IEEE Power & Energy Society
Winnipeg Section
PRESENTS…A LUNCHEON MEETING

TOPIC:	**Distributed generation and hosting capacity. Need for stochastic analysis.**
PRESENTER:	**Tomás Yebra Vega, Ph.D.**
TIME AND DATE:	**12:00 Noon, Tuesday, April 24, 2012**
LOCATION:	**Holiday Inn South, 1330 Pembina Highway, Winnipeg**

◊ Cash bar available at Noon.
◊ Lunch served at 12:15 PM.
◊ Meeting concluded at 1.30 PM.
◊ Cost of the meal (payable at the door).

Early registration(*On or Before 2th[d] Apr.*)
IEEE Members - **$15.00**
Non-Members - **$19.00**

Late registration (*After 20th Mar.*)
IEEE Members - **$17.00**
Non-Members - **$21.00**

The IEEE PES Winnipeg Chapter must guarantee a minimum attendance to the hotel, so please take a moment to register early by RSVP to **Jieping Shao** by **Friday Noon, 20th Apr. 2012**, in one of the following ways:

Phone: 360-7347
Email: **JShao@hydro.mb.ca**
Fax: 360-6142

Abstract:

The introduction of non-conventional renewable energies challenges the current power system. The situation can be difficult to solve with large penetration of small generators in the distribution level because this network has lower levels of automation and monitoring than the transmission system. Therefore it is necessary to know the capacity of the current distribution network to connect future sources without affecting the performance of the system.

Hosting capacity is a concept which allows calculating the amount of generation that feeders can integrate according to any performance index of the power system. The hosting capacity is not unique to any particular system and will vary depending upon how much risk individual operators or consumers are prepared to tolerate.

This presentation will introduce the concept of hosting capacity, and it will be applied to different performance indices which for different aspects of the power system such as overloading, voltage, and protection. It will also show that an evaluation of the hosting capacity using the worst case scenario gives results which underestimate the actual capacity of feeders. Therefore a stochastic approach and measurements will be shown as a better solution.

Biography:

Tomás Yebra Vega, Ph.D., holds BSc (2002) and MSc (2005) in Electrical Engineering from Universidad de León (Spain), and his Ph.D (2010) from Universidad Politécnica de Valencia (Spain). He has worked at the Energy Technological Institute (Valencia, Spain) for the past five years. He has worked on several projects connected with distributed generation, power quality and high voltage engineering. He has also been involved in the analysis, and elaboration of expert opinion reports of large electric power accidents such the outage of Barcelona in 2007. He has been currently working as a Post-doctorate fellow at the University of Manitoba since January 2011. His research areas are simulation of electric power systems, integration of distributed generation and analysis of stochastic variables in power systems.

Re: IEEE PES Luncheon Meeting at 12:00 Noon on Tuesday, April 24, 2012

Name: _____ Any Diet Restrictions: _____

Company: _____

Telephone no.: _____ Number in party: _____

Please visit our website: **http://winnipeg.ieee.ca/pes .**