESTIMONY OF

SHAFQAT AYUB

Shafqat Ayub

1	Q.	Please state your full name, employer, and business address.
2	А.	My name is Shafqat Ayub. I am employed by WSP USA to work for Rochester Gas
3		and Electric Corporation (RG&E). My business address is 1300 Scottsville Road,
4		Rochester, NY 14624.
5	Q.	In what capacity are you employed?
6	А.	I am the Manager of Estimating for RG&E's Bulk Electric System (BES) Program.
7	Q.	Please summarize your education and professional background.
8	А.	I received a Bachelor of Science in degree in Electrical Engineering from University
9		of San Carlos Philippines. I am a Licensed Engineer in Alberta Canada. I have more
10		than 30 years of professional experience in electrical engineering, construction,
11		project management, and project estimating. My work has involved project
12		estimating, cost tracking, historical data maintenance, and project risk identification
13		to understand and anticipate their effect on project cost.
14	Q.	Please describe your role in the Project.
15	А.	For the Project, my work has involved pre-conceptual and conceptual cost estimation.
16	Q.	What portion(s) of the Application do you sponsor?
17	А.	I sponsor the following exhibit, which was prepared by me or under my supervision
18		and direction:
19		• Exhibit 9 (Cost of Proposed Facilities).
20	Q.	Does this conclude your testimony?
21	А.	Yes.

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DIRECT TESTIMONY OF

RICHARD BENNETT

Richard Bennett

1	Q.	Please state your full name, employer, and business address.
2	А.	My name is Richard Bennett. I am employed by LaBella Associates. My business
3		address is 300 State Street, Suite 201, Rochester, NY 14614.
4	Q.	In what capacity are you employed?
5	А.	I am a Senior Transportation Engineer.
6	Q.	Please summarize your education and professional background.
7	А.	I received a Bachelor of Science degree in Civil Engineering Technology from
8		Rochester Institute of Technology. I have 24 years of experience in transportation
9		design, permitting and regulatory compliance, and project development and
10		management. My work has involved the planning, development, and technical design
11		of transportation facilities and affected utilities.
12	Q.	Please describe your role in the Project.
13	А.	For the Project, I directed the development of the effects on transportation exhibit.
14		This work included the review of Project alignments and their potential effect on
15		transportation systems.
16	Q.	What portion(s) of the Application do you sponsor?
17	А.	I sponsor the following exhibit, which was prepared by me or under my supervision
18		and direction:
19		• Exhibit E-6 (Effect on Transportation).
20	Q.	Does this conclude your testimony?
21	А.	Yes.

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DIRECT TESTIMONY OF

JEFFREY CASTLE

Jeffrey Castle

1	Q.	Please state your full name, employer, and business address.
2	А.	My name is Jeffrey Castle. I am employed by LaBella Associates. My business
3		address is 300 State Street, Suite 201, Rochester, NY, 14614.
4	Q.	In what capacity are you employed?
5	А.	I am a Permitting and Compliance Specialist.
6	Q.	Please summarize your education and professional background.
7	A.	I received a Bachelor of Arts degree in Geology and Economics from Hamilton
8		College and a Graduate Certificate in Ecological Economics from the University of
9		Vermont. I have 5 years of experience in permitting and regulatory compliance and
10		10 years of experience in environmental science and natural resources. My work has
11		involved planning and development review at the local and county level,
12		administration of county agricultural districts, and environmental impact assessment.
13	Q.	Please describe your role in the Project.
14	А.	For the Project, I assisted with the preparation of the alternatives exhibit for the
15		application. This included the review and analysis of alternative routes and their
16		comparative impacts to the proposed route.
17	Q.	What portion(s) of the Application do you sponsor?
18	А.	I sponsor the following exhibit, which was prepared by me or under my supervision
19		and direction:
20		• Exhibit 3 (Alternatives).
21	Q.	Does this conclude your testimony?
22	А.	Yes.

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DIRECT TESTIMONY OF

CAROL HOWLAND

Carol Howland

1	Q.	Please state your full name, employer, and business address.
2	А.	My name is Carol Howland. I am employed by Rochester Gas and Electric
3		Corporation (RG&E). My business address is 18 Link Drive, P.O. Box 5224,
4		Binghamton, NY 13902-5224.
5	Q.	In what capacity are you employed?
6	А.	I am the Manager – Environmental Permitting for RG&E.
7	Q.	Please summarize your education and professional background.
8	А.	I received an Associates of Science degree in Chemistry from Broome Community
9		College and a Bachelor of Science degree in Chemistry from Binghamton University.
10		I am a Certified Professional in Erosion and Sediment Control (CPESC), and a
11		licensed Professional Engineer (PE) in the State of New York. I have more than 33
12		years of professional experience in environmental assessment and licensing for utility
13		projects. My work has involved overseeing environmental analyses and permitting
14		for coal generation facilities, hydroelectric projects, electric transmission lines, gas
15		pipelines, and substation projects. I have also served as the environmental monitor
16		and stormwater inspector for utility construction projects.
17	Q.	Please describe your role in the Project.
18	А.	For the Project, I have advised RG&E's consultant on environmental regulatory
19		requirements, consulted with the environmental agencies, and have reviewed the
20		routing analysis, draft exhibits, and conceptual drawings prepared by RG&E's
21		consultants, including checking them for consistency with RG&E's standard practice.

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Carol Howland

1	Q.	What portion(s) of the Application do you sponsor?
2	А.	I sponsor the following exhibits, which were prepared by me or under my supervision
3		and direction:
4		• Exhibit 1 (General Information Regarding Application);
5		• Exhibit 2 (Location of Facilities);
6		• Exhibit 3 (Alternatives);
7		• Exhibit 4 (Environmental Impact);
8		• Exhibit 6 (Economic Effects of Proposed Facility);
9		• Exhibit 7 (Local Ordinances);
10		• Exhibit 8 (Other Pending Filings);
11		• Exhibit E-5 (Effect on Communications); and
12		• Exhibit E-6 (Effect on Transportation).
13	Q.	Does this conclude your testimony?
14	А.	Yes.

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DIRECT TESTIMONY OF

MASOUD KASHANI

Masoud Kashani

1	Q.	Please state your full name, employer, and business address.
2	А.	My name is Masoud Kashani. I am employed by WSP USA to work for Rochester
3		Gas and Electric Corporation (RG&E) as Owner's Engineer. My business address is
4		1300 Scottsville Road, Rochester, NY 14624.
5	Q.	In what capacity are you employed?
6	А.	I am the Engineering Coordinator for Business Unit 1 of the Bulk Electric System
7		Program, which includes the Rochester Transmission Project Enhancement (the
8		Project).
9	Q.	Please summarize your education and professional background.
10	А.	I received a Bachelor's degree in Electrical Engineering from Sharif University of
11		Technology. I am a Certified Project Management Professional (PMP) and a licensed
12		Professional Engineer (P.E.) in Ontario. I have more than 30 years of professional
13		experience in electrical substation design, construction and commissioning. My work
14		has involved network studies, electrical engineering design, overseeing activities of
15		engineers and designers, and coordination with other disciplines including civil,
16		structural, transmission lines and mechanical.
17	Q.	Please describe your role in the Project.
18	А.	For the Project, I have coordinated a team of engineers to review the engineering
19		design. I also assisted in the preparation of certain exhibits.

Masoud Kashani

1	Q.	What portion(s) of the Application do you sponsor?
2	A.	I sponsor the following exhibits, which were prepared by me or under my supervision
3		and direction:
4		• Exhibit 5 (Design Drawings);
5		• Exhibit E-2 (Other Facilities); and
6		• Exhibit E-4 (Engineering Justification).
7	Q.	Does this conclude your testimony?
8	А.	Yes.

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DIRECT TESTIMONY OF

SOPHIA MA

Sophia Ma

1	Q.	Please state your full name, employer, and business address.
2	А.	My name is Sophia Ma. I am employed by WSP USA working for Rochester Gas and
3		Electric Corporation (RG&E) as an Owner's Engineer. My business address is 1300
4		Scottsville Road, Rochester, NY, 14624.
5	Q.	In what capacity are you employed?
6	А.	I am the Supervising Transmission Line Engineer for the Project.
7	Q.	Please summarize your education and professional background.
8	Α.	I received a bachelor's degree in electrical engineering from Wuhan University in
9		China and a master's degree in electrical engineering from Concordia University in
10		Canada. I am a licensed engineer in the State of Texas. I have more than 25 years of
11		professional experience in transmission line engineering. My work has involved all
12		stages of overhead and underground transmission line engineering work for line
13		voltages ranging from 4 kilovolts (kV) up to 500 kV AC and \pm 500 kV DC.
14	Q.	Please describe your role in the Project.
15	А.	For the Project, I have advised RG&E's engineering consultants on the selection of
16		technical solutions and applicable national/RG&E standards. I have reviewed routing
17		analysis, exhibits, and conceptual drawings prepared by the consultants to make sure
18		the engineering design is consistent with RG&E's standard practices and meets the
19		requirement of the National Electric Safety Code.
20	Q.	What portion(s) of the Application do you sponsor?
21	А.	I sponsor the following exhibits, which were prepared by me or under my supervision

22 and direction:

Sophia Ma

5	А.	Yes.
4	Q.	Does this conclude your testimony?
3		• Exhibit E-3 (Underground Construction).
2		• Exhibit E-1 (Description of Proposed Transmission Line); and
1		• Exhibit 5 (Design Drawings);

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DIRECT TESTIMONY OF

CHRISTOPHER MORIN

Christopher Morin

1	Q.	Please state your full name, employer, and business address.
2	A.	My name is Christopher Morin. I am employed by Avangrid Networks, Inc. My
3		business address is 83 Edison Drive, Augusta, Maine 04336.
4	Q.	In what capacity are you employed?
5	A.	I am the Manager – Transmission Planning.
6	Q.	Please summarize your education and professional background.
7	A.	I received a Bachelor of Science degree in Electrical Engineering from the University
8		of Southern Maine. I am a Licensed Professional Engineer (PE) in the State of
9		Maine. I have more than 11 years of professional experience in transmission
10		planning in the utility industry. My work has involved overseeing large scale
11		transmission planning studies across Maine, New York and Connecticut, specifically
12		in identifying system deficiencies and associated corrective action plans. In addition,
13		I have overseen numerous load and generator interconnection studies covering both
14		transmission and distribution systems.
15	Q.	Please describe your role in the Project.
16	А.	For the Project, I oversaw the comprehensive Bulk Electric System transmission
17		planning study that identified the reliability need for the Project and ensured
18		Rochester Gas and Electric's compliance with the North American Electric
19		Reliability Corporation (NERC) Transmission Planning (TPL) Standards.
20		Specifically, this involved the review and development of system models to ensure
21		the appropriate level of stress was captured, reviewing system deficiencies/needs that
22		were identified and developed the associated Project scope.

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Christopher Morin

1	Q.	What portion(s) of the Application do you sponsor?
2	А.	I sponsor the following exhibits, which were prepared by me or under my supervision
3		and direction:
4		• Exhibit 3 (Alternatives); and
5		• Exhibit E-4 (Engineering Justification).
6	Q.	Does this conclude your testimony?
7	A.	Yes.

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DIRECT TESTIMONY OF

JON RUSSELL

Jon Russell

1	Q.	Please state your full name, employer, and business address.
2	А.	My name is Jon Russell. I am employed by Rochester Gas and Electric Corporation
3		(RG&E). My business address is 1300 Scottsville Rd, Rochester NY 14624.
4	Q.	In what capacity are you employed?
5	А.	I am the Project Manager for the Rochester Transmission Project Enhancement
6		(the Project).
7	Q.	Please summarize your education and professional background.
8	А.	I am a graduate of the United States Naval Nuclear Power Program. After
9		completing my military service, I worked in the commercial nuclear industry field. I
10		have more than 20 years of professional experience in nuclear generation and
11		electrical transmission projects. My work at RG&E has included scheduling and cost
12		control, and project management for electric transmission lines and electric
13		substations.
14	Q.	Please describe your role in the Project.
15	А.	I serve as the Project Manager, responsible for coordination and oversight for the
16		Project. I have reviewed draft exhibits for the Application and conceptual Project
17		drawings.
18	Q.	What portion(s) of the Application do you sponsor?
19	А.	I sponsor the following exhibits, which were prepared by me or under my supervision
20		and direction:
21		• Exhibit 1 (General Information Regarding Application); and
22		• Exhibit 9 (Cost of Proposed Facilities).

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Jon Russell

1 Q. Does this conclude your testimony?

2 A. Yes.

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DIRECT TESTIMONY OF

BEN VIRTS

Ben Virts

1	Q.	Please state your full name, employer, and business address.
2	А.	My name is Ben Virts. I am employed by WSP, USA and work as an embedded
3		resource supporting Rochester Gas and Electric Corporation (RG&E). My business
4		address is 1300 Scottsville Road, Rochester, NY, 14624.
5	Q.	In what capacity are you employed?
6	А.	I am the New York BES Environmental Permitting Manager for RG&E.
7	Q.	Please summarize your education and professional background.
8	А.	I received a Bachelor of Science degree in Environmental Science from Virginia
9		Tech. I hold a Professional Wetland Scientist (PWS) Certification and I have more
10		than 20 years of professional experience in environmental assessment and permitting
11		for a variety of project types including utility projects. My work has involved
12		performing and overseeing environmental studies, analyses and permitting for electric
13		transmission lines, electric substations, renewable energy facilities and gas pipeline
14		projects. I have also served as the environmental monitor and stormwater inspector
15		for construction projects.
16	Q.	Please describe your role in the Project.
17	А.	For the Project, I have coordinated and advised RG&E's consultants on
18		environmental regulatory requirements, consulted with the environmental agencies,
19		and have reviewed draft exhibits and conceptual drawings including checking them
20		for consistency with RG&E's standard practice.

Ben Virts

1	Q.	What portion(s) of the Application do you sponsor?
2	Α.	I sponsor the following exhibits, which were prepared by me or under my supervision
3		and direction:
4		• Exhibit 2 (Location of Facilities);
5		• Exhibit 4 (Environmental Impact);
6		• Exhibit 6 (Economic Effects of Proposed Facility);
7		• Exhibit 8 (Other Pending Filings); and
8		• Exhibit E-5 (Effect on Communications).
9	Q.	Does this conclude your testimony?
10	A.	Yes.