

Potential of AMI Data to Reduce the Technical Issues Related to Interconnection

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Scope of Work

- Developing a detailed work plan
- Identifying key information sources
- Developing initial hypotheses on technical areas which could be aided by AMI data
- Get stakeholder input
- Present initial findings
- Continue study with review and any modification to the work plan



Schedule

- Project start Mar '10
- Steering Committee Approval Apr '10
- Stakeholder meeting Apr '10
- Preliminary findings Jun '10
- Stakeholder meeting Jun '10
- Next year's work plan Jul '10



Current System

- One way power flow assumed
- Static models used to assess the grid
- Little or no ability to communicate with grid infrastructure
- Lack of knowledge of real time conditions



Concerns

- Voltage stability
- Fault contribution
- Interruption Capacity
- Control of systems
- Disruption of current protection schemes
- “Reverse power flow” at substations



Possible Solutions

- Dynamic VAR support
- Dynamic Protective Relay device settings
- Limited power flow from DG to Grid
- Remote disconnection



Other Issues

- Communication protocols
- Control algorithms & software development
- Energy storage integration
- Ownership of data



Thank you

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