PJM/IMM Proposal for Black Start MTSL Compensation

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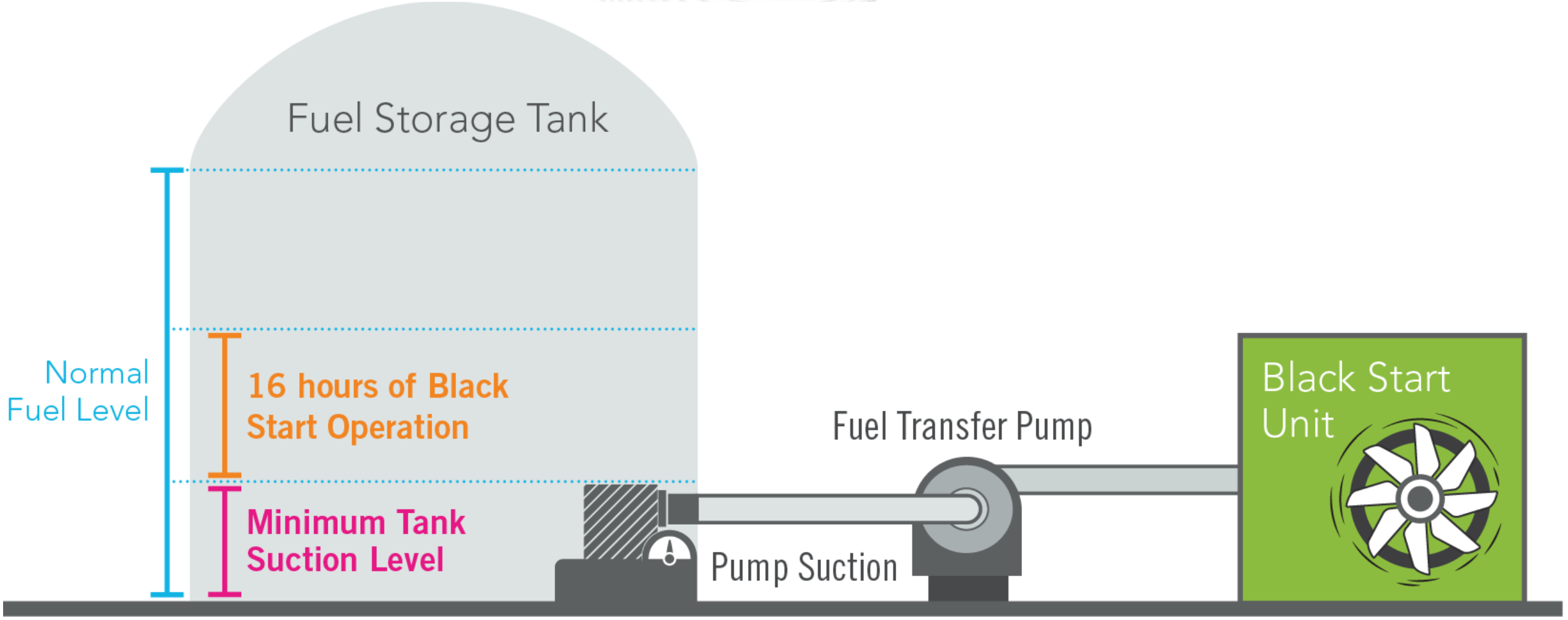
Minimum Tank Suction Level for Black Start Unit



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Current Fuel Storage Costs

{MTSL + [(# Run Hours) * (Fuel Burn Rate)]} * (12 Month Forward Strip + Basis) * (Bond Rate)

Where

- MTSL = Minimum Tank Suction Level
- # Run Hours = actual number of run hours as defined in TO Restoration Plan (lesser of 16 hours or TO Requirement)
- Fuel Burn Rate = actual fuel burn rate for unit
- 12 Month Forward Strip = average forward prices traded May 1
- Basis = transportation costs + variable taxes
- Bond Rate = Moody Utility Index Baa1 Bonds May 1

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Current Common Fuel Tanks

In the case where more than one Black Start Unit shares a common fuel tank, only one Black Start Unit will be eligible for the recovery of the MTSL in its fuel storage calculation. The MTSL for the other Black Start Unit(s) sharing the common fuel tank shall be zero.

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{(Black Start/Energy Tank Ratio * MTSL) + [(# Run Hours) * (Fuel Burn Rate)]} * (12 Month Forward Strip + Basis) * (Bond Rate) + Dual Fuel Unit Adder

Where

- MTSL = Minimum Tank Suction Level
- Black Start/Energy Tank Ratio
  = (# Run Hours * Fuel Burn Rate) / (Tank Capacity – MTSL)
- Dual Fuel Unit Adder
  = $ 0 for non-dual fuel units
  = $ 12,000 for a dual fuel Black Start unit receiving MTSL compensation (pro-rated for multiple BS units sharing one tank)

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PJM/IMM Proposal Common Fuel Tanks

All Black Start Units that shares a common fuel tank, will be eligible for the recovery of the Black Start/Energy Tank Ratio of its MTSL in its fuel storage calculation.

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PJM/IMM Proposal Dual Fuel Unit Adder

2016 Data for 17 dual fuel units that received MTSL compensation

Current MTSL Compensation	- $ 441,711
Under PJM/IMM proposal	- $ 22,190
Difference	- $ 419,521
½ Difference	- $ 209,760
17 units * $12,000	-$ 204,000 (Approximately ½)

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Current Base Formula Rate Example

- Estimated Annual Revenue in 2016 for a 20 MW Oil Fired Combustion Turbine in Net CONE Area 1
  - Fixed BSSC = 20 * ($345.20*365) * 0.02 = $50,399
  - Variable BSSC (2016 average) = $ 3,570
  - Training Costs = 50 * $75/Hour = $ 3,750
  - Fuel Storage = $23,384*+[(16*1950)*(1.4+0.1)*4.71%] = $25,588

  times (1+ 10%) (Incentive Factor) = $91,638

* Average 2016 MTSL compensation for dual fuel units - $23,384 (before incentive factor)

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  - Variable BSSC (2016 average) = $ 3,570
  - Training Costs = 50 * $75/Hour = $ 3,750
  - Fuel Storage = (0.05* * $23,384)
    + [(16*1950)*(1.4+0.1)*4.71%] + $12,000 = $15,373

    times (1+ 10%) (Incentive Factor) = $80,401

*2016 Average Dual Fuel Black Start/Energy Ratio - 0.05

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Next Steps

- MIC endorsement – 9/13/2017
- MRC first read – 9/28/2017
- MRC endorsement – 10/26/2017
- MC endorsement of Tariff language – 11/30/2017
- Proposed Implementation – 6/1/2018

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