

# Eversource DG Technical Standardization Effort

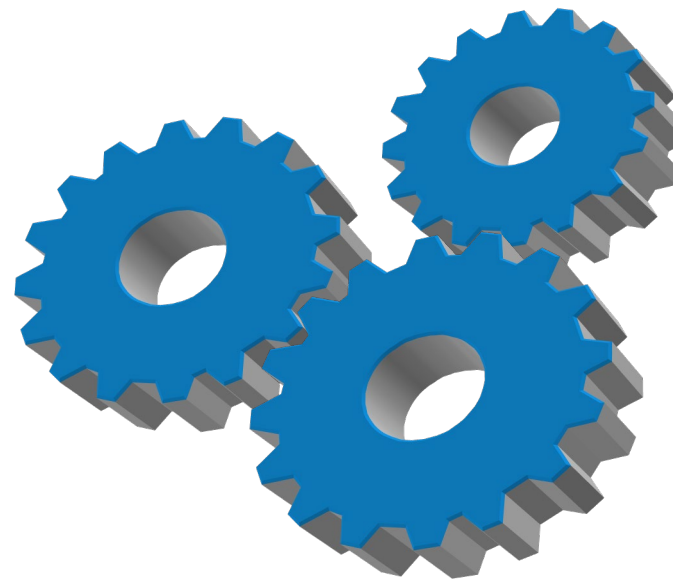
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TSRG





# Agenda

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- Group purpose
- Group organization & membership
- Methodology
- Current status
- Topics completed
- Topics currently in discussion
- Topics yet to be discussed
- Summary

# Group Scope and Purpose

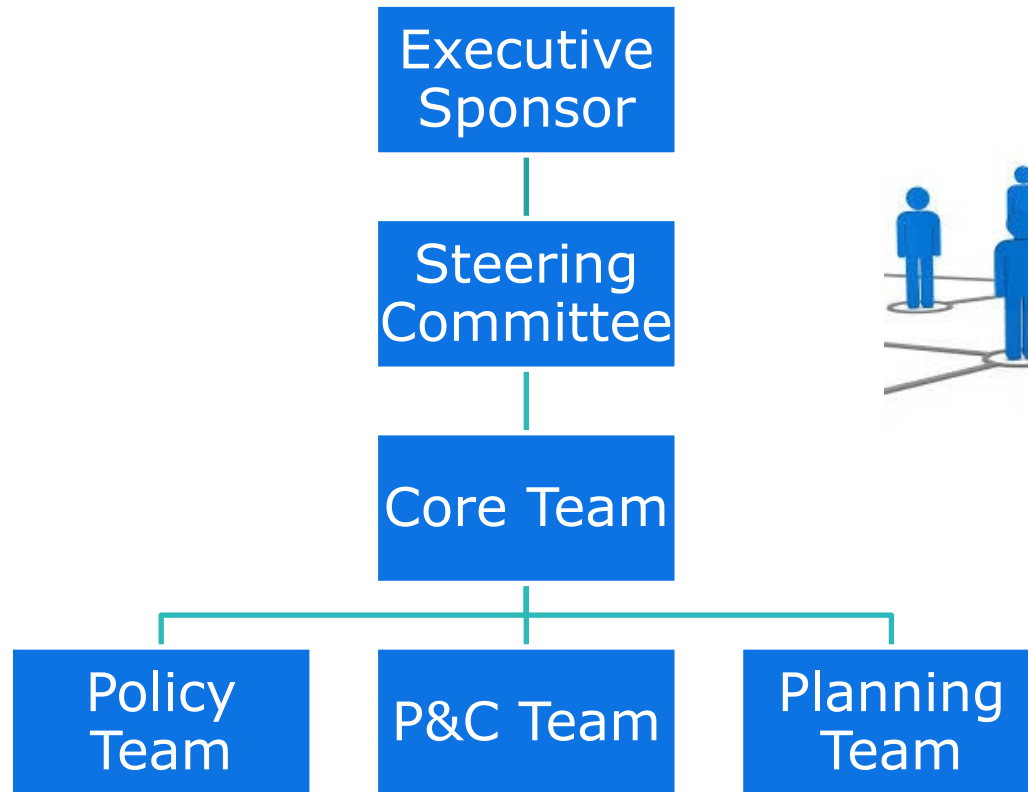
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Standardize on key Eversource DG positions in MA, CT & NH and reduce complexity for customers and Eversource personnel to the degree practical, while maintaining safety, preventing equipment damage, and consistent with State and Federal regulatory policies.



# Organization

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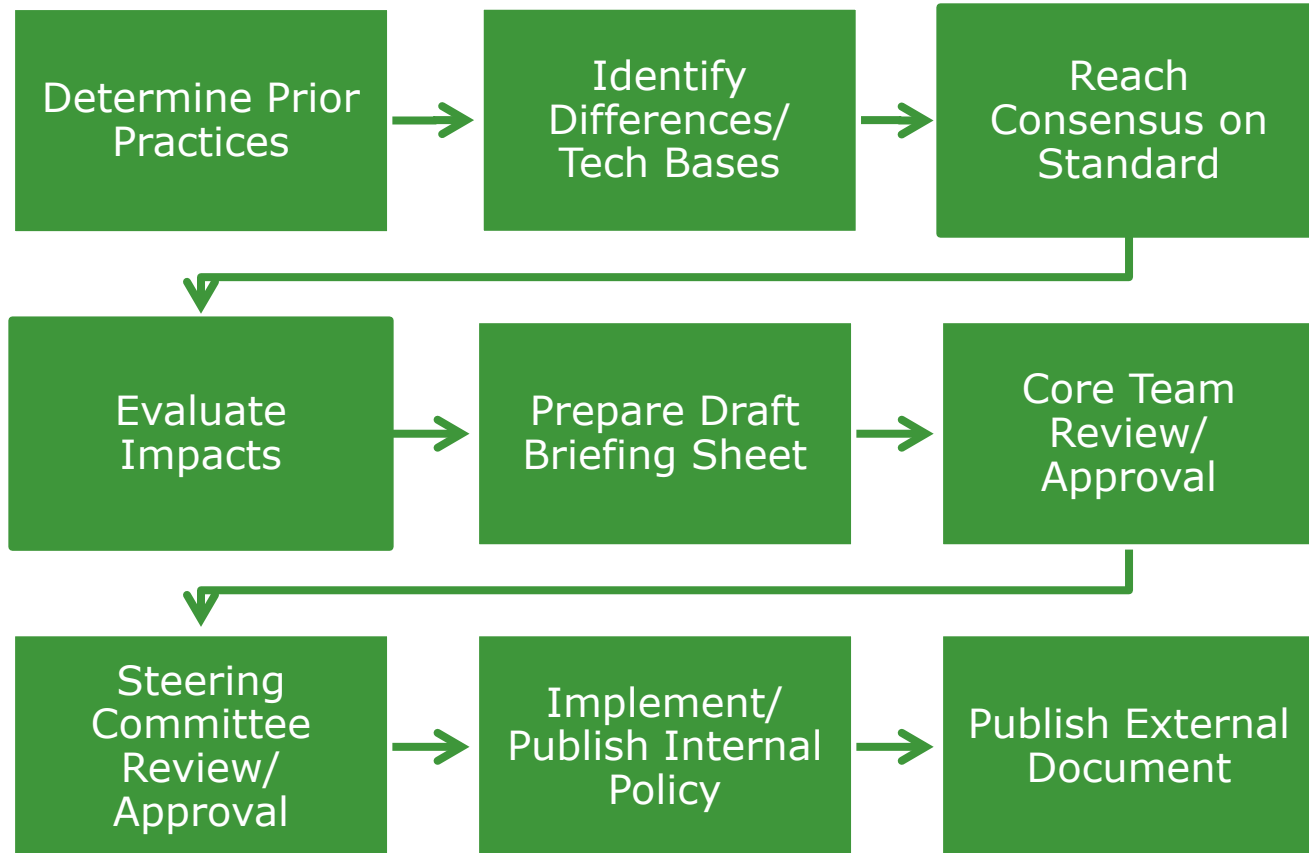
# Project Teams

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- Effort began April 2016
- Meetings
  - Weekly Sub Team meetings
  - Weekly Core Team meetings
  - Steering Committee meets every 2-3 months
- Products
  - External 3-state Eversource technical requirements
  - Internal supporting policies

# General Process for Each Topic

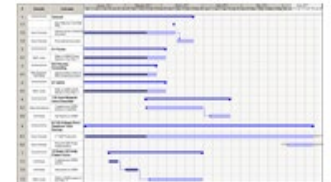
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# Current Status

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- 7 topics internally approved
  - Internal policy in place for 5 topics
- 3 topics under review now
- ~18 topics for future review
- Draft Eversource external technical requirements under review
  - Expected on website in April
- Expected completion in 2018





# Future Issues (Tentative)

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- Direct transfer trip technology
- Availability of spare assets for DER
- Frequency/voltage ride through
- Feeder capacity limits
- Batteries
- Monitoring & control
- Production meter communication
- O&M billing
- Asset management (GIS)
- Impact of ISO-NE OP 14 & 18
- Maximum fault current contribution
- Impact on fault location & zone coordination
- Smart inverters
- Substation bus high speed transfer & synchronous generators
- Microgrids
- Backfit of existing facilities
- Primary metering
- Non-substation drawing control





# Issues In Progress

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- Area network interconnection
- Volt-VAR equipment operation frequency
- Anti-islanding screening criteria



# Completed Issues with Steering Committee Approval

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- Flicker evaluation criteria
- Effective grounding
- Utility accessible disconnect switch
- Static off-unity power factor
- Voltage rise under light load
- Substation transformer reverse power flow
- Spot network interconnection



# Summary

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- Major 3-state Eversource effort
- Consistent technical standards
  - More welcoming to DG interconnection
  - Maintain safety, reliability & regulatory compliance
- Initial public technical requirements document expected in April 2017