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Witness: Todd Mooney
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Sponsoring Party: The Empire District Electric
Company
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Direct Testimony
of
Todd Mooney

November 18, 2018



Liberty Utilities[®]
EMPIRE DISTRICT

Empire Exhibit No. 6P
Date 4-8-19 Reporter TU
File No. EA-2019-0010

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LIST OF SCHEDULES IN SUPPORT OF DIRECT TESTIMONY

TM-1 (Highly Confidential)	Purchase and Sale Agreement for Neosho Ridge Wind Project
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TM-8	Wells Fargo Portfolio of Renewable Projects

1 **I. INTRODUCTION AND BACKGROUND**

2 **Q. PLEASE STATE YOUR NAME, OCCUPATION, AND BUSINESS ADDRESS.**

3 A. My name is Todd Mooney. I am Vice President, Finance & Administration at Liberty
4 Utilities (Canada) Corp., a subsidiary of Algonquin Power & Utilities Corp. (“APUC”),
5 which is the ultimate corporate parent of The Empire District Electric Company (“Empire”
6 or “Company”). My business address is 354 Davis Road, Oakville, ON L6J 2X1.

7 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL**
8 **BACKGROUND.**

9 A. I hold a Master of Accounting from the University of Waterloo and am a Chartered
10 Accountant. I have worked for APUC since January 2012 in a variety of capacities,
11 including as Director of Finance and Administration and Vice President of Finance and
12 Administration for Algonquin Power Co., APUC’s non-regulated generation subsidiary.
13 In my current position as Vice President, Finance & Administration, I lead the Financial
14 Reporting, Accounting & Tax function for APUC, representing a team of over 100
15 professionals responsible for external reporting under US GAAP, consolidations,
16 accounting standards, regulatory accounting, fixed asset accounting, accounts payable,
17 general accounting and income tax planning and compliance. Prior to my work at APUC,
18 I was employed as the Director of Corporate Finance at Psion PLC where I led Psion’s
19 global accounting, tax, and treasury functions.

20 **Q. HAVE YOU PROVIDED TESTIMONY BEFORE ANY REGULATORY**
21 **JURISDICTIONS?**

22 A. Yes, I have testified before this Commission in Case No. EO-2018-0092, and before the
23 California Public Utilities Commission.

1 **Q. PLEASE DESCRIBE THE PURPOSE AND PROVIDE A SUMMARY OF YOUR**
2 **TESTIMONY.**

3 A. My testimony describes the process Empire undertook to select a wind generation project
4 for which it seeks a Certificate of Convenience and Public Necessity (“CCN”) in this
5 docket, the material commercial terms of its acquisition, Empire’s plan to finance the
6 acquisition of the project through tax equity and intercompany financings, and why time is
7 of the essence in regard to the CCN determination for the project.

8 **Q. BEFORE GETTING INTO THE DETAILS OF THE PROJECT, WOULD YOU**
9 **DESCRIBE HOW THIS DOCKET AROSE?**

10 A. On October 31, 2017, Empire filed its Customer Savings Plan, docketed as Case EO-2018-
11 0092. In that docket, Empire proposed to acquire up to 800 MW of wind generation
12 strategically located in or near its service territory in conjunction with a tax equity partner
13 and to retire its Asbury coal generation plant, all to deliver substantial savings to Empire’s
14 customers for years to come. In that docket, Empire and other parties entered into a Non-
15 Unanimous Stipulation in which Empire agreed to reduce its proposed acquisition of wind
16 generation assets from 800 MW to 600 MW and to delay the retirement of Asbury. While
17 the Commission did not adopt the Non-Unanimous Stipulation, in its July 11, 2018 Report
18 and Order in Case No. EO-2018-0092, the Commission found that “Empire’s proposed
19 acquisition of 600 MW of additional wind generation assets is clearly aligned with the
20 public policy of the Commission and this state,” Rep. Ord. at p. 20, and that “Empire is
21 authorized to record its capital investment to acquire wind generation assets as utility plant
22 in service subject to audit in Empire’s next general rate case.” *Id.* at 24. It is on this basis
23 that the Company subsequently concluded its negotiations to acquire the wind generation

1 assets and entered into the Purchase and Sale Agreements for the Kings Point and North
2 Fork Ridge projects that were filed in Docket EA-2019-0010 and for this wind generation
3 project that we are presenting for the Commission's consideration in this docket.
4

5 **II. THE WIND PROJECTS SELECTED FOR ACQUISITION**

6 **Q. PLEASE DESCRIBE EMPIRE'S PROPOSED ACQUISITION OF THE WIND**
7 **PROJECTS.**

8 A. On October 12, 2018, Empire entered into two Purchase and Sale Agreements with
9 Tenaska Missouri Matrix Wind Holdings, LLC ("Tenaska") and Steelhead Missouri
10 Matrix Wind Holdings, LLC ("Steelhead" and collectively, "Tenaska/Steelhead").
11 Pursuant to these Purchase and Sale Agreements, Empire will acquire ownership of two
12 holding companies to be formed by Tenaska/Steelhead, each of which will own, through a
13 project company (the "Wind Project Company"), an approximately 150 MW wind project
14 in Missouri (each a "Missouri Wind Project" and collectively the "Missouri Wind
15 Projects"). These projects are known as the Kings Point Wind project located in Jasper,
16 Barton, Dade and Lawrence counties in Missouri, and the North Fork Ridge Wind project
17 in Barton and Jasper counties in Missouri. The Missouri Wind Projects are the subject of
18 Case No. EA-2019-0010.

19 On November 16, 2018, Empire entered a Purchase and Sale Agreement with
20 Neosho Ridge Wind JV, LLC (the "Neosho Ridge JV"), a joint venture between a
21 subsidiary of Apex Clean Energy, Inc. ("Apex") and a subsidiary of Steelhead Wind 2,
22 LLC ("Steelhead"). Pursuant to the Purchase and Sale Agreement, the Neosho Ridge JV
23 will sell and Empire will acquire ownership of a holding company (Neosho Ridge Wind

1 Holdings, LLC, the “Holdco”), which will in turn own, through a project company (Neosho
2 Ridge Wind, LLC, the “Wind Project Company”), an approximately 301.0 MW wind
3 project in Kansas (the “Wind Project”). This project is known as the Neosho Ridge Wind
4 Project and is located in Neosho County in Kansas. A copy of the Purchase and Sale
5 Agreement is attached to my testimony as Schedule TM-1 (Highly Confidential) (Neosho
6 Ridge). Once acquired by Empire, this Holdco will be a direct subsidiary of Empire, and
7 the Wind Project Company will be an indirect subsidiary. An organization chart showing
8 the Kings Point, North Fork Ridge and Neosho Ridge Wind Project ownership structure
9 post-acquisition is depicted on Schedule TM-2. As described later in my testimony,
10 Empire will be financing the acquisition of the Holdco in conjunction with a tax equity
11 partner, Wells Fargo¹, as well as through intercompany funds from Liberty Utilities Co.
12 At the time of the closing when Empire acquires its ownership interest in the Holdco, Wells
13 Fargo will make a capital contribution to the Holdcos and thereby become a joint owner
14 with Empire.

15 **Q. WHY IS A TAX EQUITY STRUCTURE BEING USED?**

16 A. A tax equity structure is being sought to maximize customer savings associated with these
17 projects. As contemplated in the CSP case, through the use of a tax equity ownership
18 structure in conjunction with approximately 600 MWs of wind generation, Empire has a
19 time-limited opportunity to bring significant savings, which are approximately \$169
20 million over the twenty year period used to assess integrated resource plans and up to \$295

¹ Wells Fargo will lead the tax equity financing of the Wind Projects, either solely or with another tax equity partner.

1 million in savings to customers over a thirty year period, which is closer to the life of these
2 assets. These savings are occasioned based on unique market conditions, which allows for
3 production tax credits and the availability of financing to support these tax credits. I
4 described the benefits of tax equity partnerships in my testimony in Case No. EO-2018-
5 0092, as well as below. In short, customers benefit from this ownership structure since the
6 efficient monetization of tax attributes reduces the overall cost of energy procured on their
7 behalf by Empire. In addition, direct utility ownership in the partnership provides strong
8 benefits to the customer based on long-term ownership of the wind project and due to a
9 regulated utility's lower cost of capital and prudent capital structure.

10
11 **III. PROJECT SELECTION PROCESS**

12 **Q. WHAT PROCESS DID EMPIRE FOLLOW IN THE SELECTION OF THIS WIND**
13 **PROJECT FOR ACQUISITION?**

14 A. As Empire witness Timothy Wilson explained in his Direct and Rebuttal Testimony filed
15 in Case No. EO-2018-0092, Empire, with the assistance of Burns & McDonnell, developed
16 a competitive Request for Proposals ("RFP") for the complete engineering, procurement,
17 construction, and transfer of ownership of up to 800 MW of fully functional and/or
18 operational wind energy projects that are strategically located in or near the Empire service
19 territory. The Notice of Intent for the RFP was issued on October 16, 2017, to 11 wind
20 developers. The RFP provided two options to developers. The first option was for a
21 developer to construct projects that they currently own and then sell the projects to Empire
22 after they achieve commercial operation. The second option was for a developer to
23 construct a wind project on the Kings Point and North Fork Ridge sites in Missouri that

1 were being developed by Empire. Empire expressly sought projects within the Southwest
2 Power Pool (“SPP”) footprint, with a preference for those projects strategically located in
3 or near the Empire service territory in order to minimize costs associated with transmission
4 congestion. Empire received bids from 10 developers representing 18 sites that were
5 owned by the developers, with sites located in Missouri, Oklahoma and Kansas. Six of the
6 bidders also bid on the Company’s sites in Missouri. A list of the 10 bidders is contained
7 in Schedule TM-3 (Highly Confidential). As Mr. Wilson explained in his testimony filed
8 in Case EO-2018-0092, Burns & McDonnell evaluated each of the bids. This evaluation
9 formed the basis for beginning negotiations with *** _____ *** bid finalists.

10 **Q. ON WHAT BASIS DID EMPIRE DETERMINE THAT THE NEOSHO RIDGE**
11 **WIND PROJECT WAS THE BEST OPTION FOR CUSTOMERS AMONG THE**
12 **SITES OWNED BY DEVELOPERS?**

13 **A.** Once Empire narrowed the list of bid finalists, Empire conducted extensive due diligence
14 with the bid finalists in order to obtain more in-depth information on each developer’s
15 proposal than would have been provided in the RFP response. This due diligence included
16 inquiry into key aspects of each project proposal, including permitting, qualification for
17 Production Tax Credits (“PTCs”), project economics such as price, capacity factor, and
18 transmission basis risk, and the ability to prudently complete the construction of the
19 projects within the required timeframe. After completing its due diligence, Empire began
20 negotiations with project developers on the potential terms of acquisition, including a
21 refinement to project size to take into account Empire’s agreement in Case EO-2018-0092
22 to acquire no more than 600 MW of wind projects versus the 800 MW acquisition described
23 in the RFP.

1 After lengthy negotiations with multiple wind developers, Empire determined that the
2 Neosho Ridge Wind Project proposed by Apex was highly desirable given its physical
3 proximity to Empire's service territory, the low risk of transmission congestion, proximity
4 to interconnection, proximity to Empire's existing operations (allowing for economies in
5 operating costs), as well as its robust wind regime. Apex's bid also included the following
6 key attributes:

- 7 • The Wind Project has attractive economics, as represented by its Levelized Cost of
8 Energy ("LCOE");
- 9 • The project has a development and construction schedule that ensures the Wind
10 Project will be completed before the end of 2020 (in order to ensure it qualifies for
11 PTCs);
- 12 • Apex has extensive experience in development and construction of power
13 generation infrastructure.

14 In order to ensure that the Wind Project will qualify for PTC's, Empire requested
15 that Apex engage Steelhead to become a joint venture partner and provide
16 equipment to meet the Five Percent Safe Harbor² criteria, thus providing the
17 Neosho Ridge Wind Project with a robust PTC qualification strategy.

18 Based on the above factors, Empire selected the Neosho Ridge site. To ensure that
19 Empire's customers receive the same benefits and risk profile as with the Kings Point and

² IRS has provided guidance on the determination of the beginning of construction in Internal Revenue Notice 2016-31. The beginning of construction can be established either by beginning physical work of a significant nature (section 2) or by incurring at least 5% of a wind project's costs (the "Five Percent Safe Harbor" provided in Internal Revenue Notice 2013-29).

1 North Fork Ridge projects, Algonquin Power & Utilities Corp. (“Algonquin”), Empire’s
2 ultimate parent company, is providing protections to the Neosho Ridge Wind JV so that
3 the JV can enter into a Purchase and Sale Agreement with Empire that is the same in all
4 material respects as the Purchase and Sale Agreements for Kings Point and North Fork
5 Ridge and provides benefits to Empire’s customers in the same manner. Namely, the
6 Purchase and Sale Agreement:

- 7 • Provides an economical fixed price for the Wind Project for Empire;
- 8 • Commits to a construction schedule that ensures the Wind Project will be
9 completed before the end of 2020 (in order to ensure they qualify for PTCs) with a
10 significant price reduction for Empire for any portion of the Wind Project that is
11 completed late;
- 12 • Offers a robust strategy for qualifying for PTCs, following IRS guidance for the
13 Five Percent Safe Harbor, and;
- 14 • Is backstopped by a credit worthy entity able to provide the performance security
15 required to insulate Empire’s customers from risks, and;
- 16 • Has extensive experience in development and construction of power generation
17 infrastructure.

18 **Q. PLEASE DESCRIBE APEX’S EXPERIENCE DEVELOPING WIND**
19 **GENERATION.**

20 A. Apex Clean Energy is a U.S.-focused independent renewable energy company based in
21 Charlottesville, Virginia. Founded in 2009, Apex is the fastest-growing clean energy
22 company in the industry, with over 220 employees. Apex has completed development and
23 construction of twelve wind and solar facilities in Illinois, Texas, and Oklahoma. These

1 projects represent a total capital investment of approximately \$4 billion. Operating assets
2 under management have grown to over 1,500 MW. Apex has signed contracts for power
3 and the sale of sixteen projects totaling nearly 3,200 MW of capacity with utility, co-op,
4 government, and corporate customers

5 **Q. WHAT IS STEELHEAD'S ROLE IN THE PSA COMPARED TO APEX?**

6 A. Steelhead is partnering with Apex to jointly develop and construct the Wind Project. As a
7 wind project developer that has incurred cost for wind turbine components in 2016,
8 Steelhead's partnering with Apex allows the Wind Projects to qualify for 100% PTCs
9 according to the IRS guidelines described in footnote 2, above.

10
11 **IV. COMMERCIAL TERMS OF THE PURCHASE AND SALE AGREEMENT**
12 **AND RELATED CUSTOMER PROTECTIONS**

13 **Q. PLEASE DESCRIBE THE COMMERCIAL TERMS AND CONDITIONS OF THE**
14 **PURCHASE AND SALE AGREEMENT WITH APEX/ STEELHEAD.**

15 A. Attached to my testimony as Schedule TM-4 (Highly Confidential) is a summary of the
16 material terms of the PSA. The following is a high-level overview of the Wind Project and
17 its estimated cost:

*** _____ *** Denotes Highly Confidential

1		<u>Neosho Ridge</u>
2	Base Purchase Price	***\$ _____ ***
3		
4	Pass Through Costs	***\$ _____ ***
5		
6	Project Costs/Perm. Financing	***\$ _____ ***
7	Other³	
8		
9	Total Project Cost	***\$ _____ ***
10		
11	Location of Project (Counties)	Neosho
12		
13	Nameplate Capacity	301.0 MW
14	Net Capacity Factor (P50)	*** _____ ***
15	Estimated Start Date of Construction:	*** _____ ***
16	Completion of Construction	December 31, 2020
17	Turbine Manufacturer	Vestas

18

19 **Q. WHAT CUSTOMER PROTECTIONS ARE INCLUDED IN THE PSA?**

20 A. The PSA includes the following key protections for Empire’s customers:

- 21 • Fixed price – The vast majority of the contract price ***(_____
- 22 _____)*** is fixed, insulating Empire’s customers from development cost
- 23 overruns, commodity price risk, and construction cost overruns. The remaining *** _
- 24 _____*** of the projects include the cost of network upgrades,

³ This includes internal Empire labor and fees for independent engineers for monitoring and managing the Wind Projects, legal fees for negotiating tax equity financing, costs of issuing equity and debt financing to finance Empire’s investment in the Wind Projects, costs of acquiring the land required for the projects and other costs.

1 interconnection facilities, gen-tie line and public road upgrades & restoration, which
2 will be directly passed on to Empire.

- 3 • PTC qualification – If any part of the project is completed later than 2020, Empire will
4 receive a price reduction under the PSA to compensate it for the lost value of the PTCs.
- 5 • Performance security – The PSA requires the Neosho Ridge Wind JV to cause
6 performance security in the form of a guarantee (backstopped by Algonquin) to be
7 provided in the amounts of ***\$_____*** per project during the development
8 phase and ***\$_____*** during the construction phase. If the Neosho Ridge
9 Wind JV fails to fulfill its contractual obligations, Empire will be able to draw on the
10 performance security, thus protecting Empire’s customers.

11 **Q. WHEN WILL EMPIRE CLOSE ON THE PURCHASE OF THE WIND PROJECT?**

12 A. Empire will purchase the Wind Project on or around January 4, 2021.

13 **Q. WHAT ARE EMPIRE’S CONDITIONS TO CLOSING ON THE PURCHASE AND**
14 **SALE AGREEMENT?**

15 A. Section 9.1 of the Purchase and Sale Agreement contains the conditions that must be
16 satisfied prior to Empire’s acquisition of the Holdco. The Purchase and Sale Agreement
17 includes as conditions to close include a certificate from Apex attesting that all required
18 permits and land rights have been in obtained, that the In Service test for the wind turbines
19 has been achieved, a release of all liens by contractors, that FERC approval has been
20 granted to allow the transfer of the ownership of the Wind Project Company to Empire and
21 Wells Fargo, and other standard closing conditions relating to the good standing of the
22 Holdco and the Wind Project Company.

1 Q. WHICH PARTY RECEIVES THE BENEFIT OF ANY POWER GENERATED
2 PRIOR TO CLOSING?

3 A. Empire will receive the benefit of any revenues from power generated prior to closing, less
4 operating costs incurred to earn those revenues. Apex and Steelhead will receive the
5 benefit of the PTCs earned prior to closing. However, Empire will receive a reduction in
6 the purchase price for the projects based on the quantity of power generated.

7 Q. WHAT ARE EMPIRE'S TERMINATION RIGHTS UNDER THE PSA?

8 A. As described on Schedule TM-4, Empire's termination rights vary based on the timing of
9 the termination. The following chart provides a high-level summary of those rights:

10 ***

Period	Termination Provision	Seller Performance Security
<p>_____</p> <p>_____</p> <p>_____</p>	<ul style="list-style-type: none"> • _____ • _____ • _____ • _____ • _____ 	<ul style="list-style-type: none"> • _____
<p>_____</p> <p>_____</p>	<ul style="list-style-type: none"> • _____ • _____ • _____ _____ • _____ • _____ • _____ • _____ • _____ 	<ul style="list-style-type: none"> • _____ _____ _____ _____
<p>_____</p> <p>_____</p>	<ul style="list-style-type: none"> • _____ _____ • _____ 	<ul style="list-style-type: none"> • _____ _____ _____ _____

11

12 ***

1 Q. **WHEN WILL EMPIRE SEEK COST RECOVERY FOR THE PROJECT?**

2 A. Empire anticipates seeking recovery in its first rate case after acquiring interests in the
3 Holdco.

4 Q. **ARE THERE ANY DIFFERENCES BETWEEN THE PURCHASE AND SALE**
5 **AGREEMENT FOR THE NEOSHO RIDGE WIND PROJECT AND THE**
6 **PURCHASE AND SALE AGREEMENTS WITH TENASKA/STEELHEAD FOR**
7 **THE KINGS POINT AND NORTH FORK RIDGE PROJECTS FILED IN FILE**
8 **NO. EA-2019-0010?**

9 A. As described above, the Purchase and Sale Agreement for the Neosho Ridge Wind Project
10 is the same in all material respects as the Purchase and Sale Agreements for Kings Point
11 and North Fork Ridge. It does, however, contemplate a different payment schedule, with
12 Empire making milestone payments throughout the development and construction phases.
13 There are also some differences to the termination provisions (see above).

14

15 **V. FINANCING OF WIND PROJECT**

16 Q. **HOW DOES EMPIRE PLAN TO FINANCE THE WIND PROJECT?**

17 A. Empire intends to use a mix of debt, equity, and tax equity to acquire the Wind Project.

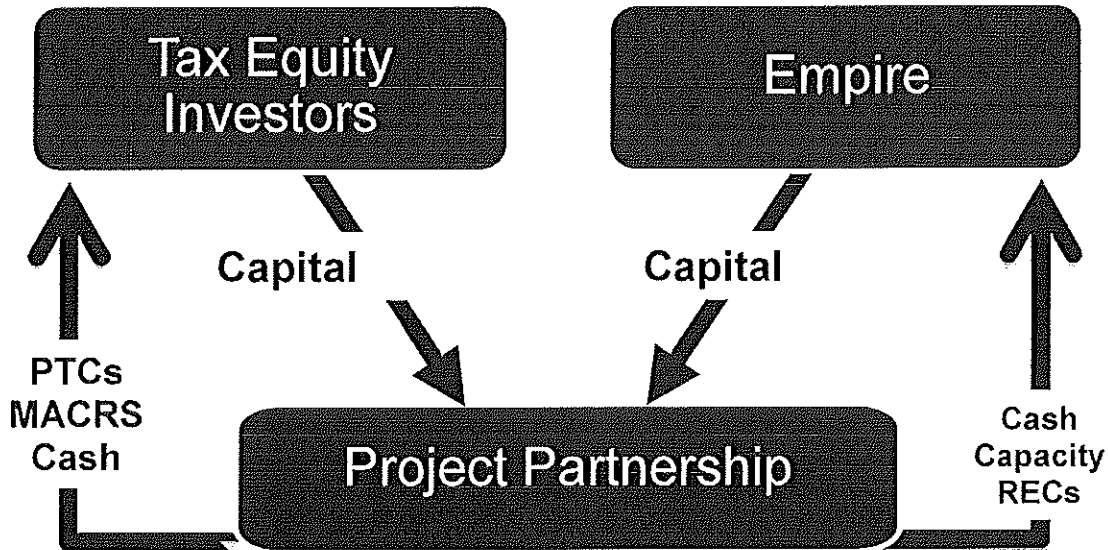
18 Q. **DOES EMPIRE PLAN TO USE TAX EQUITY FINANCING TO ACQUIRE THE**
19 **WIND PROJECT?**

20 A. Yes. Empire will be using financing from a tax equity partner to acquire the Wind Project.
21 This tax equity partnership will take the form described below and in my testimony from
22 Case No. ER-2018-0092.

23 Q. **WHAT IS A TAX EQUITY STRUCTURE?**

1 A. A tax equity structure is a method of financing renewable energy projects (including wind
2 projects and solar generation projects) to optimize the value in the near term of available
3 tax incentives. In a tax equity structure, large, tax-paying corporations (typically large
4 banks and insurance companies) become equity partners in a wind project (“Tax Equity
5 Partners”). In exchange for providing a significant portion of the capital investment of the
6 partnership, which is used to develop the wind generation facility, a Tax Equity Partner
7 receives the tax incentives (PTCs and MACRS discussed earlier) generated from the wind
8 project during the first 10 years of the project’s life. In addition, the Tax Equity Partner
9 receives cash distributions in the latter years of the project (typically in years 6 to 10) as
10 part of its return on and recovery of the capital it invested. On or before the end of the first
11 ten years when the Tax Equity Partner has received its return on and recovery of its
12 investment, the ownership structure “flips” and the majority of the ongoing financial
13 benefits of the wind project transfers over to the non-tax equity partner, with the Tax Equity
14 Partner retaining a nominal residual stake in the partnership (typically 5%). At this point,
15 the non-tax equity investor also has an option to purchase the tax equity investor's interest
16 in the partnership. The following visual depicts a commonly used tax equity structure:

17



9 Tax equity structures have been used to finance over 62 GW of wind and solar projects in
 10 the United States over the past decade.⁴ These structures are accepted by the IRS as long
 11 as they conform to certain well-established guidelines and jurisprudence, including
 12 Revenue Procedure 2007-65.

13 **Q. ARE THERE ANY LIMITATIONS ON THE AVAILABILITY OR VALUE OF**
 14 **PTCS?**

15 **A.** Yes. The United States federal government has legislated the phase-out of PTCs over the
 16 next several years. In order to qualify for PTCs at their current value of \$24 per MW-hour,
 17 a project must begin construction before January 1, 2017. The beginning of construction
 18 is typically achieved by incurring at least 5% of a wind project's costs before the applicable
 19 date.⁵ By working with wind equipment manufacturers and project developers who have

⁴ BNEF Tax Equity Update: 2017, Tax Equity Demand Forecast dataset.

⁵ IRS has provided guidance on the determination of the beginning of construction in Internal Revenue Notice 2016-31. The beginning of construction can be established either by beginning physical work of a significant nature (section 2) or by incurring at least 5% of a wind project's costs (the "Five Percent Safe Harbor" provided in Internal Revenue Notice 2013-29).

1 already met this test, Empire plans to qualify for PTCs at their maximum value of \$24 per
 2 MW-hour. Note, however, that there is a four-year limit on the timeframe allowed for
 3 construction.⁶

4 Any projects that begin construction after December 31, 2016 qualify for a reduced
 5 amount of PTCs as follows:

Start of Construction	PTC%	PTC Value
		\$/MW-hour
Before 1/1/2017	100%	24.00
During 2017	80%	19.20
During 2018	60%	14.40
During 2019	40%	9.60
After 12/31 /2019	0%	0.00

6
 7 Given that the percentage of the PTC that is available phases out completely for projects
 8 that start construction after December 31, 2019, a limited window of time exists in which
 9 to take advantage of this significant tax benefit.

10 **Q. PLEASE EXPLAIN THE ACCELERATED DEPRECIATION THAT IS**
 11 **AVAILABLE TO WIND PROJECT.**

12 A. In addition to qualifying for the tax benefits associated with the PTCs, wind projects also
 13 qualify for accelerated tax depreciation using the five-year Modified Accelerated Cost
 14 Recovery System (“MACRS”) schedule.⁷ Depreciation is a deductible expense that

⁶ In order to qualify for PTCs, a wind project must have completed construction and been placed in service within four years of the date that construction commenced. Internal Revenue Notice 2016-31, section 3

⁷ See 26 U.S.C. § 168.

1 reduces taxable income, decreasing income tax payable. Depreciating the assets of a wind
 2 project over a five-year timeframe (compared to the approximately 30 year life of the
 3 project) creates income tax losses for the wind project in its first five years. These losses
 4 can also be used by its owner(s) to offset other sources of taxable income, realizing
 5 significant income tax savings.

6 The combined value of PTCs and accelerated depreciation to a wind project is
 7 reflected in the following table:

Tax Credits \$ for \$ reduction of tax liability	Accelerated Depreciation Shelter for otherwise currently taxable income	When Combined Est. NPV of tax incentives (as a % of project costs)
<ul style="list-style-type: none"> ▶ Wind generates production tax credits* <ul style="list-style-type: none"> • <u>Wind</u>: \$24 per MWh generated for 10 years 	<ul style="list-style-type: none"> ▶ All renewable energy generating equipment is depreciable ▶ Using 5-year MACRs (double declining balance) 	<ul style="list-style-type: none"> ▶ Wind = *** _____ _____*** • <u>E.g.</u> for a \$100 M project, the incentives are worth ~*** _____ _____***

14 When combined, the net present value of the federal tax benefits can be a significant portion
 15 of the total capital cost of a wind project. For Neosho Ridge, Empire anticipates tax equity
 16 funding of *** _____ .***

17 **Q. WHY IS EMPIRE PROPOSING A TAX EQUITY STRUCTURE INSTEAD OF A**
 18 **MORE TRADITIONAL STRUCTURE IN WHICH EMPIRE IS THE SOLE**
 19 **OWNER OF THE WIND PROJECT FROM THE OUTSET AND FINANCES THE**
 20 **PROJECT'S COSTS WITH CONVENTIONAL UTILITY DEBT AND EQUITY**
 21 **FINANCING?**

22 A. Empire is proposing a tax equity structure in order to maximize customer savings by
 23 utilizing the value of the available tax incentives. Such a structure enables Empire to

1 reduce the capital investment it needs to construct the Wind Projects by an amount that
2 reflects the ability of a Tax Equity Partner to utilize the tax savings provided by both PTCs
3 and MACRS in the near term. This reduced capital investment allows customers to realize
4 the benefits of the full 10 years of PTCs and MACRS from day 1 through a reduced rate
5 base. Given the time value of money, using a tax equity structure (as compared with
6 direct ownership of the Wind Project by Empire without a partner) would result in between
7 \$4 and \$7 per MW hour more savings for Empire customers.

8 **Q. HAS EMPIRE ENTERED INTO ANY AGREEMENTS WITH TAX EQUITY**
9 **PARTNERS ASSOCIATED WITH FINANCING OF THE WIND PROJECT?**

10 A. Yes. On October 10, 2018, Empire and Wells Fargo Central Pacific Holdings, Inc. (“Wells
11 Fargo”) entered into a letter of interest regarding Wells Fargo role as a tax equity provider
12 for the Kings Point, North Fork Ridge and Neosho Ridge Wind Projects. A copy of the
13 letter of interest is attached as **TM Schedule-5 (Highly Confidential)**. Wells Fargo and
14 Empire will proceed to negotiate a binding term sheet for Wells Fargo’s tax equity
15 investment, and ultimately execute certain transaction documents, including an Equity
16 Capital Contribution Agreement (“ECCA”), and an LLC Agreement governing it and
17 Empire’s membership interests in the Holdcos for each of the Wind Projects. Wells Fargo
18 provided a form ECCA and LLC Agreement with the letter of interest which are attached
19 as **Schedule TM-6A (Highly Confidential)** and **Schedule TM-6B (Highly Confidential)**.
20 Summaries of the material terms of the ECCA and LLC Agreement are attached as
21 **Schedule TM-7 (Highly Confidential)**.

22 **Q. WHY DID EMPIRE SELECT WELLS FARGO AS ITS TAX EQUITY PARTNER?**

1 A. Wells Fargo has significant experience providing tax equity to renewable energy projects
2 in the United States, financing approximately 11,000 MW of renewable generation,
3 representing approximately \$6 billion of investment, since 2007. Attached to my testimony
4 as Schedule TM-8 is a summary of Wells Fargo's portfolio of renewable generation
5 investments. Based on this experience, and Empire's evaluation of indicative pricing from
6 three other tax equity providers, Empire determined that Wells Fargo offered the most
7 economic value to the project. For example, the Flip Yield (which is a common metric of
8 the relative cost of Tax Equity Partnership) offered by Wells Fargo was *** _____ ***.
9 Other potential tax equity providers offered Flip Yields ranging from *** _____
10 _____ ***. Similarly, other tax equity providers sought commitment fees in the range of
11 *** _____ ***, while Wells Fargo required no commitment fee. Thus, on multiple
12 metrics of comparison, Wells Fargo offered better terms, which translate into greater cost
13 savings for our customers.

14 **Q. DID EMPIRE EVALUATE WELLS FARGO'S CREDITWORTHINESS TO BE A**
15 **TAX EQUITY PARTNER?**

16 A. Yes. Wells Fargo Bank, NA has a long-term issuer credit rating from DBRS of AA; a
17 rating of AA- from Fitch; a rating of Aa2 from Moody; and a rating of A+ from Standard
18 and Poor's. These credit ratings demonstrate that Wells Fargo has an investment grade
19 credit rating, meaning that Wells Fargo is judged to have low credit risk and a high
20 likelihood of being able to meet its ongoing obligations. This is highly desirable in a tax
21 equity provider, as it means that the tax equity provider is highly likely to be able to meet
22 its funding obligations under the tax equity partnership.

23 **Q. PLEASE EXPLAIN THE KEY TERMS OF THE ECCA.**

1 A. The purpose of the ECCA is to memorialize the terms of Wells Fargo's investment in the
2 Wind Projects. The ECCA will specify the percentage of capital to be invested by Wells
3 Fargo, the rate of return it will earn on that investment, and details surrounding the period
4 of time of that investment. Schedule TM- 7 describes the material terms of the ECCA.

5 **Q. WILL THERE ALSO BE AGREEMENTS WITH THE PROJECT COMPANY?**

6 A. Yes. There will be a Hedge and REC Agreement between Empire and Neosho Ridge,
7 which will be effectively a contract for differences with respect to the price of electric
8 energy generated and sold by the Wind Project Company into the Southwest Power Pool
9 Integrated Marketplace, and an agreement by Empire to purchase from the Wind Project
10 Company all renewable energy credits created by the Wind Project.

11 It is expected that the Hedge and REC Agreement will be for a term of ten years.
12 During the first five years of the agreement, any cash that is generated by the Wind Project
13 Company is paid entirely to Empire. In years six through ten, the IRS requires that the tax
14 equity partner be paid a share of the cash from the Wind Project Company, and that
15 percentage will be specified in the ECCA. Empire would receive any remaining cash. A
16 summary of the transactions is set forth in the table below:

1
2

Illustration of Transactions

Phase	Timing	Wind Project	Empire	Tax Equity Partners
0	Start		<ul style="list-style-type: none"> Contributes ***~ _____ *** of capital 	<ul style="list-style-type: none"> Contribute ~*** _____ of capital
1	Years 1 – 5	<ul style="list-style-type: none"> Sells energy to SPP Settles price hedge with Empire Pays O&M, A&G Distributes net cash 	<ul style="list-style-type: none"> Buys energy from SPP Settles price hedge with Project Receives 100% of net cash Receives 1% of PTCs and tax losses 	<ul style="list-style-type: none"> Receive 0% of net cash Receive 99% of PTCs and tax losses
2	Years 6 – 10	<ul style="list-style-type: none"> Sells energy to SPP Pays O&M, A&G Distributes net cash 	<ul style="list-style-type: none"> Buys energy from SPP Receives 60% - 75% of cash Receives 1% of PTCs and tax losses/income 	<ul style="list-style-type: none"> Receive 25% - 40% of net cash Receive 99% of PTCs and tax losses/income
3	After	<ul style="list-style-type: none"> Sells energy to SPP Pays O&M, A&G Distributes net cash 	<ul style="list-style-type: none"> Buys energy from SPP Empire exercises option to purchase Tax Equity Partners' 5% stake at FMV 	<ul style="list-style-type: none"> 5% residual stake sold to Empire

3
4

Q. WHY IS A HEDGE AND REC AGREEMENT NECESSARY?

5 A. In order to finance renewable projects, banks insist on these agreements to be in place to
6 provide a certain price for the commodity. The Hedge and REC Agreement provide that
7 price certainty. These agreements should have no rate making implications and should not
8 impact customers in any way.

9

Q. PLEASE EXPLAIN THE KEY TERMS OF THE LLC AGREEMENT.

10 A. The LLC Agreement will govern the relationship between Empire and Wells Fargo as
11 members of the Holdcos which each own a Wind Project Company. The material terms of
12 the LLC Agreement are described in Schedule TM-7.

1 **Q. DOES EMPIRE ANTICIPATE THAT IT WILL BE EXECUTING THE ECCA,**
2 **LLC AGREEMENT IN SUBSTANTIALLY THE SAME FORM AS IN SCHEDULE**
3 **TM-6?**

4 A. Yes. Empire has been engaged in detailed discussions with Wells Fargo to define the terms
5 of the ECCA, LLC Agreement and has made sufficient progress to anticipate that the final
6 agreements will be in substantially similar form.

7 **Q. HOW WILL EMPIRE FINANCE ITS SHARE OF THE COSTS TO ACQUIRE**
8 **THE WIND PROJECT?**

9 A. Empire will use equity provided from its general corporate balance sheet. This will be
10 financed by Empire's indirect parent, Liberty Utilities Co. Empire's franchise, works or
11 system will not be encumbered in any way as a result of this equity provided by Liberty
12 Utilities Co.

13

14 **VI. LEVELIZED COST OF ENERGY OF THE WIND PROJECT**

15 **Q. WHAT IS EMPIRE'S ESTIMATE OF THE LEVELIZED COST OF ENERGY FOR**
16 **THE NEOSHO RIDGE WIND PROJECT?**

17 A. Empire estimates that the Neosho Ridge project will cost *** _____ *** per MWh on a
18 Levelized Cost of Energy ("LCOE") basis. The LCOE is calculated by adding the net
19 present value of the total capital and operating and maintenance costs over the life of the
20 project and dividing this sum by the megawatts of energy generated.

21 **Q. HOW DOES THE LCOE OF THE WIND PROJECT RELATE TO THE**
22 **CUSTOMER SAVINGS ESTIMATED IN THE CUSTOMER SAVINGS PLAN**
23 **DOCKET?**

1 A. In Case No. ER-20018-0092, Empire witness James McMahon estimated the customer
 2 savings associated with acquiring 600 MW of wind generation based on the bid provided
 3 in the RFP *** _____.
 4 _____ *** for the 600 MW portfolio and
 5 provides \$169 million in customer savings over 20 years. That analysis included an LCOE
 6 of *** _____
 7 _____
 8 _____
 9 _____ : ***
 10 ***

11
 12 ***

13 **Q. DO YOU BELIEVE THAT ACQUISITION OF THE NEOSHO RIDGE PROJECT**
 14 **FROM APEX/STEELHEAD IS IN THE PUBLIC INTEREST?**

15 A. Yes. Empire conducted a competitive solicitation to identify both projects and wind
 16 developers for its proposed acquisition of 800 MW of wind. The response to the RFP was
 17 robust both in terms of the number of projects bid in but also the number of experienced

1 developers. Empire then undertook a rigorous analysis of those bids and conducted
 2 extensive due diligence and negotiations with a small group of finalists which resulted in
 3 its selection of Apex/Steelhead for the Neosho Ridge site. The economics of the project is
 4 consistent with Empire’s modeling in the Customer Savings Plan docket at this
 5 Commission, and as a result, these projects are poised to deliver significant savings to
 6 Empire’s customers for many years to come. For these reasons, and those identified in
 7 Empire witness Blake Mertens’ Direct Testimony, it is in the public interest for Empire to
 8 acquire these projects.

9
10 **VII. TIMING OF THE CCNS**

11 **Q. IS THERE A REASON FOR THE COMMISSION TO PROMPTLY CONSIDER**
12 **THIS APPLICATION?**

13 A. Yes. Empire is seeking prompt consideration of its CCN application in order to minimize
 14 any costs to Empire under the PSA. Specifically, the date on which Empire receives a
 15 ruling on the CCN could have a material impact on any potential termination fees due to
 16 Apex/Steelhead. Under Section 10.1 of the PSA, if Empire were to terminate the PSA
 17 *** _____ ***, Empire would be obligated to
 18 pay Tenaska/Steelhead certain costs. The closer any potential termination date is *** _____

19 _____
 20 _____.

21 ***** Thus,**
 22 Empire seeks a prompt determination on its CCN application in order to mitigate any
 termination fees it might incur should its request for a CCN be denied. Further, a prompt

1 ruling on the CCN will also maximize Apex/Steelhead's ability to meet the December 31,
2 2020 in-service date in order to receive 100% PTC eligibility for the Wind Project.

3 **VIII. CONCLUSION**

4 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

5 A. Yes.

AFFIDAVIT OF TODD MOONEY

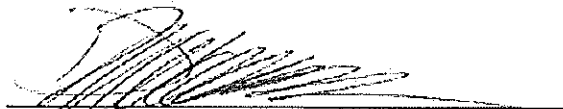
PROVINCE OF ONTARIO)
) ss
TOWN OF OAKVILLE)

On the 16th day of November, 2018, before me appeared Todd Mooney, to me personally known, who, being by me first duly sworn, states that he is Vice President of Finance and Administration at Liberty Utilities (Canada) Corp, and acknowledged that he has read the above and foregoing document and believes that the statements therein are true and correct to the best of his information, knowledge and belief.



Todd Mooney

Subscribed and sworn to before me this 16th day of November, 2018



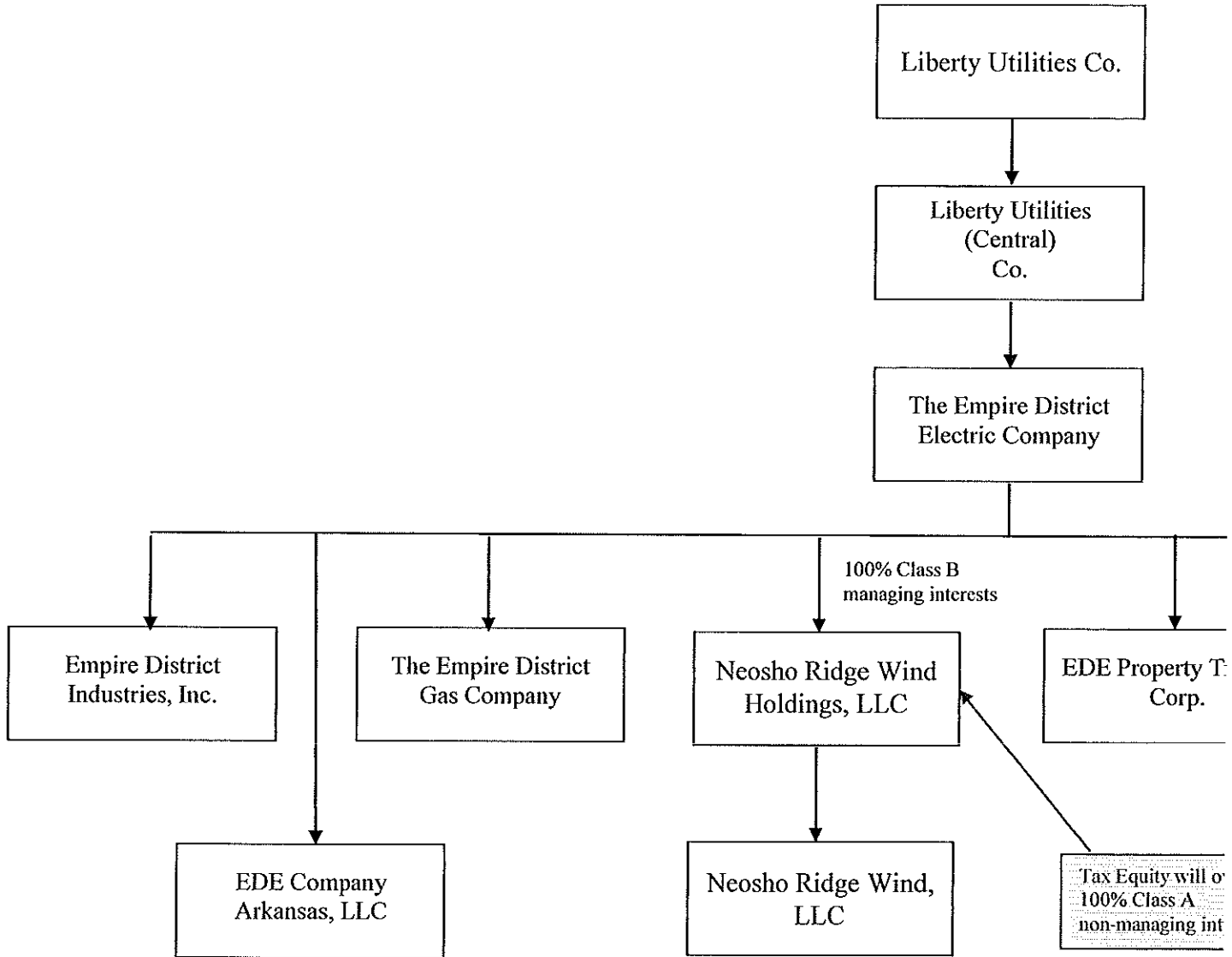
Notary Public

My commission expires: Does not expire

SCHEDULE TM-1

HAS BEEN MARKED
HIGHLY CONFIDENTIAL
IN ITS
ENTIRETY

Empire Organization Structure With Wind Projects



SCHEDULE TM-3

HAS BEEN MARKED
HIGHLY CONFIDENTIAL
IN ITS
ENTIRETY

SCHEDULE TM-4

HAS BEEN MARKED
HIGHLY CONFIDENTIAL
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SCHEDULE TM-5

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SCHEDULE TM-6A

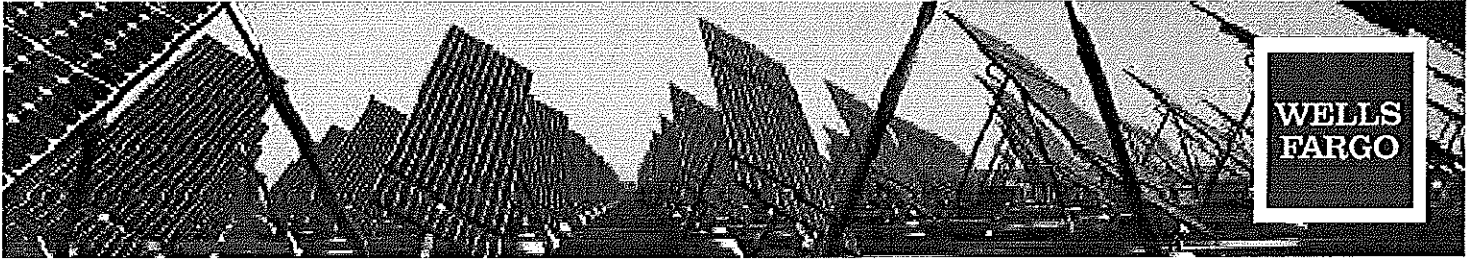
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SCHEDULE TM-6B

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SCHEDULE TM-7

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ity Overview

o Renewable Energy & Environmental Finance

t Distribute

Together we'll go far



Privileged and Confidential

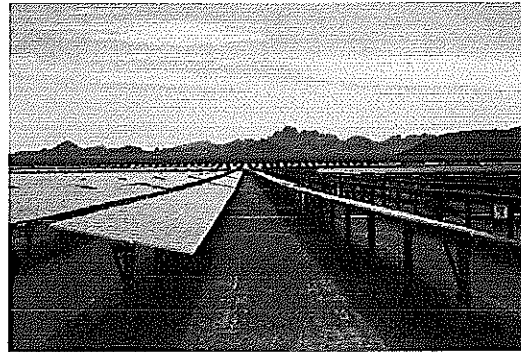
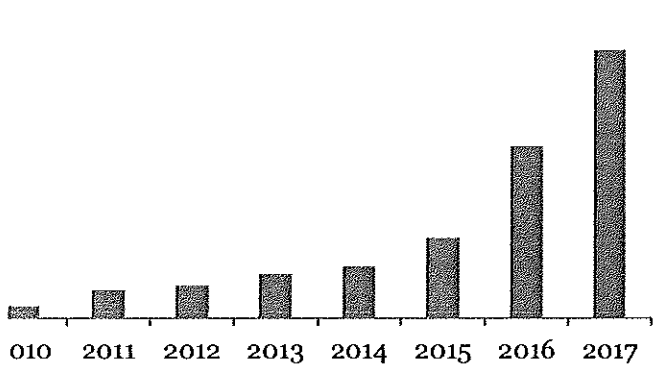
iew

Provided tax equity to solar and wind developers since 2006

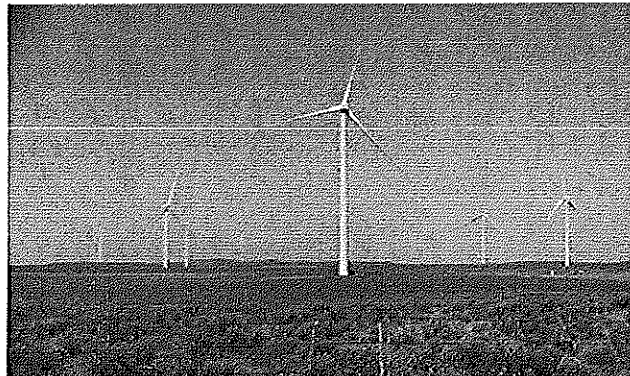
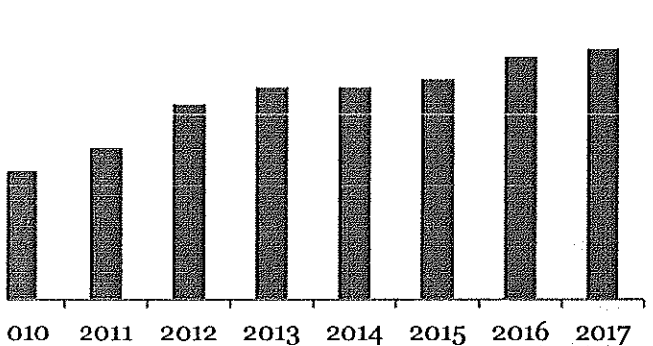
Environmental Finance group was established in 2006 by Barry Neal and Philip Hopkins to **provide tax equity to growing renewable energy industry**

Now owned by **28 professionals with decades of experience in the renewable energy industry**

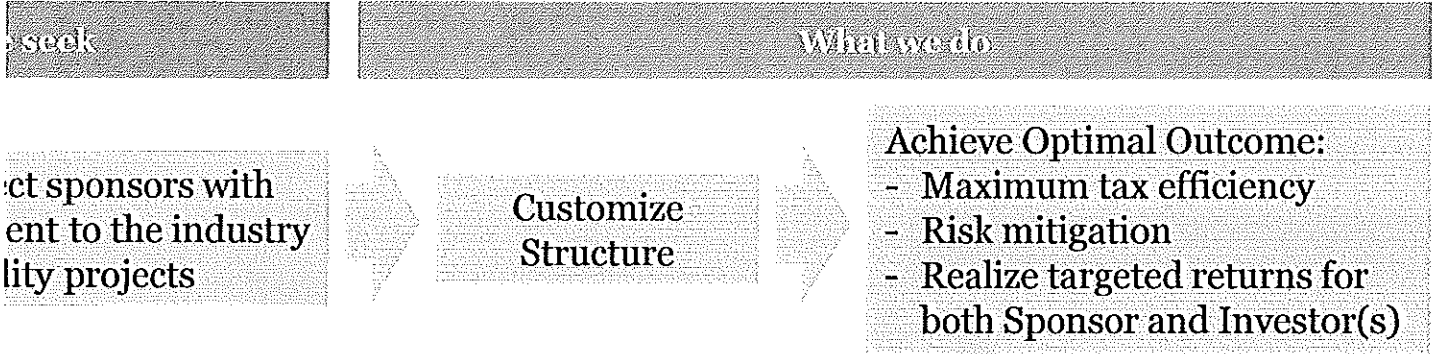
Projects Financed by Wells Fargo (MW_{DC})



Projects Financed by Wells Fargo (MW_{AC})



with experienced industry leaders on a variety of structures



Sponsors have the
intent to renewables
e; long-term interest
experienced project

and Asset
is, either dedicated
quality

and trusted

ie; balanced industry
e
r sale contracts with
ntities
l strength

- **Solutions-oriented:** we work with partners to develop creative solutions to accommodate an evolving market and customer needs
- **Relationship-focused:** each aspect of a deal is developed with a long-term view and the intent to work together on multiple projects
- **Flexible:** we use our deep experience to employ a variety of structures, including:
 - Partnership Flip
 - Sale Leaseback
 - Co-Investment
 - Restructuring & Sale of Existing Assets



ted approach enables multiple product offerings to renewable energy clients

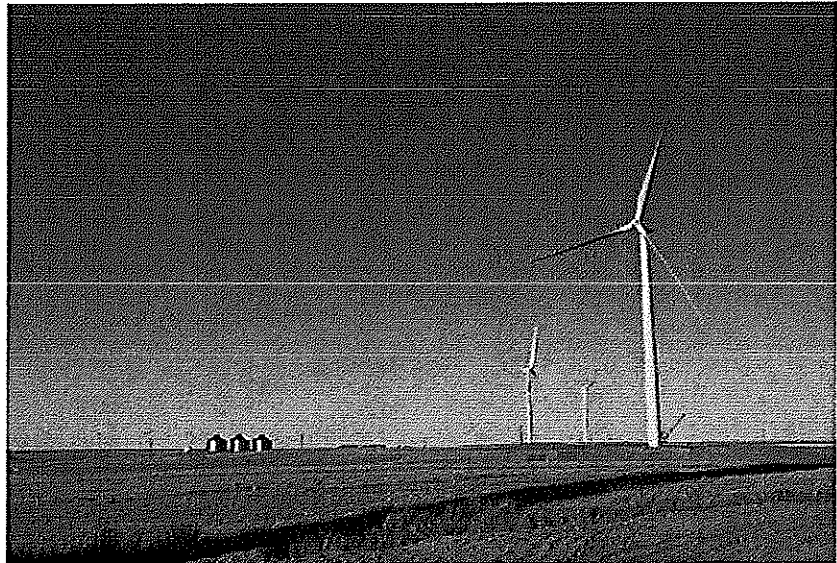
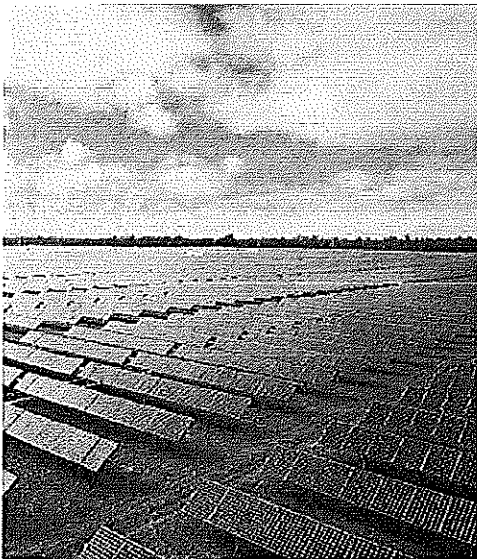
equity, WF provides many other products and services to renewable energy, clean technology, and power sector clients

Services

- Construction Loans
- Loans
- Management
- Capital
- Energy
- Investment Debt
- Revolving Credit Lines

Groups

- Cleantech Corporate Banking
- Independent Power and Infrastructure
- Power & Utilities Group
- Asset-Backed Finance
- Equipment Leasing
- Investment Banking



1 ~\$6bn of tax equity into more than 10GW of wind and solar projects across 31 states

