

Long-Term Reliability Assessment 2020

Webinar

Tuesday, December 8, 2020 | 10:00 a.m. to 12:00 p.m.



**MIDWEST
RELIABILITY
ORGANIZATION**

380 St. Peter St, Suite 800
Saint Paul, MN 55102

651-855-1760

www.MRO.net

LOGISTICS

WebEx Login:

Event address for attendees:

<https://midwestreliability.webex.com/midwestreliability/onstage/g.php?MTID=e4a8acece3e5ea4c6e59dfc0406329e92>

Event number (access code): 127 569 5628

Audio Conference information: +1-415-655-0002 US Toll [Global call-in numbers](#)

If any help is needed logging into WebEx please contact Dana Klem at dana.klem@mro.net

Audio

Participants will be muted upon entry and will not be able to unmute themselves to speak.

Questions

If you have questions for a speaker, please utilize WebEx's chat feature. Please submit all questions to the "Host & Presenter." If we are unable to get all questions asked/answered during the conference, a response will be provided after the conference either directly to the requestor or through another form of outreach.

Presentations

All presentations from today's conference are available in this packet. The individual presentations and recordings from today's conference will be made available in the near future.

Feedback

Your feedback is very important to us. Please utilize the link: <https://www.surveymonkey.com/r/LTRA2020> also at the end of this packet, to provide your feedback.



AGENDA

Tuesday, December 8, 2020 | 10:00 a.m. to 12:00 p.m.

10:00 a.m.	Welcome <i>Moderator: Salva Andiappan, Principal Reliability Assessment Engineer</i>
10:05 a.m. – 10:25 a.m.	<i>Mark Olson, North American Electric Reliability Corporation</i>
10: 25 a.m. – 10:50 a.m.	<i>Suman Thapa, Saskatchewan Power</i>
10:50 a.m. – 11:15 a.m.	<i>Kelly Hunter, Manitoba Hydro</i>
11:15 a.m. – 11:35 a.m.	<i>Stuart Hansen, Midcontinent Independent System Operator</i>
11:35 a.m. – 12:00 p.m.	<i>Chris Haley, Southwest Power Pool</i>
12:00 p.m.	Closing <i>Moderator: Salva Andiappan, Principal Reliability Assessment Engineer</i>



SPEAKER BIOGRAPHIES



Salva Andiappan, Moderator

MRO Principal Reliability Assessment Engineer

Salva Andiappan is the Principal Reliability Assessment Engineer at Midwest Reliability Organization (MRO) with over 21 years of experience in transmission planning, power system modeling and reliability assessments. At MRO, Salva works in the Reliability Assessment and Performance Analysis (RAPA) program area and is involved in various committees and activities at MRO, NERC and ERAG. Prior to joining MRO in 2006, Salva spent 5 years with Midcontinent Independent System Operator (MISO), as a senior transmission planning and on-call operations engineer supporting MISO MTEP and conducting daily power flow and dynamic security analysis and developing operating guides. He was also on the August 4th 2003 Northeast Blackout technical team and system disturbance analyst. Salva also worked for Mid-Continent Area Power Pool (MAPP) as Engineer III where he was responsible for performing reliability assessments, power flow modeling and operating studies including inter-regional transfer capability studies for MAPP, MAIN and SPP regions.

Salva has a Bachelor of Science in Electrical Engineering from St. Cloud State University, Minnesota and Masters of Science in Electrical Engineering from University of North Dakota.

Contact Salva: salva.andiappan@mro.net



Mark Olson

Manager, Reliability Assessments, North American Electric Reliability Corporation (NERC)

Mark Olson joined NERC in October 2012 and has been involved with Reliability Assessments, Reliability Standards, and ERO Technical Committees. Before joining NERC, Mark was a career officer in the U.S. Navy where he served in positions related to the operations and management of surface ships and naval personnel. He has a master's degree in electrical engineering from the Naval Postgraduate School and a bachelor's degree from the U.S. Naval Academy. He holds a Professional Engineer license in the State of Georgia.

Contact Mark: Mark.Olson@nerc.net





Suman Thapa

Senior Engineer, Saskatchewan Power

Suman Thapa works as a Senior Engineer in SaskPower's System Planning and Asset Management department and has been with SaskPower for seven years. His work in SaskPower focuses on Transmission System Planning, Generation Interconnections and Interconnections with adjacent areas. Mr. Thapa's work also includes reliability assessments for several NERC reliability standards (TPL, PRC and MOD) that are adopted in Saskatchewan. He represents SaskPower in SaskPower-Manitoba Hydro Planning Committee and Canadian Utility Forum. He received the Ph.D. in Electrical Engineering from University of Saskatchewan and is a registered Professional Engineer in Saskatchewan.

Contact Suman: sthapa@saskpower.com



Kelly Hunter

Senior Engineer, Manitoba Hydro

Kelly Hunter is a senior engineer with responsibilities for market and resource adequacy analysis with Manitoba Hydro's Resource Planning Department. Kelly has been with Manitoba Hydro over 30 years. The first decade of his career was spent in the mechanical design and construction areas working on the rehabilitation of hydro generation equipment and auxiliary systems. The second decade of his career was spent in Manitoba Hydro's Export Power Marketing Department, with responsibilities that included regulatory affairs, market modeling, risk analysis, credit oversight, wind integration studies and MISO market stakeholder relations. For the last 10 years, his responsibilities in Resource Planning have included long term price forecasting, market, reliability and risk modeling, provincial regulatory affairs, and overseeing Manitoba Hydro's submissions for NERC's Long Term Reliability Assessment.

Mr. Hunter graduated from the University of Manitoba with a Bachelor of Science in Mechanical Engineering in 1987. He later received his Master of Business Administration, also from the University of Manitoba, in 1995.

Contact Kelly: khunter@hydro.mb.ca





Stuart Hansen

Advisor II, Resource Adequacy Policy and Analytics, Midcontinent Independent System Operator (MISO)

Mr. Hansen has been with MISO since 2012, working in transmission planning doing resource forecasting and policy assessment until January 2019. He then moved to resource adequacy conducting the annual OMS-MISO survey used in the LTRA, interfacing with the NERC RAS and working on other resource accreditation issues. Prior to working at MISO Mr. Hansen was with the MN PUC for 3 years assisting the commission in technical issues, keeping up with industry advancements and MISO issues. He also worked for FERC in the Office of Electric Reliability evaluating NERC Reliability Standards for just over a year. Mr. Hansen began his career at the US Patent & Trademark Office examining power supply patent applications

Mr. Hansen graduated from the University of Minnesota with a Bachelor of Science in Electrical Engineering in 2006.

Contact Stuart: shansen@misoenergy.org

Chris Haley

Southwest Power Pool

Contact Chris: chaley@spp.org



PRESENTATIONS

All presentations for today's webinar are included in order of presentation. Some presentations may have changed slightly after the print deadline.



CLOSING

Thank you all for attending this event!

Your feedback is very important to us. Please provide your feedback using the link: <https://www.surveymonkey.com/r/LTRA2020> or QR Code below:

