STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the matter of the application of International Transmission Company, d/b/a ITC*Transmission*, for a certificate of public convenience and necessity for the construction of a transmission line other than a major transmission line, running through Genoa Township, Hartland Township, Oceola Township, Milford Township, and Brighton Township.	)	**Case No. U-14861**

DIRECT TESTIMONY

OF

RICHARD N. COLLINS, P.E.

ON BEHALF OF

ITC*TRANSMISSION*

July 27, 2006

S T A T E O F M I C H I G A N

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DIRECT TESTIMONY OF RICHARD N. COLLINS, P.E.

Q_1 PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A_1 My name is Richard N. Collins, My business address is Commonwealth Associates, Inc., 2700 West Argyle Street, Jackson, Michigan 49202.

Q_2 WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A_2 I am employed by Commonwealth Associates, Inc. *("CAI")*, as Project Manager.

Q_3 PLEASE SUMMARIZE YOUR QUALIFICATIONS.

A_3 My experience includes more than 22 years of experience in the civil/structural engineering design of many types of structures and foundations -- the past 15 years in the transmission line engineering field. My experience includes upgrading and reconductoring of existing transmission lines ranging from 34 kV to 138 kV and new line designs up to 345 kV. My responsibilities include the supervision of staff comprising

engineers, designers, and CADD operators, along with design, calculations, cost estimates, construction drawings and specifications for transmission line structures and their foundations.

My professional background includes positions with SSOE Inc., of Flint, Michigan (1984 to 1991); and my current employer, Commonwealth Associates, Inc. (1991 to present).

My project experience includes the following:

-- Project Engineer for a 33 mile double circuit 230 kV line for ITC*Transmission* (steel poles designed to replace an existing 120 kV wood H-frame line.)

-- Foundation Design Engineer for a 230/115 kV overhead line project for AES Corporation, where most of the drilled pier foundations were set in rock – and blasting with dynamite created a need for continuous coordination with the contractor during construction.

-- Project Manager for engineering of Bangor Hydro-Electric Company's 84 mile Northeast Reliability Interconnect to New Brunswick.

-- Project Manager for a 13-mile 230 kV transmission line turnkey project in California – with the project used double-circuit steel poles and bundled 2156 kcmil "Bluebird" conductor to connect an existing substation with an IPP power plant.

-- Project Manager for a 5-mile 230 kV transmission line in New Jersey for Conectiv – with the line using bundled 2493 kcmil ACAR conductors supported by steel poles on caisson foundations.

-- Project Manager for the routing, design, and material procurement for a 7-mile 115 kV line for Rochester Gas and Electric Corporation – where the project involved building over existing 34.5 kV and 12 kV lines through an existing congested urban and industrial corridor. This project also included two short segments of 115 kV solid dielectric underground cable.

-- Project Engineer for a 4 mile triple circuit line connecting Indeck Energy Services, Inc.'s new combined cycle power plant to an existing substation – where the line consisted of one 345 kV circuit over two 138 kV circuits on a single steel-pole-structure.

-- Prepared Engineer Procure Construct (EPC) transmission line specifications and cost estimates for 500 kV lines in South America for New England Global Transmission Company.

-- Developed preliminary design and cost estimates for comparing a 500 kV versus a ±450 kV DC line in Australia.

-- Conducted a field inspection and prepared a report detailing different repair alternatives for two severely deteriorated concrete foundations built in the 1930s to support lattice towers at the base of a hydro dam on the Connecticut River in New Hampshire for New England Power Service Company.

-- Project Engineer for the design of self-supporting steel and glu-lam poles for Seattle City Light – where the Port Authority was undergoing a major redesign of

two of its terminals and the distribution system had to be rebuilt to accommodate the new infrastructure.

I have a Bachelor of Science Degree in Civil Engineering from the University of Michigan (1984). I am a registered Professional Engineer in the states of Michigan (1989), Alabama (2002); Illinois (2002); New York (2002); Oklahoma (2003); Texas (2003); Virginia (2003); Tennessee (2003); Maine (2004); Maryland (2006); and registered as a Professional Civil Engineer in California (1999).

I am a member of the National Society of Professional Engineers; the American Society of Civil Engineers; IEEE, and the Power Engineering Society; Towers, Poles and Conductors Sub-Committee.

My publications include the following:

-- "Interfacing with Structure Modules," presented at the PLS-CADD Users Group Meeting, Jackson, Michigan, October 1998.

-- "Bridge Optimization Using WIRELDS and MINDES for the Marketplace-Mead-Westwing 500 kV Transmission Line Lattice Tower Design," presented at the Electrical Power Research Institute Midwest Users Group Meeting, Jackson, Michigan, July 1992.

Q_5 WHAT IS THE PURPOSE OF YOUR TESTIMONY.

A_5 As described in the prefiled testimony of Thomas W. Vitez, ITC*Transmission* intends to construct a transmission line other than a major transmission line running through the following municipalities: Genoa Township, Hartland Township, Oceola Township,

Milford Township, and Brighton Township**.** With respect to this line, I will address (i) the potential effects on public health and safety and (ii) compliance with applicable state and federal environmental standards, laws and rules.

Q_6 PLEASE ADDRESS POTENTIAL EFFECTS OF THE TRANSMISSION LINE ON PUBLIC HEALTH AND SAFETY.

A_6 Health and safety concerns associated with high voltage transmission lines usually focus on the possible effects of electric and magnetic fields. Dr. Peter A. Valberg is providing expert testimony as to these concerns.

All transmission lines in the United States must comply with the minimum safety standards as prescribed by the National Electric Safety Code (NESC).

ITC*Transmission's* design standards, which CAI used in the design of this transmission line as well as all lines for ITC*Transmission*, meets or exceeds the NESC. For example, two of the most basic safety provisions from the NESC involve the clearance over the ground to safeguard the public and the structural loads used in the design of the structures to help prevent the structures from failure. For a 120 kV transmission line, the NESC requires the conductor to maintain a ground clearance of 20.2 feet, but ITC Transmission requires 27 feet of ground clearance. The NESC requires only two loads cases for structures design. A NESC "Heavy" load case (1/2 inch Ice and 4 psf wind pressure) and an extreme wind case. ITC*Transmission* requires not only these two loads cases but also a 1½ inch heavy ice case and several others relating to the breaking of wires and other conditions that could have an adverse affect on the structure. As a consultant, CAI is

required to design all transmission lines to meet not only the client standards but all applicable state and federal codes which, in Michigan, is the NESC.

Q_7 PLEASE ADDRESS WHETHER THE PROPOSED TRANSMISSION LINE WILL COMPLY WITH ALL APPLICABLE STATE AND FEDERAL ENVIRONMENTAL STANDARDS, LAWS AND RULES.

A_7 On behalf of ITC*Transmission*, CAI conducted numerous environmental activities required by both federal and state environmental regulations. These activities are mandated by the following:

-- Natural Resource and Environmental Protection Act of 1994

-- Clean Water Act of 1972

-- Endangered Species Act of 1973

-- National Historic Preservation Act of 1966

A "letter of no effect" has been received from both the Michigan Department of Natural Resources and the US fish and Wildlife Service. A copy of this letter, dated March 20, 2006, is attached as Exhibit A-8.

The Michigan Department of Environmental Quality has notified CAI that the wetland permit has been approved although the permit is as of yet not in hand.

A "letter of no effect" has not yet been received from the State Historic Preservation Office although field surveys have revealed no adverse affect in this regard. A letter of no effect is expected.

Soil Erosion and Sedimentation permits for Livingston and Oakland Counties have been received. Copies of these permits are attached as Exhibits A-9 and A-10, respectively.

Based on the permit activities completed as listed above, the proposed transmission line will comply with all applicable state and federal environmental standards, laws and rules.

Q_8 DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A_8 Yes, it does.

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
East Lansing Field Office (ES)
2651 Coolidge Road, Suite 101
East Lansing, Michigan 48823-6316

IN REPLY REFER TO:

March 20, 2006

Mr. Joel E. Schaffer
Commonwealth Associates, Inc.
PO Box 1124
Jackson, MI 49204-1124

Re: Request for Threatened and Endangered Species Clearance, Proposed International Transmission Company's Genoa to Prizm Transmission Line Project, Oakland & Livingston Counties, Michigan

Dear Mr. Schaffer:

This letter responds to your March 13, 2006 correspondence requesting U. S. Fish and Wildlife Service (Service) concurrence that the above referenced project may affect, but is *not likely to adversely affect* the endangered Indiana bat (*Myotis sodalis*). Under this Federal Energy Regulatory Commission (FERC) regulated project, Commonwealth Associates, Inc. (CAI), a consultant for the International Transmission Company (ITC), is serving as a non-federal representative for purposes of section 7 of the Endangered Species Act of 1973, as amended (Act). The International Transmission Company proposes to remove several trees for the construction of a new electrical transmission line between their Genoa Substation, Livingston County and the Prizm Substation, Oakland County, for a distance of approximately 20 miles. You were advised by this office in a letter dated February 14, 2006, that the proposed project is within the breeding range of the Indiana bat and we recommended project proponents assess potential effects to Indiana bats.

According to your letter, an Indiana bat habitat analysis was conducted by Dr. Allen Kurta on February 28 and March 6, 2006. Dr. Kurta advised in the assessment and March 3, 2006 email to you that a number of potential roost trees would be impacted; however, they are generally low in quality and scattered throughout the length of the 20-mile transmission line. A total of 41 trees (6 high quality, 5 medium quality and 30 low quality) were considered as potential roosts based on amount of bark, sunlight and accessibility, and factors such as isolation from other wooded locations or closeness to the road were not included.

Dr. Kurta also informed that due to the developed nature of the area, patches of woods are typically small and isolated with potential roosts located within 30 feet of a major highway. This is in contrast to habitat preferred by Indiana bats, which is described as wooded areas connected by corridors, with very few disturbances and low development. In conclusion, Dr. Kurta stated it

is unlikely that the identified potential roost trees would ever be occupied by a colony of Indiana bats, although individual trees may be suitable in terms of structure, incident sunlight and ease of access.

ITC proposes to remove trees identified as potential roosts prior to March 31, 2006, as recommended by Dr. Kurta, to avoid potential direct adverse effects to any Indiana bats that may utilize the area. Because temporal tree removal restrictions will be implemented, you have determined that this project is *not likely to adversely affect* Indiana bats.

We concur that this project may affect, but is *not likely to adversely affect* Indiana bat. This precludes the need for further action on this project, by CAI, on behalf of the FERC, as required by section 7 of the Act. If the project is modified or new information about the project becomes available that indicates listed species or critical habitat may be affected in a manner or to an extent not previously considered, you should reinitiate consultation with this office.

We appreciate your concern for endangered and threatened species. Any questions can be directed to Tameka Dandridge of this office at Tameka_Dandridge@fws.gov or 517/351-8315.

Sincerely,

Acting for Craig A. Czarnecki
Field Supervisor

cc: MDNR-Wildlife Division, Lansing, MI (Attn: Lori Sargent)

s: admin/archives/mar06/se list/CAI-Genoa_Prizm-concur.tnd.doc

Livingston County Soil Erosion & Sedimentation Control
2300 E. Grand River, Suite 105
Howell, MI 48843-7850
PHONE: 517.546.0040 * FAX: 517.545.9658
http://co.livingston.mi.us/drain

Commercial Grading Permit

SITE ADDRESS:	**2450 BECK RD HOWELL 48843**	**Permit #:**	**SOI2006-00156**
PARCEL NO.:	**11-07-400-027**	APPLIED:	**3/8/2006**
TOWNSHIP:	**Genoa Township**		

DIRECTIONS TO SITE

Requestor
ITC
39500 ORCHARD HILL PLACE DR
NOVI MI 48375

Contractor
INTERNATIONAL TRANSMISSION CO
39500 ORCHARD HILL PL, STE 200
NOVI MI 48375

SOI

Initiation of any work on the permitted project confirms the Permittee's acceptance and agreement to comply with all terms and conditions of this permit.

Issued By: **Deborah Ursin**

Note: This Permit & Plan to be kept at job site at all times until Permit is closed.

PROJECT DESCRIPTION

GENOA-DURANT ELECTRIC TRNSMISSION LINE - IN OCEOLA, HARTLAND, GENOA, AND BRIGHTON TOWNSHIPS- APPROX 16 MILES OF LINE - COMM UTILITY

In issuing this permit, the Livingston County Soil Erosion and Sedimentation Control Enforcement Division has relied on the information and data which the applicant has provided with the permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete, or inaccurate, the Livingston County Soil Erosion and Sedimentation Control Enforcement Division may modify, revoke, or suspend the permit, in whole or in part.

THIS CARD MUST BE CONSPICUOUSLY POSTED AT FRONT OF WORK SITE.

Periodic inspections will be made until project closure. It is the responsibility of the permittee to contact this office for the final inspection when the entire site is stabilized and all permit requirements are met. The $2.25 per day will be a continuous and accumulating charge on your project until a certificate of final is granted from the L.C.D.C..

Failure to comply with the conditions of this permit may subject the permit holder to revocation of permit and criminal and/or civil action as cited by the specific State Act, Federal Act and/or Rule under which this is granted.

QUESTIONS REGARDING THIS PROJECT, CONTACT (517) 546.0040

It is required that, Temporary stabilization of the entire site be completed. This shall be done with seed and stabilized with straw with a tackifier. After this process is completed, - A Temporary Stabilization Authorization Form - from the Livingston County Drain Commissioners Office must be obtained, prior to the issuance of any single family dwelling permits within such developments.

It is required that all commercial projects constructed within Livingston County shall install 36" Silt Fence, (No Exceptions).

SOIL EROSION & SEDIMENT CONTROL PERMIT

May 15, 2006
Date Issued

MIT/2006-0567/18/UT
Permit Number

Under the provisions of Part 91 of Act 451 of 1994, approval of the soil erosion and sediment control plan filed with office for the following earth disruption is granted.

Project Description:	GENOA-DURANT ELECTRICAL TRANSMISSION LINE	
Project Location:	SECTION 18, CHARTER TOWNSHIP OF MILFORD	
	3300 GENERAL MOTORS ROAD, COMMERCE RD & HICKORY RIDGE ROAD	
Owner Or Agent:	GENERAL MOTORS COPORATION	
Street Address:	3300 GM ROAD	**Phone**: (248) 685-5325
City And State:	MILFORD, MICHIGAN	**Zip**: 48380
Review Fee:	$165.00	**Inspection Fee**: $2, 125.00

CONDITIONS AND CLARIFICATIONS:

1. This permit does not include or constitute a drainage review.
2. This permit does not waive the necessity for any other Federal, State or local permits as may be applicable to the project.
3. This permit is subject to any changes deemed necessary by this office to insure that no sedimentation occurs to any off-site areas or waters of the state.
4. This permit is issued for a plan prepared by COMMONWEALTH ASSOCIATES. Sheet(s) 1 THROUGH 3, last dated 4/15/2006.
5. IF THIS WORK SITE IS BETWEEN ONE (1) AND FIVE (5) ACRES AND HAS A POINT SOURCE DISCHARGE OF THE STORM WATER TO WATERS OF THE STATE (DIRECTLY OR THROUGH A SEPARATE STORM DRAIN SYSTEM), THE SITE HAS AUTOMATIC COVERAGE UNDER THE PERMIT-BY-RULE FOR STORM WATER DISCHARGE. IF THIS WORK SITE IS FIVE (5) ACRES OR LARGER AND HAS A POINT SOURCE DISCHARGE OF THE STORM WATER TO WATERS OF THE STATE (DIRECTLY OR THROUGH A SEPARATE STORM DRAIN SYSTEM), A FEDERAL STORM WATER DISCHARGE PERMIT (N.P.D.E.S. PERMIT) WILL BE REQUIRED. A NOTICE OF COVERAGE (NOC) FORM, SITE MAP, A COPY OF THE SESC PERMIT, AND PERMIT FEE MUST BE RECEIVED BY THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY BEFORE ANY CONSTRUCTION BEGINS AT THE SITE. CALL AT (517) 241-8993 FOR MORE INFORMATION.
6. Construction of ELECTRICAL TOWERS/ELECTRICAL LINES and all appurtenances shall proceed according to the following sequence of construction.
   a. Construct temporary erosion and sedimentation control measures according to the plans and this permit, and then begin construction.
   b. Continue construction providing temporary erosion and sedimentation control measures as required.
   c. Continue construction to completion, including backfill, grading of spoil material and restoration.
7. Install geotextile sediment control fencing: 24" (inches) of fabric with 6" (inches) to be trenched and compacted into the ground with stakes every 6' (feet) on center.

CONTINUED ON BACK

JOHN P. McCULLOCH, DRAIN COMMISSIONER
Soil Erosion & Sediment Control Agent
Oakland County, Michigan

RICKY A. DeVISCH
Designated Enforcement Agency
Part 91 of Public Act 451 of 1994

8. Stockpile all materials resulting from excavation away from any ditches, swales, natural water courses, and wetlands, etc.

9. Water from dewatering operations shall be outletted into a stone outlet filter, or equivalent sediment removal devices, prior to it leaving the construction area and shall not be outletted directly into a lake, wetland or natural water course, etc., (ground-water from deep wells or well points may be discharged in a non-erosive manner directly into a lake or natural water course, etc., provided it is clean and sediment free.)

10. Temporary stabilization will be provided during the non-growing season for all areas to be seeded or sodded. All areas temporarily stabilized during the non growing season will be permanently stabilized immediately following the commencement of the next planting season. All straw or hay mulch will be removed or deeply incorporated into the soil before providing permanent stabilization. Dormant seeding is also recommended for early spring growth.

11. Clean pavements, walks, swales, ditches, culverts, watercourses, storm sewers, retention and/or detention basins, lakes, streams and wetlands of all accumulated sediment in conjunction with the removal of all temporary soil erosion control measures. Re-establish vegetation as necessary.

12. If the proposed perimeter protection cannot be properly maintained, or is insufficient, then additional perimeter sedimentation controls such as geotextile silt fence shall be required.

13. All soil erosion and sedimentation control measures shall be installed in accordance with the Oakland County Drain Commissioner's standard detail.

14. All control devices shall be periodically maintained and cleaned of all accumulated sediment. Streets in the effected area shall be cleaned daily of dirt and sediment.

15. All erosion control devices shall remain operational until all contributing disrupted areas are permanently stabilized, at which time they shall be removed.

16. Submit up to date revised plans to this office if the grading plan, storm drainage system, soil erosion control plan, lot numbers, etc. change in the future.

Enforcement Acknowledgement:

1. **Failure to comply with Michigan's Soil Erosion and Sedimentation Control Part 91 of Public Act 451 of 1994, as amended ("Part 91") is a civil infraction and will result in one or more of the following actions taken by this office: (1) a fine up to $2,500; (2) installation of soil erosion and sedimentation controls by County enforcing agency with all costs related to the administration and implementation of controls to be assessed against the permit holder and/or landowner which may become a lien on the property if not paid; (3) a temporary restraining order will be filed in court to restrain any and all further construction at the property site, and to recover damages to the natural resources of the State; and (4) and any other legal action necessary to ensure compliance with Michigan law.**

2. **A person who knowingly violates Part 91 or knowingly makes a false statement in an application for a permit or in a soil and sedimentation control plan may be ordered to pay a fine of up to $10,000 for each day of violation.**

3. **A person who knowingly violates Part 91 after 5 days after the Letter Date of the Notice of Determination of Violation is responsible for a payment of a civil fine of not less than $2,500.00 or more than $25,000.00 for each day of violation. MCL 324.9121(1); 9121(2); and 9121(3).**

4. **By applying for and accepting this permit, the permit holder and/or landowner hereby consents to the following: (1) the authority of the Michigan Department of Environmental Quality, or the county enforcing agency to enter upon the property at all reasonable times for the purpose of inspecting and investigating conditions or practices that may be in violation of Part 91; (2) installation of soil erosion and sedimentation controls by County enforcing agency with all costs related to the administration and implementation of controls to be assessed against the permit holder and/or landowner which may become a lien on the property.**

I hereby acknowledge that I have read, understand, and accept all of the Permit Conditions and the Enforcement Acknowledgement.

CONTINUED ON NEXT PAGE

Property Owners Signature: _____ For ITC

Or Designated Agents Signature

* Designated agent must have a written and notarized statement from the Property Owner authorizing him/her to secure a permit in the Property Owners name.

NOTE: **THIS PERMIT WILL EXPIRE ON THE INITIAL DURATION GIVEN ON THE APPLICATION ROUNDED UP TO THE NEAREST SIX MONTH INCREMENT. THE PERMIT WILL THEN BE EXTENTED AT THE CURRENT CLASS INSPECTION RATE FROM THIS DATE EVERY SIX MONTH UNTIL THE PROJECT HAS ALL PERMANENT SOIL EROSION CONTROLS IN PLACE AND ALL TEMPORARY SOIL EROSION CONTROLS REMOVED (FINAL VEGETATION IS SPECIFIED AS HAVING EVERY SQUARE FOOT OF GROUND COVER WITH A DENSITY OF 90% AND AT LEAST 1" IN HEIGHT).**

THIS PERMIT CAN ONLY BE RENEWED FOR A MAXIMUM OF ONE (1) YEARS OF INACTIVITY FROM THE DATE OF APPLICATION.