NEPLAN® - Consulting

BCP Busarello + Cott + Partner is part of the international NEPLAN®-Consulting group. The NEPLAN®-Consulting group offers a wide range of power system studies and consultancies. More than 1000 projects all over the world have already been successfully realized. The NEPLAN®-Consulting group conducts studies to evaluate energy markets, solve electric system design, planning and operations related problems, perform system engineering, and provide equipment application expertise. We help you to optimize the value of your energy assets and transactions, and to better design, plan and operate your transmission, distribution, industrial systems, and/or merchant plant integration projects.

Our services include:

Merchant Project Siting
- *Energy locational marginal price analysis*
- *Capacity value assessment*
- *Value of ancillary services*
- *Forward price discovery*
- *Transmission constraint evaluations*
- *Value of transmission congestion relief*

Market and Individual Asset Evaluation
- *Valuation of generating and transmission assets*
- *Market risk assessment, profit and lost potentials*
- *Project due diligence activities*
- *Physical transmission access capability*

Feasibility/System Impact/Facility Upgrading
- *Load flow, contingency, short circuit, and stability analysis for the interconnection of merchant projects*
- *Interconnection configuration and conceptual designs*
- *System reinforcement option and cost assessment*

Transmission Capability Analysis
- *Transmission constraint identification and mitigation*
- *Simultaneous transfer limit calculations*
- *ATC calculation with consideration of TRM/CBM*

System Dynamics and Control
- *Transient and dynamic stability analysis*
- *Control tuning, design, and interactions*
- *SSR, SSTI, transient torque, torsional interaction*
- *Voltage instability*

Transient Analysis and Insulation Coordination
- *Arrester rating, energy requirements and location*
- *Switching transients, equipment BIL, BSL*
- *Phase-to-ground & phase-to-phase clearances*
- *Contamination performance*
- *Circuit breaker recovery voltage*

Harmonic Analysis
- *Harmonic filter design, filter performance and rating*
- *AC/DC harmonic filters, including active filters*
- *Network harmonic flow*

Distribution System Planning
- *Budget constrained planning*
- *Two-Q (Quality & Quantity) Engineering*
- *Distribution network evaluation*
- *Distributed resource interconnection*

Reliability
- *Probabilistic system planning*
- *T&D system reliability evaluation*
- *Substation RAM studies*
- *Integrated generation and transmission planning*
- *Failure mode, effect, fault tree analysis*

Protective Relaying and Controls
- *Protective system design and relay coordination*
- *Adaptive relaying, fault location*
- *Phasor estimation, power quality, high impedance fault detection*
- *Integration of protection, control and monitoring*
- *Wide-area disturbance protection and control*

HVDC
- *AC/DC interactions, and planning*
- *Conversion of AC lines to DC*
- *Dynamic performance & control requirements*
- *AC/DC filter design*
- *Reactive power requirements*
- *Equipment specification*

Flexible AC Transmission (FACTS)
- *Planning: location, type and size*
- *Dynamic performance & control requirements*
- *Control design, interactions*
- *Static VAR systems: SVC, GTO-based SVC*

Wind Energy
- *Stability aspects in power system and wind park*
- *Determination of optimal connections in regard of technical and economical aspects*

Education & Training
- *Short 3-5 day courses, regional or at customer site*
- *1 day NEPLAN introduction*

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