eDART Intro & Gen Checkout

PJM State & Member Training Dept.

Objectives

Students will be able to:

- Identify the tools used to participate in the various PJM markets

eDART

- eDART stands for electric Dispatcher Applications and Reporting Tool
  - a suite of electronic applications used to facilitate dispatcher-to-dispatcher communications, along with other engineering communication and coordination functions
  - Through eDART, a user can filter outage information based on start date, end date, ticket number and other criteria to help ease the dissemination of information and to help make a comprehensive range of reports

eDART

- eDART's benefits to PJM membership include:
  - a quick, 24/7 process for outage and model change request submittal
  - easy access to comprehensive information
  - a simple and user-friendly online interface
- eDART's creation has greatly reduced the amount of physical paperwork and the time consuming communication of prior processes
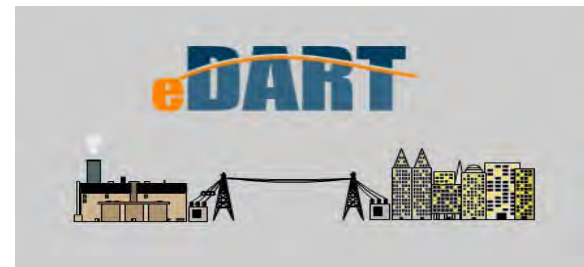
Gen Checkout

What is Gen Checkout ?

- eDart Generation Checkout – This program compares unit schedule availability/bid data in eMarket, unit outages submitted via Generator Ticket (eDart) and stated capability to ensure accurate market data and capacity/reserve projections
  - Gen Checkout occurs twice daily
    - 02:00 to check out for the same day
    - 16:00 to check out for the next day

Discrepancy Handling

- *Gen Checkout is basically a reporting mechanism*
- All resolutions handled via eMarket and/or gen tickets
- Resolutions for the Today Report must be handled by 0400
  - All call initiates process at approx. 2:00 am
- Resolutions for the Tomorrow Report must be handled by 1800
  - 16:00 unit commitment report triggers Gen Checkout

For more information on eMarket functionality, please go to
http://www.pjm.com/markets-and-operations/etools/emkt.aspx
For more information on eDART – Generator Ticket functionality, please go to
http://www.pjm.com/markets-and-operations/etools/edart.aspx

Comparison Overview

- Gen Checkout on a per unit basis, lists the eMarket values and compares them to outages in eDART

- Any issues are highlighted (yellow ⬛ or red ⬛)

- Companies "Acknowledge" when eMarket values are in sync with outage availability
  (within a specified tolerance)

  - Acknowledgement will be for Today or Tomorrow

Gen Type	Warn.Level %	Ack.Level %
Combined Cycle	15	20
Diesel/CT	15	20
Diesel/CT (Small Unit)	20	50
Hydro	99	200
Nuclear	5	10
Nug	15	20
Solar	99	200
Steam/Fossil	15	20
Wind	99	200

Gen Checkout Calculation Overview

EC = Eco Max
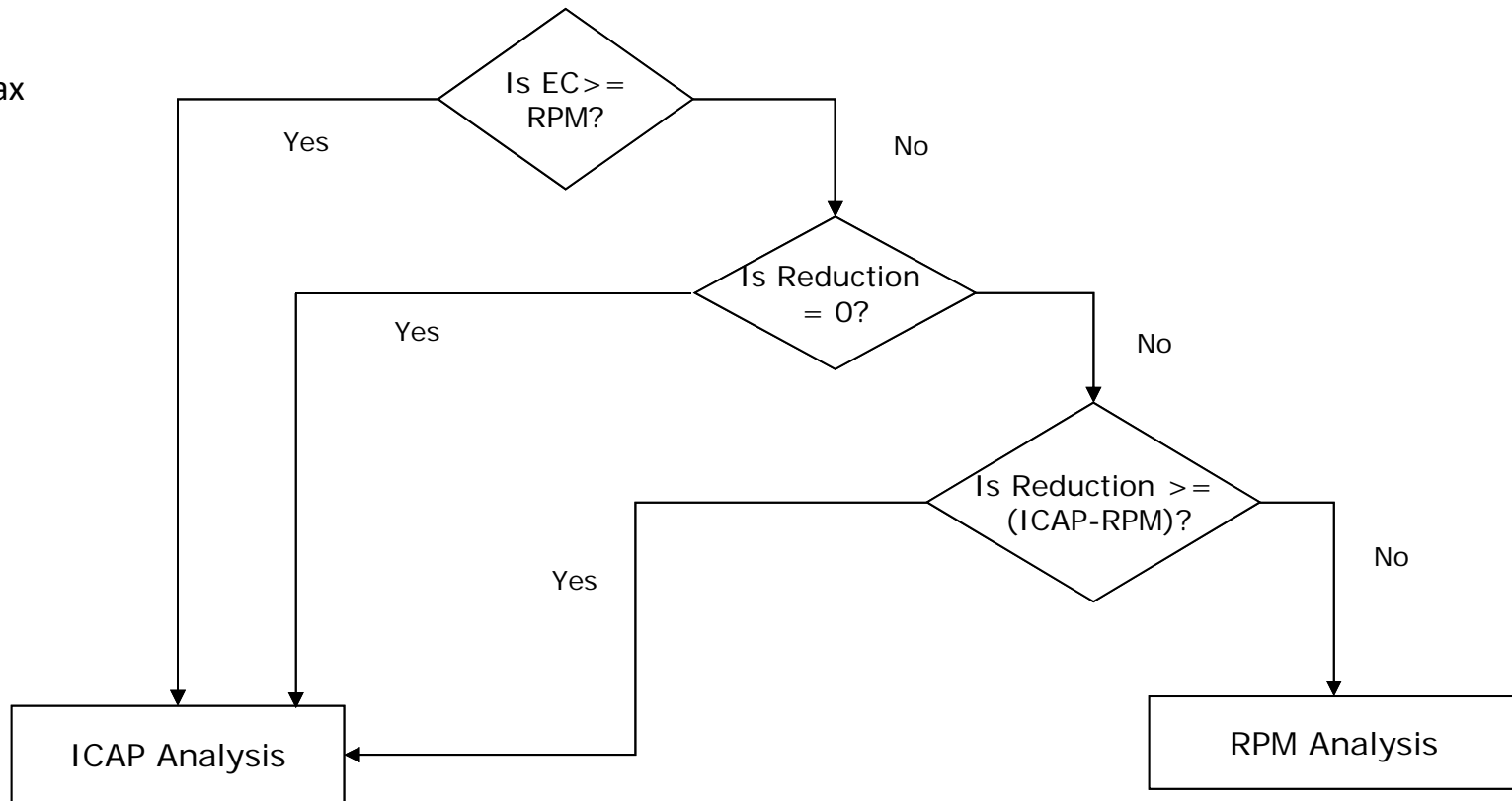
Gen Checkout Calculations

ICAP Analysis

Condition	Adjusted Capacity, ADJ. ICAP	ADJ. ICAP Diff (%)
Economic	$Adj.ICAP_{EC} = ICAP + Amb.Adj. - \text{Re}\,duct - Incremental$ $*Incremental = EmergencyMax - EconomicMax$	$DIFF = \dfrac{ADJ.CAP_{EC} - EconomicMax}{ADJ.CAP_{EC}} \times 100$
Emergency	$Adj.ICAP_{EM} = ICAP + Amb.Adj. - \text{Re}\,duct$	$DIFF = \dfrac{ADJ.CAP_{EM} - EmergencyMax}{ADJ.CAP_{EM}} \times 100$

*Note: Ambient Air values will be the opposite sign of what is reported in Generator Tickets

Gen Checkout Calculations

**Used when RPM committed value exceeds EcoMax and a reduction is entered less than the ICAP Value minus RPM commitment

Condition	Adjusted RPM, ADJ. RPM	ADJ. RPM Diff (%)
Economic	$Adj.RPM_{EC} = RPM + Amb.Adj. - Incrementa\ l$ $* Incrementa\ l = EmergencyM\ ax - EconomicMa\ x$	$DIFF = \dfrac{ADJ.RPM_{EC} - EconomicMa\ x}{ADJ.RPM_{EC}} \times 100$
Emergency	$Adj.RPM_{EM} = RPM + Amb.Adj.$	$DIFF = \dfrac{ADJ.RPM_{EM} - EmergencyM\ ax}{ADJ.RPM_{EM}} \times 100$

*Note: Ambient Air values will be the opposite sign of what is reported in Generator Tickets

Questions?