## STATE OF NEW HAMPSHIRE SITE EVALUATION COMMITTEE

## **DOCKET NO. 2019-02**

## APPLICATION OF CHINOOK SOLAR, LLC FOR A CERTIFICATE OF SITE AND FACILITY FOR THE CHINOOK SOLAR PROJECT IN FITZWILLIAM, NEW HAMPSHIRE

## PREFILED DIRECT TESTIMONY OF

#### THOMAS E. KAVET AND NICOLAS O. ROCKLER

## ON BEHALF OF COUNSEL FOR THE PUBLIC

July 8, 2020

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## <u>Qualifications and Purpose of Testimony</u> <u>Thomas E. Kavet</u>

## 3 Q. Please state your name, position and your employer.

4 A. My name is Thomas E. Kavet. I am an economic and public policy consultant and 5 President of Kavet, Rockler & Associates, LLC (KRA). KRA specializes in regional economics, regional econometric modeling, construction market economic analysis and 6 7 forecasting, industry and regional economic impact analysis, demographic forecasting and state and local economic modeling and forecasting. Since 1996, KRA has been the State 8 9 Economist and Principal Economic Advisor to the Vermont State Legislature, providing 10 economic and tax revenue analysis and forecasts, tax and other public policy research and 11 analysis. KRA has prepared the last 51 regular and interim official Vermont State 12 economic and revenue forecasts, as well as numerous forecasts and revenue impact studies.

## 13 Q. Please summarize your education background and work experience.

14 A. I have a BA in Economics from Columbia University. I have 40 years of experience in economic research and forecasting. I was a vice president at McGraw-Hill, Inc. - Data 15 16 Resources, Inc. (DRI) for 11 years, where I led an economic research unit of more than 17 150 employees specializing in regional economic and market analysis, construction, real 18 estate and building products manufacturing. I have been with KRA for the past 30 years. 19 I have been a member of the Federal Reserve Bank of Boston New England Public Policy 20 Center Advisory Board for the past 12 years. I have authored and participated in many 21 studies and analyses, both public and private, and delivered private briefings, public 22 testimony and addresses concerning economic analysis and forecasting. I have worked on 23 a number of energy-related projects, including the New England Clean Power Link 24 Transmission Line, the Northern Pass Transmission Line, the closure of the Vermont 25 Yankee nuclear power plant, various wind energy projects, electricity planning projects, and electricity load demand forecasts. See my resume attached as Exhibit A. 26

# Q. Have you testified previously before the New Hampshire Site Evaluation Committee or other regulatory bodies?

A. I testified before the New Hampshire Site Evaluation Committee in the Northern Pass
 Transmission Line case, Docket 2015-6. I have testified previously before the Vermont

Public Service Board, Dockets 7156, 7250, 8400 and 7628, several cases before the Vermont Environmental Board (now the Natural Resources Board), and regularly testify before various committees of the Vermont Legislature and related legislative entities.

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#### Nicolas O. Rockler

## 5 Q. Please state your name, position and your employer.

6 A. My name is Nicolas O. Rockler. I am an economic consultant and Chief Executive

7 Officer at Kavet, Rockler & Associates, LLC (KRA). KRA specializes in regional 8 economics, regional econometric modeling, construction market economic analysis and 9 forecasting, industry and regional economic impact analysis, demographic forecasting and 10 state and local economic modeling and forecasting. Since 1996, KRA has been the state 11 economist and principal economic advisor to the Vermont State Legislature, providing 12 economic and tax revenue analysis and forecasts, tax and other public policy research and 13 analysis. KRA has prepared the last 51 regular and interim official Vermont State economic 14 and revenue forecasts, as well as numerous forecasts and revenue impact studies.

## 15 Q. Please summarize your education background and work experience.

16 A. I have a BA and an MA degree in Regional Science from the University of Pennsylvania, 17 and a Ph.D. in Urban Studies and Planning from the Massachusetts Institute of Technology. 18 I have 40 years of experience performing economic impact analysis and forecasting. I was 19 a senior economist and Director of Economic Products at McGraw- Hill, Inc. - Data 20 Resources, Inc. (DRI) for eight years, and I have been with KRA for the past 30 years. I 21 received a US Department of Housing and Urban Development Dissertation Fellowship, 22 and I was a Post-Doctoral Research Fellow at MIT for four years, working on various 23 economic research projects. I also have been a lecturer at MIT, teaching a course entitled 24 "Analyzing and Accounting for Regional Economic Change." I have worked on several 25 large energy projects, including the New England Power Link Transmission Project in 26 Vermont, the closure of the Vermont Yankee nuclear power plant, the Northern Pass 27 Transmission line, and many smaller wind energy projects. See my resume attached as 28 Exhibit B.

# Q. Have you testified previously before the New Hampshire Site Evaluation Committee or other regulatory bodies?

1	A.	I have testified before the New Hampshire Site Evaluation Committee on behalf of the
2		Counsel for Public in connection with the Northern Pass Transmission Line, Docket 2015-
3		6. I have testified previously before the Public Service Board of the State of Vermont and
4		various committees of the Vermont legislature on non-utility matters.
5		Panel Testimony
6	Q.	What is the purpose of your testimony?
7	A.	Our testimony reviews the regional economic impacts associated with the proposed
8		Chinook Solar Project (the "Project") (SEC Docket No. 2019-02) proposed by Chinook
9		Solar, LLC (collectively, the "Applicant").
10	Q.	Is the work you performed contained in reports?
11	A.	Yes. Reports detailing the work we performed and our conclusions are attached hereto as
12		Exhibit C.
13	Q.	Please describe Kavet Rockler's analysis and conclusion.
14	A.	Based on review of the Applicant's revised economic impact analysis prepared by Seacoast
15		Economics in May 2020, technical discussions with the Applicant and Seacoast
16		Economics, review of confidential information provided by the Applicant specific to this
17		Project and other similar projects, we believe that the Applicant's analysis provides a
18		reasonable estimate of the net economic impacts of the proposed project. It is our opinion
19		that this Project will have meaningful economic benefits to the State and region, especially
20		during the construction phase, and small, but positive, ongoing net economic benefits, in
21		addition to the positive economic externalities mentioned in the attached Economic Review
22		Statement attached as Exhibit C.
23	Q.	Does this conclude your testimony?
24	A.	Yes.
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## **Exhibits**

- 2 A. Resume of Thomas E. Kavet
- 3 B. Resume of Nicolas O. Rockler
- 4 C. Economic Review Statement for the Proposed Chinook Solar Project, dated June 2020,
- 5 submitted by Kavet, Rockler & Associates, LLC



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Exhibit A

## THOMAS E. KAVET RESUME AND BACKGROUND INFORMATION

- 1990-present, Vermont, President, Kavet, Rockler & Associates (KRA), an Economic and Public Policy Consultancy, offering professional services in the areas of: Economics, Public Policy Analysis, Demographics, Regional Economic Modeling and Information Systems. KRA specializes in regional economics, public policy analysis, economic forecasting, energy economics, healthcare economics, marketing and strategic planning. We primarily serve clients engaged in real estate, construction, state and federal government, energy, financial services, healthcare, building products manufacturing and environmental information. Since 1996, we have been the State Economist and Principal Economic Advisor to the Vermont State Legislature, providing economic and tax revenue analysis and forecasts, tax and other public policy research and analysis, and expert advice and testimony on a wide range of economic and public policy issues.
- 1978-1989, New York, NY and Lexington, MA, McGraw-Hill, Inc., Vice President, Data Resources, Inc. (DRI)/ F.W. Dodge. Initiated, developed and led economic research, forecasting, and consulting unit specializing in regional economic and market analysis, construction, real estate and building materials manufacturing at DRI/McGraw-Hill (now IHS Global Insight, Inc.), the nation's largest economic forecasting, research and consulting firm. Rose from Senior Economist to Director to General Manager to Vice President of group, with overall responsibility for product operations and development for \$35 million (revenues) unit, including econometric forecasting and economic analyses, sales and marketing, strategic planning, software development, and recruitment, management and administration of more than 150 employees. Designed, managed and participated in numerous economic, marketing and analytic studies for private industry and state and federal government adencies. Authored many articles and regular publications in areas of expertise and delivered public addresses of same.
- 1976-1977, New York, NY, During studies at Columbia University was employed as an Economist at Economic Information Systems, Inc.. Assisted with the design and marketing of detailed sub-county input-output economic databases and development of one of the first on-line economic information services, used primarily for anti-trust work and market demand analysis.
- 1974-1975, Washington, D.C. and Keene, California, Legislative Advocate and Director, Agricultural Labor Research Committee (in conjunction with Rutgers University). Created and directed Committee and secured non-profit funding in support of economic research associated with agricultural labor and related legislative advocacy.
- Member, American Economic Association (1981), National Association of Business Economists (1984), National Tax Association (1996)

## EDUCATIONAL BACKGROUND

- 1986, New York, NY, McGraw-Hill Management School (completed internal graduate courses in Business Administration and Financial Management for McGraw-Hill, Inc.)
- 1973-1977, New York, NY, Columbia University, Columbia College, B.A. in Economics, 3.82 GPA, 2 semesters graduate studies in economics, Dean's List 5, semesters
- 1971-1973, Europe, U.S., Mexico, constant travel, Up With People High School, mobile educational program, travel and residence in 16 countries, high school diploma 1972

## FOREIGN LANGUAGES

Fair Chinese (Mandarin), Spanish

## REFERENCES

- Stephen Klein, Chief Fiscal Officer, Joint Fiscal Office, State of Vermont, 1 Baldwin Street, Drawer 33, Montpelier, Vermont 05633; W. 802-828-5769; e-mail: sklein@leg.state.vt.us
- Jeb Spaulding, Chancellor, Vermont State Colleges, former Secretary of the Vermont Agency of Administration, State Treasurer and State Senator, P.O. Box 7, Montpelier, Vermont 05601; W. 802-224-3000
- Paul Costello, Executive Director, Vermont Council on Rural Development, 89 Main Street, P.O. Box 1384, Montpelier, Vermont 05601; W. 802-828-6024; e-mail: vcrd@sover.net
- Additional references available upon request.

## PERSONAL

- Born (11-18-54) and raised in Albuquerque, New Mexico
- Married, two children, daughter, age 33, son, age 26
- Numerous non-profit board, commission and other pro bono work, leadership and administrative participation in a variety of local government, cultural, artistic, healthcare, public policy and educational organizations, and state and regional commissions and boards, including the Vermont Rural Energy Council, Snelling Center Leadership Institute panels, Inner Fire residential healing center, the Orchard Valley School and, since 2006, have been a member of the Policy Advisory Board of the Federal Reserve Bank of Boston, New England Public Policy Center.



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**Exhibit B** 

## NICOLAS O. ROCKLER RESUME AND BACKGROUND INFORMATION

- 1988-present, Belmont, MA and Cabot, VT, Economic Consultant, Chief Executive Officer, Kavet, Rockler & Associates, LLC, specializing in regional economics, regional econometric modeling, input/output economics, construction market economic analysis and forecasting, industry and regional economic impact analysis, demographic forecasting, state and local economic modeling and forecasting, and state and local public finance.
- 2008, Cambridge, MA, Lecturer, Massachusetts Institute of Technology, Department of Urban Studies and Planning. Course title: Analyzing and Accounting for Regional Economic Change. The course surveys theories of regional growth, factor mobility, clustering, industrial restructuring, learning regions, and global supply chains from a political-economy perspective. It examines and critiques accounting frameworks, including accounting for the underground economy, multipliers, linkages, and supply chains used to assess infrastructure investments, employment and environmental impacts. It covers price indices, industrial location and employment measures, shiftshare analyses, and discusses US and foreign applications.
- 1999-2003, Cambridge, MA, Post-Doctoral Research Fellow, Massachusetts Institute of Technology, Department of Urban Studies and Planning. Participation in various economic research projects, including: Design and management of empirical economic analyses of advanced technology investment by the federal National Institute for Standards and Technology on behalf of U.S. automobile manufacturers using case studies and macroeconomic models to estimate value of technological change; Estimation of regional and state-wide economic impacts of New York State housing trust fund construction program using regional econometric and I/O model.
- 1981-1988, Lexington, MA, Director, Economic Products, Senior Economist, McGraw-Hill, Inc. - Data Resources, Inc.(DRI), F.W. Dodge. Responsible for analyses and forecasts of economic activity in U.S., regions and states, including development of state level macro-economic models and forecasts. Managed team which developed the Data Resources, Inc. (DRI) metropolitan area forecast service. Responsible for product development, project management and contract research services related to U.S. construction and real estate markets. Managed several economists and database specialists in maintaining extensive economic databases and preparation of monthly analysis of economic and market conditions.
- 1978-1981, Cambridge, MA, Analyst, Abt Associates, Inc. Various contract research projects, including: local/regional economic impact estimation and evaluation of federal public works programs, economic development research, and survey questionnaire design. Produced reports for the U.S. EDA, DOL and DHUD concerning the economic impacts of federal construction activity and employment development programs.

## EDUCATIONAL BACKGROUND

- Ph. D, Massachusetts Institute of Technology, Department of Urban Studies and Planning, Cambridge, MA. Dissertation Title: *Regional Economic Performance and Public Infrastructure Investment*. Teaching Assistant: Regional Economic Analysis and Modeling and Quantitative Research Methods Courses.
- M.A., University of Pennsylvania, Regional Science, Philadelphia, PA
- B.A., University of Pennsylvania, Regional Science, Philadelphia, PA

## FOREIGN LANGUAGES

Fluent Dutch, Fair German and French

## REFERENCES

- Dr. Karen R. Polenske, Professor, Regional Economics, Massachusetts Institute of Technology, Cambridge, MA 02139, W. (617) 253-6881, e-mail: krp@mit.edu
- Dr. Stephanie Shipp, Director, Economic Assessment Office, National Institute of Standards and Technology, 100 Bureau Drive, M.S. 4710, Gaithersburg, MD 20899, W. (301) 975-8978
- Dr. Robert C. Douglas, Assistant Dean of Computing and Professor of Regional Science (retired), University of Pennsylvania, Philadelphia, PA, email: rcdoug@dca.net
- Additional references available upon request.

## AWARDS

- U.S. Dept. of Housing and Urban Development Dissertation Fellowship, 1994
- Volvo Research and Education Foundations, Research Planning Grant (Team Member), 2011

## PERSONAL

- Born 04-16-54
- Married, Two children, son, age 27, son, age 25

## Economic Review Statement for the Proposed Chinook Solar Project

Prepared for the State of New Hampshire, Counsel for the Public, June 2020, in connection with SEC Docket No. 2019-02 by Kavet, Rockler & Associates, LLC

## **Economic Review Summary Statement**

The purpose of this review is to evaluate the regional economic impact analysis prepared by Seacoast Economics in support of the proposed Chinook Solar Project in Fitzwilliam, New Hampshire. This analysis was submitted as Appendix 18 to the New Hampshire Site Evaluation Committee application by Chinook Solar, LLC, Docket No. 2019-2, in October of 2019 and revised in May 2020, following technical session discussions between Seacoast Economics and Kavet, Rockler & Associates on behalf of Counsel for the Public. It is the revised May 2020 report that is the subject of this review.

Based on review of this report and related technical session discussions, we believe that the Applicant's analysis provides a reasonable estimate of the net economic impacts of the proposed project and therefore, we do not consider it necessary to perform an independent economic impact analysis on behalf of the Counsel for the Public. For a project of this size and scope, the regional economic model used in the analysis (IMPLAN) is adequate, and the use of more detailed and accurate project inputs in the revised report represent "best-practice" economic modelling standards. In particular, the use of confidential Applicant information associated with this project and other similar projects they have recently completed, represents the best possible estimates for economic model specification. It should be noted that although this more detailed confidential information is not published in the subject report, we have reviewed all such information and found it to be credible.

With regard to potential negative economic externalities, such as property value losses and tourism visitation and spending risks, we concur with the conclusions reached in the report, but not for the reasons cited. The absence of conclusive unbiased academic and other studies in both these areas makes it impossible to estimate these effects with certainty at this time, however, attitudinal, anecdotal and professional survey studies<sup>1</sup> point to potential concerns that connect scenic vista stigmas with potential losses.

Unlike the subject report, we do not dismiss these concerns based on extant literature for wind generation facilities, which we do not regard as comparable to solar facilities. We do, however, critically rely on the viewshed analysis provided by the Applicant, which indicates very minimal viewshed exposure and thus, minimal potential negative impact.

**KAVET, ROCKLER & ASSOCIATES** 

<sup>&</sup>lt;sup>1</sup> Such as Al-Hamoodah, et. al., 2018 and Carlisle, et.al, 2015 and 2016, all of which are cited in the report

The fact that the Chinook solar facility infrastructure will be relatively low to the ground and is, or can be, effectively screened by vegetation, renders the conduit for negative visual impact absent or minimal.

Similarly, we do not regard the reliance on property valuation and other analysis in the report associated with a 2MW solar facility in Moultonborough, NH to be significant, not because of shortcomings in study design, data quality and sample size (all of which are present), but because the facility is hardly comparable, being only one-fifteenth the size of the proposed Chinook facility. Even if it were of comparable size, however, the fact that the Moultonborough facility is completely screened from public view by surrounding vegetation<sup>2</sup> would eliminate any expected potential negative effects. Had the Applicant wished to analyze a more comparable facility, they would only have needed to look at their own 20MW facility just across the Connecticut River in Vermont, completed at about the same time as the Moultonborough facility and in a location with comparable vegetation and economic and social characteristics. This is moot, however, given the minimal visual stigma present in the entire Chinook project viewshed.

As noted in the report, however, this does not mean that there could be no single surrounding property with any potential valuation loss or diminution of recreational or tourism value.<sup>3</sup> It is assumed, however, that any such negative impacts would be extremely small or avoided entirely through reasonable mitigative actions by the Applicant, such as additional vegetative screening, or other offsetting measures.

In this same vein, at a Fitzwilliam Town Selectboard meeting during a tour of the facility site, concerns were raised regarding substation noise levels that had previously been a problem for several properties near the existing high voltage power line. It is our understanding that the Town has raised this issue with the Applicant with respect to the planned substation that is a part of this project and is a consideration in their conditioning of the project with the Applicant.

Positive economic externalities, such as the reduction in carbon emissions through increased regional reliance on clean energy generation and possible electricity price benefits, were also not explicitly mentioned in the report or included in the economic impact modelling. While difficult to estimate, inclusion of these impacts would enhance the value of the project to the State and region.

Aside from the proper modelling of assumed PILOT payments included in the economic impact analysis by the Applicant, we did not make any judgement as to the reasonableness of actual Town revenues from the project or any uncompensated expenditures borne by the Town resulting from the project. We regard these as matters between the Town and Applicant, although as noted in the report, they affect net economic impacts.

In summary, we believe this project will have meaningful economic benefits to the State and region, especially during the construction phase, and small, but positive, ongoing net economic benefits, in addition to the positive economic externalities mentioned above.

<sup>&</sup>lt;sup>2</sup> See page 45, paragraph 7 of the subject report

<sup>&</sup>lt;sup>3</sup> See page 59, paragraph 3 of the subject report