

Kotzebue Electric Association

M. Lodge

- Phase 1 - 3 x AOC 15/50 97/98
- Phase 2 - 7 x AOC 15/50 98
- Phase 3 - 500 + KW

Lessons Learned:

- Site/Access/Construction
- Foundations
- Scheduling/Readiness
- Monitoring/Control
- Quality Control
- Power Quality no problem
- Utility is keen and competent

Hybrid Systems Control

Aspects:

- Monitoring, communication, control

Issues:

- System size
- Single/multi generators
- Paralleling
- Intrinsic control/System control
- Sensors
- Internal/external communication

Requirements:

- Safety
- Protection
- Understandable
- Repairable

Monitoring

- Control Decision
- Fault Detection/Diagnosis

Power Quality

- Good quality appreciated

Equipment Hardware

- Robust
- User friendly
- PC's / PLC's

Supervisory Control:

- Integration of components
- Multiple functions
- Load management
- "Optimal" control
- Storage/dump loads
- Diesel dispatch
- Dispatchable renewable

Common Language?



Pop 3200
KW 9.3 MW < 3 EMD
MAX 2 MW 3 CAT 100
MIN .5 MW

WIND POWER 1.0 → 2.0 MW