

1. Record Nr.	UNINA9910703157103321
Titolo	Evolution of operating reserve determination in wind power integration studies [[electronic resource] /] / Erik Ela ... [and others]
Pubbl/distr/stampa	[Golden, CO] : , : National Renewable Energy Laboratory, , [2011]
Descrizione fisica	1 online resource (8 pages) : color illustrations
Collana	NREL/CP ; ; 5500-49100
Altri autori (Persone)	ElaErik
Soggetti	Wind power plants - Mathematical models Interconnected electric utility systems Electric power-plants - Load - Management
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from title screen (viewed April 18, 2011). "March 2011." "Presented at the 2010 IEEE Power & Energy Society General Meeting, Minneapolis, Minnesota, July 25-29, 2010."
Nota di bibliografia	Includes bibliographical references (page 8).
Sommario/riassunto	The growth of wind power as an electrical power generation resource has produced great benefits with reductions in emissions and the supply of zero cost fuel. It also has created challenges for the operation of power systems arising from the increased variability and uncertainty it has introduced. A number of studies have been performed over the past decade to analyze the operational impacts that can occur at high penetrations of wind. One of the most crucial impacts is the amount of incremental operating reserves required due to the variability and uncertainty of wind generation. This paper describes different assumptions and methods utilized to calculate the amount of different types of reserves carried, and how these methods have evolved as more studies have been performed.