

George E. Sansoucy, PE, LLC
Engineers & Appraisers



RESUME

GEORGE E. SANSOUCY, P.E.

Mr. Sansoucy graduated from the University of New Hampshire in 1974, with a Masters of Science Degree in Civil Engineering, with an emphasis on Sanitary/Environmental Engineering with additional emphasis on urban planning and infrastructure. Immediately after leaving college, Mr. Sansoucy served as a Project Manager for the firm of Anderson-Nichols and Co., Inc., a multi-disciplined consulting engineering firm in Boston, Mass., working in the fields of municipal and industrial wastewater and water treatment systems, pipeline systems, large pumping systems, environmental impact work, soil and groundwater management, wastewater treatment for pulp and paper operations, planning, design and construction administration of numerous civil and environmental engineering projects. As a Project Manager, Mr. Sansoucy was responsible for all aspects of civil engineering project planning, design, construction, economic analysis, technical requirements for financing and project close out.

Since 1980, Mr. Sansoucy has owned and operated his own consulting engineering and appraisal firm which has been actively involved in the planning, design, financing, construction, operation, and management of hydroelectric plants throughout New England and New York State, design and construction of energy related transmission and distribution facilities, power contract development, interconnection development, and project management, the development of commercial and industrial real estate, and consulting for policy and valuation issues on a wide range of public utility properties and regulatory utility issues including expert testimony before numerous regulatory bodies and courts in the United States. Mr. Sansoucy has completed engineering or valuation assignments for the U.S. Government, State Governments, County Governments, School Districts, Cities, Towns, Villages and private enterprises. Assignments have been conducted for banks, insurance companies, individuals, attorneys, and private industry in the fields of utility regulation and valuation, energy planning and development, energy conservation and management, construction management, and design of roads, water, sewer, and other municipal facilities.

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Mr. Sansoucy's experience has included all levels of coordination with various federal and state agencies, such as the Federal Energy Regulatory Commission, the Environmental Protection Agency, OSHA, HUD, the New Hampshire Public Utilities Commission, the New Hampshire Water Resources Board, the New Hampshire Department of Environmental Services, the Michigan Public Service Commission, the Massachusetts Department of Revenue, the San Francisco Public Service Commission, and the Maine Department of Transportation and many other similar departments throughout the country. Also, Mr. Sansoucy has and continues to provide input to legislative committees and/or committee members relating to regulatory policy for utility matters.

A general overview of Mr. Sansoucy's expertise includes:

1. Appraisals, valuations and engineering consulting for municipal and government clients on public utility property issues, utility policy, private power projects, including valuation of nuclear power plants, and interim nuclear fuel storage facilities;
2. Court preparation, expert testimony, legislative testimony and regulatory testimony, including the complete project management of eminent domain takings of utility property by government entities;
3. Construction of power lines, substations, control facilities and other appurtenances necessary for the generation and distribution of electricity to the host utility;
4. Civil design and construction for buildings, roads, foundations, drainage, utilities and controls;
5. Development of hydroelectric energy projects from inception to completion with successful operations, financing negotiations, contract for power negotiations, and management of small scale energy projects;
6. Planning, design, and construction management for water, wastewater, and industrial waste water treatment facilities, and alternative water and wastewater treatment facilities;
7. Design and construction of pressure and gravity water and wastewater treatment conveyance systems;
8. Environmental assessment and impact report management and preparation;
9. Planning and executing public participation in the regulatory, valuation and environmental fields;
10. Construction of projects in the design/build mode with fixed price requirements;
11. Dam, canal and waterway renovations of existing structures;
12. Renovation of buildings, both historic and non-historic to meet all current life safety, BOCA, state, federal and local codes;
13. Hazardous waste evaluation, analysis, mitigation, and remediation; and
14. Additional projects with a varied experience and opportunity.

PROFESSIONAL QUALIFICATIONS:

B.S. Civil Engineering, University of NH, 1974
M.S. Civil, Sanitary Engineering, University of NH, 1974
Registered Professional Engineer, NH # 4175
Certified General Real Estate Appraiser in New Hampshire, Connecticut, Massachusetts,
Michigan, New York, Ohio, Rhode Island, Vermont, and Virginia.
Certified New Hampshire Assessor/New Hampshire Department of Revenue Administration
Certified Assessor Supervisor/New Hampshire Department of Revenue Administration
I.A.A.O. Course 1 – Fundamentals of Real Property Appraisal
I.A.A.O. Course 151 – USPAP
I.A.A.O. Course 2 – Income Approach to Valuation
I.A.A.O. Course 300 – Fundamentals of Mass Appraisal
I.A.A.O. Course 354 – Multiple Regression Analysis
I.A.A.O. Course 400 – Assessment Administration
Appraisal Institute Course – Using Your HP12C Financial Calculator
Appraisal Institute Course – Internet Search Strategies for Real Estate Appraisers
Appraisal Institute Course – Business Practices and Ethics
Appraisal Institute Course – 7-Hour National USPAP Update Course – 1400
Appraisal Institute Course – Condemnation Appraisals
Appraisal Institute Course – Intro. to Conservation Easement Valuation
Appraisal Institute Course – Analyzing the Effects of Environmental Contamination
Appraisal Institute Course – Appraisal Curriculum Overview
NHAAO/D.R.A. State Statutes Course
NRAAO Valuation of Wireless Communication Towers and Sites
NRAAO Wind Farm Valuation in the Northeast
2012 SEAK National Expert Witness Conference
2011 SEAK National Expert Witness Conference
2009 SEAK National Expert Witness Conference
2007 SEAK National Expert Witness Conference
Financial Statement Analysis
Legal Issues for the New Hampshire Design Professionals
Member, American Society of Civil Engineers
Member, New Hampshire Association of Assessing Officers
Member, International Association of Assessing Officers
Member, American Water Works Association
Member, Society of Depreciation Professionals
Associate Member, Appraisal Institute
Past Vice-Chair of Solid Waste Task Force for the City of Rochester, NH
Public service activities past and present include Abanaki district chairman, planning board
member, capital improvement committee, zoning board alternate member, school funding
apportionment committee, water rate committee and Rotary International.

PUBLICATIONS, SPEECHES, AND TEACHING EXPERIENCE:

November 14, 2012 – New Hampshire Local Government Center 71st Annual Conference hosted by NH Association of Assessing Officials. Speaker as part of a panel discussion on valuation and the methodologies used as they pertain to utility companies.

In 2012, co-authored with Martin R. Cohen for Michigan Environmental Council, a paper entitled “25% by 2025: *The Impact on Utility Rates of the Michigan Clean Renewable Electric Energy Standard*”.

In 2009, attended the Vermont Assessors and Listers Association Annual Meeting as a guest speaker on the topic of Net Book Value vs. Fair Market Value.

In 2009, authored and presented a seminar at the 75th Anniversary of the International Association of Assessing Officers International Conference in Louisville, KY entitled *The Mass Appraisal of Wireline Telephone and Communications Property For Central Valuation and Local Assessment*.

In 2008, for the Commonwealth of Massachusetts, Department of Revenue, conducted an assessor’s workshop on valuing wireless telecommunications property.

In 1999, for the Commonwealth of Massachusetts Department of Revenue, prepared draft guidelines for the valuation of utility property, as required by changes of law pursuant to deregulation in Massachusetts; presented courses throughout the state for town and city assessors in the valuation of utility property, as required by the Department of Revenue Administration.

Massachusetts Department of Revenue – Preparation in 1998 of draft guidelines to be issued by the State for use by local governments in assessing electric company property. In conjunction with the guidelines, co-authored and presented two courses on valuation of electric properties under deregulation to state and local government appraisers and assessors.

1995 - presented Overview of the Valuation of Utility Property, Presented to the Annual Summer Conference of the New York State Real Property Tax Directors Association.

1994 - presented Status Report on the Valuation of Utility Property, Presented to the Annual Meeting of the Municipal Managers Association of New Hampshire and Vermont.

In 1978, taught Advanced Wastewater Treatment for the Graduate Program at University of New Hampshire as replacement professor.

In 1973 and 1974, taught Photogrametric classes for the Undergraduate Program at University of New Hampshire as professor’s assistant.

Team Leader for Destructive Structural Testing of single span box aluminum roof trusses, in situ.

State of Michigan, County Equalization Directors, Prepared and taught two day seminar on the valuation of utility property for the Michigan Assessor's Association.

State of Kansas, Wichita School. Co-taught electric power plant valuation in a deregulated market at the annual utility valuation school put on by Wichita State University.

Published, Proceedings, International Association of Assessing Officers.

Published, Journal of American Water Works Association.

Published, Conference Proceedings, American Water Works Association.

Published, Proceedings, National Symposium on Land Treatment.

REPRESENTATIVE CURRENT AND PREVIOUS CLIENTS – PAST 10 YEARS:

1. Adams County, OH – Valuation of the Killen Generating Station, a 666 MW coal-fired generating facility and the J.M. Stuart Generating Station, a 2,440 MW coal-fired generating facility. Development of valuation and analysis of thermal pollution exemption requests by Dayton Power and Light for Adams County on the J.M. Stuart Generating Plant.
2. Town of Agawam, MA – Valuation of gas transmission facilities, gas distribution facilities, compressor facilities, electric distribution facilities, and a combined cycle, co-generation, gas electric plant.
3. City of Albany, NY – Valuation of electric transmission and distribution property including substations in the City of Albany, NY.
4. Town of Alexandria, NH – Valuation of all public utility property including a wood-burning power plant.
5. Town of Allenstown, NH – Valuation of all public utility property in the Town and a new 400 foot MCI microwave telecommunications tower. Preparation of court-ready appraisal for tax abatement litigation brought by electric utility.
6. Town of Andover, NH – General consulting regarding the valuation of electric transmission and distribution facilities as part of a utility ad valorem tax appeal.
7. Antrim, NH – Valuation of Steels Pond Hydroelectric station and all public utility property.
8. Town of Ashland, ME – Valuation of wood-fired electric generating plant.
9. Ashtabula County, Ohio – Consumers Ohio Water Company. Engineering, regulatory, expert and valuation services for the eminent domain taking of Consumers Ohio Water Company by Ashtabula County.
10. Babcock Ultrapower – Valuation of wood-fired generating facility in Enfield, Maine for tax abatement request.
11. Bangor, ME et al. – Valuation of Bangor Gas Pipeline located in several communities in the State of Maine. A high pressure natural gas transmission pipeline.
12. Bank of New Hampshire – Valuation of Pittsfield Aqueduct Company, a public utility in the Town of Pittsfield, NH, for financing purposes.
13. Berg and Laipson Law Firm – Worcester, Massachusetts – Preparation of eminent domain defense involving major gas transmission systems.
14. City of Berlin, NH – Revaluation of special purpose property owned by the Public Service Company of New Hampshire, James River Hydroelectric Company, New England Telephone, Warner Cable, and the James River Paper Company. Engineering consultant for purposes of the City's intervention with the Federal Energy Regulatory Commission on the relicensing of hydroelectric plants owned by James River Hydroelectric Company and Public Service Company of New Hampshire and requests for exemption of property from ad valorem taxation filed by James River Paper Company.
15. Bethlehem, NY Industrial Authority – Development of a PILOT agreement for the construction of new electric generating facilities.

16. Town of Bethlehem, NY – Valuation of the Albany Steam Station, a 400 MW oil/gas-fired utility generation plant for property tax assessment valuation of the portion of the Town's water system located in New Scotland, NY, for property tax assessment appeal.
17. Town of Blackstone, MA – Valuation of a new 550 MW combined cycle gas-fired electric generating plant.
18. Boralex, Inc. – Valuation and consulting services related to the Boralex Sherman biomass electric generation facility located in Stacyville, ME.
19. City of Boston, MA – Valuation of the New Boston oil/gas-fired electric generation station and related transmission and electric distribution property. Valuation of gas storage, transmission, and distribution systems. Valuation of Comcast Cable.
20. Bourgeois, Dresser, White & McGourthy, LLP – General Consulting
21. Town of Bow, NH – Valuation of transmission facilities, the Merrimack Station, a 460 MW steam-fired coal central generation plant, a 12/1 MW hydroelectric plant, and 44 MW combustion turbines. Engineering consultation regarding power generation issues and site evaluation for a 600 ton per day paper mill.
22. Brentwood, NH – Valuation of all public utility property.
23. Bridgeport, CT – Consulting engineering and valuation for refuse incineration and transfer facilities.
24. Bridgewater, NH – General consulting and preparation of detailed valuation of all utility property in the Town of Bridgewater, NH including a biomass electric generation plant.
25. Bristol, NH – Valuation of all public utility property, including Newfound Hydroelectric Facility and Ayers Island Hydroelectric Facility.
26. Bucksport, ME – Valuation of Bangor Gas Pipeline, a high pressure natural gas transmission pipeline.
27. Town of Burrillville, R.I. – Assist the Town with PILOT negotiations for Ocean State Power Plant I and Ocean State Power Plant II owned by TransCanada.
28. State of California, Department of Water Resources – Engineering review and analysis of the construction cost estimate for the Delta Wetlands Properties known as the In-Delta Storage Project proposal outside of Sacramento, California in the lower San Joaquin basin.
29. City of Cambridge, MA – Valuation of five electric generating units that comprise the Kendall Generating Station including the combined cycle gas electric plant.
30. Town of Canaan, NH – Utility property valuation.
31. Town of Canton, ME – Valuation of hydroelectric facilities.
32. Town of Carlisle, NY – Valuation of gas pipeline property.
33. Charles County, Maryland – Valuation of a 1,490± MW generating facility and court testimony.
34. Town of Charlton, MA – Valuation of combined cycle generating plant and review of tax agreements.
35. Town of Chester, NH – Valuation of all public utility property.
36. Town of Cheektowaga, NY – Preliminary valuation of electrical transmission and distribution property.
37. China Mills, Thomas Hodgson and Sons, Allenstown, NH – Expert witness in lawsuit against upstream hydroelectric developer for improper dam construction and consequential flooding of mill facilities downstream.

38. City of Claremont, NH – Valuation of electric utility property for defense of abatement action by utilities to the New Hampshire Board of Tax and Land Appeals.
39. Town of Clay, NY – Valuation of the VerPlank Substation and Energy Management System.
40. City of Cleveland, Ohio Board of Education – Preparation in behalf of the Board of Education, and testimony before the City of Cleveland's Board of Revision regarding the value of First Energy's Lake Shore coal-fired electric generating plant.
41. City of Cohoes, NY – Valuation of a 40 MW hydroelectric facility.
42. Town of Colton, NY – Valuation of hydroelectric facilities, and transmission and distribution property.
43. City of Concord, NH – General consulting regarding pollution exemptions related to a biomass electric generating facility in the City of Concord, and the valuation of public rights-of-way for telephone property.
44. Consolidated Waste Services of Maine, Norridgewock, ME – Consulting services for the complete energy master plan of a special waste disposal facility and negotiation for purchase of all utility-owned equipment within the site. Design and construction administration of new 3-phase distribution and transformer systems within the complex. Development of sales tax and ad valorem tax exemptions for pollution control facilities.
45. County of Coos, NH – Representation before the Public Utilities Commission as an intervener in the Electric Utility Industry Restructuring Docket.
46. Town of Cortlandt, NY – Consulting and appraisal services for the valuation of the Indian Point Units 1 and 2 Nuclear Generating Plant. Testimony before the Nuclear Regulatory Commission and the Public Service Commission regarding the sale of assets.
47. CRRA – Connecticut Resource Recovery Authority. Valuation of the mid-Connecticut waste energy facility.
48. Town of Dalton, NH – Valuation of the Centennial Hydroelectric Project.
49. Town of Deerfield, NH – Valuation of all electric utility property.
50. Town of Deerfield, NY – Valuation of all substation and transmission property.
51. City of Detroit, MI – Valuation of the central underground steam heating system and power plants.
52. Township of Dickson, MI – Valuation of the Tippy Dam Hydroelectric Plant.
53. Town of Dighton, MA – Valuation of Dighton Power Project, a new modern combined cycle gas-fired 170 MW power plant. Valuation of the Dighton Desalination Plant.
54. Dover Water Company, Dover, MA – Valuation and strategic planning for the possible sale of the Dover Water Company.
55. Town of Dowagiac, MI – Consulting services for the development of a PILOT agreement for the construction of a new electric generation facility.
56. Town of Dracut, MA – Valuation of a 500 MW combined cycle generating plant, and consultation regarding development of a tax mitigation agreement.
57. Town of Dunbarton, NH – Valuation of all electric utility property, owned by three separate utility companies.
58. City of Elmira, NY – Valuation of street lighting system and purchase negotiation with utility.
59. Town of Epping, NH – Valuation of all public utility property.
60. Town of Errol, NH – Valuation of a hydroelectric facility.

61. Township of Filer, MI – Valuation of a coal fired cogeneration plant including testimony before the Michigan Tax Tribunal.
62. Estate of Dr. John Finn, Norwood, MA – Valuation of general partnership interest in hydroelectric facility located in Bristol, NH.
63. City of Franklin, NH – Valuation of all public utility property.
64. Town of Fremont, NH – Valuation of all public utility property.
65. FrontStreet Partners – Prepare special purpose property appraisal of the corridor value for the location of ski lifts at the Gore Mountain/Ski Bowl development in New York.
66. Gallagher, Callahan & Gartrell – Expert witness for defense of U.S.F. & G. Insurance Company against a claim made by the owners of Ashuelot Dam in Winchester, NH for improper construction.
67. Town of Gilmanton, NH – Utility property revaluation.
68. Town of Gorham, NH – Valuation of all special purpose utility property, including electric, hydroelectric, gas, cable television, telephone, and international oil pipeline facilities for town-wide revaluation. Valuation of watershed land owned by the Town of Gorham in the Town of Randolph, NH for tax abatement request. Engineering consultant for purposes of the Town's intervention with the Federal Energy Regulatory Commission on the relicensing of hydroelectric plants owned by James River Hydroelectric Company and Public Service Company of New Hampshire. Engineering consultant regarding review of requests for exemption of property from ad valorem taxation filed by James River Paper Company. Town-wide revaluation for 2007, with annual oversight and updates.
69. Town of Greece, NY – Valuation of the Russell Station, a coal-fired generation plant.
70. Town of Greenfield, NH – Valuation of all public utility property.
71. Town of Greenland, NH – Valuation of all taxable electric utility property.
72. Town of Groton, NH – Valuation of all public utility property for town-wide revaluation.
73. Town of Guildhall, VT – Valuation of Portland Pipeline Company's crude oil pipeline property.
74. Town of Haddam, CT – Valuation of the nuclear waste fuel storage facility at the Connecticut Yankee Nuclear Generating Station.
75. Town of Hampstead, NH – Valuation of all public utility property.
76. Town of Hampton Falls, NH – Valuation of NextEra Energy Seabrook, LLC.
77. Hanover Water Company – Valuation of Hanover Water Company and strategic planning for possible purchase from Dartmouth College by the Town of Hanover, NH.
78. Town of Haverhill, NH – Valuation of all public utility property for town-wide revaluation.
79. Town of Haverstraw, NY – Valuation of the 1,200 MW oil-fired Bowline Power Station Central Steam Plant.
80. Holyoke Gas & Electric – Valuation of the Mt. Tom Station.
81. Hendrick Hudson School District, Westchester County School Districts, NY – Representation before the Public Service Commission and the Nuclear Regulatory Commission on issues associated with deregulation of the electric industry and its impact on the Indian Point nuclear generating facilities.
82. Town of Hinsdale, NH – Valuation of all public utility property, including the Vernon hydroelectric facility.

83. City of Holyoke, MA – Valuation of all utility property and other property owned by Holyoke Water Company including the Hadley Falls hydroelectric facilities, the 160 MW coal-fired Mt. Tom Generation Plant, transmission, distribution, substations, canal systems, and related facilities including storage tanks and towers.
84. Town of Hooksett, NH – Valuation of all public utility property in the Town of Hooksett, including the Hooksett Hydroelectric Plant and the valuation and analysis of real versus personal property for the major gravel pits.
85. Town of Hopkinton, NH – Valuation of all public utility property.
86. Town of Hudson, NH – Valuation of property owned by the Southern New Hampshire Water Company and Energy North, a gas distribution company. Preparation of testimony before the Public Utilities Commission regarding Southern New Hampshire Water Company's 1995 rate structure. Preparation of study to acquire the Southern New Hampshire Water Company property by eminent domain for the conversion to a municipal-owned water system. Preparation of management operation and maintenance agreements, ordinances, and engineering support for the Town's successful takeover of the water system. Valuation of gas transmission pipeline owned by Tennessee Gas Pipeline Company.
87. Indeck-Silver Springs – Valuation of a gas-fired cogeneration plant in New York.
88. Indian River Power Supply – Appraisal of land, building, and existing equipment, "as is" and then "as complete" for the proposed redevelopment of the Russell Dam Hydroelectric Plant located in the Town of Russell, MA.
89. Town of Jaffrey, NH – Valuation of all public utility property.
90. Jericho Mountain Wind Project – Detailed preliminary and final engineering, financial analysis and development of a new wind electric generation facility in the City of Berlin, NH on Jericho Mountain.
91. City of Keene, NH – Valuation of all public utility property, with the exception of telephone property.
92. Lake County, OH – Valuation of real property at Perry Nuclear Power Plant and East Lake Generating Station (coal). Consultation and preparation of reports before the Federal Energy Regulatory Commission and the Ohio Department of Taxation. Expert consultant regarding air and thermal pollution exemption applications.
93. Town of Lancaster, NH – Valuation of all public utility property.
94. City of Lebanon, NH – Valuation of hydroelectric facilities (Wilder Dam) and all public utility property.
95. Town of Lincoln, NH – Valuation of all public utility property.
96. Town of Littleton, NH – Valuation of hydroelectric facilities (Moore Dam) and all public utility property.
97. Town of Londonderry, NH – Consulting services for permitting and assessing of new combined cycle, gas-fired, cogeneration plant and for municipalization of electric distribution system. Valuation of all utilities, town-wide.
98. Town of Loudon, NH – Valuation of all public utility property.
99. Town of Lumberland, NY – Valuation of the Rio, Swinging Bridge, and Mongaup Hydroelectric plants.
100. Town of Lyme, NH – Valuation of all public utility property.
101. Town of Lyonsdale, NY – Valuation of wood-fired generating plant and hydroelectric project.

102. Maine DOT – Prepare appraisal and valuation metrics for the long term use of the public interstate transportation corridor by regulated and unregulated public utilities.
103. Town of Marcy, NY – Valuation of electric transmission and substation property.
104. State of Maryland – Consultation to the State Department of Assessment & Taxation on current and future electric generating plant valuation methods and whether these valuation methods for power plants are adequate and equitable.
105. Town of Mason, NH – Valuation of all public utility property for town-wide revaluation.
106. Massachusetts Department of Revenue Administration – Provided training for state and local assessing officials on valuation of utility property and merchant electric power generating plants. Developed mass appraisal methodology and calculation forms for central assessment of telecommunications property and wireless property statewide. Provided expert testimony regarding the valuation of MCI telecommunication property in Massachusetts, defending the mass appraisal methodology developed.
107. Michigan Environmental Council – Review, consult and provide expert testimony and cross examination for the coalition of environmental groups under the Michigan Environmental Council regarding the proposed renewable energy plans of Consumers Energy and Detroit Edison promulgated under Public Act 295 in the State of Michigan. Also provide expert consulting in the power supply and cost recovery dockets for Consumers Energy and Detroit Edison before the Michigan Public Service Commission.
108. Michigan Municipal League, City of Midland, MI – Prepared report and analysis of new multiplier tables proposed to the Michigan State Tax Commission to be used by assessors in the State of Michigan to determine the taxable value of personal electric and gas transmission and distribution property.
109. City of Midland, MI – Valuation of 1,500 MW gas combined cycle electric generating station which was converted from an unfinished nuclear generating plant.
110. Towns of Middleton and Roxbury, NY – Valuation of wastewater treatment collection systems, pump stations, and treatment plants owned by the City of New York.
111. Town of Milford, CT – Valuation of NRG Devon Station; a new gas fired combined cycle plant.
112. Town of Milford, NH – Valuation of all public utility property.
113. Town of Milford, NY – Valuation of all public utility property.
114. Town of Monroe, NH – Valuation of all public utility property, including two hydroelectric dams owned by New England Power Company and the Phase I and Phase II Hydro Quebec DC Converters. Town-wide revaluation.
115. Town of Montague, MA – Valuation of the Cabot Hydroelectric Station.
116. Towns of Nantucket, Oak Bluffs and West Tisbury, MA – Evaluation of electric generating plants in the Towns of Nantucket, Oak Bluffs and West Tisbury, Massachusetts.
117. City of Nashua, NH – Valuation of property owned by Energy North, a gas distribution company. Valuation of all telephone and cable television property. Valuation of Public Service Company of New Hampshire and Pennichuck Water Company utility property. Valuation of Pennichuck Water Company and consulting services for eminent domain taking of the water company.

118. New Hampshire Municipal Association – Representation before the Public Utilities Commission in the Electric Utility Industry, Restructuring Docket.
119. New Richmond and Three Rivers School Districts, OH – Valuation of real property at Beckjord, Miami Fort and Zimmer Generating Stations.
120. Town of Newburgh, NY – Valuation of the Roseton and Danskammer central-fired oil and coal electric generation plants.
121. Town of New Hampton, NH – Valuation of all public utility property, and land based satellite receiving stations.
122. Town of Newington, NH – Valuation of the Newington Station, a 420 MW oil fired generation plant, transmission and distribution facilities, and Newington Energy, a 540 MW gas-fired combined cycle generating station. Valuation of special purpose industrial properties including the Sprague Oil tank farm and refinery, the Simplex Wire and Cable Co., and other industrial facilities. Preparation before the Department of Environmental Services Agency regarding applications for tax exemption of pollution equipment. Town-wide revaluation.
123. City of New York, NY – Valuation of real property improvements for the Schoharie Reservoir in the Town of Prattsville, New York.
124. New York Power Authority – Appraisal of the Richard M. Flynn Generating Plant, Holtsville, New York, and appraisal of the electric generating site in Bethpage, NY for eminent domain purposes.
125. Town of Northfield, NH – General consulting and valuation of public utility property.
126. Town of North Branford, CT – General consulting and valuation of South Central Connecticut Regional Water Authority property in the Town of North Branford.
127. North Hampton, NH – Analysis and expert testimony in rate proceedings for Aquarion Water, a regulated utility located in the Town of North Hampton, NH.
128. Town of Norwalk, CT – Valuation of the Browns Reservoir facility owned by the Town of Norwalk, CT in the State of New York.
129. Town of Old Town, ME – Appraisal of Milford Hydroelectric facility.
130. Town of Orono, ME – General consulting.
131. Oshtemo Township, MI – Consulting regarding natural gas valuation multiplier tables.
132. City of Oswego, NY – Critique of preliminary appraisal for the 2,000 MW Oswego Steam Station for municipal tax abatement defense.
133. Oswego County, NY – Valuation of the Fitzpatrick Nuclear Power Plant and Nine Mile Point I & II located in Oswego, NY on Lake Ontario.
134. Town of Oxford, CT – Development of a long-term tax agreement for a gas-fired combined cycle plant.
135. Parmenter O-Toole Law Firm – Authored appraisal report for a 432± MW coal/gas-fired electric generating facility located in Muskegon.
136. Town of Pelham, NH – Revaluation of all public utility property.
137. Town of Pembroke, NH – Valuation of all public utility property.
138. Perkins Thompson – Valuation of Bangor Gas Pipeline.
139. Town of Pine Plains, NY – Valuation of the Pine Plains Water Company.
140. City of Pittsfield, MA – Valuation of a 180 MW gas-fired combined cycle cogeneration plant owned by U.S. Generating Company.
141. Town of Pittsfield, NH – Valuation of the local water utility for eminent domain taking.

142. Town of Plattsburgh, NY – Valuation of hydroelectric facilities owned by New York State Electric & Gas Company.
143. Town of Pleasant Valley, NY – Valuation of Consolidated Edison property in the Town of Pleasant Valley.
144. Town of Plymouth, MA – Valuation of the Pilgrim Yankee nuclear power plant.
145. Town of Plymouth, NH – Valuation of all public utility property and valuation of the Tenney Mountain Ski Area in the Town of Plymouth.
146. City of Portsmouth, NH – Valuation of new 80 MW wood fired conversion electric generation plant from coal. Valuation of oil tank farm facility.
147. City of Portsmouth, RI – Developed mass appraisal valuation model for the regulated water utility property in the City.
148. Pottawattamie County, Iowa – Valuation of Griffin Pipe Products Company.
149. Providence, RI – Valuation of the Manchester Street combined cycle natural gas electric generating plant and consulting services for the valuation of the city-wide water system.
150. Providence Water Supply Board – Valuation of dams, reservoirs, piping systems and treatment plant for PWSB.
151. Town of Raymond, NH – Valuation of all public utility property.
152. Town of Richmond, NH – Valuation of all public utility property.
153. Town of Rotterdam, NY – Valuation of General Electric steam turbine plant and a chemical manufacturing plant owned by Schenectady Chemicals.
154. Town of Rumney, NH – Valuation of all public utility property in the Town of Rumney.
155. Town of Rye, NH – Valuation of all public utility property.
156. Sacramento Local Agency Formation Commission (LAFCo) – Review of rates and valuation methodologies and energy cost data in connection with the proposed annexation by Sacramento Municipal Utility District (SMUD) of the Cities of West Sacramento, Davis and Woodland and adjacent unincorporated areas of Yolo County.
157. City of Salem, MA – Valuation of the 760 MW PG&E Salem Harbor Station, a coal and oil fired electrical generating facility. Valuation for payment in lieu of tax purposes of the New England Power electrical transmission system located in the City of Salem.
158. Town of Salem, NH – Valuation of all public utility property.
159. Town of Sanbornton, NH – Valuation of all public utility property.
160. Town of Sand Lake, NY – Valuation of all telephone property.
161. Sands Anderson, Richmond, VA – Provided general consulting and expert witness testimony on behalf of Sands Anderson and its 25 locality clients at the Virginia State Corporation Commission in defense of a tax assessment lawsuit filed by Verizon South and Verizon Virginia.
162. City and County of San Francisco, CA – Provide evaluation, advice and analysis as well as conducting a professional market study to support the establishment and operation of a successful Community Choice Aggregation program of renewable power deployment on behalf of the PUC.
163. City of Saratoga Springs, NY – Valuation of all electric and gas utility property owned by the Niagara Mohawk Power Corporation.
164. County of Schoharie, NY – Valuation of the gas transmission facilities and compressor stations owned by Iroquois Gas Pipeline.

165. Town of Seabrook, NH – Valuation of the Seabrook Nuclear Power Plant, a 1,200 MW nuclear generating facility. Negotiation of a tax agreement.
166. Town of Somerset, MA – Valuation of the Somerset Steam Plant, a 150 MW coal-fired generating facility. Valuation for payment in lieu of tax purposes of the Brayton Point Station, at 1,599 MW, the largest fossil fueled electrical generation plant in New England.
167. Town of South Hadley, MA – Valuation of Hadley Falls Hydroelectric Dam.
168. City of Springfield, MA. Springfield Water & Sewer Commission – Provide rate design consultation to Springfield Water & Sewer Commission. Also provide energy and capital requirement consulting to Springfield Water & Sewer Commission for its hydroelectric plant.
169. Town of Springfield, NH – Valuation of the Hemphill Wood Fired Power Plant in the Town of Springfield, New Hampshire.
170. Town of Sterling, MA – Valuation and consulting services for the sale of the Sterling Light Department to an investor-owned utility.
171. Town of Stony Point, NY – Valuation of the 453 MW coal-fired electric generating central steam station known as the Lovett Station.
172. Town of Stratford, NH – Valuation of all public utility property.
173. Town of Swanzey, NH – Valuation of all public utility property in the Town of Swanzey, NH.
174. Town of Tamworth, NH – Valuation of the biomass electric generating facility for ad valorem tax purposes and tax agreement.
175. City of Tonawanda, NY – Valuation of the Indeck-Yerkes 56 MW gas-fired cogeneration facility.
176. Town of Torrey, NY – Valuation of the Greenidge Station, a coal-fired central steam plant.
177. Town of Troy, NH – Valuation of all public utility property.
178. City of Troy, NY – Valuation of the City's water utility reservoir located in Pittstown, NY.
179. Town of Tuftonboro, NH – Valuation of all public utility property.
180. Town of Tuxedo, NY – Valuation of electric utility property.
181. Town of Union, NY – Valuation of the Goudey coal-fired electric generating plant.
182. United States Navy - Eastern Division – Valuation of the potable water and wastewater collection systems located at the Millington, Tennessee Naval facility for the anticipated sale of the property.
183. United States Navy – Western Division – Valuation of utility property for the United States Navy in the San Francisco Bay area as part of the base closure process (1996-1999). Specific facilities valued as separate appraisals include the Alameda Naval Air Station, the Navy's portion of Hamilton Army Air Field, the Novato Housing in Novato, California, Treasure Island Naval Station, and the Oakland Naval Hospital.
184. Utah State Tax Commission – Valuation of PacifiCorp's total electric generation, transmission and distribution property holdings in the State of Utah.
185. State of Utah, IPA Project – Valuation of the Intermountain Power Agency's 1,700 MW coal-fired generating plant, substation, and transmission system in the State of Utah for Millard County *et al.* in preparation of testimony before the Utah State Tax Commission.

186. Van Buren County, Covert Township, MI – Valuation and consulting on issues concerning the sale of the Palisades Nuclear Power Plant to Entergy.
187. State of Vermont, Department of Taxes – Valuation of the hydroelectric properties owned by TransCanada on the Connecticut and Deerfield Rivers. The valuations included the separation and valuation of properties located in the States of New Hampshire and Vermont.
188. Town of Vernon, VT – Valuation of the Vermont Yankee Nuclear Power Station and Vernon hydroelectric facility.
189. Town of Wallingford, CT – Valuation of a single cycle gas-fired peaking generation plant.
190. Town of Walpole, NH – Valuation of all public utility property, including the Bellows Falls Hydroelectric Generating Facility.
191. Waste Management of New Hampshire, Inc., Rochester, NH – Valuation of the 1,100 acre integrated landfill facility, including all buildings, landfill cells, site improvements, roads, wastewater treatment plants, methane gas recovery systems, electrical generation plants, and other infrastructure for the purposes of a tax abatement request filed with the City of Rochester, NH. Preparation of a request for tax exemption of certain property. Engineering consultation and representation concerning financial and operating disclosure docket before the Public Utilities Commission under the 1992 Federal Energy Policy Act. Complete energy master plan and energy infrastructure analysis for an integrated 1,100 acre landfill facility. Negotiation of power contracts for the sale of energy to New England Power Company and the New Hampshire Electric Cooperative. Designed and supervised the construction of a high voltage transmission line to connect the operations to the existing gas generation plant. Negotiated interconnection agreements and assisted in plant startup and testing.
192. Town of Wawayanda, NY – Valuation of the Shoemaker Combustion Turbine Peaking Generation Plant.
193. Town of Webb, NY – Valuation of hydroelectric plant, distribution, transmission, and substation property.
194. City of Westfield, MA – Consulting services for permitting and assessing of new combined cycle, gas-fired, cogeneration plant.
195. Town of Weymouth, MA – Valuation of gas-fired cogeneration plant for tax agreement negotiation.
196. Whiteman Osterman & Hanna – Valuation services relating to the Castleton Generating Station in the Town of Schodack, NY.
197. Town of Wiscasset, ME – Valuation of the nuclear waste fuel storage facility at the closed Maine Yankee Nuclear Power Plant in the Town of Wiscasset.
198. Town of Whitefield, NH – Valuation of all public utility property.
199. Town of Windham, NH – Valuation of all public utility property.
200. City of Worcester, MA – Valuation of all public utility property and the development of an on-going utility valuation and assessment model.
201. Town of Yarmouth, ME – Valuation of the Wyman Generating Station, an 846 MW oil-fired generation plant. Appraisal of all property owned by Central Maine Power Company including distribution systems, transmission systems, substations, land and rights of way. Valuation of the 846 MW oil-fired generation plant owned by Central Maine Power and a consortium of utilities in New England.

202. Association of Fourteen Communities in the State of New York – Valuation of the Empire State Pipeline from Buffalo, New York to Syracuse, New York.
203. Counties of Wayne, Oakland and Macomb and Cities of Detroit, Dearborn, Livonia, Taylor and others in the State of Michigan – Expert witness to detail the flaws in multiplier tables issued by the Michigan State Tax Commission to be used in every taxing jurisdiction in Michigan to determine the taxable value of electric transmission and distribution and natural gas distribution properties. Testimony before the Michigan Tax Tribunal.

Other previous clients in the areas of civil, water, and wastewater engineering; design/build construction consulting; hydroelectric projects; expert testimony in litigation matters; and other miscellaneous engineering assignments will be provided upon request.

OTHER REPRESENTATIVE ENERGY RELATED PROJECTS:

1. Transformer interconnection rebuild at Thomas Hodgson and Sons, Suncook, NH.
2. Energy use analysis for plant at Thomas Hodgson and Sons.
3. Substation design and construction for interconnection with Wolfeboro Municipal Light and Public Service Company of New Hampshire.
4. Hydro analysis and court settlement between Franklin Falls Hydro and the State of New Hampshire.
5. Energy analysis for Days Inns and Sheraton Hotels.
6. Emergency turbine/generator repairs for Hartford Steam Boiler Company.
7. Power contract negotiation and project management for Waste Management of North America in their development of methane gas electrical generation facilities.
8. Valuation of hydroelectric facility for the Bank of New Hampshire, N.A.
9. Development of complete energy feasibility analysis for generation of electricity from landfill gas at the Hunt Road Landfill in Amesbury, MA. Preparation and final competitive bid documents to New England Power Company.

REPRESENTATIVE HYDROELECTRIC PROJECTS:

(Licensing, Engineering and/or Construction)

- | | |
|---|---------------------------------------|
| 1. Tolles Energy Resources (50 kW) | 16. Weare Reservoir (100 kW) |
| 2. Hoague Sprague Hydroelectric (500 kW) | 17. Walden Power Corp. (2,400 kW) |
| 3. Pioneer Hydro (1,390 kW) | 18. Montgomery Worsted Mills (200 kW) |
| 4. Suncook Leather Board (380 kW) | 19. Shelton Power Co. (3,400 kW) |
| 5. Diamond Power Corp. (2,400 kW) | 20. Gonic Sawmill Dams (600 kW) |
| 6. Suncook Power Corp. (1,890 kW) | 21. Cumberland Power Corp. (1,200 kW) |
| 7. Woodsville Hydro (370 kW) | 22. Noonan Mill Hydro (400 kW) |
| 8. Wyandotte Hydro (120 kW) | 23. Tioga Brook Hydro (70 kW) |
| 9. Somersworth Hydro (1,280 kW) | 24. Newfound Hydro (1,400 kW) |
| 10. Kelley's Falls Hydro (550 kW) | 25. Steels Pond Hydro (600 kW) |
| 11. Hollingsworth & Voss Paper Co. (3,400 kW) | 26. Chase Manufacturing (130 kW) |
| 12. Marcal Paper (1,100 kW) | 27. China Mills Dam (500 kW) |
| 13. Town of Sunapee, NH (555 kW) | 28. Minnewawa Brook (1,000 kW) |
| 14. Milton Leather Board (600 kW) | 29. Thomas Hodgson and Sons (400 kW) |
| 15. Milton Three Ponds (120 kW) | |

MPSC Case No.: U-17302
Respondent: A. Wojtowicz
Requestor: MEC- 1
Question No.: MEC/DE-1.14
Page: 1 of 1

Question: Has the company internally generated any alternate version(s) of any exhibits in this case that use the transfer prices in Exhibit A of the Commission Final Order in Case U-16655, dated June 28, 2013? If yes, provide an electronic copy of those version(s) in Excel format, with formulas intact.

Answer: No.

Transfer Price Analysis and Alternative Scenarios
Sheet 1
(\$Millions)

Line No.			Actual 2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1	PPAs																				
2	L'Anse Warden	Generation	1,000 MWh	112.1	124.8	111.6	111.6	111.6	104.2	111.6	111.6	111.6	111.6	111.6	104.2	111.6	111.6	111.6	111.6	111.6	111.6
3	U-15806 Transfer Price	Transfer Amount to PSRC	\$/MWh	6.9	9.9	9.3	9.9	10.7	10.3	11.2	11.4	11.4	11.4	11.4	10.6	11.4	11.4	11.4	11.4	11.4	11.4
4	Blue Water	Generation	1,000 MWh	3.9	27.3	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
5	U-15806 Transfer Price	Transfer Amount to PSRC	\$/MWh	0.2	2.2	1.6	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8
6	WM Renewable	Generation	1,000 MWh	8.9	26.1	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5
7	U-15806 Transfer Price	Transfer Amount to PSRC	\$/MWh	0.5	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
8	Stoney Corners	Generation	1,000 MWh	80.0	74.0	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9
9	U-15806 Transfer Price	Transfer Amount to PSRC - Per DTE, Exh. A-2	\$/MWh	4.7	5.5	6.6	6.8	7.1	7.3	7.5	7.7	8.0	8.3	8.7	9.1	9.5	10.0	10.0	10.0	10.0	10.0
10	U-15806 Transfer Price	Transfer Price (lesser of levelized cost & TP)	\$/MWh	58.16	74.49	76.47	78.80	83.20	85.53	86.92	89.30	91.43	91.43	91.43	91.43	91.43	91.43	91.43	91.43	91.43	91.43
11	U-15806 Transfer Price	Transfer Amount Calc with TP from MECDE-1.2 & MECDE-1.5	\$/MWh	4.7	5.5	6.6	6.8	7.1	7.3	7.5	7.7	8.0	8.3	8.7	9.1	9.5	10.0	10.0	10.0	10.0	10.0
12	Gratiot	Generation	1,000 MWh	-	226.2	297.9	297.9	297.9	297.9	297.9	297.9	297.9	297.9	297.9	297.9	297.9	297.9	297.9	297.9	297.9	297.9
13	U-15806 Transfer Price	Transfer Amount to PSRC - Per DTE, Exh. A-2	\$/MWh	-	16.8	22.8	23.5	24.8	25.5	25.9	26.6	27.2	27.2	27.2	27.2	27.2	27.2	27.2	27.2	27.2	27.2
14	U-15806 Transfer Price	Transfer Price (lesser of levelized cost & TP)	\$/MWh	-	74.49	76.47	78.80	83.20	85.53	86.92	89.30	91.43	91.43	91.43	91.43	91.43	91.43	91.43	91.43	91.43	91.43
15	U-15806 Transfer Price	Transfer Amount Calc with TP from MECDE-1.2 & MECDE-1.5	\$/MWh	-	16.8	22.8	23.5	24.8	25.5	25.9	26.6	27.2	27.2	27.2	27.2	27.2	27.2	27.2	27.2	27.2	27.2
16	Tuscola Bay Wind	Generation	1,000 MWh	-	42.1	398.0	398.0	398.0	398.0	398.0	398.0	398.0	398.0	398.0	398.0	398.0	398.0	398.0	398.0	398.0	398.0
17	U-15806 Transfer Price	Transfer Amount to PSRC - Per DTE, Exh. A-2	\$/MWh	-	2.0	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2
18	U-15806 Transfer Price	Transfer Price (lesser of levelized cost & TP)	\$/MWh	-	60.90	60.90	60.90	60.90	60.90	60.90	60.90	60.90	60.90	60.90	60.90	60.90	60.90	60.90	60.90	60.90	60.90
19	U-15806 Transfer Price	Transfer Amount Calc with TP from MECDE-1.2 & MECDE-1.5	\$/MWh	-	2.6	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2
20	Tuscola Wind II*	Generation	1,000 MWh	-	-	-	376.7	376.7	376.7	376.7	376.7	376.7	376.7	376.7	376.7	376.7	376.7	376.7	376.7	376.7	376.7
21	U-16556 Transfer Price	Transfer Amount to PSRC - Per DTE, Exh. A-2	\$/MWh	-	-	-	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
22	U-16556 Transfer Price	Transfer Price (lesser of levelized cost & TP)	\$/MWh	-	-	-	49.25	49.25	49.25	49.25	49.25	49.25	49.25	49.25	49.25	49.25	49.25	49.25	49.25	49.25	49.25
23	2013 MPSC Staff Transfer Price	Transfer Amount Calc with TP from MECDE-2.17a	\$/MWh	-	-	-	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
24	Pheasant Run	Generation	1,000 MWh	-	-	-	285.0	285.0	285.0	285.0	285.0	285.0	285.0	285.0	285.0	285.0	285.0	285.0	285.0	285.0	285.0
25	U-16556 Transfer Price	Transfer Amount to PSRC - Per DTE, Exh. A-2	\$/MWh	-	-	-	9.9	10.8	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
26	U-16556 Transfer Price	Transfer Price (lesser of levelized cost & TP)	\$/MWh	-	-	-	49.25	49.25	49.25	49.25	49.25	49.25	49.25	49.25	49.25	49.25	49.25	49.25	49.25	49.25	49.25
27	2013 MPSC Staff Transfer Price	Transfer Amount Calc with TP from MECDE-1.2 & MECDE-1.5	\$/MWh	-	-	-	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
28	Future Wind	Generation	1,000 MWh	-	-	-	-	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1	70.1
29	2013 MPSC Staff Transfer Price	Transfer Amount to PSRC - Per DTE, Exh. A-2	\$/MWh	-	-	-	-	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
30	U-16556 Transfer Price	Transfer Price (lesser of levelized cost & TP)	\$/MWh	-	-	-	-	53.00	53.00	53.00	53.00	53.00	53.00	53.00	53.00	53.00	53.00	53.00	53.00	53.00	53.00
31	2013 MPSC Staff Transfer Price	Transfer Amount Calc with U-17302 MECDE-2.37 LC of \$53	\$/MWh	-	-	-	-	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
32	Generation - PPA	1,000 MWh	204.8	520.4	936.5	1,598.2	1,668.3	1,660.9	1,668.3	1,668.3	1,668.3	1,668.3	1,668.3	1,668.3	1,660.9	1,668.3	1,668.3	1,668.3	1,667.9	1,667.7	1,667.3
33	PPSR Transfer Expense - PPA - MEC Amendments	\$/MWh	12.3	39.1	66.5	107.6	107.6	107.6	107.6	110.1	111.4	111.8	112.2	111.9	113.1	113.0	113.1	113.0	113.0	113.0	113.0
34	DTE Electric Owned																				
35	Gratiot County Wind	Generation	1,000 MWh	3.0	236.0	254.0	254.0	254.0	254.7	254.0	254.0	254.0	254.7	254.0	254.0	254.0	254.0	254.0	254.0	254.7	254.0
36	U-15806 Transfer Price	Transfer Amount to PSRC - Per DTE, Exh. A-2	\$/MWh	0.2	17.6	19.4	20.0	21.1	21.8	22.1	22.7	23.2	23.3	23.2	23.2	23.3	23.2	23.2	23.2	23.3	23.2
37	U-15806 Transfer Price	Transfer Price (lesser of levelized cost & TP)	\$/MWh	58.16	74.49	76.47	78.80	83.20	85.53	86.92	89.30	91.43	91.43	91.43	91.43	91.43	91.43	91.43	91.43	91.43	91.43
38	U-15806 Transfer Price	Transfer Amount Calc with TP from MECDE-1.3 & MECDE-1.6	\$/MWh	0.2	17.6	19.4	20.0	21.1	21.8	22.1	22.7	23.2	23.3	23.2	23.2	23.3	23.2	23.2	23.2	23.3	23.2
39	Thumb Wind Parks	Generation	1,000 MWh	-	15.1	401.5	427.5	427.5	427.5	427.5	427.5	427.5	427.5	427.5	427.5	427.5	427.5	427.5	427.5	427.5	427.5
40	U-15806 Transfer Price	Transfer Amount to PSRC - Per DTE, Exh. A-2	\$/MWh	-	1.1	25.7	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4
41	U-15806 Transfer Price	Transfer Price (lesser of levelized cost & TP)	\$/MWh	-	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00	64.00
42	U-15806 Transfer Price	Transfer Amount Calc with TP from MECDE-1.3 & MECDE-1.6	\$/MWh	-	1.0	25.7	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4
43	Echo Wind Park	Generation	1,000 MWh	-	-	16.4	180.6	364.3	434.6	433.4	433.4	434.6	433.4	433.4	433.4	434.6	433.4	433.4	433.4	434.6	433.4
44	U-16556 Transfer Price	Transfer Amount to PSRC - Per DTE, Exh. A-2	\$/MWh	-	-	0.5	6.2	13.8	21.8	22.0	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3
45	U-16556 Transfer Price	Transfer Price (lesser of levelized cost & TP)	\$/MWh	-	-	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00	56.00
46	2013 MPSC Staff Transfer Price	Transfer Amount Calc with TP from MECDE-1.3 & MECDE-1.6	\$/MWh	-	-	0.9	10.1	20.4	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3
47	Pheasant Run II	Generation	1,000 MWh	-	-	-	182.3	255.3	255.3	255.3	255.3	255.3	255.3	255.3	255.3	255.3	255.3	255.3	255.3	255.3	255.3
48	U-16556 Transfer Price	Transfer Amount to PSRC - Per DTE, Exh. A-2	\$/MWh	-	-	-	6.3	9.7	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
49	U-16556 Transfer Price	Transfer Price (lesser of levelized cost & TP)	\$/MWh	-	-	-	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00	49.00
50	2013 MPSC Staff Transfer Price	Transfer Amount Calc with TP from MECDE-1.3 & MECDE-1.6	\$/MWh	-	-	-	8.9	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
51	Future Wind Build	Generation	1,000 MWh	-	-	-	-	14.0	168.7	168.3	168.3	168.7	168.3	168.3	168.3	168.3	168.3	168.3	168.3	168.7	168.3
52	2013 MPSC Staff Transfer Price	Transfer Amount to PSRC	\$/MWh	-	-	-	-	0.9	11.2	11.2	11.4	11.6	11.9	12.0	12.3	12.5	12.8	12.9	13.1	13.4	13.6
53	2013 MPSC Staff Transfer Price	Transfer Price (lesser of levelized cost & TP)	\$/MWh	-	-	-	-	67.39	66.23	66.39	67.55	68.94	70.29	71.18	72.14	74.45	75.59	76.81	78.06	79.39	80.68
54	2013 MPSC Staff Transfer Price	Transfer Amount Calc with U-17302 MECDE-2.37 LC of \$81	\$/MWh	-	-	-	-	0.9	11.2	11.2	11.4	11.6	11.9	12.0	12.3	12.5	12.8	12.9	13.1	13.4	13.6
55	DTE Owned Solar (-12.5MW)	Generation	1,000 MWh	1.5	3.1	6.7	9.1	11.8	13.9	13.8	13.7	13.6	13.5	13.4	13.2	13.1	13.1	12.9	12.8	12.7	12.5
56	U-15806 Transfer Price	Transfer Amount to PSRC	\$/MWh	0.1	0.4	1.0	1.7	2.5	3.1	3.1	3.2	3.3	3.4	3.5	3.7	3.8	3.9	4.0	4.1	4.3	4.6
57	DTE Owned Solar (-2.5MW)	Generation	1,000 MWh	-	-	0.1	0.8	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
58	U-15806 Transfer Price	Transfer Amount to PSRC	\$/MWh	-	-	-	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
59	Generation - Owned	1,000 MWh	4.4	254.3	678.6	1,054.3															

Transfer Price Analysis and Alternative Scenarios
Sheet 2
(\$Millions)

[illegible]

Transfer Price Analysis and Alternative Scenarios
Sheet 3
(\$Millions)

			Actual																		
No.	Description	Source	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1	Surcharge Revenue	line 11 , DTE Planned Surcharges	102.3	102.0	102.1	14.7	14.7	14.8	14.8	14.9	14.9	15.0	15.1	15.1	15.2	15.3	15.3	15.4	15.5	15.6	10.4
2	Incremental Cost of Compliance	Sheet 2, line 20	34.7	64.9	68.5	69.5	65.4	38.1	24.8	13.7	3.5	(4.4)	(10.4)	(1.3)	14.8	42.9	42.3	41.5	38.9	38.3	36.3
3	Regulatory Liability - Increase / (Decrease)	line 1 - line 2	67.6	37.1	33.6	(54.8)	(50.7)	(23.4)	(10.0)	1.2	11.5	19.4	25.5	16.5	0.4	(27.7)	(27.0)	(26.1)	(23.4)	(22.7)	(25.9)
4	Regulatory Liability Ending Balance	2011 - U-17302, Exhibit A-2, line 45; Subsequent years = previous year line 4 + line 3	192.5	229.5	263.1	208.3	157.6	134.2	124.2	125.4	136.9	156.3	181.8	198.3	198.7	171.0	144.0	118.0	94.6	71.9	46.0
5																					
6	Planned Surcharge Revenue																				
7	Residential	U-17302, Exhibit A-2, line 37	\$70	\$69	\$69	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$11	\$11	\$7
8	Comm Secondary	U-17302, Exhibit A-2, line 38	\$23	\$23	\$23	\$4	\$4	\$4	\$4	\$4	\$4	\$4	\$4	\$4	\$4	\$4	\$4	\$4	\$4	\$4	\$3
9	Comm Primary / Industrial	U-17302, Exhibit A-2, line 39	\$7	\$7	\$7	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1
10	Total Unmetered	U-17302, Exhibit A-2, line 40	\$2	\$2	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11	Total	Sum of line 7 - line 10	\$102	\$102	\$102	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$16	\$16	\$10

Transfer Price Analysis and Alternative Scenarios
Sheet 4
(\$Millions)

Line No.	Description	Source	Actual 2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1	Surcharge Revenue	line 11, DTE Planned Surcharges reduced by 8.86%	102.3	102.0	102.1	13.4	13.4	13.5	13.5	13.5	13.6	13.7	13.7	13.8	13.9	13.9	14.0	14.1	14.1	14.2	9.5
2	Incremental Cost of Compliance	Sheet 2, line 20	34.7	64.9	68.5	69.5	65.4	38.1	24.8	13.7	3.5	(4.4)	(10.4)	(1.3)	14.8	42.9	42.3	41.5	38.9	38.3	36.3
3	Regulatory Liability - Increase / (Decrease)	line 1 - line 2	67.6	37.1	33.6	(56.1)	(52.0)	(24.7)	(11.3)	(0.1)	10.1	18.1	24.1	15.1	(0.9)	(29.0)	(28.3)	(27.4)	(24.7)	(24.1)	(26.8)
4	Regulatory Liability Ending Balance	2011 - U-17302, Exhibit A-2, line 45; Subsequent years = previous year line 4 + line 3	192.5	229.5	263.1	207.0	155.0	130.3	119.0	118.9	129.0	147.1	171.3	186.4	185.4	156.4	128.1	100.7	75.9	51.8	25.0
5																					
6	Planned Surcharge Revenue																				
7	Residential	U-17302, Exhibit A-2, line 37 (2014-2029 reduced by 8.86%)	\$70	\$69	\$69	\$9	\$9	\$9	\$9	\$9	\$9	\$9	\$9	\$9	\$9	\$9	\$10	\$10	\$10	\$10	\$6
8	Comm Secondary	U-17302, Exhibit A-2, line 38 (2014-2029 reduced by 8.86%)	\$23	\$23	\$23	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$2
9	Comm Primary / Industrial	U-17302, Exhibit A-2, line 39 (2014-2029 reduced by 8.86%)	\$7	\$7	\$7	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1
10	Total Unmetered	U-17302, Exhibit A-2, line 40 (2014-2029 reduced by 8.86%)	\$2	\$2	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11	Total	Sum of line 7 - line 10	\$102	\$102	\$102	\$13	\$13	\$13	\$13	\$14	\$14	\$14	\$14	\$14	\$14	\$14	\$14	\$14	\$14	\$14	\$10

91.14%

Transfer Price Analysis and Alternative Scenarios
Sheet 5
(\$Millions)

Line No.	Description	Source	Actual 2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1	Surcharge Revenue	line 11 - DTE Planned Surcharges reduced by 19.45%	102.3	102.0	102.1	11.8	11.9	11.9	11.9	12.0	12.0	12.1	12.1	12.2	12.2	12.3	12.4	12.4	12.5	12.6	8.4
2	Incremental Cost of Compliance	Sheet 2, line 20	34.7	64.9	68.5	69.5	65.4	38.1	24.8	13.7	3.5	(4.4)	(10.4)	(1.3)	14.8	42.9	42.3	41.5	38.9	38.3	36.3
3	Regulatory Liability - Increase / (Decrease)	line 1 - line 2	67.6	37.1	33.6	(57.7)	(53.6)	(26.2)	(12.9)	(1.7)	8.6	16.5	22.5	13.5	(2.6)	(30.6)	(30.0)	(29.1)	(26.4)	(25.7)	(27.9)
4	Regulatory Liability Ending Balance	2011 - U-17302, Exhibit A-2, line 45; Subsequent years = previous year line 4 + line 3	192.5	229.5	263.1	205.4	151.9	125.6	112.8	111.1	119.6	136.1	158.7	172.2	169.7	139.0	109.1	80.0	53.6	27.9	(0.0)
5																					
6	Planned Surcharge Revenue																				
7	Residential	U-17302, Exhibit A-2, line 37 (2014-2029 reduced by 19.45%)	\$70	\$69	\$69	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$9	\$6
8	Comm Secondary	U-17302, Exhibit A-2, line 38 (2014-2029 reduced by 19.45%)	\$23	\$23	\$23	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$2
9	Comm Primary / Industrial	U-17302, Exhibit A-2, line 39 (2014-2029 reduced by 19.45%)	\$7	\$7	\$7	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1
10	Total Unmetered	U-17302, Exhibit A-2, line 40 (2014-2029 reduced by 19.45%)	\$2	\$2	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11	Total	Sum of line 7 - line 10	\$102	\$102	\$102	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$13	\$8

80.55%

Depreciation Analysis and Alternative Scenarios
Sheet 1
(\$Millions)

Line No.	Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1	Plant in Service																		
2	Beginning Balance	116.8	494.3	767.3	965.9	1,127.6	1,136.0	1,141.6	1,149.3	1,158.7	1,169.7	1,180.9	1,193.8	1,206.8	1,220.7	1,234.2	1,249.6	1,265.1	1,282.0
3	In Service Amounts	377.6	272.9	198.6	161.7	8.4	5.6	7.7	9.4	11.0	11.2	12.9	13.0	13.4	15.4	15.5	16.9	17.6	
4	Ending Balance	494.3	767.3	965.9	1,127.6	1,136.0	1,141.6	1,149.3	1,158.7	1,169.7	1,180.9	1,193.8	1,206.8	1,220.7	1,234.2	1,249.6	1,265.1	1,282.0	1,299.6
5	Average Balance	225.2	630.8	866.6	1,046.7	1,131.8	1,138.8	1,145.5	1,154.0	1,164.2	1,175.3	1,187.4	1,200.3	1,213.8	1,227.5	1,241.9	1,257.3	1,273.5	1,290.8
6																			
7	Proportion of Renewables Allocated to Wind in MW	U-17302, Exhibit A-1	213.0	325.0	400.0	449.0	449.0	449.0	449.0	449.0	449.0	449.0	449.0	449.0	449.0	449.0	449.0	449.0	449.0
8	Proportion of Renewables Allocated to Solar in MW	U-17302, Exhibit A-1	5.0	9.0	13.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
9																			
10	Total Plant in Service - Average Balance	U-17302, Exhibit A-8, line 5	225.2	630.8	866.6	1,046.7	1,131.8	1,138.8	1,145.5	1,154.0	1,164.2	1,175.3	1,187.4	1,200.3	1,213.8	1,227.5	1,241.9	1,257.3	1,273.5
11	Less: Plant in Service - Average Balance Solar Assets @ \$5 per MW	Line 8 X \$ 5.00	25.0	45.0	65.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
12	Plant in Service - Average Balance Wind Assets	Line 10 - Line 11	200.2	585.8	801.6	971.7	1,056.8	1,063.8	1,070.5	1,079.0	1,089.2	1,100.3	1,112.4	1,125.3	1,138.8	1,152.5	1,166.9	1,182.3	1,198.5
13																			
14	Wind Depreciation Rate of 4.24% used in U-17302																		
15	Book Depreciation: Wind Assets @ DTE rate of 4.24%	Line 12 X 4.24%	8.5	24.8	34.0	41.2	44.8	45.1	45.4	45.7	46.2	46.7	47.2	47.7	48.3	48.9	49.5	50.1	50.8
16	Book Depreciation: Solar Assets (All less Wind)	Line 17 - line 15	5.0	2.3	3.4	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
17	Book Depreciation: All Renewable Assets	U-17302, Exhibit A-7, line 7	13.4	27.1	37.4	45.2	48.9	49.2	49.5	49.9	50.3	50.8	51.3	51.8	52.4	53.0	53.6	54.2	54.9
18																			
19	Alternative Wind Depreciation Rate of 2.93% (MEC Recommended)																		
20	Book Depreciation: Wind Assets @ DTE rate of 2.93%	Line 12 X 2.93%	5.9	17.2	23.5	28.5	31.0	31.2	31.4	31.9	32.2	32.6	33.0	33.4	33.8	34.2	34.6	35.1	35.6
21	Book Depreciation: Solar Assets	Line 16	5.0	2.3	3.4	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
22	Book Depreciation: All Renewable Assets	Line 20 + line 21	10.8	19.4	26.9	32.5	35.1	35.3	35.5	35.7	36.0	36.4	36.7	37.1	37.5	37.9	38.3	38.8	39.2
23																			
24	Alternative Wind Depreciation Rate of 3.39% (Consumers Settlement Rate)																		
25	Book Depreciation: Wind Assets @ DTE rate of 3.39%	Line 12 X 3.39%	6.8	19.9	27.2	32.9	35.8	36.1	36.3	36.9	37.3	37.7	38.1	38.6	39.1	39.6	40.1	40.6	41.2
26	Book Depreciation: Solar Assets	Line 16	5.0	2.3	3.4	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
27	Book Depreciation: All Renewable Assets	Line 25 + line 26	11.7	22.1	30.5	37.0	39.9	40.2	40.4	40.7	41.0	41.4	41.8	42.3	42.7	43.2	43.7	44.2	44.7
28																			
29	Alternative Wind Depreciation Rate of 3.54% (ABATE's Recommended)																		
30	Book Depreciation: Wind Assets @ DTE rate of 3.54%	Line 12 X 4.24%	7.1	20.7	28.4	34.4	37.4	37.7	37.9	38.2	38.6	39.0	39.4	39.8	40.3	40.8	41.3	41.9	42.4
31	Book Depreciation: Solar Assets	Line 16	5.0	2.3	3.4	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
32	Book Depreciation: All Renewable Assets	Line 30 + line 31	12.0	23.0	31.7	38.4	41.5	41.8	42.0	42.3	42.7	43.1	43.5	43.9	44.4	44.9	45.4	46.0	46.5
33																			
34																			
35																			
36	Based on Wind Depreciation Rate of 4.24% used in U-17302																		
37	Beginning Balance	Ending balance from previous year*	2.8	16.2	43.4	80.7	125.9	174.9	224.1	273.6	323.4	373.7	424.5	475.8	527.6	580.0	633.0	686.6	740.8
38	Ending Balance	Line 37 + line 17	16.2	43.4	80.7	125.9	174.9	224.1	273.6	323.4	373.7	424.5	475.8	527.6	580.0	633.0	686.6	740.8	795.7
39	Average Balance	(Line 37 + line 38)/2**	7.1	29.8	62.0	103.3	150.4	199.5	248.8	298.5	348.6	399.1	450.1	501.7	553.8	606.5	659.8	713.7	768.3
40																			
41	Based on Alternative Wind Depreciation Rate of 2.93% (MEC Recommended)																		
42	Beginning Balance	Ending balance from previous year*	2.8	13.6	33.1	59.9	92.4	127.5	162.8	198.2	234.0	270.0	306.3	343.1	380.1	417.6	455.5	493.8	532.6
43	Ending Balance	Line 42 + line 22	13.6	33.1	59.9	92.4	127.5	162.8	198.2	234.0	270.0	306.3	343.1	380.1	417.6	455.5	493.8	532.6	571.8
44	Average Balance	(Line 42 + line 43)/2**	6.3	23.3	46.5	76.2	109.9	145.1	180.5	216.1	252.0	288.2	324.7	361.6	398.9	436.6	474.6	513.2	552.2
45																			
46	Based on Alternative Wind Depreciation Rate of 3.39% (Consumers Settlement Rate)																		
47	Beginning Balance	Ending balance from previous year*	2.8	11.7	33.9	64.4	101.4	141.3	181.5	221.9	262.6	303.6	345.0	386.9	429.1	471.8	515.0	558.7	602.9
48	Ending Balance	Line 47 + line 27	11.7	33.9	64.4	101.4	141.3	181.5	221.9	262.6	303.6	345.0	386.9	429.1	471.8	515.0	558.7	602.9	647.6
49	Average Balance	(Line 47 + line 48)/2**	5.7	22.8	49.1	82.9	121.3	161.4	201.7	242.2	283.1	324.3	365.9	408.0	450.5	493.4	536.9	580.8	625.3
50																			
51	Based on Alternative Wind Depreciation Rate of 3.54% (ABATE's Recommended)																		
52	Beginning Balance	Ending balance from previous year*	2.8	12.0	35.0	66.8	105.2	146.7	188.5	230.5	272.8	315.5	358.6	402.1	446.0	490.4	535.3	580.8	626.7
53	Ending Balance	Line 52 + line 32	12.0	35.0	66.8	105.2	146.7	188.5	230.5	272.8	315.5	358.6	402.1	446.0	490.4	535.3	580.8	626.7	673.3
54	Average Balance	(Line 52 + line 53)/2**	5.8	23.5	50.9	86.0	126.0	167.6	209.5	251.7	294.2	337.0	380.3	424.0	468.2	512.9	558.0	603.7	650.0
55																			
56																			
57																			
58																			

* Beginning Depreciation Reserve Balance in 2012 is taken from U-17302, Exhibit A-8, line 8. Subsequent years beginning balance is the ending balance from the previous year.

** The Average Depreciation Reserve Balance in 2012 is calculated with the Beginning Balance valued at 68% and the Ending Balance valued at 32% - based on DTE's average presented in Exhibit A-8. All other years are averaged based on a true 50/50 valuation.

Depreciation Analysis and Alternative Scenarios

Sheet 2

(\$Millions)

Line No.			Actual																			
			Source	Units	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
1	Total Royalty and Easement Payments	U-17302, Exhibit A-7, line 1 & 10	\$Mil	0.1	0.5	1.4	2.0	2.4	2.9	3.1	3.2	3.5	3.6	3.7	3.8	3.9	3.9	4.0	4.0	4.1	4.2	4.4
2	O&M-MPSC Accts. 907, 908, 920	U-17302, Exhibit A-7, line 2 & 11	\$Mil	2.8	7.7	13.9	17.4	18.4	19.0	21.1	22.5	23.3	24.4	24.7	27.3	27.7	30.5	29.7	32.6	33.4	36.4	37.1
3	Insurance Expense	U-17302, Exhibit A-7, line 3 & 12	\$Mil	0.0	0.2	0.4	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
4	Property Tax	U-17302, Exhibit A-7, line 4 & 13	\$Mil	0.0	1.0	4.6	6.3	8.1	9.3	9.4	8.9	8.4	7.9	7.5	7.0	6.6	6.1	5.7	5.2	4.8	4.3	3.9
5	MIRECS Fees (1)	U-17302, Exhibit A-7, line 5 & 14	\$Mil	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
6	Miscellaneous Other Power: Coke Oven Gas Expense	U-17302, Exhibit A-7, line 6 & 15	\$Mil	0.5	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	Book Depreciation	Sheet 1, line 27 - CE Settlement Rates	\$Mil	2.8	11.7	22.1	30.5	37.0	39.9	40.2	40.4	40.7	41.0	41.4	41.8	42.3	42.7	43.2	43.7	44.2	44.7	45.3
8	Interest Received from ITC	U-17302, Exhibit A-7, line 8 & 17	\$Mil	0.0	(0.1)	(0.4)	(1.2)	(1.2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	Wind Curtailment Expense (2)	U-17302, Exhibit A-7, line 9 & 18	\$Mil	0.0	0.0	2.1	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Total Expense Elements of Incremental Cost of Compliance		Sum of lines 1 - 9	\$Mil	6.4	21.4	44.7	58.8	68.6	75.2	77.7	79.0	79.9	80.9	81.3	83.9	84.4	87.3	86.6	89.6	90.5	93.7	94.8

Depreciation Analysis and Alternative Scenarios
Sheet 3
(\$Millions)

Line No.	Description	Exhibit	Actual 2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1	Revenue Requirement Development																				
2	Average Rate Base																				
3	Plant In-Service	U-17302, Exhibit A-16, line 3	14.8	225.2	630.8	866.6	1,046.7	1,131.8	1,138.8	1,145.5	1,154.0	1,164.2	1,175.3	1,187.4	1,200.3	1,213.8	1,227.5	1,241.9	1,257.3	1,273.5	1,290.8
4	Construction Work in Progress	U-17302, Exhibit A-16, line 4	151.9	227.8	72.5	53.0	33.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	Accumulated Depreciation Reserve	Sheet 1, line 49 - Based on CE Settlement Rate	0.3	5.7	22.8	49.1	82.9	121.3	161.4	201.7	242.2	283.1	324.3	365.9	408.0	450.5	493.4	536.9	580.8	625.3	670.3
6	Net Plant	line 3 + line 4 - line 5	166.4	447.4	680.5	870.4	997.2	1,010.4	977.4	943.8	911.8	881.1	851.0	821.4	792.3	763.3	734.0	705.0	676.6	648.3	620.5
7	REC/ACEC Inventory	U-17302, Exhibit A-16, line 7	27.2	41.5	44.9	49.9	50.2	41.3	32.3	25.9	20.0	14.8	11.2	8.6	6.6	5.0	3.7	2.7	2.1	1.7	1.5
8	ITC A/R	U-17302, Exhibit A-16, line 8	0.3	3.7	13.9	24.5	12.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Accumulated Deferred Income Taxes	line 36	59.3	25.3	(46.8)	(90.3)	(159.2)	(216.6)	(252.2)	(268.4)	(269.1)	(258.6)	(240.6)	(221.8)	(208.2)	(203.3)	(203.9)	(204.3)	(204.0)	(203.2)	(202.9)
10	Net Rate Base (Average)	2011 Rec. Case, Sum lines 6 thru 9	253.2	517.8	692.5	854.5	901.1	835.2	757.5	701.2	662.7	637.3	621.6	608.2	590.8	565.0	533.8	503.5	474.7	446.8	419.1
11	Pre-Tax Rate of Return	U-17302, Exhibit A-16, line 11	11.60%	11.49%	11.65%	11.65%	11.65%	11.65%	11.65%	11.65%	11.65%	11.65%	11.65%	11.65%	11.65%	11.65%	11.65%	11.65%	11.65%	11.65%	11.65%
12	Revenue Requirements																				
13	Pre-Tax Return on Net Rate Base	2011 Rec. Case, line 10 X line 11	29.4	59.5	80.7	99.6	105.0	97.3	88.2	81.7	77.2	74.2	72.4	70.9	68.8	65.8	62.2	58.7	55.3	52.1	48.8
14	PPA Purchased Power	U-17302, Exhibit A-16, line 14	12.3	38.5	66.5	91.0	99.6	107.6	109.1	110.1	111.1	111.4	111.8	112.2	111.9	113.1	113.0	113.0	113.0	113.0	113.0
15	RECs/ACECs Consumed	U-17302, Exhibit A-16, line 15	-	12.9	13.6	16.4	25.6	19.7	15.5	12.5	9.3	7.0	5.4	4.2	3.3	2.4	1.8	1.4	1.2	1.0	0.6
16	Operation & Maintenance	U-17302, Exhibit A-16, line 16	3.5	8.1	14.3	17.6	18.5	19.2	21.3	22.7	23.5	24.5	24.9	27.5	27.9	30.7	29.9	32.8	33.6	36.6	37.3
17	Royalty Payments	U-17302, Exhibit A-16, line 17	0.1	0.5	1.4	2.0	2.4	2.9	3.1	3.2	3.5	3.6	3.7	3.8	3.9	3.9	4.0	4.0	4.1	4.2	4.4
18	Depreciation	Sheet 1, line 27 - Based on CE Settlement Rate	2.8	11.7	22.1	30.5	37.0	39.9	40.2	40.4	40.7	41.0	41.4	41.8	42.3	42.7	43.2	43.7	44.2	44.7	45.3
19	Property Taxes	U-17302, Exhibit A-16, line 19	0.0	1.0	4.6	6.3	8.1	9.3	9.4	8.9	8.4	7.9	7.5	7.0	6.6	6.1	5.7	5.2	4.8	4.3	3.9
20	Insurance	U-17302, Exhibit A-16, line 20	-	0.2	0.4	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
21	Interest Received from ITC	U-17302, Exhibit A-16, line 21	-	(0.1)	(0.4)	(1.2)	(1.2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	Wind Curtailment Expense	Per MEC Recommendation	-	-	2.1	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
23	Gross Revenue Requirements	(Lines 13 thru 22)	48.1	132.4	205.5	265.8	298.8	299.7	290.5	283.4	277.5	273.6	270.9	271.1	268.4	268.6	263.7	262.7	260.0	259.7	257.2
24																					
25																					
26	Deferred Tax Liability - Plant Depreciation (Note 1)																				
27	Beginning Balance	2011- U-17302, Exhibit A-24, line 14, then previous year, line 29	0.0	(43.8)	(127.0)	(158.0)	(203.0)	(248.3)	(284.0)	(304.6)	(312.2)	(310.9)	(303.2)	(292.5)	(282.0)	(271.8)	(261.7)	(251.6)	(241.6)	(231.7)	(221.9)
28	Book / Tax Timing Difference	line 45 + line 47	(43.8)	(83.2)	(31.0)	(45.0)	(45.2)	(35.8)	(20.5)	(7.6)	1.2	7.8	10.6	10.5	10.2	10.1	10.1	10.0	9.9	9.8	9.7
29	Ending Balance	line 27 + line 28	(43.8)	(127.0)	(158.0)	(203.0)	(248.3)	(284.0)	(304.6)	(312.2)	(310.9)	(303.2)	(292.5)	(282.0)	(271.8)	(261.7)	(251.6)	(241.6)	(231.7)	(221.9)	(212.1)
30	Average Balance	(line 27 + line 29) / 2	(4.4)	(58.2)	(142.5)	(180.5)	(225.6)	(266.1)	(294.3)	(308.4)	(311.5)	(307.0)	(297.8)	(287.3)	(276.9)	(266.7)	(256.7)	(246.6)	(236.7)	(226.8)	(217.0)
31																					
32	Deferred Tax Asset - Reg. Liability																				
33	Beginning Balance	U-17302, Exhibit A-24, line 20	48.7	74.8	89.2	102.2	78.2	54.6	44.5	39.7	40.2	44.6	52.2	62.2	68.7	68.8	58.0	47.4	37.2	28.1	19.2
34	Reg Liability Activity	U-17302, Exhibit A-24, line 21	26.0	14.4	13.0	(24.0)	(23.5)	(10.2)	(4.8)	0.5	4.5	7.6	10.0	6.4	0.2	(10.8)	(10.6)	(10.2)	(9.1)	(8.9)	(10.1)
35	Ending Balance	U-17302, Exhibit A-24, line 22	74.8	89.2	102.2	78.2	54.6	44.5	39.7	40.2	44.6	52.2	62.2	68.7	68.8	58.0	47.4	37.2	28.1	19.2	9.1
36	Average Balance	U-17302, Exhibit A-24, line 23	63.6	83.5	95.7	90.2	66.4	49.6	42.1	39.9	42.4	48.4	57.2	65.4	68.7	63.4	52.7	42.3	32.7	23.6	14.1
37																					
38	Total Deferred Taxes - Rate Base	line 30 + line 36	59.3	25.3	(46.8)	(90.3)	(159.2)	(216.6)	(252.2)	(268.4)	(269.1)	(258.6)	(240.6)	(221.8)	(208.2)	(203.3)	(203.9)	(204.3)	(204.0)	(203.2)	(202.9)
39																					
40	Note 1																				
41	Tax Depreciation	U-17302, Exhibit A-24, line 27	226.9	102.2	145.4	152.5	131.3	92.8	59.8	37.5	21.2	14.2	15.1	16.1	16.9	17.5	18.1	18.9	19.6	20.5	
42	Book Depreciation	Sheet 1, line 27 - Based on CE Settlement Rate	11.7	22.1	30.5	37.0	39.9	40.2	40.4	40.7	41.0	41.4	41.8	42.3	42.7	43.2	43.7	44.2	44.7	45.3	
43	Difference	line 41 - line 42	(215.2)	(80.0)	(114.9)	(115.6)	(91.4)	(52.5)	(19.4)	(3.2)	19.8	27.2	26.8	26.2	25.8	25.7	25.6	25.3	25.1	24.9	
44	Effective Tax Rate	U-17302, Exhibit A-24, line 30	39.15%	39.15%	39.15%	39.15%	39.15%	39.15%	39.15%	39.15%	39.15%	39.15%	39.15%	39.15%	39.15%	39.15%	39.15%	39.15%	39.15%	39.15%	39.15%
45	Deferred Tax (Expense) / Income	line 43 X line 44	(84.2)	(31.3)	(45.0)	(45.2)	(35.8)	(20.5)	(7.6)	1.2	7.8	10.6	10.5	10.2	10.1	10.1	10.0	9.9	9.8	9.7	
46																					
47	Add Solar Grant Deferred Tax Asset - Basis Difference	U-17302, Exhibit A-24, line 32		1.0	0.3																
48	Net Deferred Tax (Liability) for Plant	Prev Year Balance + line 45 + line 47	(43.9)	(127.1)	(158.1)	(203.1)	(248.3)	(284.1)	(304.6)	(312.2)	(311.0)	(303.2)	(292.6)	(282.1)	(271.9)	(261.8)	(251.7)	(241.7)	(231.8)	(221.9)	(212.2)

Depreciation Analysis and Alternative Scenarios
Sheet 4
(\$Millions)

Line No.	(a)	(b)	(c) Actual 2011	(d) 2012	(e) 2013	(f) 2014	(g) 2015	(h) 2016	(i) 2017	(j) 2018	(k) 2019	(l) 2020	(m) 2021	(n) 2022	(o) 2023	(p) 2024	(q) 2025	(r) 2026	(s) 2027	(t) 2028	(u) 2029
1	(2)(a)	Sum of Costs:																			
2	(i,ii,iii,iv)	Capital, O&M, ROE, Financing, Interconnect & Ancillary	35.8	80.9	125.4	158.4	173.5	172.5	166.0	160.7	157.1	155.2	153.7	154.8	153.2	153.1	148.8	148.2	145.8	145.8	143.7
3	(v)(A)	Expected RECs & ACECs to be Consumed	-	12.9	13.6	16.4	25.6	19.7	15.5	12.5	9.3	7.0	5.4	4.2	3.3	2.4	1.8	1.4	1.2	1.0	0.6
4	(v)(B)	Costs of Contracts under Sec 33(1) - Estimated PPA Charges	12.3	38.5	66.5	91.0	99.6	107.6	109.1	110.1	111.1	111.4	111.8	112.2	111.9	113.1	113.0	113.0	113.0	113.0	113.0
5	(vi)	State & Federal Government Actions Related to Renewable Energy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	(vii)	Additional Costs Determined Necessary by the Commission	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7		Subtotal of Costs (Gross Revenue Requirement)	48.1	132.4	205.5	265.8	298.8	299.7	290.5	283.4	277.5	273.6	270.9	271.1	268.4	268.6	263.7	262.7	260.0	259.7	257.2
8	(2)(b)	Subtractions from the Sum of Costs:																			
9	(i)	Revenue from the Sale of Environmental Attributes - REC Sales	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	(iii)	Tax Credits to Promote Renewable Energy - PTC	0.1	9.0	25.4	40.6	52.0	56.4	57.8	59.5	61.1	63.0	64.5	53.4	33.5	3.8	-	-	-	-	-
11		Tax Benefit of Solar Grants	-	1.7	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	(iv)	Cost Recovered under the PSCR (Transfer Expense)	12.6	57.6	113.2	152.6	175.2	205.5	207.5	211.7	213.6	214.5	214.9	215.7	215.7	217.5	217.5	217.9	218.2	218.9	218.7
13	(v)	Revenue From Wholesale Renewable Energy Sales	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	(vi)	Additional Revenue as Determined by the Commission	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	(vii)	Revenues Recovered in Rates for Renewable Energy Costs Included in 2(a)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16		Subtotal of Subtractions	12.7	68.3	139.1	193.2	227.2	261.9	265.3	271.2	274.7	277.5	279.3	269.0	249.2	221.3	217.5	217.9	218.2	218.9	218.7
17		Subtotal - Prior to Interest on Regulatory Liabilities	35.4	64.1	66.4	72.6	71.6	37.8	25.2	12.2	2.8	(3.9)	(8.4)	2.1	19.1	47.3	46.2	44.8	41.8	40.9	38.5
18	(2)(a)(ii)	Interest on Regulatory Liabilities @ Short Term Interest Rate	0.6	0.8	1.8	2.3	3.4	3.9	4.4	4.2	4.4	5.0	5.9	6.8	7.1	6.6	5.5	4.4	3.4	2.5	1.5
19	(3)	Carrying Charges for Regulatory Assets @ Pre-tax Cost of Capital	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20		Total Incremental Cost of Compliance	34.8	63.2	64.5	70.2	68.2	33.9	20.9	8.0	(1.6)	(8.9)	(14.3)	(4.7)	12.0	40.7	40.7	40.4	38.4	38.4	37.0
Line No.																					
		Sum of Costs:																			
2		Capital, O&M, ROE, Financing, Interconnect & Ancillary																			
3		Expected RECs & ACECs to be Consumed																			
4		Costs of Contracts under Sec 33(1) - Estimated PPA Charges																			
5		State & Federal Government Actions Related to Renewable Energy																			
6		Additional Costs Determined Necessary by the Commission																			
8		Subtractions from the Sum of Costs:																			
9		Revenue from the Sale of Environmental Attributes - REC Sales																			
10		Tax Credits to Promote Renewable Energy - PTC																			
11		Tax Benefit of Solar Grants																			
12		Cost Recovered under the PSCR (Transfer Expense)																			
13		Revenue From Wholesale Renewable Energy Sales																			
14		Additional Revenue as Determined by the Commission																			
15		Revenues Recovered in Rates for Renewable Energy Costs Included in 2(a)																			
16		Subtotal of Subtractions																			
17		Subtotal - Prior to Interest on Regulatory Liabilities																			
18		Interest on Regulatory Liabilities @ Short Term Interest Rate																			
19		Carrying Charges for Regulatory Assets @ Pre-tax Cost of Capital																			
20		Total Incremental Cost of Compliance																			

Source:
Sheet 3, line 23 minus lines 14 & 15
U17302, Exhibit A-15, line 3
U17302, Exhibit A-15, line 4
none
none
none
U17302, Exhibit A-15, line 10
U17302, Exhibit A-15, line 11
U17302, Exhibit A-15, line 12
none
none
none
Sum lines 9 thru 15
Line 7 minus line 16
U17302, Exhibit A-15, line 18
none
line 17 minus line 18 plus line 19

Depreciation Analysis and Alternative Scenarios

Sheet 5

(\$Millions)

Line No.	Description	Source	Actual 2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1	Surcharge Revenue	line 11, DTE Planned Surcharges	102.3	102.0	102.1	14.7	14.7	14.8	14.8	14.9	14.9	15.0	15.1	15.1	15.2	15.3	15.3	15.4	15.5	15.6	10.4
2	Incremental Cost of Compliance	Sheet 4, line 20	34.7	63.2	64.5	70.2	68.2	33.9	20.9	8.0	(1.6)	(8.9)	(14.3)	(4.7)	12.0	40.7	40.7	40.4	38.4	38.4	37.0
3	Regulatory Liability - Increase / (Decrease)	line 1 - line 2	67.6	38.8	37.5	(55.6)	(53.4)	(19.2)	(6.0)	6.8	16.5	23.9	29.4	19.8	3.2	(25.4)	(25.3)	(25.0)	(22.9)	(22.8)	(26.5)
4	Regulatory Liability Ending Balance	2011 - U-17302, Exhibit A-2, line 45; Subsequent years = previous year line 4 + line 3	192.5	231.2	268.7	213.2	159.8	140.6	134.5	141.4	157.9	181.8	211.1	231.0	234.1	208.7	183.4	158.4	135.5	112.7	86.1
5																					
6	Planned Surcharge Revenue																				
7	Residential	U-17302, Exhibit A-2, line 37	\$70	\$69	\$69	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$11	\$11	\$7
8	Comm Secondary	U-17302, Exhibit A-2, line 38	\$23	\$23	\$23	\$4	\$4	\$4	\$4	\$4	\$4	\$4	\$4	\$4	\$4	\$4	\$4	\$4	\$4	\$4	\$3
9	Comm Primary / Industrial	U-17302, Exhibit A-2, line 39	\$7	\$7	\$7	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1
10	Total Unmetered	U-17302, Exhibit A-2, line 40	\$2	\$2	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11	Total	Sum of line 7 - line 10	\$102	\$102	\$102	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$16	\$16	\$10

Depreciation Analysis and Alternative Scenarios
Sheet 6
(\$Millions)

Line No.	Description	Source	Actual 2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1	Surcharge Revenue	line 11 - DTE Planned Surcharges reduced by 25.82%	102.3	102.0	102.1	10.9	10.9	10.9	11.0	11.0	11.1	11.1	11.2	11.2	11.3	11.3	11.4	11.4	11.5	11.6	7.7
2	Incremental Cost of Compliance	Sheet 4, line 20	34.8	63.2	64.5	70.2	68.2	33.9	20.9	8.0	(1.6)	(8.9)	(14.3)	(4.7)	12.0	40.7	40.7	40.4	38.4	38.4	37.0
3	Regulatory Liability - Increase / (Decrease)	line 1 - line 2	67.5	38.8	37.5	(59.3)	(57.2)	(23.0)	(9.9)	3.0	12.7	20.0	25.5	15.9	(0.7)	(29.4)	(29.3)	(29.0)	(26.9)	(26.8)	(29.2)
4	Regulatory Liability Ending Balance	2011 - U-17302, Exhibit A-2, line 45; Subsequent years = previous year line 4 + line 3	192.5	231.2	268.7	209.4	152.2	129.2	119.3	122.3	135.0	155.0	180.5	196.4	195.6	166.3	136.9	108.0	81.1	54.3	25.0
5																					
6	Planned Surcharge Revenue																				
7	Residential	U-17302, Exhibit A-2, line 37 (2014-2029 reduced by 25.82%)	\$70	\$69	\$69	\$7	\$7	\$7	\$7	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$5
8	Comm Secondary	U-17302, Exhibit A-2, line 38 (2014-2029 reduced by 25.82%)	\$23	\$23	\$23	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$2
9	Comm Primary / Industrial	U-17302, Exhibit A-2, line 39 (2014-2029 reduced by 25.82%)	\$7	\$7	\$7	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1
10	Total Unmetered	U-17302, Exhibit A-2, line 40 (2014-2029 reduced by 25.82%)	\$2	\$2	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11	Total	Sum of line 7 - line 10	\$102.3	\$102.0	\$102.1	\$10.9	\$10.9	\$10.9	\$11.0	\$11.0	\$11.1	\$11.1	\$11.2	\$11.2	\$11.3	\$11.3	\$11.4	\$11.4	\$11.5	\$11.6	\$7.7

74.18%

Depreciation Analysis and Alternative Scenarios

Sheet 7
(\$Millions)

Line No.	Description	Source	Actual 2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1	Surcharge Revenue	line 11, DTE Planned Surcharges reduced by 36.40%	102.3	102.0	102.1	9.3	9.4	9.4	9.4	9.5	9.5	9.5	9.6	9.6	9.7	9.7	9.8	9.8	9.9	9.9	6.6
2	Incremental Cost of Compliance	Sheet 4, line 20	34.8	63.2	64.5	70.2	68.2	33.9	20.9	8.0	(1.6)	(8.9)	(14.3)	(4.7)	12.0	40.7	40.4	38.4	38.4	37.0	
3	Regulatory Liability - Increase / (Decrease)	line 1 - line 2	67.5	38.8	37.5	(60.9)	(58.8)	(24.5)	(11.4)	1.4	11.1	18.4	23.9	14.3	(2.4)	(31.0)	(30.9)	(30.6)	(28.5)	(28.5)	(30.3)
4	Regulatory Liability Ending Balance	2011 - U-17302, Exhibit A-2, line 45; Subsequent years = previous year line 4 + line 3	192.5	231.2	268.7	207.8	149.1	124.5	113.1	114.5	125.6	144.0	167.9	182.2	179.9	148.9	117.9	87.3	58.8	30.3	(0.0)
5																					
6	Planned Surcharge Revenue																				
7	Residential	U-17302, Exhibit A-2, line 37 (2014-2029 reduced by 36.40%)	\$70	\$69	\$69	\$6	\$6	\$6	\$6	\$6	\$6	\$6	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$5
8	Comm Secondary	U-17302, Exhibit A-2, line 38 (2014-2029 reduced by 36.40%)	\$23	\$23	\$23	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$2
9	Comm Primary / Industrial	U-17302, Exhibit A-2, line 39 (2014-2029 reduced by 36.40%)	\$7	\$7	\$7	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$0
10	Total Unmetered	U-17302, Exhibit A-2, line 40 (2014-2029 reduced by 36.40%)	\$2	\$2	\$2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11	Total	Sum of line 7 - line 10	\$102.3	\$102.0	\$102.1	\$9.3	\$9.4	\$9.4	\$9.4	\$9.5	\$9.5	\$9.5	\$9.6	\$9.6	\$9.7	\$9.7	\$9.8	\$9.8	\$9.9	\$9.9	\$6.6

63.60%

MPSC Case No.: U-17302
Respondent: C. Conlen
Requestor: MEC- 1
Question No.: MEC/DE-1.7
Page: 1 of 1

Question: Provide the percentage of the company's renewable energy requirement that you expect will be provided by each wind energy PPA and company owned wind energy project.

Answer: See below.

Project	Renewable Portfolio as % of Sales
Power Purchase Agreements	
Stoney Corners	0.2%
Gratiot County Wind	0.7%
Tuscola Bay Wind	0.9%
Tuscola Wind II	0.9%
Pheasant Run I & II	1.3%
DTE Electric Owned	
Gratiot Wind Park	0.7%
Thumb Wind Park	1.0%
Echo Wind Park	1.1%

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Question: Refer to Charles Conlen's direct testimony at pages 11-12, and to Exhibit A-12.

- a. Clarify whether DTE Electric considers the Pheasant Run Wind II project to be a self-build or contract renewable energy project.

Answer: The Pheasant Run II wind project is not a self-build. The Company's REP anticipates that it will elect its option to acquire the project, after which time it would be a Company-owned facility.

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Question: Refer to Charles Conlen's direct testimony at pages 11-12, and to Exhibit A-12.

- b. Does the Company expect to purchase Pheasant Run II, pursuant to its option, immediately following its commercial operation date? If not, when does the Company expect to purchase the project?

Answer: The Company's REP assumes that the project would be acquired shortly after it reaches its commercial operation date.

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Question: Refer to discovery response MEC/DE-1.12. Provide the average actual (to-date) and projected (over the life of the REP) cost, in \$/MWh and for DTE Electric only, of:

- a. Company-owned solar projects;

Answer: The Company has not performed the requested calculations.

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Question: Refer to discovery response MEC/DE-1.12. Provide the average actual (to-date) and projected (over the life of the REP) cost, in \$/MWh and for DTE Electric only, of:

b. Non-Company-owned solar projects;

Answer: The Company has not performed the requested calculations. Any non-company owned solar projects that provide RECs to the REP provide energy to the Company through the net metering program and not under the REP.

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Question: Refer to discovery response MEC/DE-1.12. Provide the average actual (to-date) and projected (over the life of the REP) cost, in \$/MWh and for DTE Electric only, of:

c. Company-owned wind projects;

Answer: The Company has not performed the requested calculations.

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Question: Refer to discovery response MEC/DE-1.12. Provide the average actual (to-date) and projected (over the life of the REP) cost, in \$/MWh and for DTE Electric only, of:

d. Non-Company-owned wind projects.

Answer: The Company has not performed the requested calculations.

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Question: If you identified any build, purchase, or contract plans in response to the previous discovery request and its subparts, describe each plan in detail, and include any projection of prices (in \$/MWh) and projected date of operation.

Answer: Capacity amounts and commercial operation dates are shown in Exhibits A-5 and A-12. The Company forecasts the future Company-owned wind project at a Levelized cost of \$81/MWh with a commercial operation date in late 2015 and the future PPA at \$53/MWh with a commercial operation date at the end on 2014.

The Company does not have a single levelized cost projection for the future solar projects.

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Requestor: MEC- 1
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Question: Provide the levelized and yearly cost of each wind power purchase agreement that the company has entered into, in dollars per MWh.

Answer: See table provided below.

For the PPAs listed, pricing is fixed over the term of the agreement, so the yearly cost per MWh and levelized cost per MWh are equivalent.

PPA Project	\$/MWh Cost
Heritage Stoney Corners	116.00
Gratiot County Wind	91.43
Tuscola Bay Wind	Up to 60.90
Tuscola Wind II	Up to 70.45
Pheasant Run Wind I & II	Up to 49.25

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Question: Refer to discovery response MEC/DE-1.4b: Produce the evaluation described in your answer. If there was not a written evaluation, identify the factors that led to not selecting Geronimo Energy in each instance, and describe the evaluation of each factor.

Answer: DTE Electric objects to producing the above-mentioned information that relates to a written evaluation or an identification of the factors that lead to not selecting projects for its REP for the reasons that the request is not relevant to a PA 295 Plan proceeding and seeks confidential commercial and proprietary information.

The Commission determined in MPSC Case No. U-11130 that executed wholesale power purchase agreements contain confidential information. As a result, the Commission limited disclosure of the confidential portions to the MPSC Staff only in order to "strike a proper balance between the public interest in disclosure and the protection of commercially sensitive information in a competitive environment." MPSC Case No. U-11130, Order dated October 20, 1997 p. 13; Accord, MPSC Case No. U-11631, Order dated April 14, 1998; MPSC Case No. U-11804 Order dated December 21, 1998; MPSC Case No. U-11688 Order dated June 26, 1998; MPSC Case No. U-11661 Order dated June 26, 1998. The Commission has further determined in a Detroit Edison PSCR case, "Orders issued by the Commission and the Federal Energy Regulatory Commission have opened the doors to competition in the electric power market. Accordingly, the contention that a utility will be irreparably compromised by disclosure of commercially sensitive information and confidential cost data is much more compelling that it was a dozen years ago." MPSC Case No. U-11175, Order dated February 11, 1997 p. 6. This request seeks similar commercially sensitive and confidential information.

Notwithstanding the above objection, the Company can provide the following additional details regarding the Geronimo Energy Apple Blossom project:

When Geronimo Energy submitted a proposal with a lower price than the Pheasant Run project, the Pheasant Run contracts had already been executed and the application seeking their approval had been filed with the MPSC; our evaluation found significant environmental concerns since a large portion of the 100 MW project did not adhere to the US Fish and

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Wildlife setback guidelines for distance from the lakeshore; concerns about the counterparty experience in developing projects since Geronimo had only developed one operating project greater than 50 MW; as well as concerns about the ability of the project to qualify for production tax credits, since it was not considered capable of achieving an interconnection by the end of 2013 and there was risk associated with negotiating acceptable terms and conditions of a power purchase agreement in a reasonable time with a new counterparty.