

RPM Development Path

Development Categories

- **Requirements** – these items must be in the phase delivery
- **Possible Enhancements** – these are high priority but may not be in the delivery if time or resources are limited
- **Further Model Exploration** – these are to explore internal model logic and may be done outside the phased deliveries
- **Parking Lot** – enhancements that we may get to but likely will not

Phase 2 - Requirements

- Automate Generation of Futures
- Optimization Routines
- Create Efficient Frontier
- Incorporate Discretionary Conservation Bin Sampling – use a raw discretionary conservation curve
- Planned Forced Outages by Period

Phase 2 – Possible Enhancements

- Explore Alternatives to EE Annual Discretionary Limit
- Recapture Lost Opportunity – update LO availability based on previous purchases
- Move Inputs Upstream – particularly existing generation

Phase 3 - Requirements

- Add Input for Fixed O&M
- Add CO2 Tracking for Must Run Resources
- Deploy Web Interface for RPM
- Add Rate Calculations
- DR Logic – at least matching existing DR logic, perhaps enhanced
- Elasticity of EE – add a load-based scalar to the LO conservation curve – possibly enhance for discretionary
- Price Responsive Hydro?

Phase 3 – Possible Enhancements

- Parallel Processing – get the model to run on multiple machines for a single run
- Dispatch Price Adjustment to Generating Resources – add into the sensitivity test an option to put market adders on generating resources, probably not in the optimization
- Explore Improved Optimization Strategies – find ways to move toward least cost/risk faster
- Stochastic Renewable Capacity Factor
- CO2 Constraint and/or Backstop
- Adequacy Capacity Coordination

Further Model Exploration

- **Explore Optioning Costs Methods** – option costs would be moved to only be in futures where an option is likely to be exercised
- **Binary Build for Adequacy** – alter the binary nature of the adequacy builds and instead build only the number of units required to meet the adequacy metric
- **Explore Alternate Risk Metrics** – see if there are ways other than TailVar90 to describe risk

Parking Lot

- **Track Other Emissions** – SO_x, NO_x, etc.
- **Endogenous Retirements**
- **Multi-phase Construction**
- **Explore Market Balancing Mechanisms**