



**APPRO**

ASSOCIATION OF  
POWER PRODUCERS  
OF ONTARIO

# Standard Offer Contracts for Small Clean Energy Projects

Meeting with Ministry of Energy and  
Ontario Power Authority Officials

June 16, 2005

# SOC Clean Energy Taskforce

- APPrO
- DG Taskforce
- Canadian District Energy Association
- Others

# Background

- Aug 19/05 - Minister instructs OEB/ OPA to develop standard offer program for small generators using “*clean or renewable resources*”
- Fall 2005 – APPRO DG Taskforce CDEA actively participate in OEB/ OPA consultations on standard contract and connection issues
- Mar 17/06 – OEB/OPA Joint Report recommends only renewable resources eligible for SOC; but “*the OPA will undertake an investigation of alternative procurement mechanisms to facilitate development of small clean energy projects*”
- June 13/06 - Minister’s Directive states that conservation includes “*small scale (10 MW or less) customer based electricity generation, including small scale natural gas fired cogeneration*”

# Our Position

- SOC *can* accommodate “small clean energy projects”(SCEP)
- A simplified fuel risk mitigation mechanism *can* address implementation concerns
- SCEP *can* deliver power when and where it is needed most, and soon
- SCEP *can* be price competitive with renewable resources

# Small Clean Energy Projects

- Power is from small-scale (<10MW) high efficiency (<6000 btu/kWh), natural gas, combined heat and power (CHP) plants
- A reliable, secure and clean source of power from single host commercial/ industrial, MUSH sector, and district energy
- SCEP currently supply up to 250 MW of power across Ontario
- SOC Taskforce has identified a potential of upwards of 1000 MW of new projects across Ontario by 2025

# Our Objectives

- To facilitate the development of small clean energy projects to mobilize their contribution to local and provincial generation adequacy
- To provide generators with a sufficient security of their electricity revenue streams to finance projects on an economic basis
- Allocate risks between the generators and the OPA where those risks can best be managed and accommodated
- Allow the market to manage and mitigate risk as much as possible, incenting the most economic number, sizes and location of projects

# Key Principles

- Proponents cannot bear unmitigated fuel price risk
- SCEP will connect to the distribution system and not be dispatched by the IESO
- Proponents will accept planning, permitting, design, development, construction, ownership, financing, heat rate, availability, operation and maintenance, and steam host risks
- Like CES/CHP, OPA would enter into 20 year contracts with SCEP proponents for: fixed monthly payments (NRR); variable O&M; and variable energy costs, but based on a *fixed heat rate*

# Fuel Risk Mitigation Mechanism

1. SCEP fuel risk mitigation mechanism is based on a modified CES/CHP structure
2. SCEP would operate under a monthly “directed dispatch” model
3. Settlement would occur at the end of each month based on actual operation
4. Gas commodity charges based on a fixed Heat Rate and settled against the Dawn Hub
5. Fuel delivery charges based on published transmission and distribution rates
6. Availability penalty would be levied against SCEP for failing to meet monthly delivery targets
7. Proponents would accept financial risks and rewards of operating outside directed dispatch profile

# Pricing Conditions

- Same as CES/ CHP, SCEP NRR to recover development, financing, construction, fixed O&M
- Include “adders” over and above NRR for identifiable additional system and market benefits i.e., location, Tx, Dx and DR capacity savings
- Adjust NRR for inflation - 20% at CPI

# Next Steps

- Continue dialogue with Ministry and OPA officials for a SCEP SOC based on the terms outlined herein

## Appendix A

### OEB/OPA Joint Report Recommendation 2.3

- The OPA further recommends that any generation resource type that qualifies as a clean resource in the Clean Energy Supply RFP not be eligible for the standard offer program. Apart from the CES RFP and coincident with the implementation of this standard offer program, *the OPA will undertake an investigation of alternative procurement mechanisms to facilitate development of small clean energy projects.*

# Appendix B

## Sample SCEP SOC Pricing

### ***Sample SCEP Plant***

- Plant Size: 5 MW
- Annual Hours: 3900 (5x16, Intermediate)
- Heat Rate: 6000 Btu/Kwh
- Monthly NRR/MW: \$18,000
- Variable O&M: \$8.00/MWh
- Variable Energy Cost (US\$6.00/MMbtu): \$40.00/ MWh
- Effective SCEP Price: ***\$100.00/ MWh***

### ***Compared to . . .***

- SOP Renewable Price - Off/Mid Peak: \$110.00/ MWh
- SOP Renewable Price - On Peak: \$142.50/ MWh
- OEB *Total Resource Cost Guide*, Sept 7/05 “Appendix C” Avg. Annual Avoided Energy Costs 2006-25 On-Peak/Mid Peak: ***\$110.00/ MWh***