

D.P.U. 20-75 Technical Conference

Provisional system planning proposal

June 3, 2021

nationalgrid

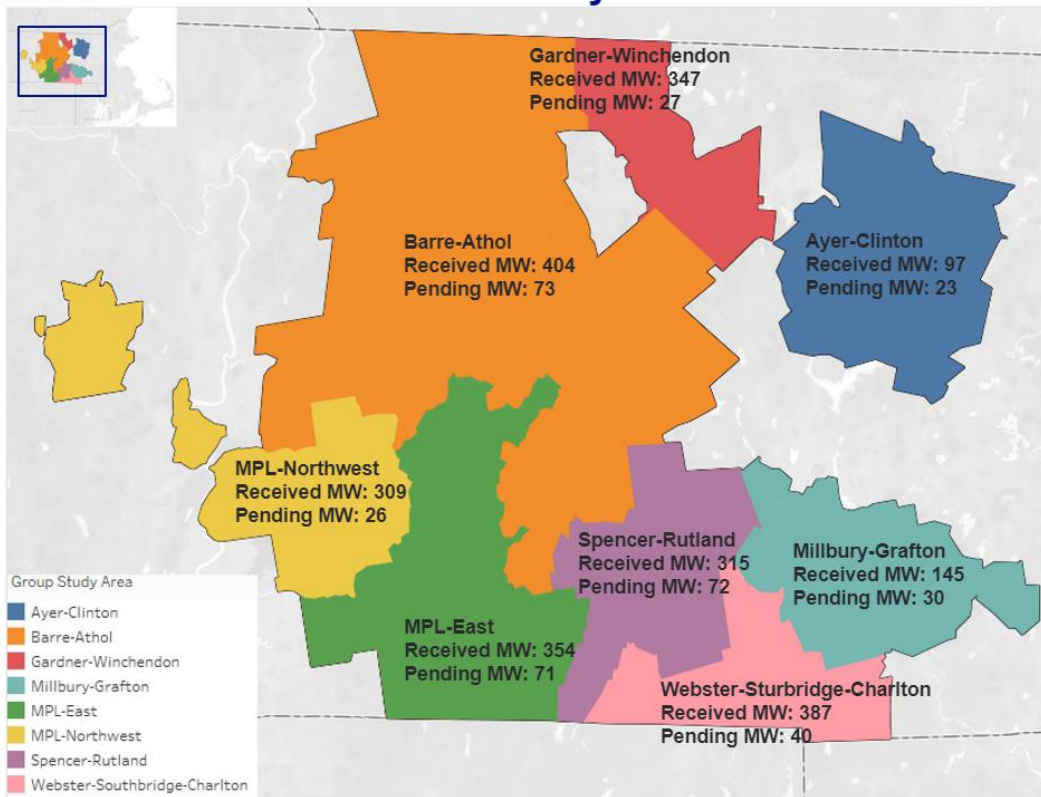


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Electric system at a saturation threshold in areas



Saturation Impacts

- Distribution group studies
- Transmission area studies
- Higher infrastructure costs for developers
- Longer times to connect
- Time delay for restudies
- Upgrade costs/times for developers are prohibitive
- Upgrade dependencies between studies
- Upgrade coordination with FERC jurisdictional upgrades
- Heightened complexity/uncertainty for all stakeholders

Opportunity to enable shared goals

- DPU Straw Proposal and responses to Information Requests put forward a provisional plan for Group Study projects in Central and Western MA to offer a strategic methodology to fairly achieve multiple objectives
- Shared goals for this provisional plan include:
 - Cost certainty for current queue projects
 - Fair allocation of cost for available capacity to future proposed projects
 - Appropriate sharing of cost with all customers for Multi-value Investments that benefit load and future electrification
 - Avoid overly complex or arbitrary allocations of transmission upgrades
 - Recognize the societal benefits from and clear policy for DG expansion

National Grid has revised its Cost Allocation proposal

Cost Allocation Methodology	
Category of Investment	Share paid by all customers*
Transmission Line upgrades	100% to appropriate FERC Transmission Rates
Substation costs	
Transmission High side station costs	40% -60% to Reconciling Charge
Distribution Low side station costs	
Distribution Line upgrades	Analysis to determine if MVI % applies
Distribution connection costs (site specific)	0% (Project Specific)

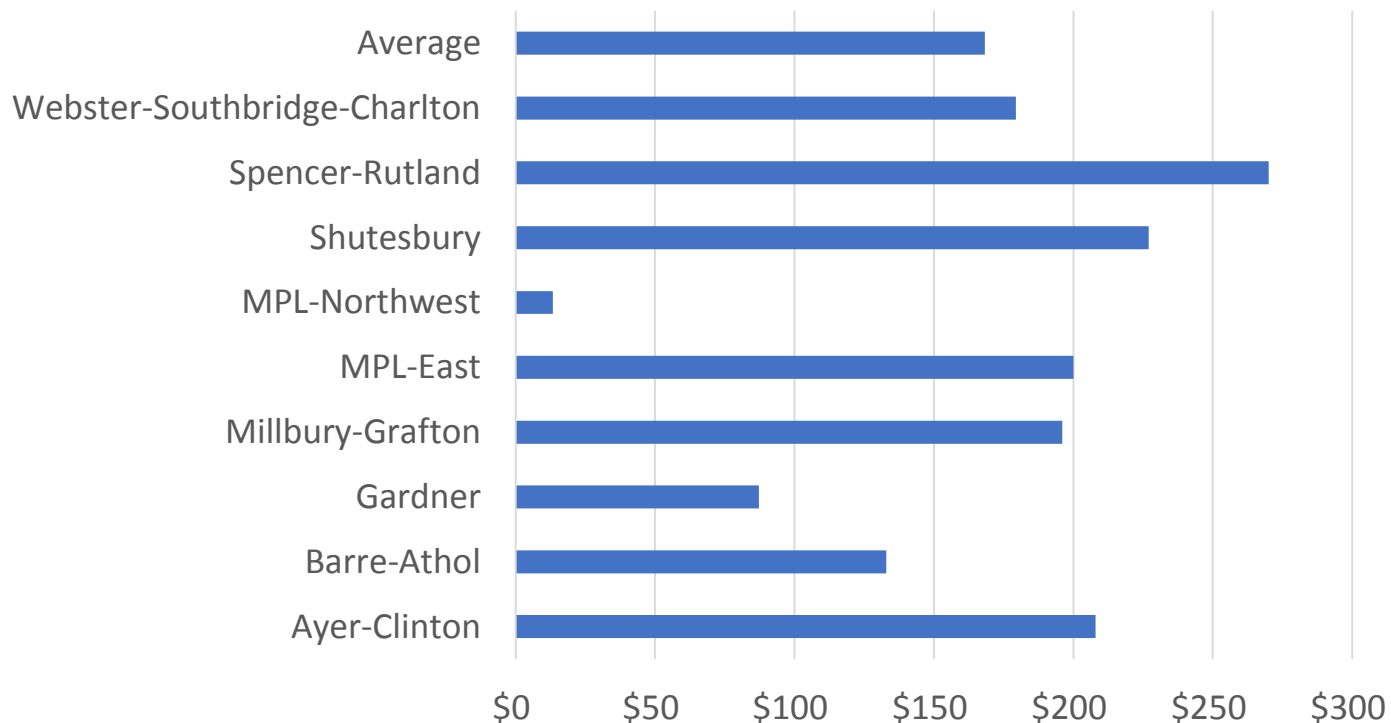
* only for Western and Central MA Provisional system planning proposal

Substation allocation to load customers increased

- Load customer benefits now estimated between 40-60% to reflect:
 - Pursuit of the Commonwealth's recently enhanced climate and clean energy transition goals (CECP, Green Act, 2050 goals) which benefit all customers
 - Increased reliability and resiliency due to improvements in capacity, asset condition, and network connections
 - Increased capacity for future beneficial electrification adoption reflecting forecasts of Electric Vehicle (EV) charging and Electric Heat Pump (EHP) loads

Substation CIP Fees with revised allocation

Estimated CIP Fees for Substation Costs, \$/kW



These costs do not include Distribution Line costs, which will be determined in each area through ongoing Group Studies

Transmission cost treatment

- Transmission line costs to accommodate this capacity should flow through appropriate FERC-approved transmission rates
- Transmission transformer costs at distribution stations could be paid by MECO via the Reconciling Charge, with a portion passed through to DG as part of the CIP Fee, with DPU approval of Provisional Plan
- Formal reservation of excess transmission “hosting capacity” may not be possible, but most capacity at distribution substations would only be available to DG by default

Next Steps – Timeline and Issues to Resolve

- Complete current round of distribution Group Studies to develop detailed engineering and cost allocations
- Develop and submit formal Provisional Cost Allocation Process to DPU, if desired, within 3-4 months of Group Studies completion
- Determine transmission tariff treatment and move ahead with upgrades
- Continue to work with external stakeholders on timeline concerns with process and sourcing improvements, and potential self-build in some situations