



National Research Council  
Canada

Conseil national de recherches  
Canada

### WIND ENERGY CONTRIBUTION & MARKET

YEAR	ENERGY CONTRIBUTION <sup>(1)</sup> PJ/YR	MW AVG <sup>(2)</sup>	IMPLIED CUMULATIVE		
			MW INST <sup>(3)</sup>	NO. INST <sup>(4)</sup>	INVEST. <sup>(5)</sup> \$M(1980)
1990	2	64	320	100	150
2000	20	640	3200	1000	1000
2020	100 <sup>(6)</sup>	3200	16000	5000	5000

- NOTES
- (1) MEAN OF INDEPENDENT ESTIMATES BY SCC & NRCC
  - (2) AVERAGE YEAR-LONG POWER OUTPUT OF 32 MW PRODUCES 1 PJ (.001 EJ) OF ENERGY
  - (3) OUTPUT FACTOR IN TYPICAL (GOOD) WIND REGIME = 0.2
  - (4) ASSUMES INSTALLED RATING OF 3.2 MW PER MACHINE
  - (5) ESTIMATED AT \$6M AVERAGE FOR EACH OF 10 PREPRODUCTION UNITS AND \$300/KW FOR PRODUCTION VERSION 3.2 MW MACHINES
  - (6) 100 PJ/YR REPRESENTS 2% OF THE 2020 ELECTRICAL DEMAND BASED ON 4% ANNUAL GROWTH RATE