

# Application Process, Large Interconnections & Key Pitfalls

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# PowerClerk

- Implemented in late 2017.
- Helps manage & track interconnection application.
- Links to:
  - PowerClerk tutorial - [https://www.youtube.com/watch?v=vkKafh\\_SR-E](https://www.youtube.com/watch?v=vkKafh_SR-E)
  - Register - <https://cenhuddg.powerclerk.com/MvcAccount/Register?ProgramId=M6XG70P69EKX>

# Review Timelines

- Pre – Applications – Up to 10 business days
- Application review – Up to 10 business days
- Technical screens – Up to 15 business days (Greater than 50kW)
- Supplemental review – Up to 20 business days
- CESIR Final Design Package review – Up to 10 business days
- CESIR
  - Systems up to 2MW – Up to 60 business days
  - Systems greater than 2MW up to 5MW – Up to 80 business days

# Preliminary Review Documents

- Appendix A
- Appendix B – Satisfied by PowerClerk submission
- Wiring diagram
  - Single phase – 1 line
  - Three phase – 3 line
- Inverter spec sheet
- Verification test plan
- Letter of Authorization – If applicable
- Site Plan – If new service
- Landowner consent form – If utility customer is different than land owner
- \$750.00 application fee – Projects greater than 50kW

# System Design Pitfalls

- Inconsistent system layout
- Step up transformer specs
  - Winding configuration
  - Core setup
- Inverter type
  - Neutral conductor
- Energy Storage
- Test plan

# Preliminary Analysis Screens

- Screen A - Is the PCC on a Networked Secondary System?
  - Is the System connected to secondary network?
- Screen B – Is Certified Equipment Used?
  - Is the equipment UL 1741 listed?
- Screen C – Is the Electric Power System Rating Exceeded?
  - Do the maximum aggregated gross rating for all DG facilities exceed any EPS ratings?
- Screen D – Is the Line Configuration Compatible with the Interconnection Type?
  - Three-phase, three wire, greater than 5kV, Pass, three phase, four wire, greater than 5kV, Pass, all single phase and phase-phase Fail
- Screen E – Simplified Penetration Test
  - Is the aggregate generating facility capacity on the line less than 15% of annual peak load?
- Screen F – Simplified Voltage Fluctuation Test
  - Is voltage fluctuation at the PCC greater than 5%

# Preliminary Analysis Screens Pitfalls

- Phasing at site
- Conductor size
- Voltage concerns
- Protective & regulating devices
- Capacitors
- Circuit & substation queue

# Preliminary Analysis Screens Outcome

- Pass
  - Receive preliminary approval
- Fail
  - Results Meeting
  - Supplemental Analysis - screens G-I
    - Screen G – Supplemental Penetration Test
      - Is the aggregate DG capacity on the line less than 100% of the 12 month minimum load?
    - Screen H – Power Quality and Voltage Tests
      - Can it be determined that voltage regulation and fluctuations on the line can be maintained in compliance?
      - Can it be determined that voltage fluctuation is within acceptable limits as defined by IEEE 1453?
      - Can it be determined that harmonic levels meet IEEE 519 limits at the PCC?
    - Screen I – Safety and Reliability Tests
      - Does the site of the proposed DG facility or aggregate generation capacity on the line create specific impacts to safety or reliability?
  - CESIR
  - Withdraw



# Payment Timeline

- 25% construction upgrade – Due 60 business days from receiving CESIR results
  - Executed contract will be provided (Appendix A)
  - Construction scheduled to be provided within 30 business days of posted payment
- 75% construction upgrade – Due 120 business days from receiving 25% payment

# Final Interconnection Review

- Submit request through PowerClerk
  - Proof of system passing electrical inspection
  - Test results
- **Request Net Meter upgrade (Up to 10 business days)**
  - Request before applying for final interconnection approval
- Interconnection approval (Up to 5 business days)

# Contact Us

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Questions?

