Adequacy Reserve Margins (ARMs) **2020 Ref Wind** **4532** MW

3/5/2015

Capacity - Adequacy Reserve Margin

Resource Type	ARMc Calculation	Q4	Q1	Q2	Q3
Thermal	Winter Capacity * (1 - FOR) (see note 2)	12427	12427	12427	12427
Wind	5%	227	227	227	227
Hydro	10-hr Sustained Peak (see note 1)	15758	16490	13338	14831
Firm contracts	1-Hour Peak	-225	-167	-493	-631
Total Resource		**28187**	**28977**	**25499**	**26854**
Load	1-Hour Peak (weather normalized)	28569	29202	24779	25809
L/R Balance	Resource - Load	-382	-225	720	1045
ARMc	**(Resource - Load)/Load**	**-1.3%**	**-0.8%**	**2.9%**	**4.1%**
ARMc + IPP		9%	10%	7%	8%
ARMc + IPP + SW		18%	18%	7%	8%

Energy - Adequacy Reserve Margin

Resource Type	ARMe Calculation	Q4	Q1	Q2	Q3
Thermal	Winter Capacity * (1 - FOR) * (1 - Maint)	11516	11516	11516	11516
Wind	30%	1360	1360	1360	1360
Hydro	Critical Year Hydro (FELCC)	11827	10642	13794	10569
Firm contracts	Period Average	-325	-200	-729	-802
Total Resource		**24377**	**23317**	**25940**	**22642**
Load	Peirod Average (weather normalized)	22392	23518	20307	20788
L/R Balance	Resource - Load	1986	-201	5633	1854
ARMe	**(Resource - Load)/Load**	**8.9%**	**-0.9%**	**27.7%**	**8.9%**
ARMe + IPP		22.4%	12.0%	32.7%	13.7%
ARMe + IPP + SW		33.5%	22.6%	32.7%	13.7%

Note: 1. Hydro sustained peak based on lowest period energy, NOT on FELCC
See Hydro Tab to see sustained peak based on FELCC
2. Resource capcity adjustment to get to 5% LOLP **300** MW
3. Resource energy adjustment is 90% of capacity **270**
4. The resource adjustment is DRAFT