Regional Targeted Market Efficiency Projects (TMEP)

Niloufar Mirhosseini

MEPETF

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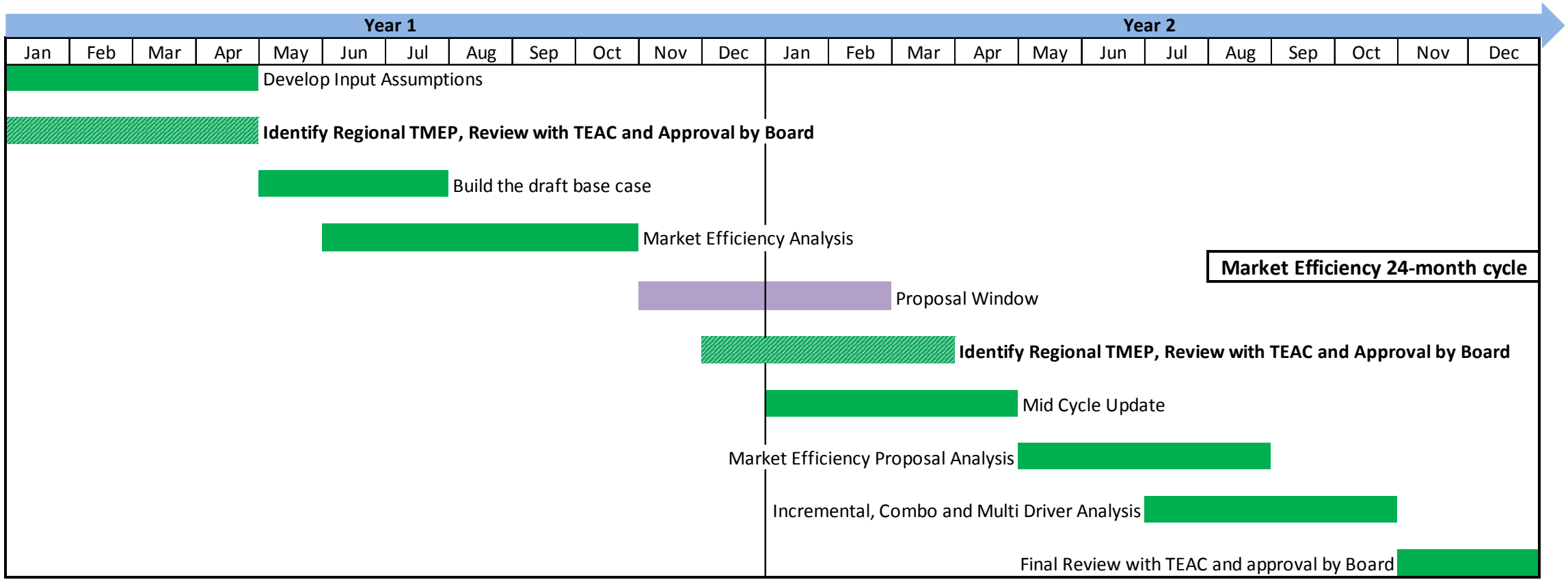
Regional TMEP

- Small, low cost, short lead time upgrades to fix historical congestion
- Targeted at specific, historical congestion issues
- Criteria
  - Upgrades
  - Address persistent historical congestion which is not due to planned outages and are not addressed by any planned upgrades or ISA generators
  - Capital cost less than $20M
  - To be in service by third summer season
  - Total capital cost is covered by four years of benefits
  - Benefits are calculated based on the average of past 2 years of historical congestion (Day Ahead + Balancing), adjusted for outage impacts

Advantages

- Avoids complicated analysis which would delay implementation
- Helps building a more robust base case for the long term window
- Ability to address the types of historical congestion that may be difficult to simulate in a production costing model (e.g. load switching schemes, special protection schemes, etc.)

Proposed Timeline*



* Based on current Market Efficiency 24-month cycle.

Regional TMEP vs MEP

Scenarios	Historical Congestion	Upgrade Identified Meeting TMEP Criteria	Significant Simulated Congestion	Project Type
1	✓	✓	✗	TMEP
2	✓	✓	✓	TMEP
3	✓	✓	✓ ✓	TMEP & MEP
4	✓	✗	✓	MEP
5	✗	✗	✓	MEP

Past Approved MEP/TMEP Candidates

PJM-Identified Constraint		Safe Harbor to Graceton 230 kV Line	Brunner Island to Yorkana 230 kV Line	Worcester to Ocean Pines 69 kV Line
Description		Reconductor two spans of the graceton-Safe Harbor 230kV transmission line. Includes termination point upgrades.	Reconductor three spans limiting the Brunner Island-Yorkana 230kV line, add 2 breakers to Brunner Island switchyard, upgrade associated terminal equipment.	Rebuild Worcester-Ocean Pine 69 kV ckt 1 to 1400A capability summer emergency.
PJM Window Project ID		201415_1-2A	201415_1-2B	201415_1-13E
Area		PPL/BGE	ME/PPL	DPL
Historical Congestion ($M)		$4.90	$2.50	$5.40
Project Cost ($M)		$1.10	$3.10	$2.40
B/C Ratio		17.82	3.23	9.00
TMEP Criteria	Is Upgrade	Yes	Yes	Yes
	Costs $20M or less	Yes	Yes	Yes
	Has historical congestion	Yes	Yes	Yes
	Cost is recovered in 4 years	Yes	Yes	Yes
	Will be in-service by third summer season	Assuming these upgrades could have been completed in 3 years.		